Ford RACING

2010 PERFORMANCE PARTS



John Calvert drives the Hajek Motorsports' 2008 Cobra Jet to victory in the 2009 NHRA® Winternationals

CRATE ENGINES | **PERFORMANCE COMPONENTS** | **MUSTANG PERFORMANCE PACKS**



$5.00 USA

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MOST FORD RACING PERFORMANCE PARTS AND VEHICLES ARE SOLD WITH NO WARRANTY.

FORD RACING PERFORMANCE PARTS AND VEHICLES ARE SOLD "AS IS," "WITH ALL FAULTS," "AS THEY STAND" AND WITHOUT ANY EXPRESS WARRANTY WHATSOEVER, **UNLESS OTHERWISE EXPRESSLY DESIGNATED HEREIN**. TO THE FULLEST EXTENT ALLOWED BY THE STATE AND FEDERAL LAW, FORD MOTOR COMPANY EXPRESSLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, EVEN IF A PARTICULAR PURPOSE IS MENTIONED HEREIN. FORD ALSO EXPRESSLY DISCLAIMS ALL LIABILITY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, DAMAGE OR LOSS OF PROPERTY OR EQUIPMENT, LOSS OF PROFITS OR REVENUE, COST OF PURCHASE OR REPLACEMENT OF GOODS, OR CLAIMS OF CUSTOMERS OF THE PURCHASER THAT RESULT FROM THE USE OF ANY AND ALL PARTS OR VEHICLES CONTAINED IN THIS CATALOG. IN NO EVENT SHALL THE LIABILITY OF FORD MOTOR COMPANY, WHETHER IN TORT, CONTRACT OR OTHERWISE, EXCEED THE COST OF THE PART OR VEHICLE. HOWEVER, YOU MAY HAVE LEGAL RIGHTS WHICH VARY FROM STATE TO STATE.

SHOULD ANY PARTS OR VEHICLES CONTAINED WITHIN THIS CATALOG PROVE DEFECTIVE FOLLOWING THEIR PURCHASE, THE BUYER AND NOT THE MANUFACTURER, DISTRIBUTOR OR RETAILER, SHALL ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING AND/OR REPAIR. THE ENTIRE RISK AS TO THE PERFORMANCE OF SUCH PARTS OR VEHICLES IS WITH THE BUYER.

NO VEHICLE IN THIS CATALOG OR OFFERING IS STREET LEGAL OR CERTIFIED UNDER FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND REGULATIONS UNLESS EXPRESSLY STATED TO THE CONTRARY HEREIN. VEHICLES THAT ARE NEITHER STREET LEGAL NOR CERTIFIED FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND REGULATIONS ARE NEITHER INTENDED NOR CERTIFIED FOR USE ON PUBLIC ROADS. SUCH RACE PARTS ARE NOT DESIGNED OR TESTED FOR CRASHWORTHINESS OR TO MEET THE SAFETY NEEDS OF THE MOTORING PUBLIC. INSTEAD, THESE PARTS ARE DESIGNED AND INTENDED FOR RACE VEHICLES ON RACE TRACKS WITH ENGINEERS SUPERVISING THE INSTALLATION AND USE OF THE RACE PARTS TO ENSURE THAT THE SAFETY NEEDS OF THE RACE DRIVER ARE MET. THE RACING PARTS COULD CONCEIVABLY BE COMBINED IN AN INFINITE COMBINATION, AND THE USE OF SOME PARTS ON SOME VEHICLES COULD ADVERSELY AFFECT THE PERFORMANCE OF THE VEHICLE OR OTHER RACE PARTS.

TO THE EXTENT THAT A PART CONTAINED WITHIN THIS CATALOG COMES WITH A WARRANTY FROM THE ORIGINAL MANUFACTURER, NOT FORD RACING PERFORMANCE PARTS OR FORD MOTOR COMPANY, THE BUYER SHOULD CONTACT THE ORIGINAL MANUFACTURER FOR ANY AND ALL WARRANTY REPAIR OR REPLACEMENT. TO DETERMINE WHICH PARTS COME WITH A WARRANTY FROM THE ORIGINAL MANUFACTURER, NOT FORD RACING PERFORMANCE PARTS, PLEASE CONTACT THE FORD RACING TECHLINE AT (800) FORD788 OR:

FORD RACING PERFORMANCE PARTS
P.O. BOX 490
DEARBORN, MI 48121

Ford Racing Performance Parts is proud of the quality built into each and every product we sell. Automotive enthusiasts know that it's one thing for a manufacturer to make claims about quality, but quite another to back them up. FRPP is pleased to announce our Performance Crate Engines now carry a 12-month/12,000-mile limited warranty. It's your assurance that when you purchase a FRPP crate engine, you're buying Ford quality, backed by the Blue Oval. It's performance you can trust.

FORD RACING PERFORMANCE PARTS PERFORMANCE ENGINE LIMITED WARRANTY

Ford Racing Performance Parts warrants to the original retail purchaser for 12 months or 12,000 miles, whichever occurs first, that it will repair or replace, at its option, using new or remanufactured parts, Ford Racing Performance Parts engine covered part that, after inspection, is found to have failed due to a defect in factory supplied material or workmanship.

Covered parts include the engine block and cylinder heads, all internally lubricated parts of the engine, including pistons, piston rings, piston pins, crankshaft and main bearings, connecting rods and rod bearings, camshaft and camshaft bearings, timing chain, timing chain gears, intake and exhaust valves, valve springs, oil pump, push rods, rocker arms, valve lash adjusters, hydraulic or mechanical lifters and valve stem seals, to the extent that the original engine contains the referenced warranted part. Parts that require normal manufacturers recommended replacement intervals are not covered under this warranty.

To the extent allowed by law, loss of time, inconvenience, loss of the use of the vehicle, commercial loss and incidental and consequential damages are not covered. There is no other express or implied warranty on these Ford Racing Performance Parts engines including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose.

This warranty does not cover:

- Parts which are replaced as part of normal maintenance.
- Installation or removal costs.
- Damage due to improper installation, negligence, alteration or accident, including use related to racing or competition, marine or motorcycle applications or for other non-vehicle usage.
- Engines where the vehicle odometer has been disconnected or the mileage has been altered.
- Damage caused by lack of proper maintenance, failure to follow maintenance schedule intervals or failure to use or maintain proper type and levels of fluids, fuel, oil and lubricants. Proof of proper maintenance is the owner's responsibility. Keep all receipts and be prepared to make them available if questions arise about maintenance.
- Towing, shipping, rental vehicles, loss of time, inconvenience, loss of use or other economic loss.
- Ford Racing Performance Parts engines installed in vehicles registered and/or normally operated outside the United States.

To obtain warranty repair or replacement, please contact Ford Racing Performance Parts at (800) FORD788 or:

Ford Racing Performance Parts
P.O. Box 490
Dearborn, MI 48121

For complete details on the Ford Racing Limited Warranty program, please go to www.fordracingparts.com.



FORD RACING LIMITED WARRANTY STATEMENT

Ford Motor Company, The American Road, Dearborn, MI 48025, provides a Limited Warranty on select Ford Racing performance parts when installed by a Ford, Lincoln or Mercury Dealer or Shelby Automotive, Inc. This warranty is valid for the original retail purchaser of the vehicle and is transferable to subsequent owners. This Limited Warranty is valid only when proof of purchase is registered by the installing dealer by contacting the Ford Performance Call Center at (800) 367-3788. For complete details on the Ford Racing Limited Warranty program, please go to www.fordracingparts.com.

WARNING NOTICE:

Ford Racing Parts are not Genuine Ford Parts. All Ford Racing Parts are aftermarket parts. Therefore, they may not be used in any application that requires the use of Genuine Ford Parts. The use of Ford Racing parts and components may impact the performance characteristics of other systems of the vehicle. When operating properly, Ford Racing parts and components have the potential to adversely impact other systems of the vehicle. Except as set forth below, such damage is the sole responsibility of the consumer and is not covered by this Limited Warranty.

Consumers are solely and completely responsible for evaluating their vehicle to ensure that the vehicle, and each part of that vehicle, is appropriate for this Ford Racing part or component. It is the consumer's sole responsibility to have the performance enhancement parts properly installed on their vehicle along with any modifications necessary for the proper performance of the vehicle. Vehicle damage caused by a consumer's failure to modify the vehicle properly for use of one or more Ford Racing parts and components is not covered by this Limited Warranty and is the sole responsibility of the consumer. This Limited Warranty and/or the New Vehicle Limited Warranty on your vehicle may be voided, either in whole or in part, where the vehicle has been damaged due to a consumer's failure to modify the vehicle properly as necessary for use of Ford Racing parts and components.

<u>Retail Customers</u>: To obtain warranty service, return your vehicle to any Ford, Lincoln or Mercury Dealership. Please have your original dated receipt for date and installation verification.

WWW.FORDRACINGPARTS.COM

Warranty Coverage for Select Ford Racing Performance Parts:

Performance Packs (**2005-2009 MY:** M-2007-FR1V6, M-FR1-MGT, M-2007-FR1SVT, M-7210-MV6, M-7210-MGT, M-7210-B, M-7210-T1, M-7210-V, M-9603-GTB, M-9603-V605, M-9603-SVT07, M-2007-FR3SVT, M-5230-V6; **2005-2010 MY:** M-5251-R, M-2007-FR3V6, M-FR3-MGT; **2010 MY:** M-FR1-MV6, M-FR1-MGTA, M-9603-MV6, M-9603-MGT, M-5230-MV62, M-7210-MV6A, M-7210-MGTA) are warranted for factory-supplied material or workmanship beginning upon dealer installation and registration of the Ford Racing Performance Pack(s) with Ford Racing and ends at either 3 years/36,000 miles (whichever occurs first) when installed on a new vehicle at the time of vehicle sale or 12 months/12,000 miles (whichever occurs first) for all installations occurring after the date of vehicle sale but prior to the expiration of the 3-year/36,000-mile coverage (whichever occurs first) under the manufacturer's New Vehicle Limited Warranty. For complete details on the Ford Racing Limited Warranty program, please go to www.fordracingparts.com.

Performance Pack Note (FR1): Customers who purchase FR1 Power Upgrade Packs are required to use 91-octane or higher fuels at all times. Any failures associated with the non-use of premium 91-octane fuel will be ineligible for warranty repair.

Performance Pack Note (FR3): The FR3 performance handling application is designed for "Track Day" limit ride and handling. Such performance standards suggest vehicle ride will be more indicative of race performance vehicles. Vehicle conditions including, but not limited to, squeaks, rattles and harsh ride are not subject to warrantable repair. The FR3 handling pack requires the use of original equipment size wheels only. This performance handling application should be expected to accelerate tire wear. Premature tire degradation is not subject to warranty consideration. The front end alignment must be checked and adjusted as necessary after installation. Contact the Ford Performance Call Center (800) 367-3788 for front end alignment information.

Performance Pack Registration. This limited warranty requires that parts must be purchased from an authorized Ford Racing Dealer and installed by a Ford, Lincoln or Mercury Dealer, or Shelby Automotive, Inc. Proof of purchase may be required for submission of warranty claims. Registration for this warranty must be submitted by a Ford, Lincoln or Mercury Dealer, or Shelby Automotive, Inc. through the Ford Performance Call Center (800) 367-3788 with Dealer P&A Code, the vehicle identification number (VIN), part installation repair order and date, Ford Racing part number, and owner information.

Warranty Coverage for Select Ford Racing Performance Parts:

Super Packs (**2005-2009 MY:** M-6066-M463V, M-6066-M463P, M-6066-M463V7, M-6066-M463P7, M-6066-M463V8, M-6066-M463P8, M-6066-SGT; **2010 MY:** M-6066-MGT400C, M-6066-MGT400PC, M-6066-MSVTA) are warranted for factory-supplied material or workmanship beginning upon dealer installation and registration of the Ford Racing Super Pack with Ford Racing and ends at either 12 months/12,000 miles (whichever occurs first). Installation must occur prior to the vehicle reaching either 36 months/36,000 miles (whichever occurs first) from the beginning of the manufacturer's New Vehicle Limited Warranty. This Limited Warranty replaces the existing manufacturer's New Vehicle Limited Warranty for engine, driveline and suspension parts when a concern is triggered by a warranted Ford Racing Super Pack. All engine, driveline and suspension warranty issues not related to installation of Ford Racing Super Pack remain subject to existing manufacturer's New Vehicle Limited Warranty.

- 400 HP Super Packs are only warranted when dealer installed on Mustang GT 4.6L engines.
- 600 HP and 650 HP Super Packs are only warranted when dealer installed on Shelby GT500 5.4L engines.

Ford Racing total liability per qualified vehicle under this warranty is $8,000 (aggregate). Each covered component has its own aggregate value which when combined equals $8,000 in total parts repairs. The maximum liability for failed parts by component category under this Limited Warranty is as follows: engine assembly parts $5,000, transmission assembly $1,500, rear axle assembly $1,500. Under this Limited Warranty, Ford Racing retains the right to replace any failed components with remanufactured parts for the life of the policy. For complete details on the Ford Racing Limited Warranty program, please go to www.fordracingparts.com.

Super Pack Note: Customers who purchase Super Packs are required to use 91-octane or higher fuels at all times. Any failures associated with the non-use of premium 91-octane fuel will be ineligible for warranty repair.

Super Pack Registration. This limited warranty requires that parts must be purchased from an authorized Ford Racing Dealer and installed by a Ford, Lincoln or Mercury Dealer, or Shelby Automotive, Inc. Proof of purchase may be required for submission of warranty claims. Registration for this warranty must be submitted by a Ford, Lincoln or Mercury Dealer, or Shelby Automotive, Inc. through the Ford Performance Call Center (800) 367-3788 with Dealer P&A Code, the vehicle identification number (VIN), part installation repair order and date, Ford Racing part number, and owner information.

Limitations to Ford Racing Warranty

The following limitations apply to the products covered by this Limited Warranty:

- The purchase invoice(s) may be required for submission of warranty claims.
- Where a warranted Ford Racing part is replaced under this Limited Warranty, the replacement Ford Racing part is warranted only for the time remaining in the original Limited Warranty.
- This warranty does not cover:
  - o Parts replaced or labor charges incurred as part of normal vehicle maintenance.
  - o Engine damage associated with customers using less than 91-octane fuels.
  - o Replacement parts or accessories installed on a Ford vehicle in which the odometer has been altered or on which the actual mileage cannot be readily determined.
  - o Replacement parts or accessories used in applications for which they are not designed.
  - o Parts installed in vehicles registered and/or normally operated outside the United States.
  - o Non-Ford Racing parts or Genuine Ford replacement parts or accessories which Ford/Lincoln/Mercury Dealers may sell or install on your Ford vehicle.
- This warranty does not cover parts with:
  - o Damage or corrosion due to accidents, misuse, negligence, lack of proper maintenance or failure to follow maintenance schedule intervals. Proof of proper maintenance is the owner's responsibility. Keep all receipts and be prepared to make them available if questions arise about maintenance.
  - o Damage or surface corrosion from the environment such as acid rain, airborne fallout (chemicals, tree sap), stones, salt road hazards, wind storm, lightning, floods and other natural disasters.
  - o Normal wear, tear or deterioration such as discoloration, fading or blurring.
  - o Damage as a result of misuse of a vehicle, such as driving over curbs, overloading, racing or using the vehicle as a stationary power source.
  - o Damage due to improper installation, alteration, including calibration, use related to racing or competition, marine or motorcycle applications or other non-vehicle usage.
- To the extent allowed by law, this warranty does not cover towing, shipping, rental vehicles, storage, loss of time, commercial loss, loss of use of vehicle, inconvenience, incidental or consequential damages or other economic loss.
- Should Ford Racing modify any currently released parts which apply to this warranty program, Ford Racing is not obligated to update any previously manufactured parts.
- For complete details on the Ford Racing Limited Warranty program, please go to www.fordracingparts.com.

NOTE:

Federal and many state laws prohibit the removal, modification or rendering inoperative of any part that affects emissions or safety on motor vehicles used on public streets or highways. Ford Racing customers are responsible for complying with applicable state and local environmental regulations. In the case of vehicles which are licensed in Green States, it is the responsibility of the customer to determine if their own modified vehicle meets their state's laws for operations over public highways.

Questions or concerns relating to this warranty policy may be answered by calling the Ford Performance Call Center (800) 367-3788.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE. THIS LIMITED WARRANTY IS THE ONLY EXPRESS WARRANTY APPLICABLE TO THIS PART. FORD RACING AND FORD MOTOR COMPANY ARE NOT RESPONSIBLE FOR ANY TIME FOR WHICH YOU MAY LOSE THE USE OF YOUR VEHICLE, ANY INCONVENIENCE YOU MIGHT BE CAUSED, THE LOSS OF YOUR TRANSPORTATION OR ANY PART THEREOF, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES YOU MAY HAVE. YOU MAY HAVE SOME IMPLIED WARRANTIES UNDER STATE LAW, FOR EXAMPLE, THE IMPLIED WARRANTY OF MERCHANTABILITY OR THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

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PERFORMANCE PARTS DESIGNATIONS

50 States Street Legal

As one of the leading manufacturers of performance parts, Ford Motor Company recognizes a special responsibility regarding environmental concerns. Ford Racing Performance Parts is committed to a program of developing performance parts that allow motorsport enthusiasts to modify their vehicles and meet emission requirements.

Using guidelines established by the state of California for aftermarket parts used in vehicles driven on public highways, Ford engineers have developed a system for identifying parts that are acceptable for use on emission-controlled motor vehicles and those intended for competition purposes only.

This catalog lists more than 1,200 Ford Racing parts. For emission purposes, these parts are classified into three groups. Asterisks are used after the part number to identify the category to which the part belongs.

GROUP 1 – PARTS WITH NO ASTERISK

- Indicates that the part does not affect emissions and is Street Legal.
- For marketing purposes, some Street Legal parts also are identified with a 50-States Street Legal logo.
- Typical parts include gauges, valve push rods, body and chassis components and engine dress-up items.

STREET LEGAL BY EXECUTIVE ORDER

- This special group of add-on or modified group of parts are Street Legal by Executive Order from the State of California, because Ford Racing has demonstrated through emission testing that they do not adversely affect vehicle emissions when used on emission-controlled vehicles.

GROUP 2 – PARTS WITH 1 ASTERISK (*)

- Indicates that for emission considerations, the part is NOT Street Legal. The following footnote appears at the bottom of catalog pages describing these parts: *Not legal for sale or use on pollution-controlled motor vehicles.
- Part numbers with a single asterisk typically include off-road performance parts and parts that may affect original equipment emission function, such as cylinder heads, engine blocks and camshafts.

NOTE—GREEN STATES

Parts marked in this catalog with an asterisk and appropriately marked on their packaging may legally be used in Green States only on a racing vehicle which will never be operated on public roads.

GREEN STATES USING CALIFORNIA EMISSION STANDARDS:

AK, AZ, CA, CO, CT, IL, MD, MA, MN, NJ, NM, NY, OH, OR, PA, RI, VT and WI

GROUP 3 – PARTS WITH 2 ASTERISKS (**)

- Indicates that the part is Street Legal as a Direct Replacement Part.
- Part numbers with two asterisks can improve performance and/or appearance—while still providing original equipment emission function.
- The following footnote appears at the bottom of pages describing these parts: **Direct replacement part.

FUTURE DEVELOPMENTS

Ford Racing is continuing the process of developing, analyzing and testing engine and powertrain parts which can be used on pollution-controlled vehicles. Many, of course, are all-out performance parts and have no application for cars driven on public highways. Ford's vision is to provide products meeting all of our various customers' needs while remaining environmentally responsible.

For more information on this program, call the Ford Racing Techline at (800) FORD788.

IMPORTANT NOTICE

This catalog primarily lists special performance parts and is intended only as a supplement to the published service manuals and parts catalogs of Ford Motor Company. Buyers of performance parts are warned that many of these parts are for off-highway use only and that the following provisions apply:

OFF-HIGHWAY OR RACING USE

Because U.S., Canadian, state or provincial laws and regulations may prohibit removal or modification of components that were installed on vehicles by Ford Motor Company to meet emission requirements or to comply with motor vehicle safety regulations applicable to vehicles manufactured for use on public roads, Ford Motor Company recommends that vehicles equipped with parts designated "for off-highway use" not be operated on public roads, and offers such parts only for track or off-highway competitive or performance use. Such parts have a special "warning" label (see next column).

WARNING:

This part has been designed and is intended for off-highway application only. Installation on a vehicle intended for use on public roads may violate U.S., Canadian, state or provincial laws and regulations including those relating to emission requirements and motor vehicle safety standards. (NOTE: In California this part may legally be used only on a racing vehicle which will never be operated on public roads.) In addition, installation of this part may adversely affect the warranty coverage on your vehicle.

LOOKING AHEAD

What a year it has been—for all of us. But despite all the headlines, at Ford we're moving forward with great vehicles and an extensive line-up of performance parts—all with your faithful and continued support.

We're looking ahead to the performance packs and products we offer for all late model Mustangs, including the 2010 model. From handling packs to power upgrade packages to superchargers, we continue to offer what any Mustang owner needs to take his pride and joy to the next level of performance—with confidence.

We're looking ahead to the 2010 Mustang Cobra Jet—the successor to the wildly popular factory-engineered 2008 model—class winner at the 2009 NHRA® Winternationals. Just as the 2008 CJ upheld the legacy of the original 1968 model, both winning the first time out, we are excited to watch the new 2010 Cobra Jet raise the bar even higher. And for those of you who want to build your own 2010 Cobra Jet, from the body and engine to the interior trim, we have the parts for that.

We're looking ahead to our renewed emphasis on Saturday night racers. Whether they run at circle tracks, drag strips or the "Stop Light Grand Prix," we're there with a broad selection of hard-core Ford Racing engine components, including blocks, short blocks, long blocks, crate engines and sealed racing engines. As these engines win on tracks across the country, racers are taking notice. And with the addition of the new high-value 340 hp 302 crate engine, the S347 wet (540 hp) and dry (590 hp) sump sealed race engines, the 525+ hp BOSS 351-based 427, the Z351 aluminum and Super Cobra Jet blocks and the 331, 374 and 427 short blocks, we are expanding our choice of affordable, reliable, competition-proven engines significantly.

Finally, we're looking ahead to all the exciting new Ford vehicles like the F-150 SVT Raptor off-road monster and others on the way, including the all-new Ford Fiesta—and to the fact that we'll be there when the vehicles arrive with functional chassis and powertrain performance enhancements to make these vehicles even more fun to drive.

As with Ford Motor Company, we are looking forward to a bright future. Led by Ford Racing director Brian Wolfe's genuine grassroots racer perspective and his personal knowledge of the marketplace, Ford Racing is poised to build on the success we have achieved by serving performance enthusiast needs with packs, race cars and performance components. All of us throughout the company will continue appealing to you and all Ford performance enthusiasts with products and programs designed to make owning and enjoying our already-great vehicles even more rewarding.

Jamie Allison

Drive one.



NEW PARTS FOR 2010

F-150 SVT RAPTOR CHARCOAL GREY WHEEL
M-1007-F15RAA
page 182



F-150 SVT RAPTOR BLACK WHEEL
M-1007-F15RBA
page 182



2010 MUSTANG FORD RACING FLOOR MATS
M-13086-MA
page 225



8" ROUND AUXILIARY HALOGEN LIGHTS
M-15200-F15R8HAL
page 228



2010 F-150 SVT RAPTOR FRONT AUXILIARY LIGHT BAR
M-15266-F15RBAR
page 228



COBRA JET GRILLE EMBLEM
M-16098-CJG
page 229



Part Number	Description	Page
M-12029-4V**	2007-2010 MUSTANG SVT 4V IGNITION COIL SET	212
M-15200-F15R6HAL	6" ROUND AUXILIARY HALOGEN LIGHTS	228
M-15200-F15RBHID	8" ROUND AUXILIARY HIGH-INTENSITY DISCHARGE LIGHTS	228
M-16600-E	FR500S PAINTED REAR WING KIT	227
M-16600-E1	FR500S PAINTED WING AND ENDPLATE KIT	227
M-16600-E2	FR500S WING STANCHION KIT	227
M-17728-CJ	COBRA JET MIRROR BLOCKOFF	227
M-1820-M	FORD RACING WINDSHIELD BANNER	227
M-5018-F15R	2010 F-150 SVT RAPTOR ENHANCED FRONT SKID PLATE	228
M-19216-CJ	2007-2009 MUSTANG SVT AND COBRA JET A/C DELETE KIT	133

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

MUSTANG GT SHAKER HOOD SYSTEMS
M-16612-SHK59 2005-2009
M-16612-SHK 2010
page 226



MUSTANG COBRA JET 5" TACHOMETER W/SHIFT LIGHT
M-17360-CJ
page 214



2010 MUSTANG V6 DUAL EXHAUST KIT (50 STATE)
M-5230-MV62
page 158



TRAILSIDE KIT
M-19515-GENKIT
page 230



TOW KIT W/STRAP
M-19515-TOW
page 230



INBOARD TIREGATE WHEEL AND TIRE CARRIER
M-1B120-F15
page 228



Part Number	Description	Page
M-5230-SA	2010 MUSTANG GT/SVT FR500S MUFFLER KIT (50 STATE)	158
M-5230-MGTC	2010 MUSTANG GT MUFFLER KIT (50 STATE)	157
M-5230-MGTL	2010 MUSTANG GT MUFFLER KIT (49 STATE)	157
M-5230-MSVTC	2010 MUSTANG SVT MUFFLER KIT (50 STATE)	157
M-5230-MSVTL	2010 MUSTANG SVT MUFFLER KIT (49 STATE)	157
M-5230-MV61	2010 MUSTANG V6 MUFFLER (50 STATE)	158
M-5478-CJ	COBRA JET DRIVESHAFT LOOP	176
M-6007-R50*	5.0L "CAMMER" RACE VERSION	64
M-6007-MRGT*	5.0L "CAMMER" FORD GT SPEC RACE ENGINE	64
M-6007-Z347FT*	347 CUBIC INCHES 450 HP BOSS CRATE ENGINE FRONT SUMP	70
M-6038-A	COBRA JET SOLID MOTOR MOUNT KIT	133

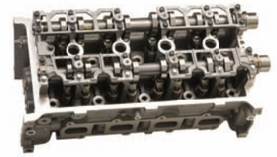
*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

NEW PARTS FOR 2010

4.6L/5.4L HIGH-FLOW CNC HEADS
M-6049-463VP3* RH
M-6050-463VP3* LH
page 104



4.6L/5.4L 4V CYLINDER HEAD ASSEMBLIES W/CAMS
M-6049-464V* RH
M-6050-464V* LH
page 106



347 CUBIC INCHES 350 HP SEALED CRATE ENGINE
M-6007-S347JR*
page 76



302 CUBIC INCHES 340 HP CRATE ENGINE
M-6007-X302*
page 67



M-6007-XEFM shown

BOSS 351 CYLINDER BLOCK 9.5" DECK
M-6010-BOSS35195*
page 100



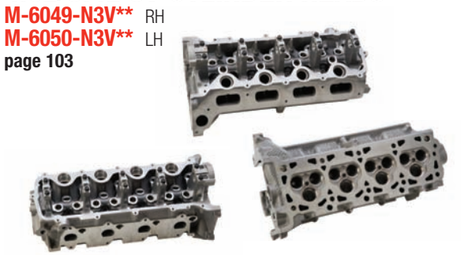
5.0L ALUMINUM CYLINDER BLOCK – STREET/STRIP APPLICATIONS
M-6010-SST50*
page 96



Part Number	Description	Page
M-6010-BOSS35192*	BOSS 351 CYLINDER BLOCK 9.2" DECK	100
M-6010-BOSS351BB*	BOSS 351 CYLINDER BLOCK 9.5" DECK BIG BORE	100
M-6010-CG452*	351 SIAMESE BORE LIGHT-WEIGHT CYLINDER BLOCK DRY SUMP	101
M-6010-R500*	FR9 NASCAR® CYLINDER BLOCK	101
M-6049-Z304A2*	302/351W HIGH-FLOW ALUMINUM CYLINDER HEAD AND ROCKER PACKAGE – Z304A SPECIAL PRICING!	108
M-6049-DAMR*	DP/MR CYLINDER HEAD RH	106
M-6050-DAMR*	DP/MR CYLINDER HEAD LH	106
M-6049-MSVT*	MUSTANG SVT 5.4L CYLINDER HEAD RH	106
M-6050-MSVT*	MUSTANG SVT 5.4L CYLINDER HEAD LH	106
M-6049-E1*	FR9 NASCAR® CYLINDER HEAD	110

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

4.6L/5.4L 3V CYLINDER HEADS
M-6049-N3V** RH
M-6050-N3V** LH
page 103



MANUAL TRANSMISSION FLYWHEEL MODULAR ENGINE 11" 8 BOLT
M-6375-J46A
page 167



4.6L/5.4L CNC PORTED 3V CYLINDER HEAD ASSEMBLIES
M-6049-N3VPA* RH
M-6050-N3VPA* LH
page 104



2010 MUSTANG GT 550 HP SUPERCHARGER KIT
M-6066-MGT550C Black wrinkle
page 153



2010 MUSTANG SVT 660 HP SUPERCHARGER UPGRADE KIT
M-6066-MSVTA
page 149

2010 MUSTANG GT AUTO TRANS 475 HP SUPERCHARGER KIT
M-6066-MGT475C Black wrinkle
page 152



Part Number	Description	Page
M-6066-MGT550PC	2010 MUSTANG GT 550 HP SUPERCHARGER KIT POLISHED	153
M-6066-MGT475PC	2010 MUSTANG GT AUTO TRANS 475 HP SUPERCHARGER KIT POLISHED	152
M-6066-MGT400C	2010 MUSTANG GT 400 HP SUPERCHARGER KIT BLACK WRINKLE	151
M-6066-MGT400PC	2010 MUSTANG GT 400 HP SUPERCHARGER KIT POLISHED	151
M-6066-MGT475	2005-2006 MUSTANG GT AUTO TRANS 475 HP SUPERCHARGER KIT BLACK WRINKLE	152
M-6066-MGT475P	2005-2006 MUSTANG GT AUTO TRANS 475 HP SUPERCHARGER KIT POLISHED	152
M-6066-MGT475A	2007 MUSTANG GT AUTO TRANS 475 HP SUPERCHARGER KIT BLACK WRINKLE	152
M-6066-MGT475PA	2007 MUSTANG GT AUTO TRANS 475 HP SUPERCHARGER KIT POLISHED	152
M-6066-MGT475B	2008-2009 MUSTANG GT AUTO TRANS 475 HP SUPERCHARGER KIT BLACK WRINKLE	152
M-6066-MGT475PB	2008-2009 MUSTANG GT AUTO TRANS 475 HP SUPERCHARGER KIT POLISHED	152

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

NEW PARTS FOR 2010

514/521 STROKER CRANKSHAFT FOR 429/460
M-6303-A514*
page 136



COBRA JET SFI CRANKSHAFT DAMPER
M-6316-CJ*
page 136



CRANKSHAFT DAMPER
M-6316-A521*
page 137



BOSS 351 MAIN STUD AND BOLT KIT
M-6345-351MS
page 112



MANUAL TRANSMISSION FLYWHEEL STEEL 157T 28.2
M-6375-A302B
page 167



EARLY BLOCK HYDRAULIC ROLLER LIFTER SET
M-6500-T58
page 121



Part Number	Description	Page
M-5649-CJ	2008 COBRA JET REAR SUSPENSION KIT	192
M-6066-MSVT29C	2010 MUSTANG SVT 750 HP SUPERCHARGER UPGRADE KIT BLACK WRINKLE	149
M-6066-MSVT29PC	2010 MUSTANG SVT 750 HP SUPERCHARGER UPGRADE KIT POLISHED	149
M-9B659-CJ*	2010 COBRA JET AIR INLET TUBE	207
M-9B659-MSVT*	2010 MUSTANG SVT RESONATOR ELIMINATOR KIT	207
M-6345-A46	4.6L ALUMINUM BLOCK MAIN CAP BOLT KIT	112
M-6345-302MS	BOSS 302 MAIN STUD AND BOLT KIT	112
M-6375-A302AB	MANUAL TRANSMISSION FLYWHEEL ALUMINUM 157T 28.2	167
M-6375-C302AB	MANUAL TRANSMISSION FLYWHEEL ALUMINUM 157T 50	167
M-6375-C302B	MANUAL TRANSMISSION FLYWHEEL STEEL 157T 50	167
M-6375-D302AB	MANUAL TRANSMISSION FLYWHEEL ALUMINUM 157T 0	167
M-6375-D302B	MANUAL TRANSMISSION FLYWHEEL STEEL 157T 0	167
M-6375-D46A	MANUAL TRANSMISSION FLYWHEEL 11" 6 BOLT	167

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FORD GT AND MUSTANG SVT 5.4L LASH ADJUSTERS
M-6500-GT
page 121



BLACK SATIN VALVE COVERS
M-6582-LE302BK
page 216



BLACK SATIN VALVE COVERS
M-6582-C351BK
page 218



BLUE SATIN VALVE COVERS
M-6582-LE302BL
page 216



2005-2010 MUSTANG FORD RACING SHIFTER SERVICE KIT
M-7211-A
page 165



POLISHED ALUMINUM VALVE COVERS
M-6582-FE352PD
page 219



Part Number	Description	Page
M-6582-C351BL	BLUE SATIN VALVE COVERS	218
M-6582-C351PD	POLISHED ALUMINUM VALVE COVERS	218
M-6582-FE352BK	BLACK SATIN VALVE COVERS	219
M-6582-FE352BL	BLUE SATIN VALVE COVERS	219
M-6582-LE302C	CHROME ALUMINUM VALVE COVERS	216
M-6582-W427B	BLACK SATIN SMALL BLOCK 427 VALVE COVERS	215
M-6582-W427P	POLISHED SMALL BLOCK 427 VALVE COVERS	215
M-7007-A	STARTER INDEX PLATE MODULAR BLOCK	134
M-7007-B	STARTER INDEX PLATE SMALL BLOCK	134

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

NEW PARTS FOR 2010

MUSTANG FR500S CERI-METALLIC CLUTCH DISC
M-7550-C
page 169



MODULAR BELLHOUSING INSTALLATION KIT
M-7771-A
page 165



MUSTANG V6 SHORT THROW SHIFTER
M-7210-MV6A 2010
M-7210-MV6 2005-2009
page 164



MUSTANG GT SHORT THROW SHIFTER
M-7210-MGTA 2010
M-7210-MGT 2005-2009
page 164



2005-2010 MUSTANG V6/GT SHORT THROW “FORD RACING” SHIFT KNOBS (5-SPEED)
M-7213-N White
M-7213-P Black
page 163



COBRA JET 123 MM MAF TUNER KIT
M-9600-CJ*
page 207



Part Number	Description	Page
M-7512-A	2005-2010 MUSTANG HIGH-PERFORMANCE CLUTCH FLUID LINE UPGRADE	168
M-8501-F351*	MAXIMUM-FLOW 302/351W ALUMINUM WATER PUMP	131
M-8600-A46SC*	ALUMINATOR ACCESSORY DRIVE KIT	134
M-9002-C46*	2003-2004 BAFFLED MUSTANG COBRA FUEL TANK	208
M-9424-E551*	FR9 NASCAR® RESTRICTOR PLATE INTAKE MANIFOLD	124
M-9424-E552*	FR9 NASCAR® INTAKE MANIFOLD	124
M-9424-GTK**	FORD GT MANIFOLD KIT	124
M-9439-G50**	GRAPHITE INTAKE GASKET FOR STD PORT	128

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CARBON FIBER AIR CLEANER ASSEMBLY
M-9600-CFAC13
page 221



AIR CLEANER ASSEMBLY
M-9600-P302
page 221



2010 MUSTANG GT FORD RACING PERFORMANCE CALIBRATION WITH HIGH-FLOW K&N AIR FILTER
M-9603-MGT
page 141



2010 MUSTANG V6 FORD RACING PERFORMANCE CALIBRATION WITH HIGH-FLOW K&N AIR FILTER
M-9603-MV6
page 141



2005-2010 MUSTANG GT CONVERTIBLE HANDLING PACK (1" DROP)
M-FR3-MCGT
page 185



2010 MUSTANG GT POWER UPGRADE PACKAGE
M-FR1-MGTA
page 139



Part Number	Description	Page
M-9601-C**	AIR FILTER ELEMENT	142
M-9601-MGT	2010 MUSTANG GT HIGH-FLOW K&N/FORD RACING AIR FILTER	142
M-9601-MV6	2005-2010 MUSTANG V6 HIGH-FLOW K&N AIR FILTER	142
M-9603-M40*	MUSTANG V6 4.0L COLD AIR TUNER KIT (CALIBRATION REQUIRED)	142
M-9603-M54SC*	2007-2009 MUSTANG SVT 5.4L 4V COLD AIR TUNER KIT (CALIBRATION REQUIRED)	141
M-9603-M463*	MUSTANG GT 4.6L 3V COLD AIR TUNER KIT (CALIBRATION REQUIRED)	142
M-9926-CJ*	COBRA JET BILLET ALUMINUM THROTTLE BODY	207
M-9926-3V*	2005-2010 MUSTANG GT BILLET THROTTLE BODY	207
M-FR3-MGT	2005-2010 MUSTANG GT COUPE HANDLING PACK (1" DROP)	185

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

NEW PARTS FOR 2010

2007-2010 MUSTANG SVT THROTTLE BODY
M-9926-MSVT*
page 207



2010 MUSTANG V6 POWER UPGRADE PACKAGE
M-FR1-MV6*
page 140



FORD RACING 34 LB/HR FUEL INJECTOR SET
M-9593-LU34*
page 206



FORD RACING 24 LB/HR FUEL INJECTOR SET
M-9593-LU24*
page 206



427 CUBIC INCHES ALUMINUM CRATE ENGINES
M-6007-Z427AFT* Front sump
M-6007-Z427ART* Rear sump
page 77



427 CUBIC INCHES 535 HP CRATE ENGINES
M-6007-Z427FFT* Front sump
M-6007-Z427FRT* Rear sump
page 78



Part Number	Description	Page
M-9593-LU80*	FORD RACING 80 LB/HR FUEL INJECTOR SET	206
M-5300-Q	2008 COBRA JET SPRING KIT	189
M-4001-CJ*	COBRA JET 9" AXLE	169
M-4006-D373*	1999-2004 MUSTANG 3.73 28-SPLINE AXLE	170
M-4602-CJ*	COBRA JET DRIVESHAFT	176
M-6C521-MSVT	VALVE KIT FOR MUSTANG SVT HEAD	117
M-6067-MSVT	5.4L 4V S/C HEAD CHANGING KIT	112
M-9407-MSVTA	2010 MUSTANG GT DUAL FUEL PUMP KIT	208
M-9430-CJ	5.4L COBRA JET ENGINE LONG TUBE RACE HEADERS	155

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



The Ford Racing "Cammer"-powered Ford GT of the Matech® GT Racing team—2008 FIA GT3 champion

Ford GT. The pace car for an entire company. This special car was designed, engineered and developed by a special team, the Ford Special Vehicle Team to be exact. It is the fastest, most exclusive and most significant car ever to come from that distinguished product development group. And with its race car-inspired mid-engined design, 550 supercharged horsepower and track-bred suspension, its stunning performance is true to its Le Mans-winning heritage.

As impressive and exclusive as the Ford GT is, the parts bins at Ford Racing are stocked with parts that make this super car even more desirable. More desirable in show and more desirable in go. And who better to look to for Ford GT performance upgrades than the company that built the car? After all, a car developed in the spirit of a race car is best served by those who live and breathe racing.

True Blue Ford Racing Performance Parts—the only performance parts that have earned the right to wear the Ford Oval.

FORD GT

FORD GT PERFORMANCE MUFFLER KIT
M-5230-GT*
See page 159 for details.



FORD GT REAR EXIT HEADERS
M-9430-GTX*
See page 155 for details.



FORD GT POWER UPGRADE PACKAGE
M-2005-GT*
See page 140 for details.



FORD GT SHORT THROW SHIFTER
M-7210-GT
See page 164 for details.



FORD GT TRANSAXLE COOLER KIT
M-7095-GT
See page 162 for details.



FORD GT WHEELS
M-1007-GTF* Front
M-1007-GTR* Rear
See page 183 for details.



FORD GT BILLET OIL FILL CAP
M-6766-GT
See page 220 for details.



FORD GT COOLANT OVERFLOW CAP
M-8006-GT
See page 132 for details.



FORD GT LICENSE PLATE FRAMES
M-1828-GTC Chrome
M-1828-GT
See page 229 for details.



FORD GT ROTOR SETS
M-2026-GT* Rear two piece
M-1125-GT* Front two piece
See page 195 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



Ford Racing's 760 hp 2010 GT500 development car prepares to launch during the Ford Racing Invitational at Milan Dragway.

Shelby and SVT—two names that have become synonymous with Ford street performance. Working together, SVT engineers and Carroll Shelby's team introduced and continue to refine the Shelby GT500, the most powerful Mustang ever produced by Ford. In only its fourth model year, this street burner has already become one of the most desirable Mustangs, both by collectors and racers alike. Collectors are content to polish and admire their investments, but racers are different—they push their cars to the limit and want one thing—to go even faster! And who better to look to for maximum performance out of this 540 hp production beast than the factory?

Ford Racing has developed performance packs that allow the GT500 owner to take his/her car to the next step with confidence. After all, Ford Racing performance packs are Ford-engineered as complete systems, and are the only performance packs available for the GT500 that are covered by a limited warranty from Ford Racing (when dealer-installed; warranty not available for 650 hp supercharger kit). Whether you want to increase power, improve acceleration, carve the corners with more control or take your 5.4L engine to a mind-blowing 750 horsepower, you can do it with performance packs from Ford Racing.

True Blue Ford Racing Performance Parts—the only performance parts that have earned the right to wear the Ford Oval.

MUSTANG SVT SUPERCHARGER UPGRADE KITS



M-6066-MSVTA shown

2010 SUPERCHARGER UPGRADE KITS

660 HP 2.3L TVS SC SWAP KIT (BLACK WRINKLE)	**M-6066-MSVTA** NEW!	**Page 149**
750 HP 2.9L TWIN SCREW SC KIT (BLACK WRINKLE)	**M-6066-MSVT29C** NEW!	**Page 149**
750 HP 2.9L TWIN SCREW SC KIT (POLISHED)	**M-6066-MSVT29PC** NEW!	**Page 149**

2007-2009 SUPERCHARGER UPGRADE KIT

605 HP 2.3L TVS SC SWAP KIT (BLACK WRINKLE)	**M-6066-SGT**	**Page 149**
2008 SVT DAMPER REQUIRED ON 2007 MODEL SVT	**M-6312-SVT***	**Page 136**

2007-2010 SUPERCHARGER UPGRADE WITHOUT CALIBRATION

2.3L TVS SUPERCHARGER ASSEMBLY (BLACK WRINKLE)	**M-6066-TVS**	**Page 149**
2008 SVT DAMPER REQUIRED ON 2007 MODEL SVT	**M-6312-SVT***	**Page 136**

2007-2009 MUSTANG SVT POWER UPGRADE PACKAGE

M-2007-FR1SVT

50 States Street Legal

See page 138 for details.



2007-2009 MUSTANG SVT DRAG PACK

M-2007-FR2SVT

See page 138 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2007-2009 MUSTANG SVT 113 MM COLD AIR KIT
50 States Street Legal
M-9603-SVT07
See page 141 for details.



2007-2009 MUSTANG SVT 5.4L 4V COLD AIR TUNER KIT (CALIBRATION REQUIRED)
NEW
M-9603-M54SC*
See page 141 for details.



2007-2009 MUSTANG SVT COLD AIR AND SUPERCHARGER UPGRADE KIT REPLACEMENT AIR FILTER
M-9601-D**
See page 142 for details.



FORD RACING HIGH-PERFORMANCE OIL FILTERS
M-6731-FL820 Case of 12
See page 127 for details.



MUSTANG SVT MUFFLERS



M-5230-MSVTC



M-5230-S

2010 MUFFLERS

2010 MUSTANG SVT MUFFLER KIT (50 STATE)	M-5230-MSVTC NEW	Page 157
2010 MUSTANG SVT MUFFLER KIT (49 STATE)	M-5230-MSVTL NEW	Page 157

2007-2009 MUFFLERS

2007-2009 MUSTANG SVT MUFFLER KIT (50 STATE)	M-5230-SVT1	Page 157
2007-2009 MUSTANG SVT MUFFLER KIT (49 STATE)	M-5230-SGT	Page 157
2005-2009 MUSTANG GT/2007-2009 MUSTANG SVT FR500S MUFFLER KIT (50 STATE)	M-5230-S	Page 158

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2007-2010 MUSTANG SVT

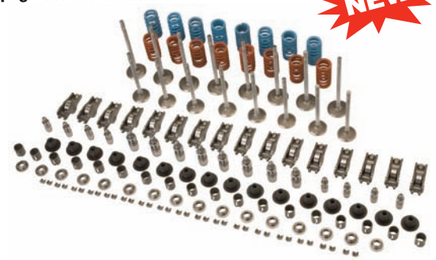
2007-2009 MUSTANG SVT SHORTY HEADERS
M-9430-C54C*
See page 156 for details.



2007-2010 MUSTANG SVT THROTTLE BODY
NEW
M-9926-MSVT*
See page 207 for details.



VALVE KIT FOR MUSTANG SVT HEAD
M-6C521-MSVT**
See page 117 for details.
NEW



2007-2009 MUSTANG SVT SHIFT KNOBS AND STICKS
M-7213-K White
M-7213-J Black
See page 163 for details.



8.8" RING GEAR AND PINION SET
M-4209-F373N*
See page 172 for details.



2007-2010 MUSTANG SVT 8.8" RING AND PINION INSTALLATION KIT
M-4210-B1
See page 173 for details.



2007-2009 MUSTANG SVT SHORT THROW SHIFTER
M-7210-B
See page 164 for details.



FORD GT START BUTTON KIT FOR MUSTANG
M-11572-GT
See page 225 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2007-2009 MUSTANG SVT COUPE HANDLING PACK
M-2007-FR3SVT
See page 185 for details.



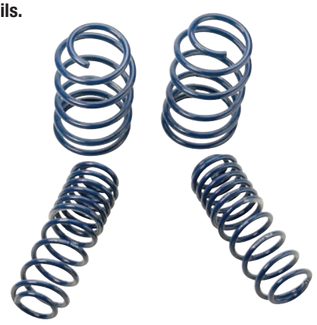
2007-2010 MUSTANG SVT ANTI-ROLL BAR KIT
M-5490-B
See page 191 for details.



2007-2009 MUSTANG SVT STRUT BRACE
M-20201-C
See page 191 for details.



2007-2010 MUSTANG SVT 1.25" LOWERING SPRINGS
M-5300-L
See page 189 for details.



2007-2010 MUSTANG GT/SVT ADJUSTABLE DAMPER KIT
M-18000-C
See page 188 for details.



MUSTANG GT/SVT BRAKE COOLING KIT
M-2004-A
See page 196 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2007-2010 MUSTANG SVT

2007-2009 MUSTANG SVT WHEEL
M-1007-S1895*
See page 177 for details.



2007-2009 MUSTANG SVT BLACK WHEEL
M-1007-S1895B*
See page 177 for details.



2007-2009 MUSTANG SVT BLACK WHEEL WITH MACHINED LIP
M-1007-S1895B1*
See page 177 for details.



2007-2009 MUSTANG SVT AND COBRA JET A/C DELETE KIT
M-19216-CJ
See page 133 for details.

NEW



2005-2009 MUSTANG LIGHTED SVT SILL PLATES
M-13208-LSVT
See page 225 for details.



2007-2009 MUSTANG SVT COATED CHROME VALVE COVERS
M-6582-CC**
See page 219 for details.



2007-2009 MUSTANG SVT BLUE COATED VALVE COVERS
M-6582-C
See page 219 for details.





FORD RACING COIL COVERS
M-6067-A
See page 220 for details.

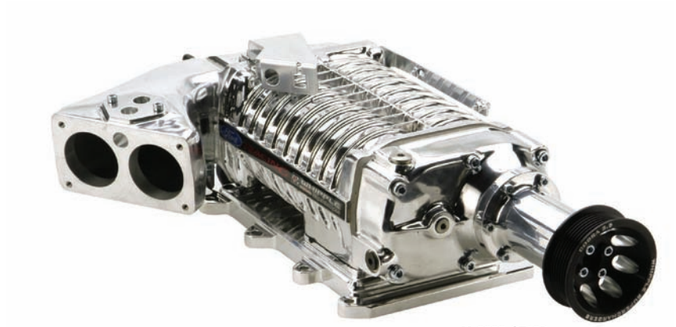


2005-2009 MUSTANG LIGHTED FORD RACING SILL PLATES
M-13208-LFR
See page 225 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

MUSTANG COBRA SUPERCHARGER UPGRADE KITS



M-6066-CT46P

2003-2004 SUPERCHARGER UPGRADE KITS

SUPERCHARGER KIT FOR DUAL-BORE THROTTLE BODY (BLACK WRINKLE)	M-6066-CT46	Page 155
SUPERCHARGER KIT FOR AFTERMARKET THROTTLE BODY (BLACK WRINKLE)	M-6066-CT46HP	Page 155
SUPERCHARGER KIT FOR DUAL-BORE THROTTLE BODY (POLISHED)	M-6066-CT46P	Page 155
SUPERCHARGER KIT FOR AFTERMARKET THROTTLE BODY (POLISHED)	M-6066-CT46PHP	Page 155

10TH ANNIVERSARY MUSTANG COBRA SHIFT BOOT

M-7277-B

See page 165 for details.

NEW



2003-2004 BAFFLED MUSTANG COBRA FUEL TANK

M-9002-C46*

See page 208 for details.

NEW



1995 COBRA "R" HOOD

M-16612-R58

See page 226 for details.



1997-2004 MUSTANG COBRA ALUMINUM RADIATOR

M-8005-C03**

See page 132 for details.



1994-2004 MUSTANG COBRA "R" FRONT BRAKE UPGRADE KIT

M-2300-X*

See page 193 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



Star of Mustang's '10 Unleashed episode, "Payback"—the winning Ford Racing-equipped 2010 Mustang GT

2005-2010 MUSTANG GT

Mustang GT. Born to race, bred to win, this American automotive icon has its pedigree rooted in championship performance on the drag strip, on road courses and on the salt flats. Given its history, and the performance images the car evokes, it's only natural for Mustang GT owners to want to take their car to the next performance level.

Enter Ford Racing. Ford Racing performance packs, the only performance packs for Mustang that are Ford-engineered as complete systems, are also the only Mustang performance packs that are covered by a limited warranty from Ford Racing (when dealer-installed). Through the available Power Upgrade Package, Handling Pack and Super Packs, all performance attributes of the Mustang GT are enhanced with factory-engineered solutions.

True Blue Ford Racing Performance Parts—the only performance parts that have earned the right to wear the Ford Oval.

MUSTANG GT SUPERCHARGER UPGRADE KITS



400 HORSEPOWER

400 HP 2.3L TWIN SCREW SC (BLACK) 2005-2006 MY	M-6066-M463V††	Page 150
400 HP 2.3L TWIN SCREW SC (POLISHED) 2005-2006 MY	M-6066-M463P††	Page 150
400 HP 2.3L TWIN SCREW SC (BLACK) 2007 MY	M-6066-M463V7††	Page 150
400 HP 2.3L TWIN SCREW SC (POLISHED) 2007 MY	M-6066-M463P7††	Page 150
400 HP 2.3L TWIN SCREW SC (BLACK) 2008-2009 MY	M-6066-M463V8††	Page 151
400 HP 2.3L TWIN SCREW SC (POLISHED) 2008-2009 MY	M-6066-M463P8††	Page 151
400 HP 2.3L TWIN SCREW SC (BLACK) 2010 MY	M-6066-MGT400C†† NEW	Page 151
400 HP 2.3L TWIN SCREW SC (POLISHED) 2010 MY	M-6066-MGT400PC†† NEW	Page 151

††12 Months/12,000 Mile Limited Warranty Coverage/Eligibility if installed by Ford Dealer within 36 months/36,000 miles. See pages 3-9 for important safety, emissions and warranty information.

475 HORSEPOWER

475 HP 2.3L TWIN SCREW SC (BLACK) – AUTO TRANS ONLY 2005-2006 MY	M-6066-MGT475 NEW	Page 152
475 HP 2.3L TWIN SCREW SC (POLISHED) – AUTO TRANS ONLY 2005-2006 MY	M-6066-MGT475P NEW	Page 152
475 HP 2.3L TWIN SCREW SC (BLACK) – AUTO TRANS ONLY 2007 MY	M-6066-MGT475A NEW	Page 152
475 HP 2.3L TWIN SCREW SC (POLISHED) – AUTO TRANS ONLY 2007 MY	M-6066-MGT475PA NEW	Page 152
475 HP 2.3L TWIN SCREW SC (BLACK) – AUTO TRANS ONLY 2008-2009 MY	M-6066-MGT475B NEW	Page 152
475 HP 2.3L TWIN SCREW SC (POLISHED) – AUTO TRANS ONLY 2008-2009 MY	M-6066-MGT475PB NEW	Page 152
475 HP 2.3L TWIN SCREW SC (BLACK) – AUTO TRANS ONLY 2010 MY	M-6066-MGT475C NEW	Page 152
475 HP 2.3L TWIN SCREW SC (POLISHED) – AUTO TRANS ONLY 2010 MY	M-6066-MGT475PC NEW	Page 152

550 HORSEPOWER

550 HP 2.3L TWIN SCREW SC (BLACK) 2005-2006 MY	M-6066-M11	Page 153
550 HP 2.3L TWIN SCREW SC (POLISHED) 2005-2006 MY	M-6066-M11P	Page 153
550 HP 2.3L TWIN SCREW SC (BLACK) 2007 MY	M-6066-M117	Page 153
550 HP 2.3L TWIN SCREW SC (POLISHED) 2007 MY	M-6066-M11P7	Page 153
550 HP 2.3L TWIN SCREW SC (BLACK) 2008-2009 MY	M-6066-M118	Page 153
550 HP 2.3L TWIN SCREW SC (POLISHED) 2008-2009 MY	M-6066-M11P8	Page 153
550 HP 2.3L TWIN SCREW SC (BLACK) – MANUAL TRANS ONLY 2010 MY	M-6066-MGT550C NEW	Page 153
550 HP 2.3L TWIN SCREW SC (POLISHED) – MANUAL TRANS ONLY 2010 MY	M-6066-MGT550PC NEW	Page 153

2005-2009 MUSTANG GT SUPERCHARGER UPGRADE KITS

400 HP TO 550 HP UPGRADE KIT 2005-2006 MY	M-9066-M11	Page 150
400 HP TO 550 HP UPGRADE KIT 2007-2009 MY	M-9066-M117	Page 151

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2005-2010 MUSTANG GT

2010 MUSTANG GT POWER UPGRADE PACKAGE
M-FR1-MGTA* NEW
See page 139 for details.



2005-2009 MUSTANG GT POWER UPGRADE PACKAGE
M-FR1-MGT
See page 139 for details.



2005-2009 MUSTANG GT 4.6L 3V COLD AIR TUNER KIT (CALIBRATION REQUIRED)
M-9603-M463* NEW
See page 142 for details.



2005-2009 MUSTANG GT COLD AIR KIT WITH PERFORMANCE CALIBRATION
M-9603-GTB
See page 141 for details.



2010 MUSTANG GT HIGH-FLOW K&N/FORD RACING AIR FILTER
M-9601-MGT NEW
See page 142 for details.



2010 MUSTANG GT FORD RACING PERFORMANCE CALIBRATION WITH HIGH-FLOW K&N AIR FILTER
M-9603-MGT NEW
See page 141 for details.



2005-2009 MUSTANG GT/V6 COLD AIR KIT DISPOSABLE HIGH-FLOW AIR FILTER REPLACEMENT
M-9601-B
See page 142 for details.



A/C ELIMINATOR KIT
M-19216-D46
See page 133 for details.



FORD RACING HIGH-PERFORMANCE OIL FILTERS
M-6731-FL820 Case of 12
See page 127 for details.

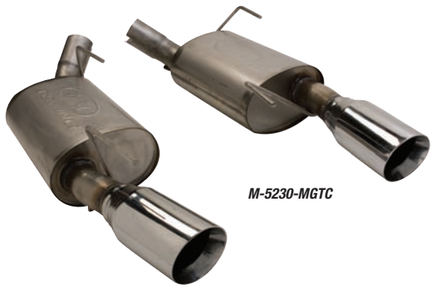


2005-2010 MUSTANG GT BILLET THROTTLE BODY
M-9926-3V* NEW
See page 207 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

MUSTANG GT MUFFLERS



M-5230-MGTC



M-5230-SA

2010 MUFFLERS

2010 MUSTANG GT/SVT FR500S MUFFLER KIT (50 STATE)	M-5230-SA NEW	Page 158
2010 MUSTANG GT MUFFLER KIT (50 STATE)	M-5230-MGTC NEW	Page 157
2010 MUSTANG GT MUFFLER KIT (49 STATE)	M-5230-MGTL NEW	Page 157

2005-2009 MUFFLERS

2005-2009 MUSTANG GT FR500S MUFFLER KIT	M-5230-S	Page 158
2005-2009 MUSTANG GT MUFFLER KIT	M-5230-5GT	Page 157
2005-2009 MUSTANG GT MUFFLER KIT	M-5230-GTA	Page 157
2008 SPECIAL EDITION MUSTANG MUFFLER KIT	M-5230-GTB	Page 157

2005-2010 MUSTANG GT X-PIPE

M-5251-R*

See page 158 for details.



2005-2009 MUSTANG GT SHORTY HEADERS

M-9430-S197* Stainless steel

M-9430-S197C* Ceramic coated

See page 156 for details.



2010 MUSTANG GT SHORT THROW SHIFTER

NEW

M-7210-MGTA

See page 164 for details.



2005-2009 MUSTANG GT SHORT THROW SHIFTER

NEW

M-7210-MGT

See page 164 for details.



2005-2010 MUSTANG V6/GT SHORT THROW "FORD RACING" WHITE SHIFT KNOB (5-SPEED)

NEW

M-7213-N

See page 163 for details.



2005-2010 MUSTANG V6/GT SHORT THROW "FORD RACING" BLACK SHIFT KNOB (5-SPEED)

NEW

M-7213-P

See page 163 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2005-2010 MUSTANG GT

2005-2010 MUSTANG GT HANDLING PACKS (1" DROP)

NEW

M-FR3-MGT Coupe

M-FR3-MCGT Convertible

See page 185 for details.



2005-2010 MUSTANG GT COUPE DYNAMIC® DAMPER KITS

M-18000-A

M-18000-C Adjustable

See page 188 for details.



2005-2010 MUSTANG GT FRONT STRUT MOUNT UPGRADE (PAIR)

M-18183-A

See page 192 for details.



2005-2010 MUSTANG GT STRUT TOWER BRACE

M-20201-S197

See page 191 for details.

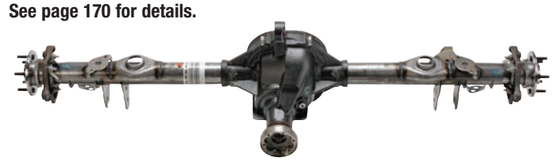


2005-2010 MUSTANG GT AXLE ASSEMBLIES

M-4001-A355* 3.55 gear ratio

M-4001-A373* 3.73 gear ratio

See page 170 for details.



2005-2010 MUSTANG GT COUPE ANTI-ROLL BAR KIT

M-5490-A

See page 191 for details.

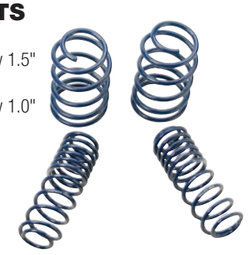


2005-2010 MUSTANG GT COUPE LOWERING SPRING KITS

M-5300-K Lowers 2005-2010 Mustang GT approximately 1.5"

M-5300-P Lowers 2005-2010 Mustang GT approximately 1.0"

See page 189 for details.



IRS 8.8" RING AND PINION INSTALLATION KIT

M-4210-A

See page 173 for details.



8.8" RING GEAR AND PINION SETS

PART NUMBER	RATIO
M-4209-G355A*	3.55:1
M-4209-F373N*	3.73:1
M-4209-G410A*	4.10:1

See page 172 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2005-2010 MUSTANG GT/SVT AXLE GIRDLE
M-4033-G2
See page 171 for details.



CNC PORTED 3V CYLINDER HEAD ASSEMBLIES
See page 104 for details.



2005-2010 MUSTANG GT INTAKE SHROUD
M-6949-3V
See page 221 for details.



2005-2010 MUSTANG GT 14" BRAKE UPGRADE KIT
M-2300-S*
See page 193 for details.



COATED 3-VALVE CAM COVERS 4.6L/5.4L
See page 219 for details.



M-6582-C543V
Chrome appearance



M-6582-3VB
Blue



M-6582-3VBLK
Black

2005-2010 MUSTANG GT HIGH LIFT HOT ROD CAM SET
M-6550-3V*
See page 114 for details.



2005-2010 MUSTANG GT DUAL FUEL PUMP KITS
M-9407-GT05 2005-2009
M-9407-MSVTA 2010
See page 208 for details.



MUSTANG GT/SVT BRAKE COOLING KIT
M-2004-A
See page 196 for details.



FORD GT START BUTTON KIT FOR MUSTANG
M-11572-GT
See page 225 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2005-2010 MUSTANG GT

2007-2009 MUSTANG SVT WHEEL
M-1007-S1895*
See page 177 for details.



2007-2009 MUSTANG SVT BLACK WHEEL
M-1007-S1895B*
See page 177 for details.



2007-2009 MUSTANG SVT BLACK WHEEL WITH MACHINED LIP
M-1007-S1895B1*
See page 177 for details.



2005-2010 MUSTANG GT BLACK WHEEL
M-1007-S1885B*
See page 178 for details.



2005-2010 MUSTANG GT CHROME WHEEL
M-1007-S1885C*
See page 178 for details.



2005-2010 MUSTANG SPECIAL EDITION BLACK WHEEL
M-1007-T178B*
See page 178 for details.



2005-2010 MUSTANG GT SILVER WHEEL
M-1007-T178S*
See page 178 for details.



2005-2010 MUSTANG GT CHROME WHEEL
M-1007-T178C*
See page 178 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2005-2010 MUSTANG GT FRONT LOWER CONTROL ARM UPGRADE KIT
M-3075-E
See page 192 for details.



2008 COBRA JET REAR SUSPENSION KIT
M-5649-CJ
See page 192 for details.

NEW



2005-2010 MUSTANG GT AND 2007-2009 MUSTANG SVT DRIVESHAFT LOOP KIT
M-5478-S197B
See page 176 for details.



2007-2009 MUSTANG SVT STEERING WHEEL
M-3600-C
See page 225 for details.



MUSTANG SVT BLACK STITCH WHEEL AND BOOT
M-3601-C
See page 225 for details.



2005-2010 MUSTANG GT REAR LOWER CONTROL ARM UPGRADE KIT
M-5538-A
See page 192 for details.



2005-2010 MUSTANG GT COUPE FRONT LOWER A-ARM BRACE UPGRADE KIT
M-5025-A
See page 192 for details.



MUSTANG FR500C REAR UPPER CONTROL ARM BUSHINGS
M-5638-R
See page 192 for details.

2007-2009 MUSTANG SVT REAR SPOILER
M-16600-SVTC
See page 226 for details.



2007-2009 MUSTANG SVT HOOD
M-16612-C
See page 226 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2005-2010 MUSTANG GT

FR500S SPLITTER
M-16601-C
See page 227 for details.



2005-2009 MUSTANG GT STYLING PACK
M-2784-M
See page 227 for details.



FR500S GRILLE W/O BADGE
M-8200-A
See page 226 for details.



2005-2009 MUSTANG ALUMINUM FUEL FILL DOOR
M-2301-5M
See page 227 for details.



"COBRA" FAUX FUEL CAP
M-2301-S
See page 229 for details.



2005-2009 MUSTANG LIGHTED SILL PLATES
M-13208-LSVT SVT
M-13208-LFR Ford Racing
See page 225 for details.





2005-2009 "FORD RACING" MUSTANG STRIPE KITS
M-1620001-FRBK "Ford Racing" black
M-1620001-FRSL "Ford Racing" silver
See page 227 for details.





2005-2010 MUSTANG QUARTER-WINDOW LOUVERS
M-1784-MS
See page 227 for details.



2007-2009 MUSTANG SVT "COBRA" SNAKE FENDER EMBLEMS
M-1447-C
See page 229 for details.



BILLET PAINTED OIL FILL CAP COVER FOR 4.6L/5.4L/6.8L
M-6766-MP46
See page 220 for details.



FORD GT COOLANT OVERFLOW CAP
M-8006-GT
See page 132 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



225 hp Ford Racing development 2010 Mustang V6 at speed during the Ford Racing Invitational at Milan Dragway

Mustang V6. Great looking and all-Mustang right out of the box. Add an attractive price, impressive fuel economy and appealing insurance premiums to this already balanced car and you have an all-American head-turner that's a real value.

Leave it to Ford Racing to make a great car even better. Ford Racing performance packs, the only performance packs for Mustang that are Ford-engineered as complete systems, are also the only Mustang performance packs that are covered by a limited warranty from Ford Racing (when dealer-installed). The available functional performance upgrades from Ford Racing add real "go" to the V6's good looks.

True Blue Ford Racing Performance Parts—the only performance parts that have earned the right to wear the Ford Oval.

2005-2010 MUSTANG V6

2005-2009 MUSTANG V6 POWER UPGRADE PACKAGE
50 States Street Legal
M-2007-FR1V6
See page 140 for details.



2010 MUSTANG V6 POWER UPGRADE PACKAGE
NEW
M-FR1-MV6*
See page 140 for details.



2010 MUSTANG V6 FORD RACING PERFORMANCE CALIBRATION WITH HIGH-FLOW K&N AIR FILTER
NEW
M-9603-MV6
See page 141 for details.



2005-2009 MUSTANG V6 COLD AIR KIT WITH PERFORMANCE CALIBRATION
M-9603-V605
See page 142 for details.



CASE OF FORD RACING HIGH-PERFORMANCE OIL FILTERS
M-6731-FL820
See page 127 for details.



2005-2009 MUSTANG V6 4.0L COLD AIR TUNER KIT (CALIBRATION REQUIRED)
NEW
M-9603-M40*
See page 142 for details.



2005-2010 MUSTANG V6 HIGH-FLOW K&N AIR FILTER
NEW
M-9601-MV6
See page 142 for details.



MUSTANG V6 MUFFLERS



M-5230-MV62 shown

2010 MUFFLERS

2010 MUSTANG V6 DUAL EXHAUST KIT (50 STATE)	M-5230-MV62 NEW	Page 158
2010 MUSTANG V6 MUFFLER (50 STATE)	M-5230-MV61 NEW	Page 158

2005-2009 MUFFLERS

2005-2009 MUSTANG V6 DUAL EXHAUST KIT (50 STATE)	M-5230-V6	Page 158
2005-2009 MUSTANG V6 MUFFLER (50 STATE)	M-5230-5V6*	Page 158

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2005-2010 MUSTANG V6

2005-2010 MUSTANG V6 COUPE HANDLING PACK
M-2007-FR3V6
See page 186 for details.



2005-2010 MUSTANG V6 COUPE 1.5" LOWERING SPRINGS
M-5300-N
See page 189 for details.





2005-2010 MUSTANG V6 BRAKE UPGRADE KIT
M-2300-D*
See page 193 for details.



2005-2010 MUSTANG V6 COUPE ANTI-ROLL BAR KIT
M-5490-C
See page 191 for details.



2005-2010 MUSTANG V6 STRUT TOWER BRACE
M-20201-F
See page 191 for details.



2005-2010 MUSTANG COUPE DYNAMIC® DAMPER KIT
M-18000-A
See page 188 for details.



2010 MUSTANG V6 SHORT THROW SHIFTER
M-7210-MV6A
See page 164 for details.

NEW



2005-2010 MUSTANG V6/GT SHORT THROW "FORD RACING" WHITE SHIFT KNOB (5-SPEED)
M-7213-N
See page 163 for details.

NEW



2005-2009 MUSTANG V6 SHORT THROW SHIFTER
M-7210-MV6
See page 164 for details.

NEW



2005-2010 MUSTANG V6/GT SHORT THROW "FORD RACING" BLACK SHIFT KNOB (5-SPEED)
M-7213-P
See page 163 for details.

NEW



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



Two-time NASA® Spec Focus national champion Craig Capaldi dominates what is described as being "an affordable and fun class—geared toward budget-minded enthusiasts."

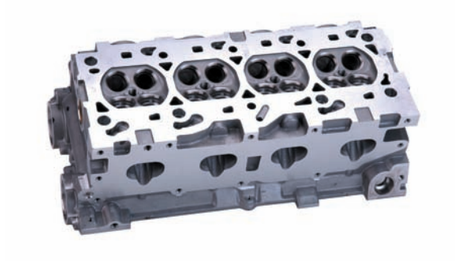
FORD FOCUS

Ford Focus. A car whose performance heritage is based on world class driving dynamics and handling, delivered by a chassis that continues to earn its stripes by winning on Europe's most challenging road courses and on the world's most demanding rally stages. A car that's much more than simply competitive. It's a champion around the world.

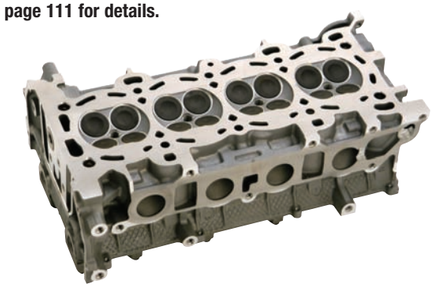
And the fun continues here in the U.S., where Focus has distinguished itself on the street with the award-winning Focus SVT and on the track in autocrossing, track days, club racing in NASA® Spec Focus and even powering all entries in the USAC® Ford Focus Midget Series. With such performance in its blood, it's no surprise Ford Racing is there with factory-engineered parts to help Focus racers—those on the street, track, strip and ovals—wring the most out of their cars. From power upgrades to performance-tuned suspension systems to enhanced brakes, Ford Racing has what it takes to help Focus drivers uphold their car's performance reputation. And have fun doing so—all with confidence.

True Blue Ford Racing Performance Parts—the only performance parts that have earned the right to wear the Ford Oval.

2000-2004 FOCUS 2.0L ZETEC® CNC PORTED ALUMINUM HEAD
M-6049-ZX3P*
See page 111 for details.



2003-2008 2.0L/2.3L DURATEC® CNC PORTED ALUMINUM HEAD
M-6049-D23P*
See page 111 for details.



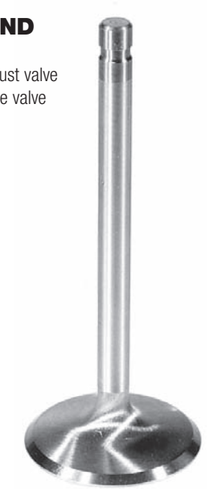
ZETEC® HIGH LIFT VALVE SPRING SET
M-6513-ZX3E
See page 118 for details.



2.0L ZETEC® FOCUS ENGINE
WHILE SUPPLIES LAST Limited Quantity!!
M-6007-ZX3**
See page 64 for details.



ZETEC® INTAKE AND EXHAUST VALVES
M-6505-ZX3* 30 mm exhaust valve
M-6507-ZX3* 33 mm intake valve
See page 117 for details.



ZETEC® 4-CYLINDER DOHC 2.0L 16V STREET PERFORMANCE CAMSHAFTS
M-6252-A203*
See page 114 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FORD FOCUS

FOCUS ZETEC® PERFORMANCE INTAKE MANIFOLD
WHILE SUPPLIES LAST Limited Quantity!!
M-9424-ZX3R*
See page 124 for details.



FOCUS SVT FRONT FASCIA
WHILE SUPPLIES LAST Limited Quantity!!
M-17831-F**
See page 226 for details.



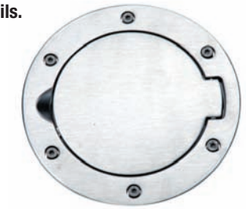
FOCUS SVT REAR FASCIA
WHILE SUPPLIES LAST Limited Quantity!!
M-17835-F**
See page 226 for details.



FOCUS SVT CENTER EXHAUST DIFFUSER INSERT
WHILE SUPPLIES LAST Limited Quantity!!
M-17835-F1*
See page 226 for details.



ALUMINUM FUEL DOOR
M-2301-E
See page 229 for details.



FOCUS 70 MM THROTTLE BODY FOR PERFORMANCE ZETEC® INTAKE MANIFOLD
WHILE SUPPLIES LAST Limited Quantity!!
M-9926-ZX3R*
See page 207 for details.



2000-2004 FOCUS 2.0L ZETEC® LONG TUBE HEADER KITS
M-9430-ZX3L* Stainless steel
M-9430-ZX3LC* Ceramic coated
See page 156 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2000-2008 FOCUS REAR ANTI-ROLL BAR
M-5400-Z3R
See page 191 for details.



FOCUS PERFORMANCE SPRING KITS
M-5560-ZXM 2000-2005 Focus except wagon
M-5560-ZXM1 2006-2007 Focus except wagon
See page 190 for details.



2006-2007 FOCUS PERFORMANCE SPRING KIT
M-5560-ZX3B
See page 190 for details.



2000-2005 FOCUS SUSPENSION KIT
M-3000-ZX3
See page 187 for details.



2000-2005 FOCUS SUSPENSION KIT
M-3000-ZX3A*
See page 187 for details.

2000-2009 FOCUS ZX3/4/5 ADJUSTABLE REAR SUBFRAME
M-5035-ZX3
See page 190 for details.



FOCUS DYNAMIC® DAMPER KITS
M-18000-ZXM 2000-2005 Focus except wagon
M-18000-ZXM1 2006-2007 Focus except wagon
See page 188 for details.



FOCUS DAMPER KITS
M-18000-ZX3 2000-2005 Focus except wagon
M-18000-ZX3B 2006-2007 Focus except wagon
See page 188 for details.



ESCORT ZX2 TOKICO® STRUT KIT
M-18000-Z2
See page 188 for details.



2000-2005 FOCUS DYNAMIC® DAMPER AND SPRING KIT
M-3000-ZXM
See page 187 for details.



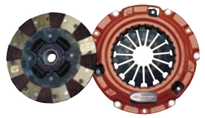
*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FORD FOCUS

FOCUS TORSEN® DIFFERENTIALS
M-4204-F20 MTX-75 transaxle
M-4204-SVTF 2002-2004 Focus SVT
See page 174 for details.



2000-2004 FOCUS ZX3/ZX5 CENTERFORCE CLUTCH KIT
M-7563-Z3
See page 169 for details.



2005-2009 FOCUS 300 MM FRONT BRAKE UPGRADE KIT
M-2300-SVTF5
See page 194 for details.



2000-2008 FOCUS 280 MM REAR BRAKE UPGRADE KIT
M-2300-SVTR
See page 194 for details.



2000-2009 FOCUS SVT SILVER WHEEL
M-1007-S177*
See page 183 for details.



2003 FOCUS SVT EUROPEAN APPEARANCE PACKAGE 15-SPOKE DARK ARGENT WHEEL
M-1007-S177E*
See page 183 for details.



2000-2004 FOCUS 300 MM FRONT BRAKE UPGRADE KIT
M-2300-SVTF4
See page 194 for details.



2000-2004 FOCUS RALLY FRONT BRAKE KIT
M-2300-ZXR
See page 194 for details.



NEW

2000-2004 FOCUS ZX3/4/5 COMPETITION RALLY BRAKE KIT
M-2300-ZX3R*
See page 194 for details.



2004 FOCUS SVT WHEEL
M-1007-S177A*
See page 183 for details.



FORD RACING FOCUS RALLY WHEEL
M-1007-S177B*
See page 183 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



Kenny Brack, 1999 Indianapolis 500 winner, was sky-high taking the gold medal at the 2009 Summer X Games 15 in the 450 hp Olsberg® Ford Fiesta.



2010 F-150 Raptor R…a Ford Racing desert racing test bed for the SVT production vehicle

Ford Fiesta – Coming to America!

Ford Fiesta is taking America by storm. Led by first and second place finishes in major 2009 performance contests, the Fiesta is reinforcing its European performance heritage. It truly is a fun-to-drive car that is ripe for performance upgrades. Ford Racing is already underway developing components to help you make a fun car even more fun—components scheduled to be ready when the car hits our shores in 2010. Performance upgrades. Suspension packs. Enhanced brakes. Free-flowing intake and exhaust. Good stuff.

Join the Fiesta Movement, and stay tuned to www.FordRacingPerformanceParts.com for news on Fiesta go-fast and look-good parts.

Ford F-150 and toughness. A relationship that is as old as the Ford truck itself and a reputation that has been earned the hard way—through Ford trucks' many wins in desert racing, where the conditions and demands conquer lesser vehicles. And through serving America's commercial needs daily, both on and off pavement. No question about it, Ford trucks are "Built Ford Tough."

Well, "Built Ford Tough" meet "Built Ford Racing Fast"! Led by offerings for the innovative and race-proven 2010 F-150 SVT Raptor (skid plates, light kits, exhaust, rear gear sets, etc.), Ford Racing is the place to go for Ford truck go-fast parts that are designed, developed and validated by the factory. In this case, the "factory" is Ford Racing, the guys who live and breathe performance.

True Blue Ford Racing Performance Parts—the only performance parts that have earned the right to wear the Ford Oval.

2009-2010 FORD RACING F-150 CHROME EXHAUST TIPS
NEW
M-5255-F15R
See page 159 for details.



F-150 SVT RAPTOR BLACK WHEEL
NEW
M-1007-F15RBA
See page 182 for details.



TRAILSIDE KIT
NEW
M-19515-GENKIT
See page 230 for details.



TOW KIT W/STRAP
NEW
M-19515-TOW
See page 230 for details.



2010 F-150 SVT RAPTOR FRONT AUXILIARY LIGHT BAR
NEW
M-15266-F15RBAR
See page 228 for details.



2010 F-150 SVT RAPTOR ENHANCED FRONT SKID PLATE
NEW
M-5018-F15R
See page 228 for details.



F-150 SVT RAPTOR CHARCOAL GREY WHEEL
NEW
M-1007-F15RAA
See page 182 for details.



6" ROUND AUXILIARY HALOGEN LIGHTS
NEW
M-15200-F15R6HAL
See page 228 for details.



8" ROUND AUXILIARY HALOGEN LIGHTS
NEW
M-15200-F15R8HAL
See page 228 for details.



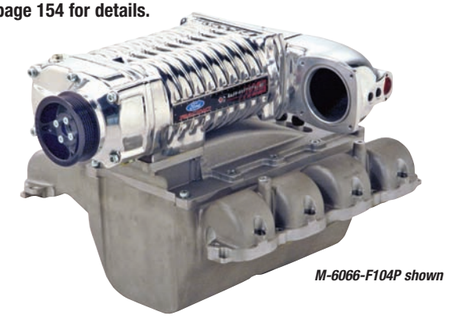
8" ROUND AUXILIARY HIGH-INTENSITY DISCHARGE LIGHTS
NEW
M-15200-F15RBHID
See page 228 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FORD TRUCKS

2004 F-150 SUPERCHARGER KITS
M-6066-F104 Black wrinkle
M-6066-F104P Polished
See page 154 for details.



M-6066-F104P shown

2005-2008 F-150 SUPERCHARGER KITS
M-6066-F105 Black wrinkle
M-6066-F105P Polished
See page 154 for details.



M-6066-F105P shown

1999-2000 LIGHTNING SUPERCHARGER UPGRADE KITS
M-6066-L90 Black wrinkle
M-6066-L90P Polished
See page 154 for details.



M-6066-L90P shown

2001-2004 LIGHTNING SUPERCHARGER UPGRADE KITS
M-6066-LR Black wrinkle
M-6066-LRP Polished
See page 154 for details.

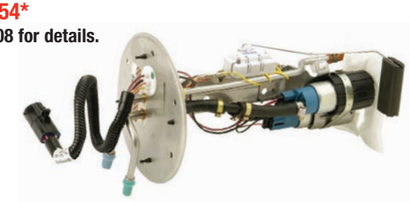


M-6066-LRP shown

LIGHTNING MASS AIR METER
M-12579-L54**
See page 207 for details.



1999-2004 F-150 LIGHTNING DUAL FUEL PUMP KIT
M-9407-L54*
See page 208 for details.



2004-2006 F-150 ALUMINUM RADIATOR
M-8005-P221*
See page 132 for details.

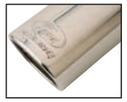


ELECTRIC WATER PUMP
M-8501-L54**
See page 132 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

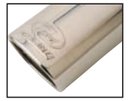
2004-2007 F-150 SPLIT REAR EXHAUST SYSTEM
M-5230-SR**
See page 159 for details.





2001-2003 F-150 HARLEY-DAVIDSON® SPLIT REAR EHXAUST SYSTEM
M-5230-HDSR**
See page 159 for details.

WHILE SUPPLIES LAST! Limited Quantity!!





2006-2008 F-150 LIGHTNING STYLE EXHAUST
M-5230-L06EC*
See page 159 for details.



2004-2008 F-150 2WD LIGHTNING STYLE EXHAUST SYSTEM
M-5230-L**
See page 159 for details.



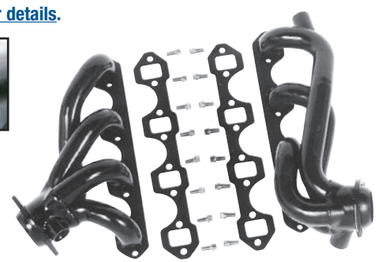
STERLING AXLE "TRUE TRAC"® LIMITED SLIP DIFFERENTIAL
M-4204-TT312
See page 174 for details.

WHILE SUPPLIES LAST! Limited Quantity!!



STAINLESS STEEL "SHORTY" HEADERS
See page 156 for details.





8.8" T-2 TORSEN® DIFFERENTIALS
See page 174 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FORD TRUCKS

8.8" RING GEAR AND PINION SETS
See page 172 for details.



AXLE GIRDLE
M-4033-G1 8.8" Ford
See page 171 for details.



1999-2004 LIGHTNING/HARLEY-DAVIDSON® LOWERING KIT
M-3000-L
See page 190 for details.



1997-2003 F-150 2WD LOWERING KIT
M-3000-T1
See page 190 for details.



2004-2008 F-150 2WD LOWERING KIT
M-3000-T3
See page 190 for details.



2004-2009 F-150 REAR LOWERING KIT
M-3000-G
See page 190 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2004-2009 F-150 LIGHTNING WHEEL
M-1007-L2010P* Polished aluminum
See page 182 for details.



1996-2003 F-150 AND 2004 HERITAGE BILLET ALUMINUM GRILL INSERTS
M-7843-A Ford Oval logo
See page 229 for details.

WHILE SUPPLIES LAST Limited Quantity!!



COATED 3-VALVE CAM COVERS 4.6L/5.4L
M-6582-C543V Powdercoated chrome appearance
M-6582-3VB Blue powdercoated
M-6582-3VBLK Black powdercoated
See page 219 for details.







ALUMINUM FUEL DOOR
M-2301-E
See page 229 for details.

FITS F-150



2004-2008 F-150 ALUMINUM FUEL DOOR
M-2301-F150
See page 229 for details.



BLACK SATIN TRUCK VALVE COVERS
M-6582-A351R**
See page 217 for details.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



New for 2010!

Entry level 302 cid long blocks: the perfect choice for updating your tired Mustang powertrain or that brand new Ford-in-a-Ford street rod!

427 cid Windsor engines: the iconic 427 is back in a compact Windsor platform. Big block torque in small block clothes, the all-new 427 cid engines pack big power with great drivability. The kit car owners have been begging for this powerplant and we've delivered all the features they want—at prices the competition simply cannot touch.

Modular engine installation kits: a mid-year 2009 entry helps anyone put late model EFI Ford engines into just about anything. These easy-to-install kits feature all the electronics necessary with detailed instructions.

Big block power: keep your eyes on our website for 2010, we've got big block monsters coming!

PUSH ROD CRATE ENGINES AND SHORT BLOCKS

CRATE ENGINE PART NUMBER	M-6007-X302E/X302B	M-6007-Z302Z	M-6007-XEFMS	M-6007-X302	M-6009-Z347
Displacement (ci)	302	302	302	306	347
Horsepower (hp)	X302E 340 X302B 345	390	340	340	N/A
Torque (lb-ft)	310	360	310	310	N/A
Compression Ratio	9.0:1	10.0:1	9.0:1	9.0:1	N/A
Cylinder Heads	X306 GT-40	Z304DA	X306	X306	No Heads
Camshaft	X302E XE303 Hyd. Roller X302B B303 Hyd. Roller	Z303 Hyd. Roller	E303 Hyd. Roller	E303 Hyd. Roller	No Cam
Crank	3.000" Forged	3.000" Forged	3.000" Forged	3.000" Cast	3.400" Forged
Piston	4.000" Forged	4.000" Forged	Forged	4.030"	4.030" Forged
Intake	No Intake	No Intake	No Intake	No Intake	No Intake
Distributor	No Distributor	No Distributor	No Distributor	No Distributor	No Distributor
Valve Cover	M-6582-BOSS302	M-6582-BOSS302	M-6000-K302R	TBD	No Valve Covers
Oil Pan	Production	7 qt. Rear Sump	Rear Sump	Rear Sump	No Oil Pan
Water Pump	Serpentine Belt	V Belt	Serpentine Belt	N/A	No Water Pump
Block	**M-6010-BOSS302**	**M-6010-BOSS302**	**Production**	**Production**	**M-6010-BOSS302**

CRATE ENGINE PART NUMBER	M-6007-Z347FT	M-6007-Z347	M-6007-347NST	M-6007-D347SR	M-6007-S347JR
Displacement (ci)	347	347	347	347	347
Horsepower (hp)	450	450	N/A	415	350
Torque (lb-ft)	400	400	N/A	400	400
Compression Ratio	9.7:1	9.7:1	10.0:1	10.0:1	9.8:1
Cylinder Heads	Z304DA High-Flow	Z304DA High-Flow	Z304DA	Z304DA	X306
Camshaft	Hyd. Roller	Hyd. Roller	F303 Hyd. Roller	F303 Hyd. Roller	Hyd. Roller
Crank	3.400" Forged	3.400" Forged	3.400" Forged	3.400" Forged	3.400" Forged
Piston	4.030" Forged	4.030" Forged	4.030" Forged	4.030" Forged	4.030" Forged
Intake	Victor Jr.®	Victor Jr.®	Victor Jr.®	Victor Jr.®	Performer® Dual Plane
Distributor	Billet Distributor	Billet Distributor	Billet Distributor	Billet Distributor	Billet Distributor
Valve Cover	M-6582-BOSS	M-6582-BOSS	M-6582-R302	M-6582-R302	M-6582-E302P
Oil Pan	7 qt. Front Sump	7 qt. Rear Sump	7 qt. Rear Sump	7 qt. Rear Sump	7 qt. Rear Sump
Water Pump	V Belt	V Belt	V Belt	V Belt	V Belt
Block	**M-6010-BOSS302**	**M-6010-BOSS302**	**M-6010-BOSS302**	**M-6010-BOSS302**	**M-6010-BOSS302**

CRATE ENGINE PART NUMBER	M-6007-Z351SR	M-6007-D392FFT	M-6007-D392FRT	M-6007-C392FT	M-6007-C392RT
Displacement (ci)	351	392	392	392	392
Horsepower (hp)	400	430	430	475	475
Torque (lb-ft)	375	450	450	495	495
Compression Ratio	10.0:1	9.7:1	9.7:1	10.0:1	10.0:1
Cylinder Heads	Z304DA	X303 GT-40	X303 GT-40	Z304DA High-Flow	Z304DA High-Flow
Camshaft	Hyd. Roller	Hyd. Roller	Hyd. Roller	Hyd. Roller	Hyd. Roller
Crank	3.500" Forged	3.850" Forged	3.850" Forged	3.850" Forged	3.850" Forged
Piston	4.000" Forged	4.030" Forged	4.030" Forged	4.030" Forged	4.030" Forged
Intake	Victor Jr.®	Victor Jr.®	Victor Jr.®	Victor Jr.®	Victor Jr.®
Distributor	No Distributor	Billet Distributor	Billet Distributor	Billet Distributor	Billet Distributor
Valve Cover	M-6582-R302	M-6582-E302P	M-6582-E302P	M-6582-E302P	M-6582-E302P
Oil Pan	10 qt. Rear Sump	7 qt. Front Sump	7 qt. Rear Sump	7 qt. Front Sump	7 qt. Rear Sump
Water Pump	V Belt	Both	Both	Both	Both
Block	**M-6010-C58**	**M-6010-C58**	**M-6010-C58**	**M-6010-C58**	**M-6010-C58**

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CRATE ENGINES AND SHORT BLOCKS

CRATE ENGINE PART NUMBER	M-6007-Z427AFT/Z427ART	M-6007-Z427FFT/Z427FRT	M-6007-Z331P	M-6007-521FT	M-6007-521RT
Displacement (ci)	427	427	331	521	521
Horsepower (hp)	TBD	505	500	580	580
Torque (lb-ft)	TBD	520	388	600	600
Compression Ratio	10.5:1	10.4:1	11.9:1	10.0:1	10.0:1
Cylinder Heads	Z304P	Z304DA	Z304PA	SCJB	SCJB
Camshaft	TBD	Hyd. Roller	Flat Tappet	Mech. Roller	Mech. Roller
Crank	4.000" Forged	4.000" Forged	3.100" Forged	4.300" Cast	4.300" Cast
Piston	4.125" Forged	4.125" Forged	4.125" Forged	4.390" Forged	4.390" Forged
Intake	No Intake	No Intake	No Intake	Victor Jr.®	Victor Jr.®
Distributor	No Distributor	No Distributor	No Distributor	Billet Distributor	Billet Distributor
Valve Cover	M-6582-W427	M-6582-W427B	M-6582-BOSS	M-6582-C460	M-6582-C460
Oil Pan	Front Sump/Rear Sump	Front Sump/Rear Sump	7 qt. Rear Sump	7 qt. Front Sump	7 qt. Rear Sump
Water Pump	V Belt	V Belt	V Belt	V Belt	V Belt
Block	**M-6010-Z351**	**M-6010-BOSS35195**	**M-6010-BOSS302**	**M-6010-A460**	**M-6010-A460**

MODULAR CRATE ENGINES AND SHORT BLOCKS

ENGINE PART NUMBER	M-6007-A46NA	M-6009-A46NA	M-6007-A46SC	M-6009-A46SC	M-6009-A46SCB
Displacement	4.6L	4.6L	4.6L	4.6L	4.6L
Horsepower (hp)	N/A	N/A	N/A	N/A	N/A
Torque (lb-ft)	N/A	N/A	N/A	N/A	N/A
Compression Ratio	10.0:01	10.0:01	8.5:1	8.5:1	8.5:1
Combustion Chamber Volume (cc)	52.6 ± 0.5	N/A	52.6 ± 0.5	N/A	52.6 ± 0.5
Cylinder Heads	4V, 04 Cobra Production	N/A	4V, 04 Cobra Production	N/A	N/A
Camshafts	03/04 Cobra In: 10 mm Ex: 10 mm	N/A	03/04 Cobra In: 10 mm Ex: 10 mm	N/A	N/A
Crankshaft	Forged, 8-Bolt Flywheel	Forged, 8-Bolt Flywheel	Forged, 8-Bolt Flywheel	Forged, 8-Bolt Flywheel	Forged, 8-Bolt Flywheel
Connecting Rod	Forged Steel	Forged Steel	Forged Steel	Forged Steel	Forged Steel
Piston	Forged, Grafal® coated skirts 0cc dish	Forged, Grafal® coated skirts 0cc dish	Forged, Grafal® coated skirts 16cc dish	Forged, Grafal® coated skirts 16cc dish	Forged, Grafal® coated skirts 16cc dish
Intake Manifold	N/A	N/A	N/A	N/A	N/A
Ignition	N/A	N/A	N/A	N/A	N/A
Valve Cover	M-6582-A54	N/A	M-6582-A54	N/A	N/A
Oil Pan	XR3E-6675-DB	N/A	XR3E-6675-DB	N/A	N/A
Water Pump	5W7E-8501-AA	N/A	5W7E-8501-AA	N/A	N/A

ENGINE PART NUMBER	M-6007-A463NA	M-6007-MC	M-6009-463V	M-6009-A463SC	M-6009-C54SC2	M-6009-C54SC4
Displacement	4.6L	4.6L	4.6L	4.6L	5.4L	5.4L
Horsepower (hp)	350	325	N/A	N/A	N/A	N/A
Torque (lb-ft)	330	330	N/A	N/A	N/A	N/A
Compression Ratio	9.8:1	9.8:1	9.8:1	8.7:1	8.9:1 w/2V Lightning heads	8.1:1 w/2007-2009 SVT heads
Combustion Chamber Volume (cc)	49.6	49.6	N/A	N/A	N/A	N/A
Cylinder Heads	Production	Production	N/A	N/A	N/A	N/A
Camshafts	M-6550-3V	In: 11.1 mm Ex: 11.0 mm	N/A	N/A	N/A	N/A
Crankshaft	Cast, 6-Bolt Flywheel	Cast, 6-Bolt Flywheel	Cast, 6-Bolt Flywheel	Forged, 8-Bolt Flywheel	Forged, 8-Bolt Flywheel	Forged, 8-Bolt Flywheel
Connecting Rods	Sintered Steel	Sintered Steel	Sintered Steel	Forged Steel	Forged, w/ARP® 2000 bolts	Forged, w/ARP® 2000 bolts
Piston	Cast, hard anodized ring grooves Grafal® coated skirts	Cast, hard anodized ring grooves Grafal® coated skirts	Cast, hard anodized ring grooves Grafal® coated skirts	Forged, Grafal® coated skirts 16cc dish	Forged, Grafal® coated skirts 16cc dish	Forged, Grafal® coated skirts 16cc dish
Intake Manifold	05-08 Mustang	05-08 Mustang	N/A	N/A	N/A	N/A
Ignition	Coil on plug	Coil on plug	N/A	N/A	N/A	N/A
Valve Covers	M-6582-3VB	Production	N/A	N/A	N/A	N/A
Oil Pan	Production	Production	Production	N/A	N/A	N/A
Water Pump	Production	Production	N/A	N/A	N/A	N/A
Exhaust Manifolds	Production	N/A	N/A	N/A	N/A	N/A

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

MUSTANG COBRA SUPERCHARGER UPGRADE KITS



M-6066-CT46P

2003-2004 SUPERCHARGER UPGRADE KITS

SUPERCHARGER KIT FOR DUAL-BORE THROTTLE BODY (BLACK WRINKLE)	M-6066-CT46	Page 155
SUPERCHARGER KIT FOR AFTERMARKET THROTTLE BODY (BLACK WRINKLE)	M-6066-CT46HP	Page 155
SUPERCHARGER KIT FOR DUAL-BORE THROTTLE BODY (POLISHED)	M-6066-CT46P	Page 155
SUPERCHARGER KIT FOR AFTERMARKET THROTTLE BODY (POLISHED)	M-6066-CT46PHP	Page 155

10TH ANNIVERSARY MUSTANG COBRA SHIFT BOOT

M-7277-B

See page 165 for details.

WHILE SUPPLIES LAST Limited Quantity!!



2003-2004 BAFFLED MUSTANG COBRA FUEL TANK

M-9002-C46*

See page 208 for details.

NEW



1995 COBRA "R" HOOD

M-16612-R58

See page 226 for details.



1997-2004 MUSTANG COBRA ALUMINUM RADIATOR

M-8005-C03**

See page 132 for details.



1994-2004 MUSTANG COBRA "R" FRONT BRAKE UPGRADE KIT

M-2300-X*

See page 193 for details.



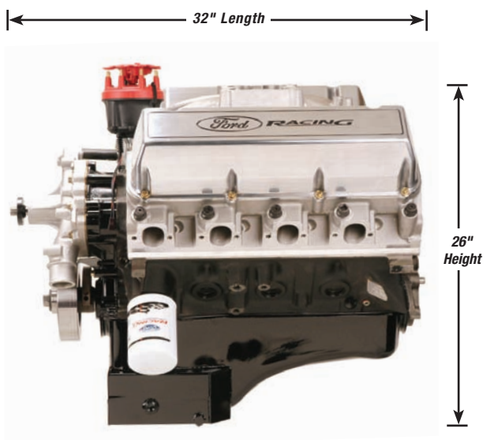
*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.

See pages 3-9 for important safety, emissions and warranty information.

ENGINE SWAP SIZE CHART

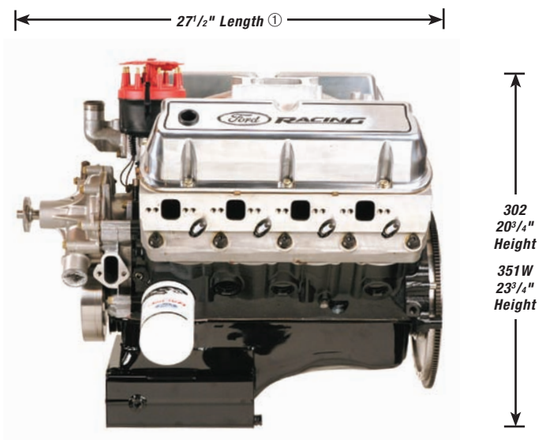
(SEE INDIVIDUAL ENGINE INSTALLATION NOTES PAGES 62-79 FOR WEIGHTS)

460 ENGINE



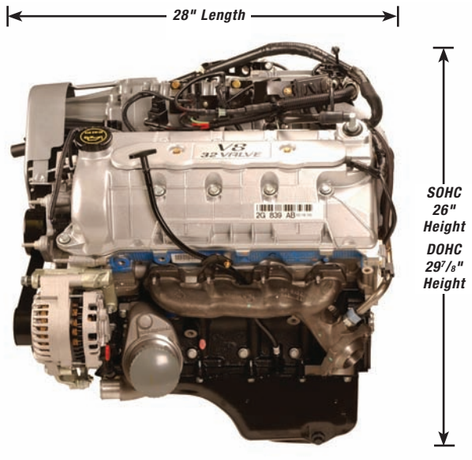
NOTE: 26" Width.

302/351W ENGINE



NOTE: 302 – 18¾" Width / 351W – 21" Width.
NOTE: ① With Short Serpentine Water Pump M-8501-A50.

4.6L MODULAR ENGINE



NOTE: SOHC – 25⅝" Width / DOHC – 30" Width.

Did you know…
That an aluminum 4.6L block weighs approximately 85 lbs while the iron versions weigh approximately 155 lbs.

Did you know…
The 3-valve 4.6L engine in the 2005-2010 Mustang weighs only 420 lbs dressed.

Did you know…
5.4L blocks received more material in 2002 for Noise Vibration and Harshness (NVH) control. Pre-2002 blocks weighed 185 lbs, later blocks weigh 200 lbs.

Did you know…
You can easily distinguish Romeo vs. Windsor 4.6L iron blocks by the main caps. Windsor blocks have dowels to locate the main caps while Romeo blocks use jack screws to locate the main caps.

Did you know…
All 5.4L iron blocks are made with the Windsor main cap style, even those that go into engines coming out of Romeo engine plant.

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE DIMENSIONS

BASIC ENGINE DIMENSIONS (INCHES)
Out-of-Production Gasoline Engines

DISPLACEMENT	YEARS	BORE	STROKE	BORE SPACING	MAIN JOURNAL DIA.	ROD JOURNAL DIA.	CON ROD LENGTH (MEAN)	DECK HEIGHT	PISTON COMP HT
1.6L Kent	1971-73	3.188	3.056	3.780	2.1253	1.9372	4.928	8.2272	—
1.6L CVH	1981-85	3.150	3.130	3.614	2.383	1.886	5.195	8.212	1.451
1.9L CVH	1985-87	3.230	3.465	3.614	2.383	1.886	5.195	8.378	1.451
1.9L CVH	1988-96	3.230	3.465	3.614	2.383	1.728	5.195	8.378	1.451
1.8L ZETEC® DOHC	1991-96	3.270	3.350	3.583	1.966	1.771	5.230	8.130	1.108
2.0L CVH	1997-98	3.339	3.465	3.614	2.383	1.728	5.195	8.378	1.451
2.0L OHC ①	1971-74	3.575	3.029	4.016	2.244	2.047	4.982	8.146	1.595 ⑤
2.0L OHC ②	1983-87	3.520	3.126	4.173	2.399	2.047	5.205	8.368	1.583
2.0L ZETEC®	1995-04	3.339	3.465	3.614	2.283	1.847	5.3618 ⑦	8.378	1.3012 ⑧
2.0L V6	2001-04	3.215	2.631	4.016	2.479	1.967	5.686	8.189	1.181
2.2L Probe	1988-92	3.390	3.700	3.810	2.360	2.006	6.200	9.500	1.450
2.3L OHC	1974-97	3.780	3.126	4.173	2.399	2.047	5.205	8.368	1.583
2.5L OHC	1998	3.780	3.401	4.173	2.399	2.047	5.457	8.368	1.211
2.3L HSC	1984-94	3.680	3.300	4.080	2.249	2.124	5.457	8.700	1.520
2.5L HSC	1986-91	3.680	3.583	4.080	2.249	2.124	5.990	9.400	1.579
2.5L V6 Duratec®	1995-99	3.245	3.130	4.016	2.480	1.968	5.437	8.189	1.181
2.6L V6	1972-73	3.545	2.630	4.760	2.244	2.127	—	8.084	1.546
2.8L V6	1974-80	3.650	2.700	4.760	2.244	2.127	5.140	8.084	1.539
2.9L V6	1986-92	3.661	2.835	4.760	2.244	2.126	5.140	8.858	1.461
3.0L V6 SHO	1989-95	3.500	3.150	4.330	2.516	2.047	5.780	8.660	1.307
3.2L V6 SHO	1993-95	3.620	3.150	4.330	2.516	2.047	5.780	8.660	1.307
3.4L V8 SHO	1996	3.245	3.130	4.016	2.480	1.968	5.437	8.189	1.181
3.8L V6	1982-95	3.810	3.390	4.193	2.5194 ④	2.311	5.914	9.232	1.602
3.8L V6	1997-03	3.810	3.390	4.193	2.519	2.311	6.091	9.232	1.450
4.0L V6	1990-00	3.950	3.320	4.760	2.244	2.126	5.748	8.858	1.442
4.5L Ford Racing	③	4.080	3.500	4.469	2.749	2.100	6.088	9.232	③
200 I-6	1963-83	3.680	3.126	4.080	2.249	2.124	4.715	7.808	1.511
250 I-6	1969-80	3.680	3.910	4.080	2.399	2.124	5.880	7.808	—
240 I-6	1965-72	4.000	3.180	4.480	2.399	2.123	6.795	10.000	1.605
300 I-6	1965-96	4.000	3.980	4.480	2.399	2.123	6.210	10.000	1.757
221 V8	1962-63	3.500	2.870	4.380	2.249	2.123	5.155	8.206	1.595
255 V8	1979-82	3.680	3.000	4.380	2.249	2.123	5.155	8.206	1.600
260 V8	1962-64	3.800	2.870	4.380	2.249	2.123	5.155	8.206	1.600
289	1963-68	4.000	2.870	4.380	2.249	2.123	5.155	8.206	1.605
302	1968-96	4.000	3.000	4.380	2.249	2.123	5.090	8.206	1.605
302 BOSS	1969-70	4.000	3.000	4.380	2.249	2.123	5.150	8.201-8.210	1.530
302 Ford Racing	③	4.000	3.000	4.380	2.249	2.123	5.150	8.201-8.210	③
351W	1969-70	4.000	3.500	4.380	3.000	2.311	5.956	9.480	1.769
351W	1971-96	4.000	3.500	4.380	3.000	2.311	5.956	9.503	1.769
351 Ford Racing	③	4.000	3.500	4.380	2.749	2.311	5.956	9.503	③
351 Ford Racing	③	4.000	3.500	4.380	2.249	2.311	5.780	9.206	③
351C * BOSS	1970-74	4.000	3.500	4.380	2.749	2.311	5.780	9.206	1.647
351M	1975-85	4.000	3.500	4.380	3.000	2.311	6.580	10.297	1.947
400	1971-81	4.000	4.000	4.380	3.000	2.311	6.580	10.292-10.302	1.647
352	1960-66	4.000	3.500	4.630	2.749	2.438	6.540	10.170	1.825
390	1961-71	4.050	3.780	4.630	2.749	2.438	6.489	10.170	1.775
406	1962-63	4.130	3.780	4.630	2.749	2.438	6.489	10.170	1.745
410	1966-67	4.050	3.980	4.630	2.749	2.438	6.489	10.170	1.674
427	1963-68	4.230	3.780	4.630	2.749	2.438	6.489	10.170	1.752
428	1966-70	4.130	3.980	4.630	2.749	2.438	6.489	10.170	1.674
429 STD	1968-73	4.360	3.590	4.900	3.000	2.500	6.605	10.300 (1968-70)	1.890
429 STD	1968-73	4.360	3.590	4.900	3.000	2.500	6.605	10.310 (19701/2-71)	1.890
429 CJ/SCJ	1969-70	4.360	3.590	4.900	3.000	2.500	6.605	10.322 (1972-73)	1.890
429 BOSS (S)	1969	4.360	3.590	4.900	3.000	2.500	6.549	10.300	1.926
429 BOSS (T)	1969-70	4.360	3.590	4.900	3.000	2.500	6.605	10.300	1.870
460/460 Ford Racing	1969-96	4.360	3.850	4.900	3.000	2.500	6.605	10.322 (1972-96)	1.756

① Car (EAO)
② Ranger/Bronco II
③ Non-production blocks. Dimensions for reference
④ 3.8L SC #1-2-3 – 2.5190", #4 – 2.5096"
⑤ Sport 2000 – 1.6395"
⑦ 1997 – 5.482"
⑧ 1997 – 1.181"

NOTES:
- All 4-cylinder (except 1.6L Kent) and all V6 engines are metric. Dimensions shown in inches.
- 3.9L V8 used in the Thunderbird and Lincoln LS is based on the Jaguar® V8 design.
- 6.0L V8, 6.4L V8 and 7.3L V8 – ITEC® Powerstroke.

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

BASIC ENGINE DIMENSIONS (INCHES)
Current Production Gasoline Engines

DISPLACEMENT	YEARS	BORE	STROKE	BORE SPACING	MAIN JOURNAL DIA.	ROD JOURNAL DIA.	CON ROD LENGTH (MEAN)	DECK HEIGHT	PISTON COMP HT
2.0L I-4 Duratec®	2005-TBD	3.445	3.272	3.780	2.047	1.850	5.758	8.540	1.122
2.3L I-4 Duratec®	2001-07	3.445	3.701	3.780	2.047	1.968	6.094	9.094	1.122
2.5L V6 Duratec®	1999-07	3.215	3.130	4.016	2.480	1.968	5.437	8.189	1.181
3.0L V6	1986-07	3.504	3.150	4.330	2.519	2.126	5.532	8.661	1.535
3.0L V6 Duratec®	1997-07	3.504	3.130	4.016	2.480	1.968	5.437	8.189	1.181
3.5L V6 Duratec®	2006-07	3.642	3.413	4.173	2.658	2.205	6.011	8.970	1.240
3.9L V6	2004-07	3.810	3.465	4.193	2.519	2.311	6.091	9.232	1.411
3.9L V8 ①	2000-02	3.386	3.346	3.858	2.441	2.205	6.115	8.880	1.211
3.9L V8 ①	2002-07	3.386	3.346	3.858	2.441	2.087	6.115	8.880	1.211
4.0L V6	1997-07	3.950	3.320	4.760	2.244	2.126	5.748	8.858	1.440
4.2L V6	1997-07	3.810	3.740	4.193	2.519	2.311	6.091	9.232	1.273
4.6L V8	1991-07	3.552	3.543	3.937	2.657	2.086	5.933	8.937	1.221
5.0L V8	②	3.700	3.543	3.937	2.657	2.086	5.933	8.937	1.221
5.4L V8	1997-07	3.552	4.165	3.937	2.657	2.086	6.658	10.079	—
6.8L V10	1997-07	3.552	4.165	3.937	2.657	2.086	6.657	10.079	1.221
6.0L V12	1999-07	3.504	3.130	4.016	2.657	1.968	5.437	8.189	1.181

① 3.9L V8 used in the Thunderbird and Lincoln LS is based on the Jaguar® V8 design
② Aftermarket from Ford Racing

BASIC ENGINE DIMENSIONS (INCHES)
North American Diesel Engines

DISPLACEMENT	YEARS	BORE	STROKE	BORE SPACING	MAIN JOURNAL DIA.	ROD JOURNAL DIA.	CON ROD LENGTH (MEAN)	DECK HEIGHT	PISTON COMP HT
6.0L V8 ①	2003-07	3.740	4.134	4.567	3.122	2.717	7.130	11.024	2.0669
6.4L V8 ①	2008	3.878	4.134	4.567	3.189	2.835	7.130	11.024	2.0669
7.3L V8 ①	1999-03	4.110	4.180	5.236	3.543	2.499	7.130	11.400	2.1417

① ITEC® Powerstroke



"Powering Gittin's '10 Mustang is a Ford Racing Aluminator long-block, complete with a Cobra rotating assembly, forged steel eight-bolt crankshaft, forged aluminum pistons, '03-'04 Cobra cylinder heads and camshafts … Fitted with a Ford Racing/Whipple intercooled supercharger system, the 4.6L V-8 puts 680 horsepower and 650 lb-ft torque. According to (Ian) Stewart (AutoSport Dynamics), drifting puts more stress on engines than any other motorsport with the exception of NASCAR. Typically, the motor is run at or near redline throughout the entire course, which can be especially hard on the motor's valvetrain. 'Thankfully, the Ford Racing engine we use can handle that type of abuse,' Stewart told us. 'What's more impressive is that it's a straight up crate engine that anyone can buy without any additional internal modifications. That really is a testament to how good those engines are, straight out of the box from Ford Racing.'"

Modified Mustangs & Fords

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE INSTALLATION AND TUNING TIPS

Performance engine durability is dependent on several supporting systems including the cooling system, fuel delivery system, ignition system and oiling system. If the support systems are not adequate, poor engine performance and possible engine failure could result.

OILING SYSTEM CONSIDERATIONS/ COMMON PROBLEMS

- Priming the oiling system before starting a new engine is crucial to engine life. This is important on initial start-up of a new engine and if a used engine has not been run for extended periods of time.
- Does the oil pan have adequate capacity? Most performance vehicles require a 7 qt. minimum capacity. All engines will benefit from increased oil pan capacity.
- Does the oil pan have proper oil control baffling for the vehicle's braking, acceleration and cornering capabilities? Road race cars need oil control in four directions: braking, acceleration, LH cornering and RH cornering. Drag race cars need oil control in two directions: braking and acceleration. Baffles must be designed to keep oil over the pickup screen at all times.
- Is the pickup screen the proper distance from the bottom of the oil pan? If the oil pickup screen is too close to the bottom of the oil pan, it can cause cavitation. If it is too far away, it will cause the pump to draw air and minimize lubrication capacity. The pickup screen should be located .250" to .375" from the bottom of the pan. Does the design of the screen on the pickup tube create restrictions? We have seen some pickup tube screen designs that restrict oil flow as much as 75%. Wire mesh is good. Perforated metal is usually restrictive. Measure the wire size and calculate the flow area. Most aftermarket screens have less flow area than stock screens.
- If using a remote oil filter mount or oil cooler, make sure that all of the components are large enough to eliminate any restrictions to oil flow. Many Cobra replica kit cars use components that are too restrictive.
- Undersize oil lines commonly restrict oil flow.
- The more bends/turns in an oiling system, the more restrictions are created.
- Poorly designed remote filter mounts and adapters can create restrictions.
- Be sure that the oil cooler flows enough oil to meet the engine's requirements.
- Never reuse a used oil cooler. Debris gets trapped and cannot be cleaned out.
- Poorly designed oil filters can cause a restriction.
- Many oil systems only flow one way. Connecting the remote oil filter or oil cooler lines backwards can cause engine damage/failure.

IGNITION SYSTEM CONSIDERATIONS/ COMMON PROBLEMS

- The ignition system must deliver a properly timed spark. There are a lot of factors that determine when the spark should be delivered. The most common factors include: compression ratio, fuel quality, fuel octane rating, combustion chamber design, engine operating temperature, power adders such as NOS or supercharger, inlet air temp, altitude and load.
- Avoid too much or too little timing for your engine combination.
- Avoid hooking up the vacuum advance to intake manifold vacuum instead of ported vacuum.
- Avoid inductive crossfire created by improper plug wire routing. Separate plug wires on cylinders that fire in sequence.
- Improper timing can damage pistons, rod bearings, head gaskets and many other engine parts.
- Typical total mechanical advance timing at 4000 rpm for Ford Racing Performance Parts crate engines: 5.0L: 36° to 38°, 347/351: 34° to 36°, 392/460/514: 30° to 32°.

FUEL DELIVERY CONSIDERATIONS

- Size of fuel pump, size of fuel line, fuel pump placement, fuel filter placement, fuel filter size, injector size, fuel rail size, fuel pressure, jet size and baffling in the fuel tank.
- Does the fuel system maintain full pressure at peak engine horsepower in high gear?

Altitude, air temperature and fuel characteristics including quality, specific gravity and octane rating will affect your jetting requirements. Engine efficiency and Brake Specific Fuel Consumption (BSFC) also have an effect. Here are some examples of a Holley® 750 CFM 4V.

Octane	Temp.	Altitude	Jetting Front	Jetting Rear
94	80 F	0 ft.	81	86
Aviation 100LL	80 F	0 ft.	81	84
110 Race	80 F	0 ft.	78	83
94	80 F	3000 ft.	76	81
94	80 F	6000 ft.	73	77
94	40 F	0 ft.	84	89
94	120 F	0 ft.	78	83

As you can see by these examples, jet requirements can vary a lot depending on fuel, altitude and temperature. Oxygenated fuels are available in some states and can dramatically affect your jetting requirements. Make sure you get your jetting correct. Aviation fuel is lighter and will require richening an engine in relationship to its requirement with pump gas. We have found in the dyno testing of our crate engines that 1 point richer on air/fuel ratio equals only a few percent less power. Running an engine as lean as possible produces the best power but also increases combustion temperatures and the chances of engine damage.

COMMON PROBLEMS WITH FUEL DELIVERY SYSTEMS

- Do not mount an EFI electric fuel pump so it has to draw fuel from the tank. This creates negative pressure in the fuel line allowing the fuel to boil at a lower temperature.
- The pump must be mounted in the tank or in a location so that it is gravity fed.
- If the fuel rail is too small and you have large injectors, this can create a pulse in the fuel rail allowing fuel starvation on some cylinders.
- Fuel should be pushed through the fuel filter. Pulling fuel through a filter can cause cavitation. If a filter is to be used on the inlet of a rail-mounted fuel pump, a filter rating of 160 microns MINIMUM should be used.
- It takes approx. 1/2 lb of gasoline to support 1 hp. This is commonly referred to as a .5 BSFC. You should always err in the safe direction of larger when sizing your injectors and fuel pump.

COOLING SYSTEM CONSIDERATIONS/ COMMON PROBLEMS

- Higher horsepower requires more cooling capacity.
- When the fill point of the cooling system is not the highest point, air pockets are created. The air pockets then create hot spots, and the hot spots promote improper combustion, which can cause engine failure.
- Improper pulley size makes the fan and water pump turn too slow or too fast. Production water pumps are normally run at 20% over engine speed and do not perform well over 5000 engine rpm. Underdrive pulleys generally reduce water pump speed to 85% of engine rpm and may not provide enough water flow to cool the engine.
- The radiator must have enough area to dissipate the heat being generated by the engine.
- If the fan size is too small, it will not move enough air across the radiator so it can properly dissipate the heat being generated. Fan shrouds increase the effectiveness of the fan significantly.
- Radiator location can affect airflow through the radiator at different vehicle speeds.

FLYWHEEL, CONVERTER AND TRANSMISSION PROBLEMS

- Installing the wrong flywheel for the balance factor of the engine will cause vibration and eventually damage the engine.
- Wrong length input shaft or "stack-up height" can force the crank forward, damaging the engine thrust bearing.
- Improperly installing the torque converter can force the crank forward, damaging the engine thrust bearing. This is most commonly caused by improperly locating the torque convertor drain plug in the flexplate.
- If the torque converter balloons, it can force the crank forward, damaging the engine thrust bearing and the transmission. Most high-performance torque converters have anti-ballooning features.
- Damage to the thrust bearing can happen in seconds!

MISCELLANEOUS PROBLEMS THAT CAN DAMAGE AN ENGINE

- Dropping nuts, bolts, washers or foreign materials down the intake. We have seen this more than once.
- Reusing an intake off an engine that had broken parts in a cylinder. The parts can get bounced up into the intake manifold, carburetor or air cleaner (pieces of piston or piston rings, etc.). When you put your used intake on your new engine and start it, the pieces are drawn in and damage your engine.
- Bead-blasting an EFI intake. You will NEVER get all of the blasting media out. When the engine is started, it draws the blasting media into the cylinders, destroying the engine.
- Improperly torquing fasteners when installing new parts to your engine. Over-torquing of the intake manifold bolts to the cylinder head on 302 and 351W engines can cause head gasket sealing problems.
- Installing distributor gears at the incorrect height, or using gears made of the wrong material. We have seen this a lot on remanufactured distributors as well as popular aftermarket manufacturers of distributor assemblies. Use cast iron gears for cast iron flat tappet cams, and steel gears for steel hydraulic roller cams.

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See pages 3-9 for important safety, emissions and warranty information.

ENGINE DYNAMOMETER TESTING BASICS

TYPES OF ENGINE DYNAMOMETERS

There are many types of dynamometers for testing engines: Water Brake, Eddy-Current, Electric…just to name a few. Depending on availability and engine application, Ford Racing utilizes any of those mentioned. The basic function of each of these dynamometers (referred to as dynos from this point forward) is the same. Each applies a different method to absorb the energy output of the engine. The engine output is measured as torque (work) and power is calculated. The energy produced by the engine is absorbed by the dyno and eventually dissipated as heat. Dynos measure this engine output over a range of engine conditions that vary with speed and load. Temperature, pressures, air fuel ratio, water, oil, fuel and airflow measurements are elements of the test cell. The accurate measurement of these parameters is just as vital to good testing as the dyno itself. The test cell that houses a dyno can vary widely. Conditioned airflow, exhaust evacuation and fuel delivery must be adequate for the power level of the engine tested. Shortfalls in any of these areas can impact the integrity of the test.

Ford Racing tests our crate engine offerings on any of the above-mentioned types of dynos. The type depends on test cell availability and type of engine application (street, sealed circle track, etc.). The engine is directly coupled to the dyno via a prop shaft. This type of testing yields brake power and torque. Test results are brake because measurements are taken directly from the crankshaft output.

Water brake dynos absorb energy by pumping water through various orifices. Speed and load are controlled through a feedback loop of inlet and outlet valves. Water brake dynos are typically capable of absorbing very high engine outputs and rpm.

Eddy-current dynos rotate a disc through a magnetic field. This magnetic field can be varied in strength to control the rpm of the disc. These dynos are desirable for engine development due to very good rpm control.

Electric dynos rotate a generator to absorb engine output; this yields an electric output that can be accurately measured. Typically, electric dynos can be used to spin a non-firing engine and measure pumping losses and friction. Those types of losses are difficult to ascertain in conventional dyno testing.

METHODS OF TESTING

Once the engine is installed in a test cell, and all desired operating parameters are instrumented, testing can begin. The dyno is capable of absorbing an infinite number of operating conditions ranging from idle to WOT (wide open throttle) and idle rpm to rpm's beyond peak horsepower. In cases where the dyno is operated manually, the operator will set the rpm value via a controller. The operator then opens the throttle via a throttle actuator and applies load to the dyno. As the throttle is opened further, the dyno will control the rpm to the set point and the load will increase until full throttle is reached. Many types of testing exist for evaluating engine performance. Crate engine testing consists of power development, durability, idle stability, etc.

POWER TESTING

Methods for performing power tests or power runs vary by dyno facility and engine application. Acceleration tests (sometimes referred to as ramp tests) are controlled completely by dyno software through the dyno controller and throttle actuator. The rpm and transient times are programmed by the operator and, once set, the controller takes the engine through the test. These tests typically do not let the engine stabilize at any given speed and data is collected throughout the ramp. For example: The test would begin at idle. Slowly the throttle will be opened and rpm controlled to the first chosen rpm test point. Eventually the throttle will reach WOT. From then, the rpm will increase at a given rate of rpm/time until the maximum test rpm is reached. Test data is recorded throughout the entire run. Finally the controller will close the throttle and return the engine to idle.

Another method of power testing is the step method. This can be controlled manually or by an automated test where the dyno software controls the engine operation. The dyno controller is set to the first rpm test point and the throttle actuator is slowly opened to the full throttle point. The controller will maintain the rpm of the engine to the set point. In the manual mode, the operator will observe the data until stable and then record. In automated mode, the dyno will hold the throttle and rpm for a set period of time and automatically record the data. In either case, this testing provides good steady readings and makes for good repeatable runs. The above procedure will be repeated for all desired rpm test points.

Results of power testing are used in the design of crate engine packages and for marketing/sales. For further information on interpreting results see article on "Correction Factors, Observed and Corrected Horsepower and Torque."

DURABILITY TESTING

Durability testing varies by engine application and configuration. The type of engine and where it will be used can influence the type of durability testing greatly. For example, durability testing criteria for a sealed circle track crate engine will be determined by minimum and maximum track conditions. Durability testing for a street application crate engine will be determined by peak torque and horsepower for the given components. Testing conditions are typically WOT or high-load conditions and variable rpm to cover as wide of a range as possible. In short, durability testing criteria vary, but the goal is the same. The goal is to produce an accelerated wear condition that exceeds the normal application of the engine as designed.

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ENGINE TECH TIPS

CORRECTION FACTORS, OBSERVED AND CORRECTED HORSEPOWER AND TORQUE

THE NEED FOR CORRECTED TEST RESULTS

The main reason for a correction factor is the ability to compare testing performed under different atmospheric conditions. The correction factor will contain a temperature, barometric pressure and an efficiency percentage. The temperature and barometric pressure have significant impact on the performance of an engine. Also, to a lesser degree, humidity can affect the performance. Some dyno facilities have controlled atmospheric chambers to condition air to a desired temperature, humidity and barometric pressure. These test cells are very sophisticated and usually booked with production, emission, cold start and hot test work. The test cells with these chambers can easily cost several hundred thousand. Considering these challenges, it becomes evident that there is a need to be able to test engines under observed operating conditions and correct the results to a standard set of conditions.

SOME DEFINITIONS

Observed Operating Conditions are measured near the entry of the carburetor or inlet air system of the engine. These conditions include inlet air temperature, wet bulb temperature and actual barometric pressure.
Observed Torque is the measured torque value while the engine is running. It typically uses a calibrated load cell. This load cell measures the work the engine is doing in real time. The observed torque value is then used in calculating the observed horsepower value.
Observed Horsepower represents how fast the work (generated by the engine) is being done. This is calculated by the following formula: (observed torque * rpm)/5252.
Observed Barometric Pressure is atmospheric pressure measured near the engine air inlet.
Observed Inlet Air Temperature is self-explanatory.
Wet Bulb Temperature is the temperature achieved by evaporating water into the observed inlet air. This is accomplished by using a wick with one end in a vessel containing water and the other connected to a thermometer or thermocouple. This reading is used in calculating vapor pressure, humidity and, ultimately, correction factor.
Corrected Torque is the measured torque times the correction factor.
Corrected Horsepower is the measured horsepower times the correction factor.
Corrected Barometric Pressure is the observed barometric pressure minus the corrected vapor pressure.
Standard Barometric Pressure is stated in the definition of the correction factor.
Load Cell is an electronic device capable of measuring force.
Brake Horsepower is useful power determined from the engine (no other power train losses); can be observed or corrected.

BASIC ENGINE PERFORMANCE AND ATMOSPHERIC CONDITIONS

Engines utilize fuel and air, and apply a form of combustion to convert the power stored in fuel into usable work. The air contains oxygen; this is the element that supports the combustion process. Cool dry air contains more oxygen molecules within a constant volume and pressure. As barometric pressure increases, additional oxygen molecules are present (maintaining a constant volume).

For example, if an engine was tested on a cool January day where the barometric pressure was relatively high, observed engine performance will be better than the same engine tested on a hot, muggy August day when a storm was coming in. Also, engine tests performed in higher altitudes have lower observed barometric pressure and engine performance is lower.

CORRECTION FACTORS

Several correction factors exist and this article will deal with two of them.

(1) SAE J1349, June 1990 Data corrected to 77° F and 29.31 in Hg 85% efficiency.
(2) SAE J607, Data corrected to 60° F and 29.92 in Hg.

SAE J1349

This formula utilizes the observed inlet air temperature and wet bulb readings to calculate saturated, current and corrected vapor pressure. The corrected vapor pressure is subtracted from the observed barometric pressure. It is subtracted because this pressure is due to water vapor in the air. This yields corrected barometric pressure.

The conditions for correction are 77° F and barometric pressure of 29.31 inches of mercury. Once the corrected barometric pressure is calculated and the observed inlet air temperature is known, those values are plugged into the following formula. The correction factor formula is:

C.F. = 1.18 #[(29.31/Corrected Barometric Pressure) * {(Observed Inlet Air Temp+460)/(537)} ^.5]-.18

SAE J607

This formula utilizes the observed inlet air temperature and wet bulb readings to calculate saturated, current and corrected vapor pressure. The corrected vapor pressure is subtracted from the observed barometric pressure. It is subtracted because the pressure is due to water vapor in the air. This yields corrected barometric pressure. The conditions for correction are 60° F and barometric pressure of 29.92 inches of mercury. Once the corrected barometric pressure is calculated and the observed inlet air temperature is known, those values are plugged into the following formula. The correction factor formula is:

C.F. = [(29.92/Corrected Barometric Pressure) ^1.2 * {(Observed Inlet Air Temp+460)/(520)} ^.6]

SUMMARY

Once a correction factor is calculated, the observed numbers are multiplied by it. These are the "corrected values." Undoubtedly, the best scenario is to test under the exact same conditions each time. If that is not achievable, a good rule of thumb is that engines corrected to the SAE J607 standard will yield corrected torque and power numbers approximately 4% higher than those corrected to SAE J1349. Unfortunately, SAE J607 conditions are not very realistic. The most commonly accepted standard is the SAE J1349. This corrects to a more practical set of atmospheric conditions and utilizes coefficients to compensate for an 85% mechanical efficiency. Please note temperature is converted Rankin degrees in both formulas.

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

4.6L ALUMINATOR CRATE ENGINE



4.6L DOHC ALUMINATOR LONG BLOCK NATURALLY ASPIRATED

M-6007-A46NA*

- 4.6L (281 cubic inches)
- 10:1 compression ratio (nominal)
- Forged pistons
- Forged H-beam connecting rods
- Forged steel crankshaft
- Uses M-6010-A46NA Block
- Includes Blue Cam Covers M-6582-A54
- Assembled long block with 2003-2004 Mustang Cobra cylinder heads and camshafts
- Includes 2003-2004 Mach 1 timing chain cover, crankshaft damper, water pump, Cobra windage tray and oil pan
- Fits 1999-2001 Mustang Cobra and 2003-2004 Mach I with manual transmission
- 1999-2001 Cobra may require timing cover change
- Built with all **NEW PARTS**
- Does not include oil cooler/oil filter adapter
- Built with current available parts. Photos and specs may vary
- Shipping weight approximately 500 lbs
- Shown with Coil Covers M-6067-A, sold separately
- Requires 8-bolt flywheel
- See our **NEW** Aluminator Accessory Drive Kit M-8600-A46NA to complete your engine

See Also...
- Crate Engine Warranty
- Engine Tips & Specs

ALUMINATOR ACCESSORY DRIVE KIT

M-8600-A46NA*

- The easy way to dress our Aluminator short blocks or long blocks! Take the cost and guess work out of finding the correct accessories!
- Complete front end accessory drive to dress the naturally aspirated Aluminator Long Block M-6007-A46NA
- Designed for use on M-6007-A46NA, parts and routing derived from 2004 Mustang Mach 1
- Includes alternator, power steering pump, A/C eliminator, all pulleys and fasteners and belt
- Tensioner and crankshaft damper included on long block, NOT included in kit
- Will work on some 1999-present 2-valve 4.6L applications if FEAD routing is same as 2004 Mustang Mach 1



Photo may vary

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

4.6L ALUMINATOR CRATE ENGINE



4.6L DOHC ALUMINATOR LONG BLOCK SUPERCHARGED

M-6007-A46SC*

- 4.6L (281 cubic inches)
- 8.5:1 compression ratio (nominal)
- Cobra rotating assembly with forged steel 8-bolt crank
- Forged pistons with 16.0cc dish
- Forged H-beam connecting rods
- Uses M-6010-A46SC Block
- Blue Cam Covers M-6582-A54
- Assembled long block with 2003-2004 Mustang Cobra cylinder heads and camshafts
- Includes 2003-2004 Mustang Cobra timing chain cover, damper, water pump, Cobra windage tray and oil pan
- Fits 2003-2004 Mustang Cobra
- Built with all **NEW PARTS**
- Does not include oil cooler/oil filter adapter
- Built with current available parts. Photos and specs may vary
- Shipping weight approximately 500 lbs
- Shown with Coil Covers M-6067-A, sold separately
- Requires 8-bolt flywheel
- Use our **NEW** Aluminator Accessory Drive Kit M-8600-A46SC to complete your engine

See Also...
- Crate Engine Warranty
- Engine Tips & Specs

ALUMINATOR ACCESSORY DRIVE KIT

M-8600-A46SC*

- The easy way to dress our Aluminator short blocks or long blocks! Take the cost and guess work out of finding the correct accessories!
- Complete front end accessory drive to dress the supercharged Aluminator Long Block M-6007-A46SC
- Designed for use on M-6007-A46SC
- Includes alternator, power steering pump, A/C eliminator, all pulleys and fasteners and belts
- Tensioner and crankshaft damper included on long block, NOT included in kit
- Derived from 2003-2004 Mustang Cobra



Photo may vary

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



M-6007-R50 shown

5.0L "CAMMER" RACE VERSION
M-6007-R50*

NEW

- Approved for use in Grand American Road Racing, GS Class, for the 2005 Mustang
- This is the same engine as used in the FRPP Mustang FR500C Grand-Am Cup race car
- Unique FRPP 5.0L modular block
- Utilizes the same cylinder heads as used on the 2005 Ford GT
- 11.0:1 compression ratio
- Performance Intake Manifold M-9424-R50
- Twin 57 mm throttle body
- Unique camshafts designed specifically for this engine
- High-capacity "road-race" oil pan with integrated baffling and windage tray
- Additional wiring harness(es) required depending on application

Proudly Made in the USA

5.0L "CAMMER" FORD GT SPEC RACE ENGINE
M-6007-MRGT*

NEW

- 5.0L "Cammer" built by Roush-Yates® Engines
- 550 hp @ 7200 rpm
- FIA GT3 Spec engine for Matech® Concepts' Ford GT
- Requires Bosch® engine control system

Proudly Made in the USA

2.0L USAC® FOCUS MIDGET ENGINE
M-6007-USAC*

- 2.0L Zetec® race-ready engine
- Supplied with engine dress for power steering applications
- Available from select Ford Racing Distributors: Call the Ford Racing Techline at (800) FORD788



2.0L ZETEC® FOCUS ENGINE
M-6007-ZX3**

WHILE SUPPLIES LAST Limited Quantity!!

- 2.0L (121 cubic inches) 4-cylinder DOHC
- NEW complete engine, not remanufactured
- 130 hp @ 5750 rpm
- 127 lb-ft of torque @ 4250 rpm
- 9.6:1 compression ratio
- Fits 2003 Focus ZX3 and ZX5. May fit other applications with minor modification
- Complete engine assembly throttle body to oil pan including exhaust manifold, flywheel and engine injector harness
- Does not include computer or other wiring
- Shipping weight approximately 370 lbs



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CRATE ENGINES



12/12 WARRANTY See page 4 for details.

4.6L 3V 350 HP HOT ROD ENGINE
M-6007-A463NA*

Proudly Made in the USA

- Look no further for the ultimate Ford "hot rod" engine, perfect for your street rod or kit car!
- 350 hp @ 6200 rpm, 330 lb-ft @ 4500 rpm on 93 octane fuel
- Complete 4.6L 3V Mustang engine assembly
- Aluminum block and cylinder heads
- Composite intake manifold for light weight and intake charge temp reduction

- **Features:**
  - Throaty Mustang GT High Lift Hot Rod Cam Set M-6550-3V
  - Blue Powdercoated 3V Cam Covers M-6582-3VB
- Includes manual transmission engine harness and flywheel
- Includes power steering pump and pulley, A/C delete and accessory drive belt
- Weighs in at only 435 lbs dressed!
- Vehicle harnesses and PCM not included
- Use our **NEW** wiring, PCM and Installation Kit M-6017-463V for easy install in any body style

CONTROL PACK 4.6L 3V
M-6017-463V*

- Take the complexity and mystery out of wiring a late model 4.6L 3V engine!
- Designed to run the M-6007-A463NA 4.6L 3-Valve Crate Engine
- Includes PCM with Ford Racing calibration
- Includes Ford Racing Cold Air Kit M-9603-GTB minus the ProCal tool (PCM included with the control pack already contains the Ford Racing calibration)
- Includes Electronic Throttle Control accelerator pedal; eliminates throttle cable routing problems
- Unique body harness replaces stock body harness and is designed for street rod installation
- Features OBD-II diagnostic port to assist in vehicle calibration upload and problem diagnosis
- Includes unique downsized power distribution module, inlet tube, MAF sensor with bolts and EGO sensors
- PCM with Ford Racing calibration requires return-type fuel system, will not work with returnless fuel system
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTE: Installation of this PCM in a 2005-2009 Mustang GT will result in a no-start condition. See "Tip Sheets" for more tech tips about EFI.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



12/12 WARRANTY
See page 4 for details.

302 CUBIC INCHES BOSS CRATE ENGINES

Proudly Made in the USA

M-6007-X302B* B303 Camshaft – Manual transmission
M-6007-X302E* E303 Camshaft – Auto or manual transmission

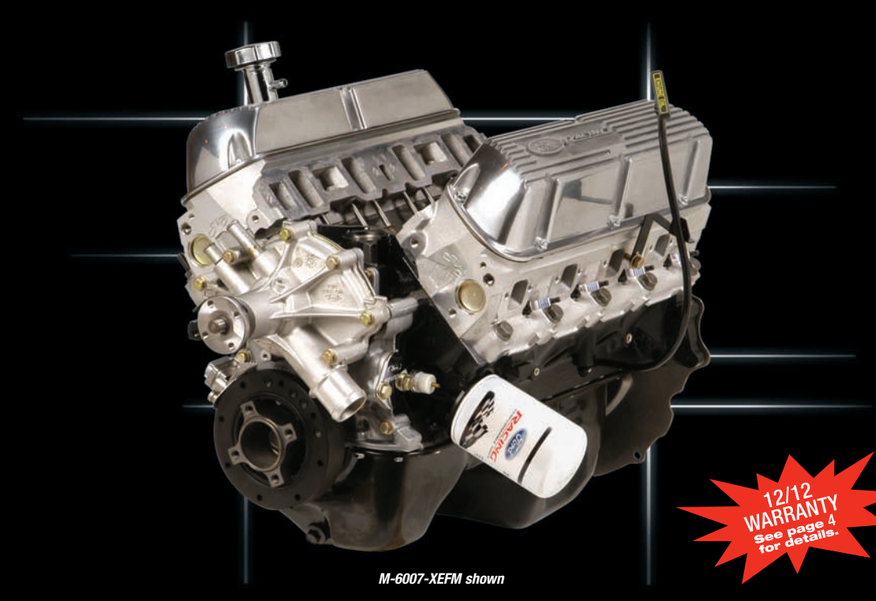
- New BOSS 302 crate engines feature race-quality components at entry level pricing
- Utilizing all forged internals, the X302E and X302B crate engines are an excellent value and a solid foundation for any performance combination including forced induction
- The best bang-for-the-buck in Ford small block crate engines!
- 302 cubic inches
- 345 hp with M-6250-B303 Camshaft, 340 hp with M-6250-E303 Camshaft, headers and 65 mm throttle body (not included)
- 9.0:1 compression ratio (nominal)
- Forged pistons
- Forged steel connecting rods
- **BOSS 4-bolt Main Block M-6010-BOSS302**
- Hydraulic Roller Camshaft M-6250-B303, .480" lift intake and exhaust, duration at .050" is 224 degrees intake and exhaust
- Double Roller Timing Chain Set M-6268-A302
- Forged steel crankshaft
- Rear sump pan fits most Fox body cars
- Ford Racing Aluminum GT-40 Cylinder Heads M-6049-X306 with 1.94" intake valves and 1.54" exhaust valves
- Roller Rocker Arms M-6564-B351
- Built with all **NEW PARTS**
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required

See Also...
- Crate Engine Warranty
- Engine Tips & Specs

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:
- This engine has a rear sump oil pan and pickup, timing cover and reverse rotation water pump and EFI valve covers
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most standard rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of mechanical fuel pump
- A reverse rotation water pump is installed on the engine. Other applications may require different water pumps and timing chain covers found on page 131
- The Valve Covers M-6582-BOSS302 should fit most non-EFI applications, optional valve covers (sold separately) are available on pages 215-219
- The Damper Assembly M-6316-C351 (counterweight removed) may require a spacer for pulley alignment, see page 135
- The Flywheel included M-6375-D302 should work for most 157-tooth manual transmission applications. For other transmission applications use the proper neutral balance flywheel, see pages 166-167
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order)
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately 425 lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CRATE ENGINES



M-6007-XEFM shown

12/12 WARRANTY
See page 4 for details.

302 CUBIC INCHES 340 HP CRATE ENGINE

NEW

Proudly Made in the USA

M-6007-X302* E303 Camshaft – Automatic or manual transmission

- 306 cubic inches
- 340 hp @ 5500 rpm
- Pistons 4.030"
- Aluminum Ford Racing "X" Cylinder Heads M-6049-X306 with 1.94" intake valves and 1.54" exhaust valves
- 9.0:1 compression ratio (nominal)
- 50 in/oz imbalance rotating assembly (common to 1981 and newer 302's)
- Seasoned block and precision ground crankshaft
- Production forged steel connecting rods
- New production Crankshaft 4-bolt Damper M-6316-M50
- Hydraulic Roller Camshaft M-6250-E303, .498" lift intake and exhaust, duration at .050" is 220 degrees intake and exhaust
- Double roller timing chain set
- New Dual Sump Oil Pan M-6674-A50, fits most Fox body cars
- New oil pump
- Water pump not included. Use Water Pump M-8501-G351 standard rotation applications. Water Pump M-8501-C50 for reverse rotation applications (1986-1993) Mustangs. For short serpentine or 1994-1995 Mustangs, use kit M-8501-A50. Short V-belt use Water Pump M-8501-E351S. For full details, see other water pumps and timing chain covers found on page 131
- Flywheel not included. Requires 50 in/oz imbalance flywheel M-6375-B302 (T-5) or Flexplate M-6375-A50 (AOD)
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most standard rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of a mechanical fuel pump
- Valve covers TBD (see www.fordracingparts.com)
- For other transmission applications, use the proper 50 in/oz imbalance flywheel
- Intake Gaskets M-9439-A50 required
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order)
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately 425 lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



302 CUBIC INCHES 340 HP CRATE ENGINE

M-6007-XEFMS* E303 Camshaft – Auto or manual transmission

NEW

Proudly Made in the USA

- 302 cubic inches
- 340 hp @ 5500 rpm
- 9.0:1 compression ratio (nominal)
- Neutral balance rotating assembly
- Forged steel Sportsman crankshaft
- "0" balance billet steel SFI-approved Flywheel M-6375-D302 and SFI-approved harmonic damper
- Forged pistons
- Forged steel connecting rods
- Hydraulic Roller Camshaft M-6250-E303, .498" lift intake and exhaust, duration at .050" is 220 degrees intake and exhaust
- Double Roller Timing Chain Set M-6268-A302
- Rear sump pan fits most Fox body cars
- Ford Racing Aluminum GT-40 Cylinder Heads M-6049-X306 with 1.94" intake valves and 1.54" exhaust valves
- Roller Rocker Arms M-6564-B351
- New block, oil and water pumps and oil pan
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks
- Depending on your application, a crank pulley spacer, or a different timing cover, water pump, performance oil pan and pickup may be required. See installation notes
- Call the Techline at (800) FORD788 for more information

See Also...
- Crate Engine Warranty
- Engine Tips & Specs

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:
- This engine has a rear sump oil pan and pickup, timing cover and reverse rotation water pump and EFI valve covers
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most standard rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of mechanical fuel pump
- A reverse rotation water pump is installed on the engine. Other applications may require different water pumps and timing chain covers found on page 131
- The Valve Covers M-6582-K302R should fit most 1986-1993 Mustang EFI applications, optional valve covers (sold separately) are available on pages 215-219
- The Damper Assembly M-6316-D302 (neutral balance) may require a spacer for pulley alignment, see page 135
- The Flywheel included M-6375-D302 should work for most 157-tooth manual transmission applications. For other transmission applications use the proper neutral balance flywheel, see pages 166-167
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order)
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately 425 lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CRATE ENGINES



302 CUBIC INCHES 390 HP BOSS CRATE ENGINE

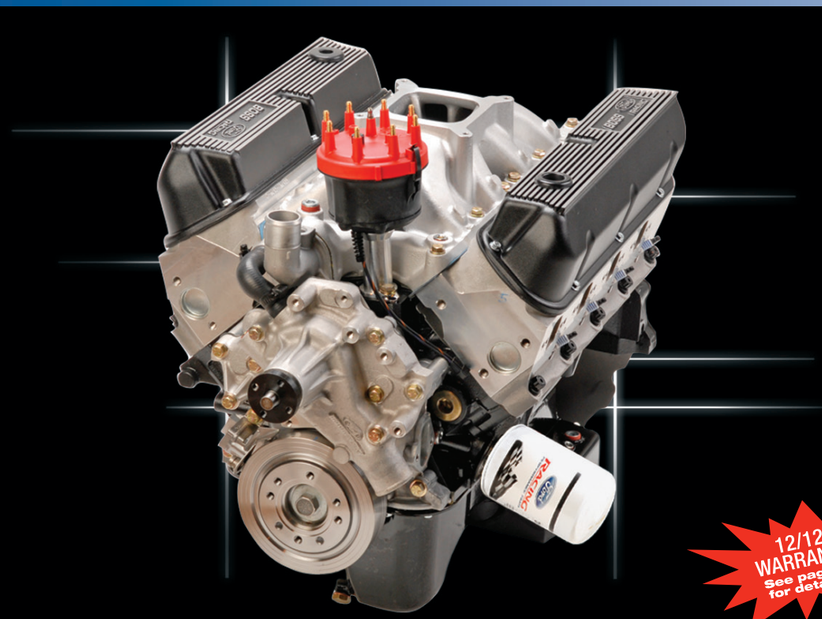
Proudly Made in the USA

M-6007-Z302Z*
- High-revving, high-efficiency small block holds true to 302 cid designation
- Utilizes long rod geometry and Beehive™ valve springs for increased high-rpm durability
- Perfect for light-weight vehicles and customer looking for the performance feel and sound achieved by smaller displacement high-powerband engines
- 302 cubic inches
- 390 hp
- 360 lb-ft of torque @ 5000 rpm
- 10.2:1 compression ratio (nominal)
- **BOSS 4-bolt Main Block M-6010-BOSS302**
- Forged pistons
- Forged steel connecting rods
- Hydraulic Roller Camshaft M-6250-Z303, .569" lift intake and exhaust, duration at .050" is 228 degrees intake and exhaust
- Double Roller Timing Chain M-6268-A302
- Forged steel crankshaft
- Rear sump pan fits most Fox body cars
- Ford Racing Aluminum "Z" Cylinder Heads M-6049-Z304DA with 2.02" intake valves and 1.60" exhaust valves
- Roller Rocker Arms M-6564-F351
- New block, oil and water pumps, oil pan and high-performance harmonic damper
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks
- See our **NEW** "Z" headers designed for an easy install in a Fox Body M-9430-ZM7993 or Ceramic Coated M-9430-ZM7993C
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required. See installation notes

See Also...
- Crate Engine Warranty
- Engine Tips & Specs

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:
- This engine has a rear sump oil pan and pickup, timing cover, regular rotation water pump and non-EFI valve covers
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most regular rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of mechanical fuel pump
- A standard rotation water pump is installed on the engine. Other applications may require different water pumps and timing chain covers found on page 131
- The Valve Covers M-6582-BOSS302 should fit most non-EFI applications, optional valve covers (sold separately) are available on pages 215-219
- The Damper Assembly M-6316-D302 may require a spacer for pulley alignment, see page 135
- The Flywheel M-6375-D302 not included should work for most 157-tooth manual transmission applications. For other transmission applications use the proper 50oz flywheel, see pages 166-167
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order)
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately 405 lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



12/12 WARRANTY
See page 4 for details.

347 CUBIC INCHES 450 HP BOSS CRATE ENGINES

Proudly Made in the USA

M-6007-Z347* Rear sump T-pan
M-6007-Z347FT* Front sump T-pan NEW

- 347 cubic inches
- 450 hp @ 6000 rpm (with headers, and a 650 cfm Holley® carburetor, not included)
- 400 lb-ft of torque @ 4900 rpm
- 9.7:1 compression ratio (nominal)
- Forged pistons
- Forged steel cap screw connecting rods
- Hydraulic roller camshaft, .580" lift intake .602" exhaust, duration at .050" is 232 degrees intake and 240 degrees exhaust
- Double Roller Timing Chain M-6268-A302
- Forged steel crankshaft
- **BOSS 4-bolt Main Block M-6010-BOSS302**
- High-performance T-sump oil pan
- Rear sump pan fits most Fox body cars
- MSD® billet distributor
- Ford Racing Aluminum "Z" Cylinder Heads M-6049-Z304DA with 2.02" intake valves and 1.60" exhaust valves
- Roller Rocker Arms M-6564-F351
- Single-plane Victor Jr.® Intake Manifold M-9424-D302
- New BOSS block, oil and water pumps, performance oil pan and high-performance harmonic balancer
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks
- See our **NEW** "Z" headers designed for an easy install in a Fox Body M-9430-ZM7993 or Ceramic Coated M-9430-ZM7993C
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required. See installation notes

See Also...
- Crate Engine Warranty
- Engine Tips & Specs

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:
- This engine has a rear T-sump performance oil pan and pickup, regular rotation timing cover and regular rotation water pump and non-EFI valve covers
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most regular rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of mechanical fuel pump
- A standard rotation water pump is installed on the engine. Other applications may require different water pumps and timing chain covers found on page 131
- The Valve Covers M-6582-BOSS should fit most non-EFI applications, optional valve covers (sold separately) are available on pages 215-219
- The Damper M-6316-C351 may require a spacer for pulley alignment, see page 135
- The Flywheel M-6375-A302 included should work for most 157-tooth manual transmission applications. For other transmission applications, use the proper 28oz flywheel, see pages 166-167
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order)
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately 465 lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CRATE ENGINES



12/12 WARRANTY
See page 4 for details.

331 CUBIC INCHES 500 HP BOSS CRATE ENGINE

Proudly Made in the USA

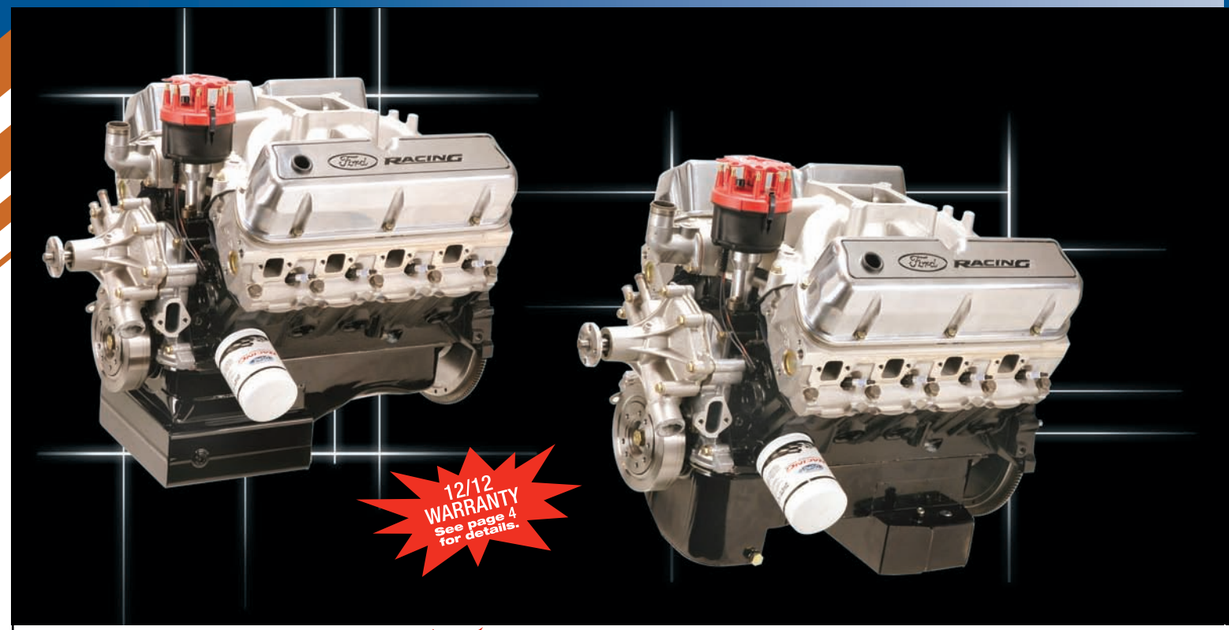
M-6007-Z331P*

- 331 cubic inches
- 500 hp @ 7100 rpm SAE correction (with long tube headers and a 750 cfm Demon® carburetor, not included)
- 388 lb-ft @ 5500 rpm
- 11.9:1 compression ratio (nominal)
- 104 r m/2 octane fuel required
- Forged pistons
- Forged steel H-beam connecting rods
- Solid lifter camshaft, .610" lift intake and exhaust, duration at .050" is 262 degrees intake and exhaust
- Double Roller Timing Chain M-6268-A302
- Forged steel crankshaft
- **BOSS 4-bolt Main Block M-6010-BOSS302**
- High-performance rear T-sump oil pan
- Rear sump pan fits most Fox body cars
- Ford Racing Aluminum "Z" Cylinder Heads M-6049-Z304P with 2.08" intake valves and 1.60" exhaust valves
- Roller Rocker Arms M-6564-F351
- New BOSS block, oil and water pumps, performance oil pan and high-performance harmonic balancer
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks
- See our **NEW** "Z" headers designed for an easy install in a Fox Body M-9430-ZM7993 or Ceramic Coated M-9430-ZM7993C
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required. See installation notes
- Race Application – No Warranty

See Also...
- Engine Tips & Specs

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:
- This engine has a rear T-sump performance oil pan and pickup, regular rotation timing cover and regular rotation water pump and non-EFI valve covers
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most regular rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of mechanical fuel pump
- A standard rotation water pump is installed on the engine. Other applications may require different water pumps and timing chain covers found on page 131
- The Valve Covers M-6582-BOSS should fit most non-EFI applications, optional valve covers (sold separately) are available on pages 215-219
- The Damper M-6316-D302 may require a spacer for pulley alignment, see page 135
- The Flywheel M-6375-D302 included should work for most 157-tooth manual transmission applications. For other transmission applications, use the proper 28oz flywheel, see pages 166-167
- Firing order 1-3-7-2-6-5-4-8
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately 465 lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



392 CUBIC INCHES 430 HP CRATE ENGINES

NEW

M-6007-D392FFT* Front sump T-pan (manual transmission)

M-6007-D392FRT* Rear sump T-pan (manual transmission)

Proudly Made in the USA

- 392 cubic inches
- 430 hp @ 5500 rpm (with headers, and a 750 cfm Holley® carburetor, not included)
- 450 lb-ft of torque @ 4000 rpm
- 9.7:1 compression ratio (nominal)
- Forged pistons
- Forged steel connecting rods
- Hydraulic roller camshaft with .563" lift intake and .584" lift exhaust, duration at .050" is 232 degrees intake and 240 degrees exhaust
- Double Roller Timing Chain Set M-6268-A302
- High-performance T-sump oil pan
- Front sump fits most passenger cars that came factory-equipped with front sump pan
- Rear sump pan fits most Fox body cars
- MSD® billet distributor
- Ford Racing Aluminum GT-40 Cylinder Heads M-6049-X306 with 1.94" intake valves and 1.54" exhaust valves
- Roller Rocker Arms M-6564-B351
- Single-plane Victor Jr.® Intake Manifold M-9424-V351
- New heavy-duty 5.8L "Sportsman" block, oil and water pumps, performance oil pan, steel billet flywheel and high-performance harmonic balancer
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required. See installation notes

See Also...
- Crate Engine Warranty
- Engine Tips & Specs

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:
- This engine has a T-sump performance oil pan and pickup, regular rotation timing cover and both regular (installed) and reverse rotation water pumps and non-EFI valve covers
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most regular rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of mechanical fuel pump
- A standard rotation water pump is installed on the engine and a reverse rotation is included loose in the box. Other applications may require different water pumps and timing chain covers found on page 131
- The Valve Covers M-6582-R302 should fit most non-EFI applications, optional valve covers (sold separately) are available on pages 215-219
- The Damper Assembly M-6316-C351 may require a spacer for pulley alignment, see page 135
- The Flywheel included M-6375-A302 should work for most 157-tooth manual transmission applications. For other transmission applications, use the proper 28oz flywheel, see pages 166-167
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order)
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately 545 lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CRATE ENGINES



392 CUBIC INCHES 475 HP CRATE ENGINES

M-6007-C392FT* Front sump T-pan (manual transmission)

M-6007-C392RT* Rear sump T-pan (manual transmission)

Proudly Made in the USA

- 392 cubic inches
- 475 hp @ 5600 rpm (with headers, and a 750 cfm Holley® carburetor, not included)
- 495 lb-ft torque @ 4400 rpm
- 10.0:1 compression ratio (nominal)
- Forged pistons
- Forged steel cap screw connecting rods
- Hydraulic roller camshaft, .580" lift intake and .602" lift exhaust, duration at .050" is 232 degrees intake and 240 degrees exhaust
- Double Roller Timing Chain Set M-6268-A302
- Forged steel crankshaft
- High-performance T-sump oil pan
- Front sump fits most passenger cars that came factory-equipped with front sump pan
- Rear sump pan fits most Fox body cars
- MSD® billet distributor
- Ford Racing Aluminum "Z" Cylinder Heads M-6049-Z304DA with 2.02" intake valves and 1.60" exhaust valves
- Roller Rocker Arms M-6564-F351
- Single-plane Victor Jr.® Intake Manifold M-9424-V351
- New heavy-duty 5.8L "Sportsman" block, oil and water pumps, performance oil pan, steel billet flywheel and high-performance harmonic balancer
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required. See installation notes

See Also...
- Crate Engine Warranty
- Engine Tips & Specs

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:
- This engine has a T-sump performance oil pan and pickup, regular rotation timing cover and both regular (installed) and reverse rotation water pumps and non-EFI valve covers
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most regular rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of mechanical fuel pump
- A standard rotation water pump is installed on the engine and a reverse rotation is included loose in the box. Other applications may require different water pumps and timing chain covers found on page 131
- The Valve Covers M-6582-R302 should fit most non-EFI applications, optional valve covers (sold separately) are available on pages 215-219
- The Damper Assembly M-6316-C351 may require a spacer for pulley alignment, see page 135
- The Flywheel included M-6375-A302 should work for most 157-tooth manual transmission applications. For other transmission applications, use the proper 28oz flywheel, see pages 166-167
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order)
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately 545 lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

REAL RACING ENGINES

Ford Racing Sealed Engines are built to professional racing series standards and deliver reliable lasting performance. These aren't built from repackaged production parts—but real racing parts like forged crank, rods and pistons with full floating piston pins. Based on premium race blocks, these engines deliver reliable and consistent performance lap after lap. These engines are accepted by the major asphalt Late Model Stock series with more sanctioning bodies and tracks adding these to their rules every year.



M-6007-S347JR*

- 350 hp
- 400 lb-ft of torque
- BOSS 302 block
- "X" aluminum head
- Competes with GMPP "603"



M-6007-D347SR

- 415 hp
- 400 lb-ft of torque
- BOSS 302 block
- "Z" aluminum head
- Competes with GMPP "604"

Need assistance getting a Ford Racing Sealed Engine approved for your Racing Series or Track? Call the Ford Racing Techline – (800) FORD788



Cris Michaud – S347JR – ACT Late Model Series Winner



M-6007-347NST

- 405 hp
- 400 lb-ft of torque
- BOSS 302 block
- "Z" aluminum head
- Approved in select NASCAR Late Model Series®



M-6007-Z351SR

- 400 hp
- 375 lb-ft of torque
- C58 race block
- "Z" aluminum head
- Fits "no stroker" crate rules

Detailed technical specs and parts list for all of the Ford Racing Sealed Circle Track engines can be found on the web at www.fordracingparts.com



Brian Campbell – D347SR – ASA Late Model Series Winner

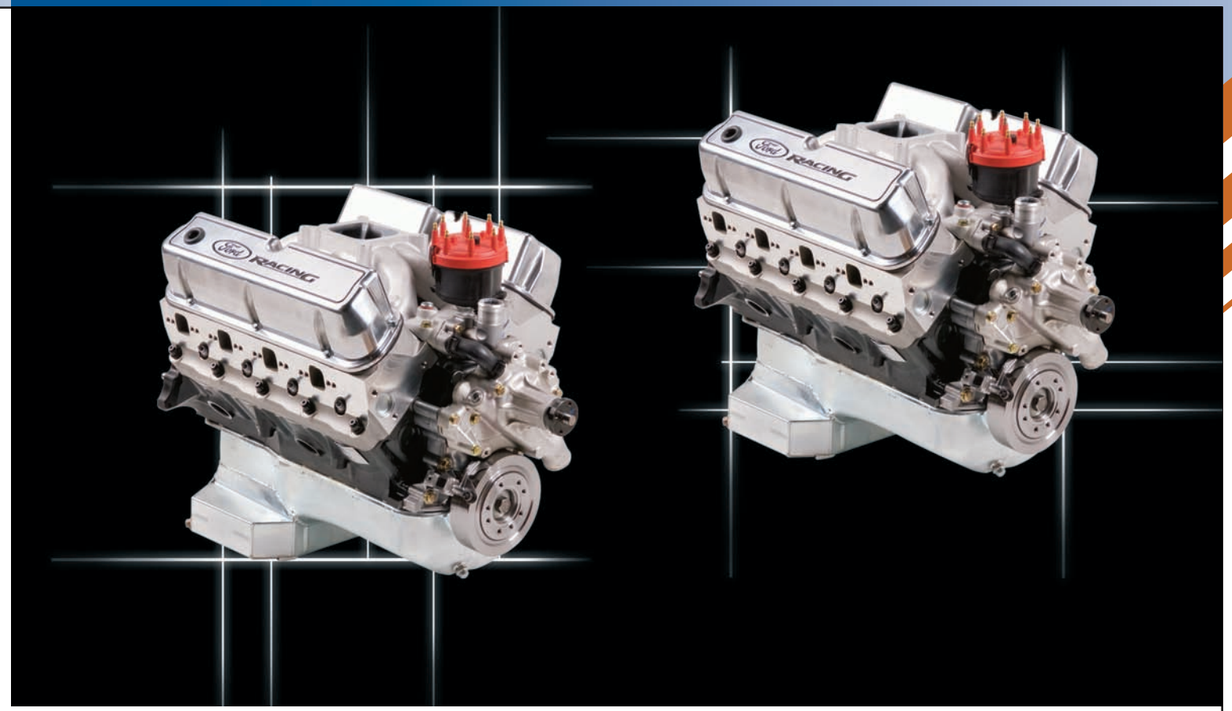
THESE ARE AMONG THE MANY SANCTIONING BODIES AND RACE TRACKS THAT HAVE ACCEPTED FORD RACING SEALED ENGINES

WISSOTA · SUPERPRO LATE MODEL SERIES · ACT · PSCA · ASA LATE MODEL SERIES America's Premier Short Track Series · STREET CAR SUPER NATIONALS Las Vegas

Race Tracks – Thunder Road Speedbowl – Caraway Speedway – Auto City Speedway – Plus many more

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

SEALED RACE CRATE ENGINES



347 CUBIC INCHES 415 HP SEALED CRATE ENGINE

Proudly Made in the USA

M-6007-D347SR*

Ford Racing Sealed Engines are built to professional racing series standards and deliver reliable lasting performance. These aren't built from repackaged production parts—but real racing parts like forged crank, rods and pistons with full floating piston pins. Based on the Ford Racing BOSS 302 block, these engines deliver reliable and consistent performance lap after lap. The D347SR is designed to compete directly with the GMPP "604" crate engine. Built for asphalt and dirt circle track racing series that require a sealed racing engine.

- 347 cubic inches
- 415 hp @ 6000 rpm (with headers, and a 650 cfm Holley® carburetor, not included)
- 400 lb-ft of torque @ 4900 rpm
- 10:1 compression ratio (nominal)
- Mahle® forged pistons with floating pins
- SCAT® forged steel cap screw connecting rods
- Hydraulic Roller Camshaft M-6250-F303, .528" lift intake and exhaust, duration at .050" is 226 degrees intake and exhaust
- Double Roller Timing Chain Set M-6268-A302
- SCAT® forged steel crankshaft
- High-performance 7-quart rear sump circle track oil pan
- MSD® billet distributor
- Ford Racing Aluminum "Z" Cylinder Heads M-6049-Z304DA with 2.02" intake valves and 1.60" exhaust valves
- 1.65:1 ratio Roller Rocker Arms M-6564-F351
- Single-plane Victor Jr.® Intake Manifold M-9424-D302
- New M-6010-BOSS302 block, oil and water pumps, performance oil pan and high-performance harmonic damper
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required

347 CUBIC INCHES 405 HP SEALED CRATE ENGINE

Proudly Made in the USA

M-6007-347NST*

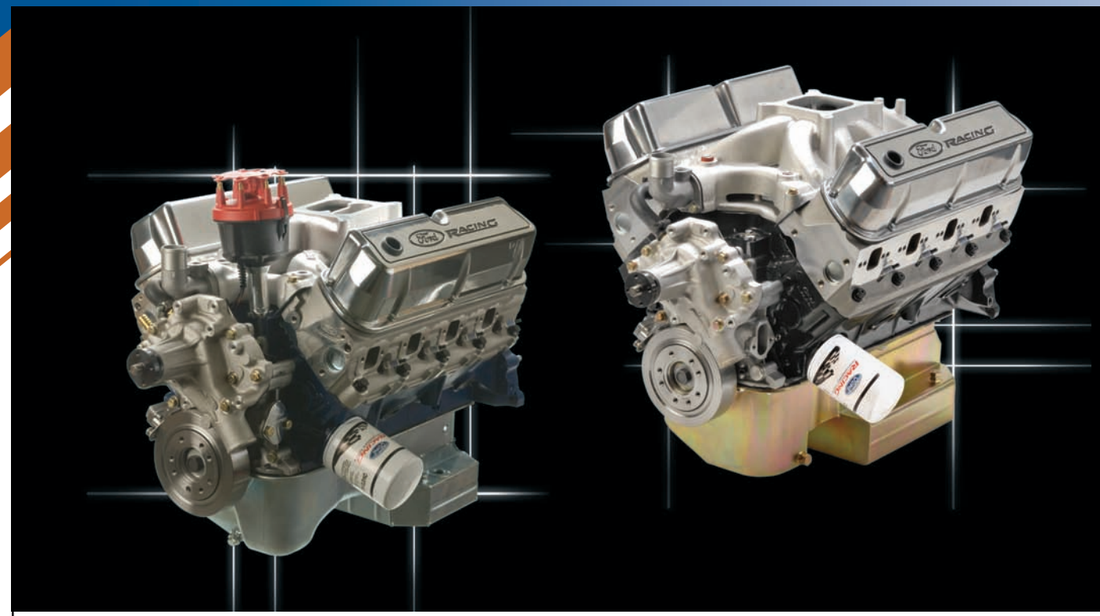
- 347 cubic inches
- 405 hp @ 6000 rpm (with headers, and a 650 cfm Holley® carburetor, not included)
- 10.0:1 compression ratio (nominal)
- Forged pistons
- Forged steel cap screw connecting rods
- Hydraulic Roller Camshaft M-6250-F303, .528" lift intake and exhaust, duration at .050" is 226 degrees intake and exhaust
- Double Roller Timing Chain Set M-6268-A302
- High-performance rear sump circle track oil pan
- Forged steel crankshaft
- MSD® billet distributor
- Ford Racing Aluminum "Z" Cylinder Heads M-6049-Z304DA with 2.02" intake valves and 1.60" exhaust valves
- 1.65 ratio Roller Rocker Arms M-6564-F351
- Single-plane Victor Jr.® Intake Manifold M-9424-D302
- New heavy-duty race block, oil and water pumps, performance oil pan and high-performance harmonic damper
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required
- Engine is sealed for circle track competition where rules allow
- Engine is internally balanced, "0" balance flywheel required
- Flywheel is not included
- Designed for use in NASCAR Late Model Series®
- Same as M-6007-D347SR except cam timing change to conform with NASCAR® rules

See Also...

- Crate Engine Warranty
- Engine Tips & Specs
- S347SR Product Information and Parts List

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

SEALED RACE CRATE ENGINES



347 CUBIC INCHES 350 HP SEALED CRATE ENGINE

Proudly Made in the USA

NEW

M-6007-S347JR*

Ford Racing Sealed Engines are built to professional racing series standards and deliver reliable lasting performance. These aren't built from repackaged production parts—but real racing parts like forged crank, rods and pistons with full floating piston pins. Based on the Ford Racing BOSS 302 block, these engines deliver reliable and consistent performance lap after lap. The S347JR is designed to compete directly with the GMPP "603" crate engine. S347JR has been approved for use in the American Canadian Tour (ACT) Late Model Series.

- Built for asphalt and circle track racing series that require a sealed or "crate" racing engine
- 347 cubic inches (4.030" bore x 3.40" stroke)
- 350 hp @ 5500 rpm (with headers, and 2V 500 cfm Holley® carburetor, not included)
- 400 lb-ft of torque @ 4000 rpm
- 9.8:1 compression ratio (nominal)
- Forged Mahle® pistons with floating pin
- SCAT® forged steel cap screw connecting rods w/bronze bushing
- Comp Cams 35-410-04 hydraulic roller camshaft .533" lift intake and exhaust, duration at .050" is 206 degrees intake and exhaust
- Double Roller Timing Chain Set M-6268-A302
- SCAT® forged steel crankshaft
- High-performance 7-quart rear sump circle track oil pan
- MSD® billet distributor
- Ford Racing Aluminum "X" Cylinder Heads M-6049-X306 with 1.94" intake valves and 1.54" exhaust valves
- 1.60:1 ratio Roller Rocker Arms M-6564-B351
- Edelbrock® Performer® RPM Air-Gap dual-plane aluminum intake manifold
- New Ford Racing BOSS 302 Block M-6010-BOSS302
- New High-volume Oil Pump M-6600-D2
- New water pump
- Ford Racing Polished Aluminum Valve Covers M-6582-E302P
- High-performance Harmonic Damper M-6316-D302
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required
- Engine is sealed for circle track competition where rules allow
- Engine is internally balanced, "0" balance flywheel required
- Flywheel not included

351 CUBIC INCHES 400 HP SEALED CRATE ENGINE

Proudly Made in the USA

M-6007-Z351SR*

Ford Racing Sealed Engines are built to professional racing series standards and deliver reliable lasting performance. These aren't built from repackaged production parts—but real racing parts like forged crank, rods and pistons with full floating piston pins. Based on the Ford Racing C58 block, this engine delivers reliable and consistent performance lap after lap. The Z351SR is designed for crate engine racing series that require stock stroke engines.

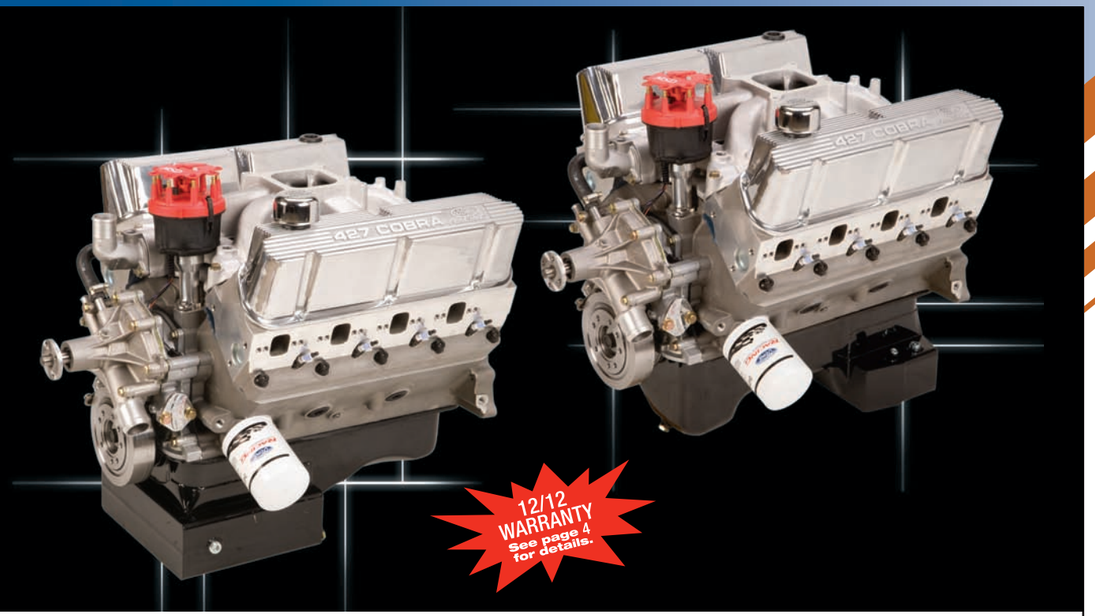
- 351 cubic inches
- 400 hp @ 5800 rpm (with headers and 650 cfm Holley® carburetor, not included)
- 375 lb-ft @ 4700 rpm
- 10.0:1 compression ratio (nominal)
- Forged Mahle® pistons
- Forged Eagle® steel connecting rods with floating pins
- Hydraulic roller camshaft, .513" lift intake and .526" lift exhaust, duration at .050" is 226 degrees intake and 228 degrees exhaust
- Double Roller Timing Chain Set M-6268-A302
- Forged Eagle® steel crankshaft
- High-performance 10-quart rear sump circle track oil pan
- MSD® distributor
- Ford Racing Aluminum "Z" Cylinder Heads M-6049-Z304DA with 2.02" intake valves and 1.60" exhaust valves
- Roller Rocker Arms M-6564-F351
- Single-plane Victor Jr.® Intake Manifold M-9424-V351
- New heavy-duty C58 351 race block, oil and water pumps and a high-performance harmonic damper
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required
- Engine is sealed for circle track competition where rules allow
- Engine is internally balanced, "0" balance flywheel required
- Flywheel is not included

See Also...

- Crate Engine Warranty
- Engine Tips & Specs
- S347JR Product Specs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CRATE ENGINES



12/12 WARRANTY
See page 4 for details.

427 CUBIC INCHES ALUMINUM CRATE ENGINES

NEW

M-6007-Z427AFT* Front sump oil pan
M-6007-Z427ART* Rear sump oil pan

Proudly Made in the USA

- 427 cubic inches
- hp TBD
- torque TBD
- 10.5:1 compression ratio (nominal)
- Forged pistons
- Forged steel cap screw connecting rods
- Camshaft TBD
- Double Roller Timing Chain M-6268-B302
- Forged steel crankshaft
- Ford Racing Aluminum 4-bolt Main Block M-6010-Z351
- High-performance oil pans
- Rear sump pan fits most Fox body cars
- CNC ported Ford Racing Aluminum "Z" Cylinder Heads M-6049-Z304P with 2.08" intake valves and 1.60" exhaust valves
- Roller Rocker Arms M-6564-F351
- New block, oil and water pumps, performance oil pan, and high-performance harmonic balancer
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required. See installation notes

INSTALLATION NOTES:

See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- This engine has a performance oil pan and pickup, regular rotation timing cover and regular rotation water pump and non-EFI valve covers
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most regular rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of a mechanical fuel pump
- A standard rotation water pump is installed on the engine. Other applications may require different water pumps and timing chain covers found on page 131
- The Valve Covers M-6582-W427P should fit most non-EFI applications, optional valve covers (sold separately) are available on pages 215-219
- The damper TBD may require a spacer for pulley alignment, see page 135
- Flywheel not included, this engine is neutral balanced
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order)
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately TBD lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



427 CUBIC INCHES 535 HP CRATE ENGINES

Proudly Made in the USA

NEW

M-6007-Z427FFT* Front sump oil pan
M-6007-Z427FRT* Rear sump oil pan

- 427 cubic inches (4.125" bore x 4.00" stroke)
- 535 hp @ 5600 rpm (STP), 505 hp @5600 rpm SAE
- 545 lb-ft @ 4500 rpm (STP), 520 lb-ft @ 4500 rpm (SAE)
- 10.4:1 compression ratio (nominal)
- Forged Mahle® pistons
- SCAT® forged steel H-beam connecting rods
- Hydraulic roller camshaft
- Intake duration 294° @ .006" lift 242° @ .050" intake
- Exhaust duration 300° @ .006" lift 248° @ .050" exhaust
- Valve lift intake .576"
- Valve lift exhaust .600"
- Double Roller Timing Chain M-6268-B302
- SCAT® forged steel crankshaft
- Ford Racing 4-bolt Main Block M-6010-BOSS35195
- High-performance oil pans
- Rear sump pan fits most Fox body cars
- Ford Racing Aluminum "Z" Cylinder Heads M-6049-Z304DA with 2.02" intake valves and 1.60" exhaust valves
- Roller Rocker Arms (1.65:1 ratio) M-6564-F351
- New block, oil and water pumps, performance oil pan and high-performance harmonic balancer
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars and trucks
- Depending on your application, a different timing cover, water pump, performance oil pan and pickup may be required. See installation notes

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- This engine has a performance oil pan and pickup, regular rotation timing cover and regular rotation water pump and non-EFI valve covers
- A different performance oil pan and pickup may be required for your application. Call the Techline at (800) FORD788 for more information
- The timing chain cover will work with most regular rotation water pumps
- Fuel Pump Eccentric M-6287-B302 installed, allows use of a mechanical fuel pump
- A standard rotation Water Pump M-8501-G351 is installed on the engine. Other applications may require different water pumps and timing chain covers found on page 131
- The Valve Covers M-6582-W427B should fit most non-EFI applications, optional valve covers (sold separately) are available on pages 215-219
- The Damper M-6316-D302 may require a spacer for pulley alignment, see page 135
- Flywheel not included, this engine is neutral balanced
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order)
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately TBD lbs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CRATE ENGINES



521 CUBIC INCHES 580 HP CRATE ENGINES

Proudly Made in the USA

M-6007-521FT* Front sump T-pan
M-6007-521RT* Rear sump T-pan

- 580 hp @ 5750 rpm
- 600 lb-ft of torque @ 4500 rpm
- 10.0:1 compression ratio (nominal)
- Forged aluminum dished pistons
- Forged steel H-beam Connecting Rods M-6200-C514
- Billet steel Mechanical Roller Camshaft M-6250-A514 (mechanical roller camshafts not recommended for street use; contact the Techline at (800) FORD788 for more information)
- High-performance front T-sump oil pan, fits most passenger cars that come equipped with front sump pans
- MSD® distributor with M-12390-H Bronze Gear
- Cast Nodular Iron Crankshaft M-6303-A514
- New heavy-duty 4-bolt Main Siamese Bore Race Block M-6010-A460
- "Super Cobra Jet" Aluminum Cylinder Heads M-6049-SCJB
- Victor® Single-Plane Intake Manifold M-9424-H429 (requires Dominator® carb)

Look at what you get:

- A 521 cubic inch engine assembly that includes the items listed above and a multi-index timing chain set, push rods, roller rocker arms, heavy-duty HV oil pump, pickup tube, high-performance oil pan, Ford Racing valve covers, aluminum front cover and water pump, high-performance damper, flywheel, spark plugs, related long block engine parts and NEW M-6010-A460 4-bolt Main Block
- Ford Racing "Super Cobra Jet" aluminum cylinder heads. They flow significantly more than production 460 heads. Combustion chamber volume is 72cc (nominal)
- Ford Racing "Super Cobra Jet" valve train includes dual-valve springs, retainers, keepers, seals and premium stainless steel swirl polished valves. Intake valve diameter is 2.20" and exhaust valve diameter is 1.76"
- Ford Racing high-performance solid roller Mechanical Camshaft M-6250-A514 provides significant horsepower increases above 3500 rpm and good low-end torque. Valve lift is .640" intake and exhaust. Duration at .050" is 254 degrees intake and 258 degrees exhaust
- Ford Racing forged aluminum dished pistons, bore size 4.390"

INSTALLATION NOTES:
See engine installation and tuning tips on page 59. Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- A different performance oil pan and pickup tube may be required for your application. Call the Techline at (800) FORD788 for more information
- The water pump will work for most 7.5L standard rotation applications
- The valve covers should work for most applications, optional valve covers sold separately, see pages 215-219
- The auto transmission flywheel should work for most C-6 automatic transmission applications. For manual transmission applications, use Flywheel M-6375-Z460
- If a mechanical fuel pump is to be used, the front cover must be changed and a fuel pump eccentric added to the front of the camshaft
- Firing order 1-5-4-2-6-3-7-8
- Built with current available parts. Photo and specs may vary
- Shipping weight approximately 715 lbs

See Also...

- Crate Engine Warranty
- Engine Tips & Specs

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

4.6L ALUMINATOR SHORT BLOCK NATURALLY ASPIRATED

M-6009-A46NA*

- Cobra rotating assembly with forged steel 8-bolt crank
- Forged H-beam connecting rods
- Forged flat top pistons
- New oil pump
- Uses M-6010-A46NA Block
- Approximately 10.0:1 compression ratio when used with 50cc heads
- Fits 1996-2001 Cobra and 2003-2004 Mach 1
- Will fit 1996-2004 Mustang GT with minor modifications
- **Built with all NEW PARTS**
- Ford Racing recommends the M-6004-A464 Camshaft Drive/Timing Kit as well as M-6049-464P and M-6050-464P cylinder heads for 1999-2001 Cobra and 2003-2004 Mach 1 applications
- Modifications may be necessary in some applications
- Requires 8-bolt flywheel
- See our NEW Aluminator Accessory Drive Kit M-8600-A46NA to complete your engine



4.6L ALUMINATOR SHORT BLOCK SUPERCHARGER

M-6009-A46SC*

- 4.6L (281 cubic inches)
- Cobra rotating assembly with forged steel 8-bolt crank
- Low-compression forged pistons with 16.0cc dish
- H-beam connecting rods
- New oil pump
- Uses M-6010-A46SC Block, the knock sensors are removed and the block is modified to accept the 2003-2004 Cobra front cover
- Approximately 8.5:1 compression ratio when used with 50cc heads
- Direct bolt in for 2003-2004 Mustang Cobras
- Front cover bolt pattern same as 4.6L iron blocks
- **Built with all NEW PARTS**
- Requires 8-bolt flywheel
- See www.fordracingparts.com for other applications



4.6L 3V ALUMINUM SHORT BLOCK FOR SUPERCHARGED APPLICATIONS

M-6009-A463SC*

- Fits 2005-2009 Mustang GT
- Forged steel 8-bolt crankshaft
- Forged steel H-beam connecting rods
- Forged aluminum 16cc dish 3-valve pistons
- New oil pump
- Uses M-6010-A46NA Block, knock sensors are not removed from the block
- Approximately 8.7:1 compression ratio when used with 50.3cc 3-valve heads
- Lower compression for supercharged applications
- **Built with all NEW PARTS**
- Will accept 3V cylinder heads
- Will not work with 2V or 4V cylinder heads
- 8-bolt flywheel required (not included)
- See www.fordracingparts.com for other applications



4.6L 2V/4V ALUMINATOR FORGED SHORT BLOCK SUPERCHARGED

M-6009-A46SCB*

- 4.6L (281 cubic inches)
- Perfect for supercharging!
- Knock sensor bosses are not removed from the cylinder block
- Low-compression forged pistons with 16cc dish
- Forged steel crankshaft
- H-beam connecting rods
- New oil pump
- Uses M-6010-A46NA Aluminum Block
- Approximately 8.5:1 compression ratio with 50cc heads
- Fits 1996-2001 Cobra and 2003-2004 Mach 1
- Will fit 1996-2004 Mustang GT with minor modifications
- **Built with all NEW PARTS**
- Modifications may be necessary in some applications
- Requires 8-bolt flywheel



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

5.4L 2V FORGED IRON SHORT BLOCK SUPERCHARGED

M-6009-C54SC2*

- Fits 1999-2004 Lightning
- 5.4L cast iron Block M-6010-M54
- Forged steel 8-bolt Crankshaft M-6303-M54
- Forged steel H-beam connecting rods
- Forged aluminum 16cc dish pistons
- Approximately 8.9:1 compression ratio when used with Lightning 2V 43.9cc heads
- **Built with all NEW PARTS**
- Will accept 2V and 4V cylinder heads
- Will not work with 3-valve cylinder heads
- Block configured for use with 1999-2004 Lightning water pump
- See www.fordracingparts.com for other applications



5.4L 4V FORGED IRON SHORT BLOCK SUPERCHARGED

M-6009-C54SC4*

- Fits 2007-2009 Mustang SVT
- 5.4L cast iron block
- Forged steel 8-bolt Crankshaft M-6303-M54
- Forged steel H-beam connecting rods
- Forged aluminum 16cc dish pistons
- Approximately 8.1:1 compression ratio when used with Mustang SVT 4V 5.4L 52.7cc heads
- **Built with all NEW PARTS**
- Will accept 2V and 4V cylinder heads
- Will not work with 3-valve cylinder heads
- Block configured for use with 2007-2009 Mustang SVT water pump
- See www.fordracingparts.com for other applications



4.6L 3V SHORT BLOCK

M-6009-463V*

- New production Mustang 4.6L 3-valve short block assembled in Ford Motor Company's Romeo Engine Plant
- Aluminum block with cast iron crankshaft
- Production connecting rods
- Production hypereutectic pistons
- Includes oil pump
- 9.8:1 compression with 3V 50.3cc cylinder heads



347 CUBIC INCHES BOSS SHORT BLOCK

M-6009-Z347*

- 347 cubic inches
- **BOSS 4-bolt Main Block** M-6010-BOSS302
- Forged aluminum .030" overbore pistons with valve reliefs for Z304, N351, GT-40 and other inline valve Windsor cylinder heads. Valve notches approximately 4cc. Check valve to piston clearance for valve lift over .500". Piston to deck .000" (nominal)
- 3.40 stroke forged steel stroker crank
- Forged steel connecting rods
- Hydraulic roller camshaft compatible
- Balanced for 28.2 in/oz damper and flywheel
- Requires special length ½" Head Bolts M-6065-BOSS or Head Studs M-6014-BOSS recommended with M-6049-X306/307/Z304DA heads
- Designed for M-6049-X306/X307/Z304DA Cylinder Heads. Not designed for production 302/351W or M-6049-Y302/Y303/X302/X303/X304/X305 Cylinder Heads
- Assembled and ready for your heads, cam and timing chain set
- Requires Head Gaskets M-6051-CP331 or M-6051-S331 or equivalent
- Photo and specs may vary



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

WE THOUGHT YOU OUGHT TO KNOW

This is not a how-to book. It's basically a listing of currently available Ford Racing Performance Parts. The pieces can be bought by professionals, professional amateurs, weekend hobbyists or rank beginners. A certain amount of automotive skill is assumed in presenting the parts. Modifying an engine, be it a complete assembly or a bare block, requires experience and know-how. If you don't know, ask someone who does. Read up and find out all you can **before** putting down your bucks for those long dreamed of pieces. And if at all possible, consult an experienced engine builder. You may find it to your advantage to have him do a portion or all of the heavy machining and wrenching.

What we have here are just a few of the key bits of information and specs. The idea is to help keep midnight thrashing to a minimum, because parts don't go together right, or there's more to a job than you imagined.

COMPRESSION RATIO

Increasing the compression ratio (CR) is often one of the first engine performance modifications. Squeezing the air-fuel mixture into a smaller space increases its temperature and ease of ignition; thus the rate at which heat is extracted from the fuel. Engineers call it "thermal efficiency." Simply put, it means that increasing the compression ratio increases horsepower.

Henry Ford's Model "T" has a CR of 3.6:1. High-performance engines operate in the area of 12.5:1. Most of today's stock production engines are about 8.5:1.

NOTE: Turbocharged engines typically have a **lower** CR than normally aspirated engines. Thus, if you add a turbo, you may want to **lower** the CR, depending on performance level.

DETONATION

Increasing the CR changes the rate at which fuel burns. Spark knock (detonation) will occur if certain modifications are not performed. Here are two of the most important:

Ignition Spark Timing—Increasing the CR requires installation of new distributor springs to change advance curve.

Fuel Octane Rating—Increasing the CR requires gasoline with a high octane rating (with anti-knock components to control detonation). This is not a problem with engines that burn alcohol, because it has a naturally high octane number. Engines that run on alcohol require a high CR to compensate for the fact that it generates less heat.

MODIFICATION TECHNIQUES

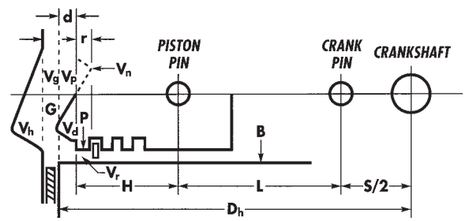
Common techniques to increase CR include:

(1) Installation of a thinner head gasket.

(2) Installation of "domed" or "pop-up" pistons. Check for adequate "piston-to-valve" clearance at TDC. Camshafts with more overlap require more clearance. A good rule of thumb is 0.080" for intakes and 0.100" for exhausts.

(3) Removal of metal from deck face of block or cylinder head. You can safely mill off 0.010" to 0.040" (0.050" max.) from most engines.

COMPRESSION RATIO CALCULATION



SYMBOL	DIMENSION	VALUE	REMARKS
B	Bore	4.000 in	B^2 = 4.000 x 4.000 = 16.000
G	Gasket Bore	4.100 in	G^2 = 4.100 x 4.100 = 16.810
P	Piston Top Land Diameter	3.965 in	P^2 = 3.965 x 3.965 = 15.721
S	Stroke	3.500 in	
S/2	Crank Throw	1.750 in	
L	Con Rod Length	6.000 in	
H	Compression Height	1.440 in	
D^h	Deck Height	9.200 in	
r	Ring-to-Top Piston	0.250 in	
d	Piston to Deck	0.010 in	$D^h - H - I - S/2$
t	Gasket Thickness	0.040 in	
V	Cylinder Volume	720.7cc	$\varpi/4 \times B^2 \times S \times 16.387$
V^t	Volume Above Top Ring	.9cc	$\varpi/4 \times (B^2 - P^2) \times r \times 16.387$
V^n	Valve Notches Volume	4.0cc	
V^d	Dome Volume	10.4cc	
V^p	Piston-to-Deck Volume	2.1cc	$\varpi/4 \times B^2 \times d \times 16.387$
Vg	Gasket Volume	8.7cc	$\varpi/4 \times G^2 \times t \times 16.387$
Vh	Volume Head	60.2cc	
V^{cl}	Volume Clearance	65.5cc	$V^t + V^n + V^p + V^g + V^h - V^d$
CR	Compression Ratio	12.0	$\frac{V + V^{cl}}{V^{cl}}$

NOTE: 1) Math reduction; $\varpi/4 \times 16.387 = 12.87$

The precise amount is limited by block deck height, casting thickness, valve-to-piston clearance, etc.

NOTE: Also modify the intake manifold to maintain port alignment.

COMPUTING COMPRESSION RATIO

Compression ratio is defined as the ratio between the Total Volume (Cylinder Volume plus Clearance Volume) above the piston at BDC and the Clearance Volume above it at TDC. Calculations for a 351 CID engine are illustrated. The formula is: CR = $\frac{V + V^{cl}}{V^{cl}}$

Pay particular attention to the following points:

Clearance Volume (V^{cl})—This is the volume above the piston (actually above top piston ring) at TDC. It consists of several small volumes.

Cylinder (Swept) Volume (V)—Determined by cylinder bore and stroke (indicated by movement of piston from TDC to BDC).

Cylinder Head (Combustion Chamber) Volume (V^h)—The irregular shape of the combustion chamber requires measurement (popularly called "cc"ing) with a glass burette and colored liquid, such as A.T. fluid. This catalog lists "nominal" values for Ford Racing heads.

Valve Notches Volume (V^n)—Fill notches with soft clay and make level with top of piston. Remove clay with small knife and drop into graduated cylinder (filled with liquid to convenient point). Note change in level of liquid (indicating volume of notches made by clay).

Domed Piston Volume (V^d)—Dome values are combination "net" values of V^d and V^n. For compression ratio calculations, they should be used as follows:

- **Pop-Up** pistons have a "positive" dome value, which reduces the volume above the piston and thus must be subtracted (see example above).
- **Dished pistons** have a "negative" dome value. It must be added to compute clearance volume.

MAKE ALL CALCULATIONS WITH ACCURATE MEASUREMENTS OF ACTUAL PARTS. CATALOG VALUES ARE "NOMINAL" SPECIFICATIONS AND MAY VARY FROM ACTUAL SIZE.

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See pages 3-9 for important safety, emissions and warranty information.

ENGINE BUILDING TIPS AND SPECS

VALVE TRAIN

When modifying production engines for performance, here are a few things to keep in mind.

CAMSHAFTS

- When replacing a cam, it's a good practice to install new related components such as a distributor gear, tappets, springs, retainers, etc. It's especially important that new tappets be installed.
- Never use hydraulic lifters with a mechanical cam or solid tappets with a hydraulic cam. The ramps are not compatible.
- Be sure your valve train can handle the timing events and lobe lift of your performance cam. Check for adequate piston-to-valve clearance, spring bind and retainer-to-valve clearance, spring bind and retainer-to-valve seal clearance.
- Be sure to use camshaft and lifter prelube when installing the cam, to prevent scoring the lobes during break-in. Engine oil by itself (regardless of quality or viscosity) is not enough! See page 84 for description of Ford Racing Prelube M-19579-A12.
- Mechanical cams require lash adjustment. If production head is designed for hydraulic cam, modification is usually required.
- Many design changes have occurred over the years, which affect the front of the block—especially the small V8s. Be sure you check items such as the cam thrust plate, cam spacers, cam gear, fuel pump eccentric, timing chain, cam gear alignment and front cover clearance.
- Refer to the Ford Racing "Camshaft Usage" chart for performance characteristics of cams based on their duration.
- Refer to the "Camshaft Specifications" chart (page 115) for detailed data on Ford Racing camshafts.

FORD RACING CAMSHAFT USAGE

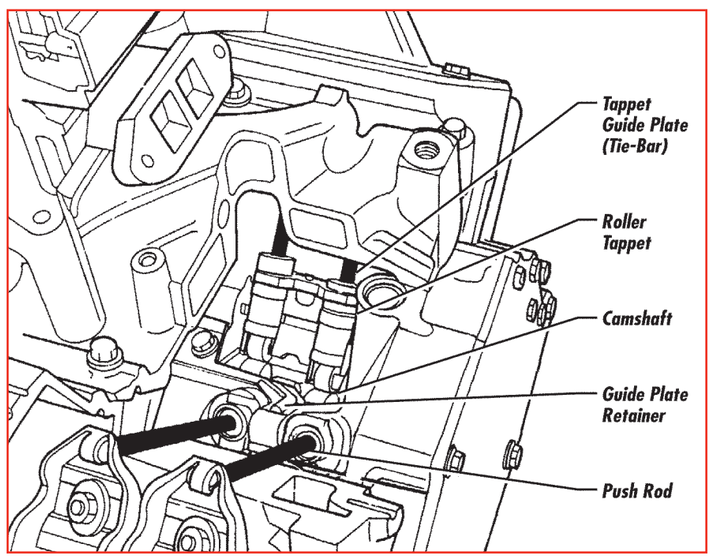
The durations shown in this chart are S.A.E. durations. The descriptions within each group of cams show performance characteristics and basic modification recommendations required to achieve desired performance.

DURATION (SAE)	PERFORMANCE CHARACTERISTICS	ENGINE/VEHICLE USAGE AND MODIFICATIONS
270-290	Good idle quality and low rpm torque.	Use with stock or slightly modified engine, stock axle gears and with A.T. or M.T.
290-300	Fair idle quality. Good low-to-mid-range torque and horsepower.	Will work with stock or modified engine. Can use stock axle gears and with A.T. or M.T.
300-320	Rough idle quality. Good mid-to-high rpm torque and horsepower.	Use with M.T. or high stall A.T. Requires improved carburetion, ignition and exhaust systems. Engine will have lower vacuum than stock.
320-340	Rough idle quality. Good mid-to-high rpm torque and horsepower. For all-out competition only.	Use with M.T. or very high stall A.T. Requires improved carburetion, ignition and exhaust systems. Engine will not provide enough vacuum for accessories. Axle gear ratios must be properly selected.

ROLLER TAPPET CAMSHAFT

Most engines are designed with hydraulic or mechanical flat tappet camshafts, which meet the needs of regular production engines that seldom see 6000 rpm. Flat tappet cams are more than adequate for many competition engines. For ultra-high performance applications where durability and high rpm capability are paramount, however, roller tappet camshafts are very popular. As the name implies, a cylindrical roller "rolls" over the cam lobe, instead of "sliding" as does a conventional flat tappet. This not only allows a roller tappet to follow a more radical cam lobe profile, but it reduces friction and lessens tappet scuffing of the cam lobes.

Ford introduced hydraulic roller tappet camshafts on the 1985 Mustang (and Mark VII LSC) with 302 (5.0L) High Output engine. Here is a brief description of components.



Roller Tappet—Longer than flat tappet, because of roller. Hydraulic portion functions like a standard flat tappet.

Roller Tappet Camshaft—Machined from steel, instead of typical iron used for flat tappet cam. Cam lobes specially ground and hardened to withstand loads of roller tappets. Do not attempt to use with flat tappets!

Roller Tappet Block—Longer, production 5.0L hydraulic roller tappet requires higher tappet boss than block for flat tappet cam. Thus, 5.0L hydraulic roller tappet cam cannot be used in block designed for flat tappet cam. However, flat tappet camshafts can be used in roller tappet blocks.

Roller Tappet Distributor Gear—Machined from steel and specially hardened to be compatible with billet-steel roller camshaft. Do not attempt to use cast iron gears designed for flat tappet cams.

Roller Tappet Push Rod—Push rods are shorter than those designed for flat tappet cam engine, because of longer roller tappet. Rocker arm end has hardened ball that is copper plated to resist wear by rocker arms rubbing on push rod (which don't rotate). A small bracket encircles one end of push rod as reminder to install that end upward (on 1985-1986 models only).

Roller Tappet Guide Plate—Holds roller tappets in alignment with camshaft lobes (flat tappets rotate). Must be installed with "UP" marking upward.

Roller Tappet Guide Plate Retainer—Made of spring steel. Fits in valley cover area to hold guide plates in position.

ROLLER ROCKER ARMS

Most production engines use stamped steel or cast iron rocker arms, as described on page 85. As the push rod moves one end upward—the rocker arm pivots on a ball or sled-type fulcrum—and the other end pushes the valve downward. Although "sliding" friction exists at each point, this design is okay for street engines and even many performance applications.

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ROLLER ROCKER ARMS

(Continued from page 83)

Light-weight aluminum roller rocker arms, however, provide many advantages for continuous high rpm operation. They're mounted on needle bearings and feature a cylindrical roller that "rolls" over the valve tip to move it downward. This reduces friction, heat and wear, and only requires about half the horsepower to operate the valve train. And valve train stability is greatly increased. Roller rockers reduce valve stem wear and valve guide wear to an absolute minimum, because the roller doesn't push the valve from side to side as it is opened, as occurs with standard rocker arms, as they "slide" over the valve tip.

Ford Racing offers roller rocker arms in several ratios for the Ford Racing V6, small block V8s and big block 429/460 V8s.

FORD RACING ROLLER TAPPET CAMSHAFTS

Ford Racing offers roller tappet camshafts for the following engines:

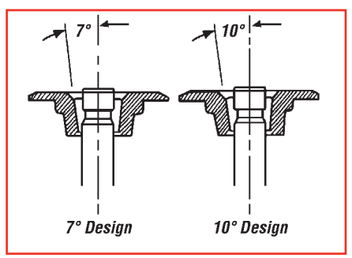
5.0L (302) HO

M-6250-B303* Roller Camshaft only
M-6250-E303* Roller Camshaft only
M-6250-F303* Roller Camshaft only
M-6250-X303* Roller Camshaft only
M-6250-Z303* Roller Camshaft only

VALVE SPRING RETAINERS AND KEEPERS

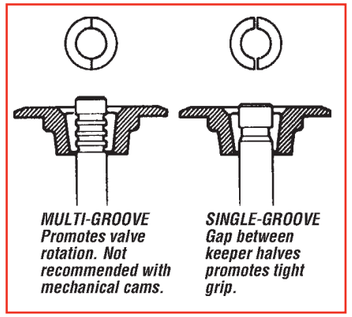
Currently Ford Racing only offers retainers and single-lock groove keepers in a 7-degree design. They are compatible with all Ford Racing valve springs for the Ford Racing V6, small block V8s and big block 429/460 V8s. 10-degree retainers/keepers are available from aftermarket suppliers. Do not attempt to interchange 7-degree retainers with 10-degree keepers and vice versa.

Single-lock groove keepers are recommended for high-performance engines. Production 351C (except BOSS and HO), 351M and 400 engines use multi-groove keepers (to promote valve rotation). If you modify for any extended high-revving performance, replace the valves, retainers and keepers with a single-lock groove design.



POSITIVE-TYPE OIL SEALS

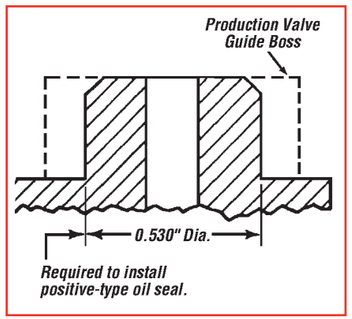
Positive-type oil seals are recommended on OHV performance engines to prevent oil from running down the valve past the valve guide and into the combustion chamber and contaminating the air-fuel mixture. The cylinder head must be machined as illustrated to accept the oil seal.



VALVE PUSH RODS

Hardened push rods are required on valve trains that use a guide plate (because they rub against the plate). Do not use non-hardened push rods.

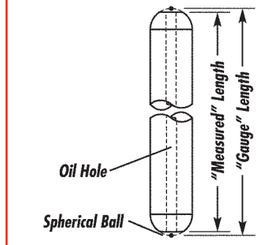
Push rod length is important to maintain correct valve train geometry. The process of drilling an oil hole down the center removes some material from the spherical ball at each end. Push rods are described by "Gauge" length (the distance between the ends before drilling the oil hole). The actual "Measured" length is usually about 0.025" shorter than the gauge length.



CAMSHAFT TIMING DEGREE WHEEL

No camshaft installation is complete without checking camshaft timing events. Use a timing degree wheel to check for correct camshaft installation.

For modular engines, use Camshaft Timing Kit M-6266-D46.



CAMSHAFT AND LIFTER PRELUBE M-19579-A12

- Highest-quality cam lube for camshaft replacement and engine assembly
- Recommended for use with all Ford Racing flat tappet camshafts
- Distributed in cases of 12
- Single bottles may be available from your Ford Racing Distributor part number CM-19579-A1
- Use engine oil on roller camshafts

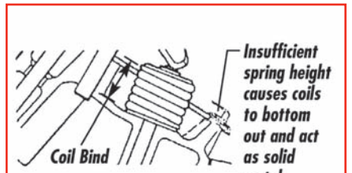


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ENGINE BUILDING TIPS AND SPECS

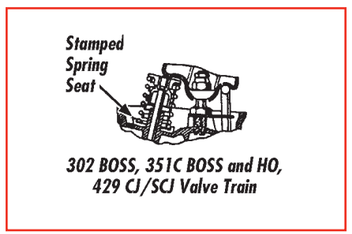
VALVE SPRINGS AND THINGS

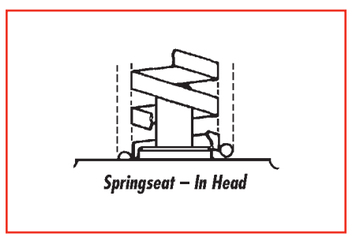
Valve springs are a critical part of valve train operation. They're designed to exert a specific load at a specific installed height, thus spring selection and installation are important. A single spring is generally used for stock engines. Dual or triple springs are often necessary for performance applications to increase the load for a given installed height. If installed height isn't sufficient to handle camshaft lobe lift, coil bind may occur.



Installed spring height is the distance from the spring seat to the bottom of the valve retainer. Shims can be used under the spring to change spring height. If installed under stamped seat, shims and seat must have same outside diameter. Spring seats on most production engines consist of a boss machined in the head, on which the spring pilots. On stock performance engines (302 BOSS, 351C BOSS and HO, 429 CJ/SCJ and BOSS) the head is flat and the spring sits in stamped spring seat.

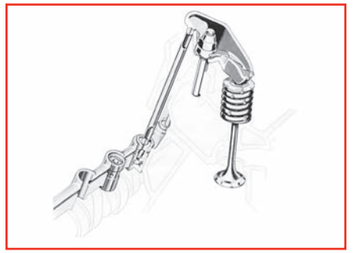
Ford Racing offers spring seats for use with Ford Racing aluminum cylinder heads to prevent damage to the spring seat area.





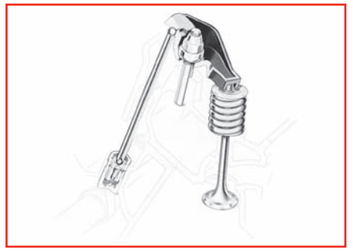
ROCKER ARMS AND STUDS

429 BOSS, FE engines and some 4-cylinder rocker arms are shaft-mounted, while others are individually mounted (in several ways), as shown in the illustration. A non-adjustable stud is used in production engines with hydraulic cams. Mechanical camshafts require rocker arm adjustment to set valve lash (hydraulic cams with anti-pump-up lifters also require adjustment).



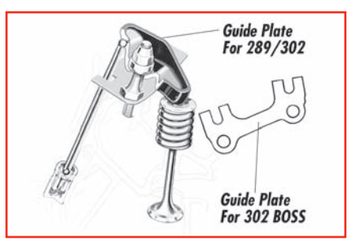
This is a conventional rocker arm with close-tolerance slot in head to guide push rods and maintain rocker arm alignment. Can be used with mechanical or hydraulic camshafts.

USAGE: All 289 high-performance and 1963-1966 1/2 standard 289.



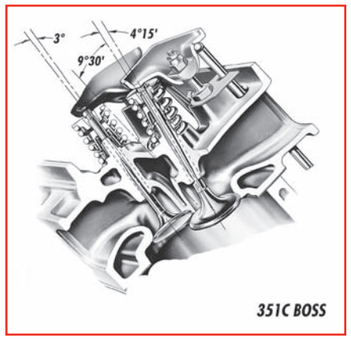
Shown here is a "rail" rocker arm with "loose-fit" hole in cylinder head for push rods. The U-shaped rocker arms maintain alignment. Can only be used with hydraulic camshafts.

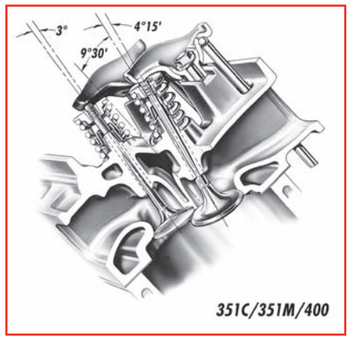
USAGE: 1966 1/2-1968 standard 289
1968-1976 302 and 351W.



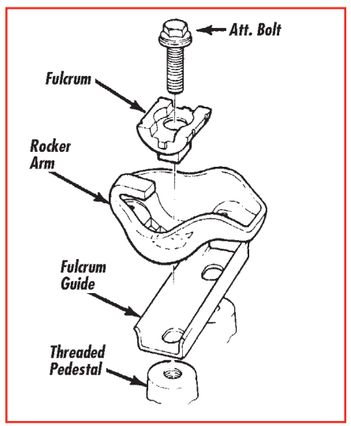
Here is a modified valve train to convert rail rocker arm design for mechanical cam. Requires conventional rocker arms, guide plates, hardened push rods (they rub on plates) and threaded adjustable rocker studs. Requires different guide plate than the one used with a similar 302 BOSS setup.

USAGE: 289/302/351W with mechanical camshaft.





The illustration above is typical of 351C-351M-400 canted valve engines (429-460 engines are similar). The rocker arm is mounted on a slotted pedestal, moves on a "sled" fulcrum and is retained by a bolt. 351C BOSS engines use the 302 BOSS type valve train (also used on 429 CJ/SCJ), 1968-1972 429/460 with hydraulic camshafts use a screw-in positive stop stud. 1973 and later 429/460 have the 351C-type slotted pedestal.

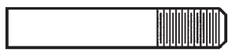


A modified pedestal is used on 1978 and later 302/351W engines. A stamped fulcrum guide is used with each pair of rocker arms.

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

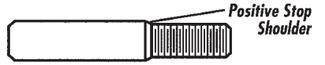
ENGINE BUILDING TIPS AND SPECS

ROCKER STUD COMPARISON



Press-in stud with adjustable rocker nut.
NOT recommended with mechanical camshafts.

USAGE: Standard 289 and 1968 302.



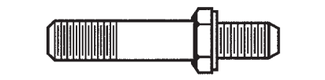
Press-in positive stop stud. Cannot be adjusted to set lash with mechanical camshaft.

USAGE: 1969-1976 302/351W.



Screw-in, positive stop stud.

USAGE: 1968-1972 429 with hydraulic camshaft.



Screw-in, adjustable stud. Required for mechanical camshaft (and hydraulic with anti-pump-up lifters).

USAGE: 289 Hi-Performance, 302 BOSS, 351C BOSS and HO and 429 CJ/SCJ.

CYLINDER HEAD WATER PASSAGE MODIFICATION

As described on this page, cylinder heads for 351C/351M/400 engines have a water outlet passage in the combustion face, whereas 289/302/351W heads have a water outlet passage in the intake manifold face of the head. Heads can be interchanged, if provision is made for appropriate water passages.

TO INSTALL CLEVELAND-TYPE HEADS (351C/351M/400) ON A WINDSOR-TYPE BLOCK (289/302/302 BOSS/351W)

1. Drill a 0.800" diameter hole in the intake manifold face of the head as illustrated.
2. Plug square hole in cylinder head. Install heads with Cleveland-type head gasket.
3. Use intake manifold gasket to match intake manifold.

NOTE: If BOSS-type heads (302 or 351C) are used in either procedure, remember they have larger rounded ports than conventional heads; thus a unique BOSS-type intake manifold gasket is required.

...AND IF YOU HAVE 302/351 FORD RACING ALUMINUM HEADS ①

These heads come with a tapped .75" pipe thread hole in the combustion face, but no hole in the intake manifold face.

If your application requires external water outlets, see diagram below.

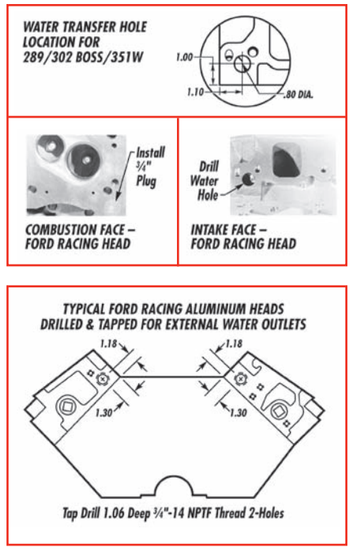
TO INSTALL ON WINDSOR-TYPE BLOCK (289/302/302 BOSS/351W)

1. Install pipe plug in hole. Finish so it doesn't protrude above head face.
2. Drill a 0.800" diameter hole in the intake face as shown or use the .75" pipe thread external water outlet valve provided in the front and rear ends of Ford Racing heads produced after July, 1984.

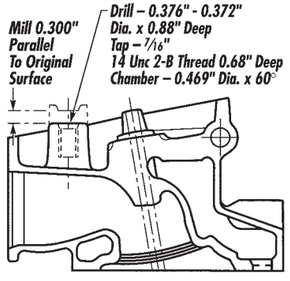
TO INSTALL ON CLEVELAND-TYPE BLOCK (351C/351M/400)

1. Requires no special head work.

NOTE: ① Heads produced after 6/1/1985 do not have .75" pipe threads at front and rear of head face and must be drilled and tapped as shown in illustration.

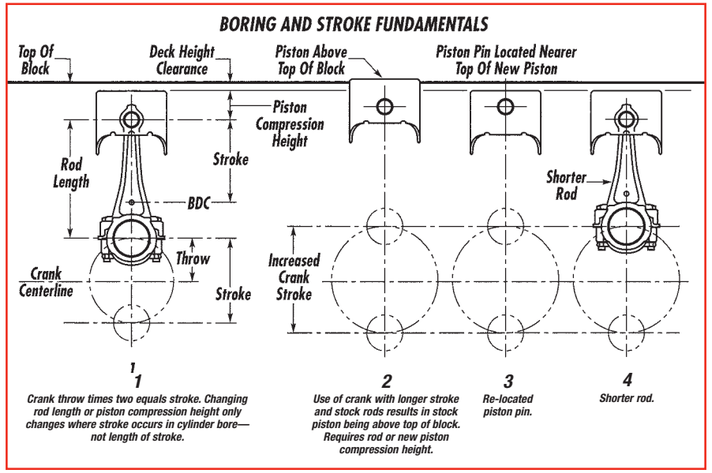


HEAD MODIFICATION FOR MECHANICAL CAM



Pedestal type cylinder heads for hydraulic cams can be modified to accept a mechanical cam (351C/351M/400 shown). Machine at right angles to the existing hole—not the bottom of the head. The valves operate at compound angles. With 302/351W type pedestals, measure from the top of the pedestal.

All 302/351W	.230"
All 351C/351M/400	.300"
1973-1995 429/460	.300"
1968-1972 429/460	.230"



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE HISTORY

FOUR-CYLINDER ENGINE SECTION

1.6L OHV "KENT" ENGINE

Open-wheel racing enthusiasts associate this overhead valve design with the long-lived international Formula Ford series, the starting point for many professional drivers. Most of the combustion chamber is in a dished piston, where the mating cylinder head face is nearly flat. Production for European models (Cortina, Capri and Fiesta) is now phased out. Ford Racing sold numerous production-type parts for Formula Ford competition.

1.6L/1.8L/1.9L/2.0L SOHC "CVH" OR "SPH" ENGINES

The two-valve CVH (Canted Valve Hemispherical) engine was introduced with the 1981 Escort and later used in Focus. The layout is also called "cam in head," because it resembles classic overhead valve geometry. A single overhead camshaft lifts up hydraulic lash adjustors, linking individually mounted rocker arms to valves "canted" at angles relative to the cam axis, as well as front to rear, to match the shallow hemispherical chamber. Manufactured at Dearborn Engine Plant, it was replaced by the Duratec® HE engine family.

1.6L/1.8L/2.0L DOHC MAZDA® ENGINES

In the early 1990s, Mazda®-manufactured four-valve engines were shared with Ford applications. The 1.6L was introduced on 1991 Australian-made Mercury Capri (including a turbocharged variant), the 1.8L on 1991 Escort GT and the 2.0L on the 1993 Probe. Ford Racing parts were not developed for this iron block architecture, which was replaced by the Zetec® and eventually Duratec® I-4 engine families.

1.8L/2.0L DOHC ZETEC® ENGINES

Based on the CVH engine bore centers, this iron block four-valve was developed for the 1994 Mondeo/Contour world car, and later shared with the Escort and Focus. Manufacturing sites were Cologne, Bridgend (Wales) and Chihuahua (Mexico). Launched with hydraulic bucket tappets, it was later converted to light-weight mechanical (solid) tappets. Ford Racing parts were developed with its Focus usage, including a 170 horsepower Focus SVT, the USAC® Ford Focus Midget Series and SCCA® F2000. The production Zetec® was superseded by the Duratec® I-4.

2.0L/2.3L/2.5L SOHC ENGINES

Ford's first North American metric engine featured a belt-driven overhead cam and finger follower valve train, while retaining traditional cast iron block and head. The 2.3L SOHC was the base engine of numerous 1974-1997 models, including Mustang, Pinto, Fairmont, Ranger and early Aerostar vans. A turbo version was launched with the new 1979 "Fox" Mustang, with a second generation port-fuel-injected (PFI) turbo powering the 1983 Thunderbird Turbo Coupe, Mustang SVO and later the Merkur® XR4Ti. A twin-spark plug head with Ford's first coil-pack distributorless ignition was introduced on 1989 Ranger and 1991 Mustang models. The Ranger also offered a smaller bored 2.0L version in the mid 80s; its last iteration was the stroked 2.5L 1998-2000 Ranger. Lima (Ohio) Engine Plant provided most production, supplemented by Taubate (Brazil). Ford Racing parts were developed for the SOHC, including a partnership with Esslinger® Engineering for an aluminum cylinder head. Ongoing racing usage includes the SCCA® F2000 series.

A European 2.0L SOHC was produced for 1971-1974 cars. While conceptually similar, it was dimensionally unique in terms of bore, stroke, bore spacing, block deck height and crankshaft journal diameters.

2.2L 3V SOHC PROBE ENGINE

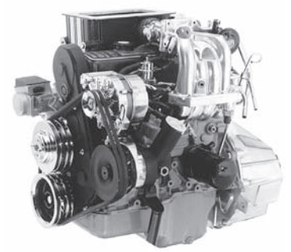
The 1989 Probe launched with a Mazda®-sourced overhead cam three-valve (2 intake, 1 exhaust), in naturally aspirated and turbo versions.

2.3L/2.5L OHV "HSC" ENGINES

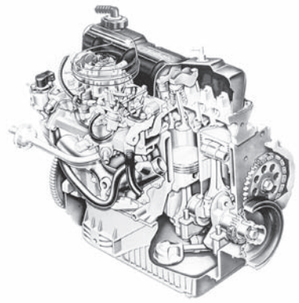
The 1984-1994 Tempo/Topaz 2.3L High Swirl Combustion (HSC) engine resembles Ford's classic cast iron push rod 200 cid I-6, with two cylinders removed. The 1986-1990 Taurus offered a 2.5L version, but most customers wisely chose an available V6.



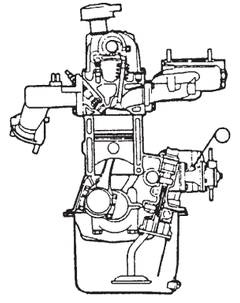
1.6L/1.9L CVH



2.3L OHC (Turbo-Intercooled)



2.3L/2.5L HSC



2.0L OHC

1.1L/1.3L/1.6L DOHC "ZETEC® SE" ENGINES

Ford's first aluminum block I-4 arrived with the 1997 Fiesta. Primary design work was contracted to Yamaha®, with original manufacturing at Ford's Valencia (Spain), and later at Bridgend (Wales) and Taubate (Brazil) plants. In this compact design, double overhead cams actuate mechanical bucket tappets. The 2011 Fiesta will be the first North American production application.

2.0L/2.3L/2.5L DOHC "DURATEC® HE" ENGINES

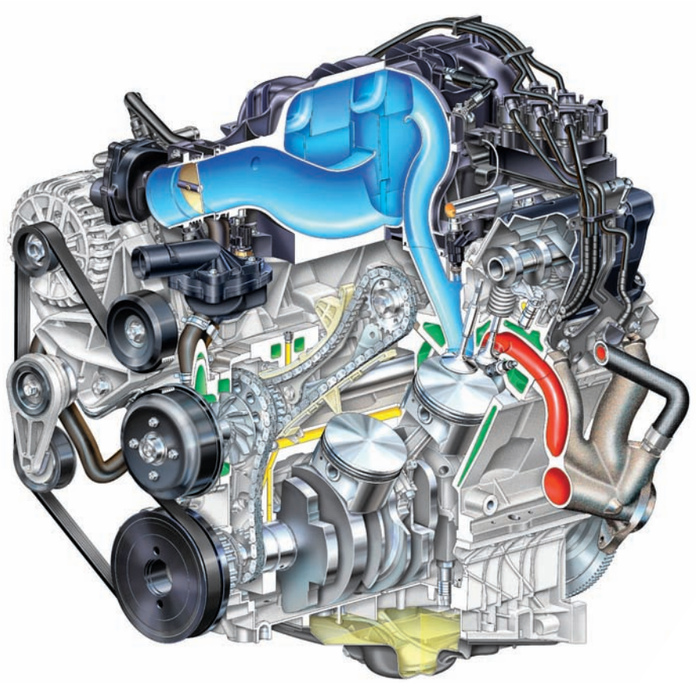
Mazda® led design of this aluminum block world-engine that replaced five other large four-cylinder engine families starting in 2001, with manufacturing in Japan, Mexico, Dearborn and Spain. North American applications include Focus, Fusion and Escape, with a specific late closing intake cam (Atkinson Cycle) on hybrid applications. The "Duratec®" name was originally applied to V6 engines with some common displacements, so the internal designation remains "New I4."

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See pages 3-9 for important safety, emissions and warranty information.

V6 SECTION

2.0L/2.5L/3.0L DOHC 4V "DURATEC®" ENGINE

The small engine compartment of the 1994 Contour (Mondeo in Europe) required a compact design, with a short forged steel crank and rear-mounted cam-driven water pump. An aluminum block casting process was licensed from Cosworth® that rotates the sand mold during metal solidification to improve quality. Subsequent applications included Taurus, Cougar, Escape, Mazda® MPV, Mazda® 6, Freestyle, 500 and Fusion. Initial concept design work was contracted to Porsche® Engineering, resulting in a full main bearing girdle similar to the Porsche 928 V8. Roller finger follower (RFF) aluminum cylinder heads resemble the 4.6L 4V, although more compact. The 1999 Contour SVT tuned the 2.5L to 200 horsepower, with Extrude-Hone cylinder heads improving airflow. Low-profile mechanical bucket tappet heads were developed for the 3.0L Jaguar® S-Type/Lincoln LS packages, and later applied to the All-Wheel-Drive X-Type in 2.0L (European sales), 2.5L and 3.0L variants. Produced at Cleveland Engine Plant, all versions are now updated with variable cam timing (VCT) and identified internally as the "D30." Aftermarket V6 applications have included the turbocharged Noble® sports car from South Africa. Aston Martin®'s 6.0L V12 is based on this architecture.



2.5L DOHC 4V PROBE ENGINE

The 1993 Probe used this all-aluminum Mazda® design; shared with the Mazda® 626 and further developed for the Mazda® Millenia's Lysholm® supercharged Miller®-cycle. Mazda® replaced this engine family with Ford-designed V6s.

2.8/2.9/4.0L OHV/SOHC 2V "COLOGNE" ENGINE

Ford of Germany developed a 1961 1.2L OHV 60-degree V4 to a 2.8L/2.9L V6 for North American Capri, Bronco II, Mustang II, Ranger, and Merkur® Scorpio sales, then expanded it to 4.0L for the 1991 Explorer. The original push rod layout was converted to Modular-style single overhead cam 2V heads for 1997 Explorer and 2001 Ranger, using a jackshaft in original block camshaft bore to drive the right hand cam chain from the rear, and the left hand cam chain from the front. A main bearing bridge, structural oil pan and 2nd order balance shaft were offered for improved NVH. Mustang and Land Rover® applications were added starting in 2004. Ford Racing sells parts for 2005-2010 Mustang.

3.0L OHV 2V "VULCAN" ENGINE

A traditional cast iron block and head push rod design introduced for 1986 Taurus, the Lima (Ohio)-produced Vulcan was later used in Ranger, Tempo, Aerostar, Windstar and the first-generation Probe.

3.0L/3.2L DOHC 4V "SHO" ENGINES

The Yamaha®-designed and -built 3.0L SHO (Super High Output) program was initiated for a late-1980s' Ford SVT mid-engined sports car, code named GN34. When the GN34 was cancelled, the engine was picked up for the 1989-1995 Taurus SHO. 3.0L versions used a five-speed manual; the 3.2L version was used in 1993-1995 automatic transmission applications. The high-revving SHO V6 used a cast iron block and 4V heads with bucket tappets.

3.5L/3.7L DOHC 4V "DURATEC® 35" AND "DURATEC® 37" ENGINES

Code named "Cyclone" in development, this all-aluminum design uses a deep-skirt die cast block with cast-in liners, six-bolt main bearing caps, forged steel crank and mechanical bucket tappet heads with intake variable cam timing (IVCT). Launched for the 2007 Edge, it is now used in all of Ford's North American mid-sized and large front wheel drive vehicles, typically coupled to the new 6F transmission. Lincoln and Mazda® applications increase bore size for 3.7L displacement. "EcoBoost" versions premiering in 2010 models use Gas Turbo Direct Injection (GTDI) twin turbochargers to increase power and torque, without fuel economy loss. Manufacturing sites are Lima (Ohio), Cleveland and Hiroshima (Mazda® applications).

3.8L/3.9L/4.2L OHV 2V "ESSEX" ENGINES

Named for the Essex (Ontario) Engine Plant, the 1982 3.8L used a 90-degree bank angle, like a V8's, for numerous rear wheel drive car applications. Front wheel drive applications started with the 1988 Taurus/Sable and Continental, then the 1994 Windstar. A first-order balance shaft was added to select applications beginning in 1988. The 1989-1995 Thunderbird SC (Super Coupe) added a 90 cubic inch Eaton® Roots-style intercooled supercharger.

Split-port cylinder heads were introduced with the 1996 Windstar, and then in all 4.2L applications. The 95 mm stroke (vs. 86 for the 3.8L) 4.2L launched in the 1997 F-150 and Econoline, replacing the 4.9L I-6. A two-millimeter stroke increase created the "new" 3.9L from the 3.8L in 2004. 3.8L/3.9L usage in the 1994-2004 Mustang resulted in some aftermarket performance parts.

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See pages 3-9 for important safety, emissions and warranty information.

ENGINE HISTORY

SMALL BLOCK V8 289/302/351W/351C/351M/400

SIX WAYS TO BUILD A WINNER

Ford manufactured millions of small block V8s, and Ford Racing parts are available for many of them. You have a choice of six engines to modify (eight if you count two high-performance BOSS versions). So, you've got great flexibility working for you, whether you begin with a complete engine assembly or a bare block. All have four-inch bores, but there are differences that affect parts interchange. For example, the water passages described on page 90. Here's a brief description of Ford small blocks.

289/302

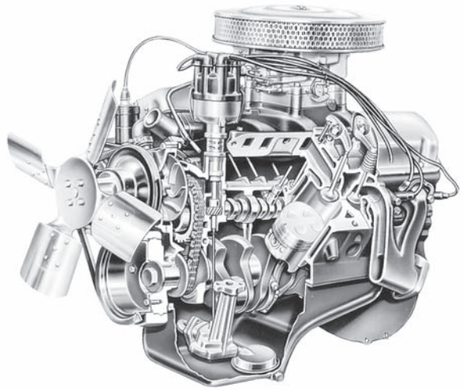
The 289 was produced from 1963 through 1968, and the 302 from 1968 to 2001. They're very similar, except for stroke. Of special interest is the 289 4V Hi-Performance engine (1963-1967) with mechanical camshaft, threaded rocker arm stud (adjustable) and a recessed spring seat. Most other 289/302 (1968-1976) engines use a press-in stud. 1978 and later 302 engines use a modified pedestal as shown on page 86. Many 289/302 parts fit earlier 221/260 engines (which had smaller bores). They also had less metal around the bores, so you can't overbore to come up with a 289. The 1985 model Mustang GT introduced a new high-output 302 with roller tappet camshaft. Electronic fuel injection was added in 1986.

302 BOSS

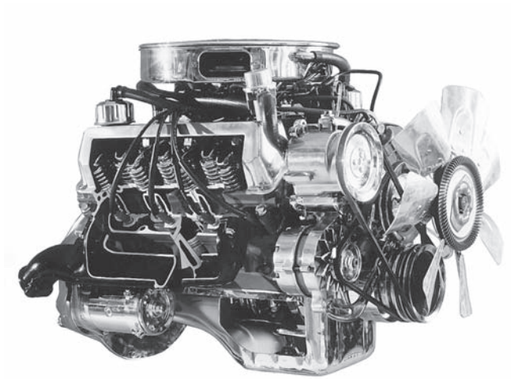
This is certainly one of Ford's all-time super engines. The 302 BOSS (1969-1970) proved to be very competitive in 5-liter TransAm racing. It featured big breathing heads with canted valves, mechanical cam, stamped rocker arms with a threaded adjustable stud, push rod guide plates, forged crankshaft, 4-bolt main caps (#2, #3 and #4 journals), beefy con rod with spot-face for .375" bolt and forged pistons.

351W (WINDSOR)

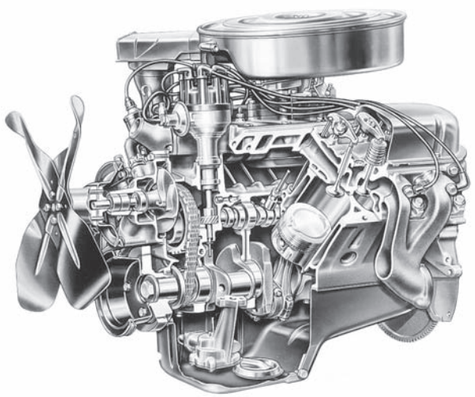
The Windsor Engine Plant builds this engine; hence the name. Normally, this isn't important. But another engine, the 351C (for Cleveland Engine Plant), has the same displacement. That's about all they have in common. So, it's always important to differentiate between the two. The 351W is a beefier block than the 289/302, but has the same bore spacing (4.38") and bore diameter (4.00"), so heads retrofit. A higher deck height requires a unique intake manifold. Main journals (3.00") are larger than the 289/302 (2.25"). Camshafts interchange, but the 351W has a different firing order: 1-3-7-2-6-5-4-8 vs. 1-5-4-2-6-3-7-8 for the 289/302, except 1982 and later 302 HO which use the 351W firing order. The 351W has been used from 1969 to 1998. In 1994 the cylinder block was modified to accept a hydraulic roller camshaft for the F-150 truck. The 1995 Cobra "R" Mustang used a 351W engine that was very similar to the Lightning engine. The Modular engines eventually replaced the 351W.



289 Hi-Per



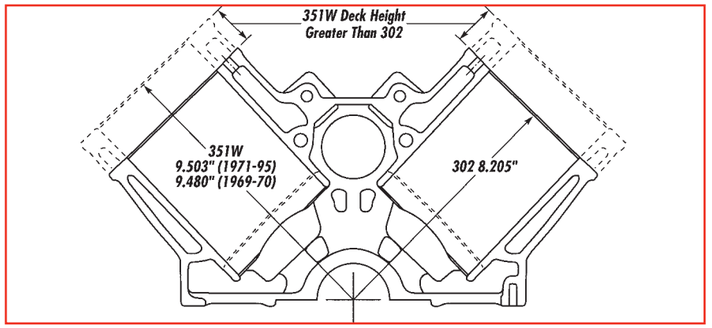
302 BOSS

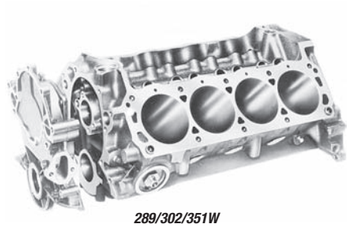


351W

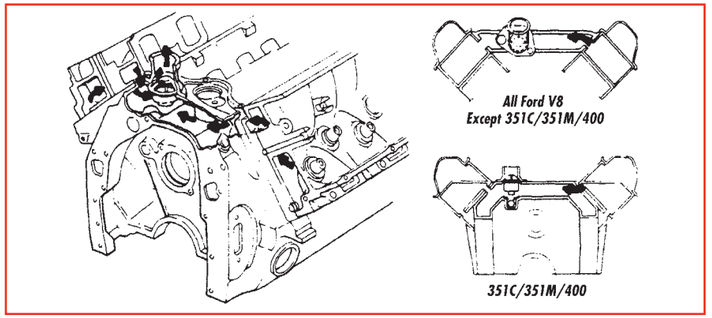
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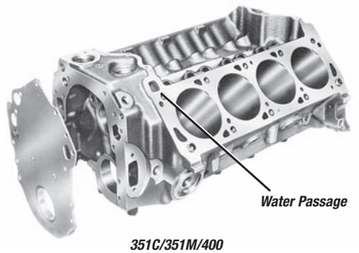
SMALL BLOCK V8 (CONTINUED)





289/302/351W





351C/351M/400

351C (CLEVELAND)

The 351C entered the scene in 1970 and was produced until 1974. It has canted valves with multi-groove keepers, hydraulic cam, pedestal-mounted rocker arms with "sled" fulcrum seats that are retained with cap bolts. Heads for 2V induction have open chambers with rounded ports, while 4V heads have "quench" combustion chambers with larger rounded intake and exhaust ports. A 351C Cobra Jet appeared in 1971 with 4-bolt main caps, which was carried over in 1972 as the 351C-4V with open chamber heads.

351C BOSS

The 351C BOSS also appeared in 1971. It had 4-bolt main caps and the 4V-type quench chamber head with pedestals machined to accept a 302 BOSS-type valve train and mechanical cam. The con rod featured a 180,000psi .375" bolt. In 1972, open chamber heads were used with a flat-top piston, and the name changed to 351C HO.

351M (MODIFIED) AND 400

The 351M and 400 are similar in design to the 351C, but there are subtle differences. Both the 351M and 400 blocks are 1.100" taller and have larger main journal diameters. Engine mounts are unique. Bellhousing pattern is the 429/460 design.

WINDSOR VS. CLEVELAND WATER PASSAGES

289/302/351W engines use a front cover and water exits the intake manifold face of the cylinder head through the intake manifold to radiator. 351C/351M/400 engines do not use a front cover. The block is extended and covered with a flat stamping. Water exits the combustion face of the head and into the block, and then to the radiator. Windsor and Cleveland heads physically interchange, but some modification is required to accommodate the differences in water passages. See page 86 and above for details.

FORD RACING 302/351 FORD RACING WATER PASSAGES

Several different water passage hole patterns have been used on 302 Ford Racing and 351 Ford Racing cylinder blocks and heads since their introduction. Engine assemblers should lay the head gasket on the block and the cylinder head (with front of the gasket toward the front of the engine) to make sure there is a path for coolant flow from the block into the head. In some cases, holes may have to be drilled in the block or head, or punched in the gasket. Current Ford Racing cylinder head gaskets are listed on page 129.

FORD RACING 302/351 "FORD RACING" ENGINE BLOCKS

Ford Racing has designed several "Ford Racing" blocks for maximum performance competition. They're designed for small block engine builders who want to use existing 302/351C or 351W components. 302/351 Ford Racing engines constructed with Ford Racing block and Ford Racing cylinder heads are not available as complete assemblies.

When ordering parts, consider these key points:

- 302 Ford Racing Block (M-6010-R302)—can be used with all 289/302/302 BOSS applications.
- 351 Ford Racing Blocks (M-6010-E351 thru M-6010-W351)—can be used with all production 351W applications, except those relating to crankshaft main bearing diameter. The 351 Ford Racing block is machined for the smaller 351C-type bearings. Ford Racing crankshafts feature the smaller 351C main journals that are compatible with these blocks. The block is available in two deck heights (9.500" and 9.200"), so either Windsor or Cleveland components can be used topside. Requires 289/302/351W-type camshaft.
- If 302/351 Ford Racing heads are used on 302/351 Ford Racing blocks, the Ford Racing-type intake manifolds are required.

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4.6L/5.4L V8 AND 6.8L V10 "MODULAR"

The Modular engine design focuses on low friction, best-in-class sealing, long-term durability and increased bottom-end stiffness for reduced noise/vibration/harshness. Common features are deep skirt block with cross bolting, chain-driven overhead camshafts, direct-mounted accessories (air conditioning compressor, power steering pump and alternator), valley-mounted water pump, fully counterweighted crankshaft with cross-drilled oil feeds, powdered metal connecting rods, steel camshafts and aluminum heads with low-friction roller finger follower valve train. The head bolts extend past the cylinder bores into the bearing webs, reducing bore distortion and providing a better seal of the steel head gaskets. A specific description of each type follows.



M-6007-GT

4.6L SOHC 2V/3V

The 4.6L SOHC (2V) was introduced for the 1991 Lincoln Town Car followed by the 1992 Crown Victoria and 1994 Thunderbird. Made primarily at the Romeo Engine Plant, it is the basis for all Modular engines, replacing the classic 5.0L (302 cid) OHV. The original block is cast iron with a nodular iron crankshaft. Cylinder heads use in-line valve design with one intake and one exhaust valve per cylinder. Spark plugs are angled inboard, towards the top of the engine, for improved serviceability. A press-fit piston pin was used for initial car applications, and replaced by floating pins by 2002.

4.6L 2V truck applications started with the 1996 F-150. With the high demand for V8 engines, production was soon shared between Windsor and Romeo. Windsor-built 4.6L engines use a Windsor-machined cast iron block, sharing a bearing cap design with the 5.4L, and a mix of Windsor (8-bolt flange) or Romeo (6-bolt flange) machined crankshafts.

For 1996 model year, the Mustang GT moved from the 5.0L Cleveland to a Romeo-made 4.6L 2V. Production moved to Windsor for the freshened 1999 Mustang, piloting the "Performance Improved" (PI) heads and cams with 260 horsepower. All Romeo 4.6L 2V applications migrated to the PI design for 2001 models, allowing Mustang GT engine production to return to Romeo. The 2001 model Mustang "Bullitt" featured intake, throttle body and exhaust changes for a 265 horsepower rating.

The 2002-2005 Explorer combined the aluminum block (see 4.6L 4V) with 2V heads; this combination was also used briefly by the Expedition SUV. Initial production used cylinder heads specially machined on the block face for an added O-ring seal around the block's oil feed; a subsequent head gasket upgrade enabled regular head usage. Aluminum block castings switched in-cycle from Windsor-sourced (Cosworth® process) to Nemak®-Monterrey® sand castings, with lower bulkheads strengthened by chilling during solidification.

The 2005 4.6L 3V Mustang GT combined this Romeo-machined aluminum block with the 5.4L's 3V cylinder heads, variable cam timing (VCT) and high-flow oil pump, for 300 horsepower. The head bolt threads were raised to accommodate a common head bolt for 3V and 2V heads. Early 2005 models were assembled at Essex Engine Plant until December 2004, when production was shifted to Romeo, but the design was unaffected by this change. The 2005-2006 Mustang GTs have a block-mounted "cold side" thermostat, where the 2007-2010 models are re-plumbed to the more conventional "hot side" thermostat on the cylinder head crossover. Cam covers were made of magnesium for 2005-2006 models, then switched to aluminum for 2007-2008, then reverted back to lighter magnesium. The Mustang alternator is equipped with a one-way-clutch pulley to reduce audible belt chirp in fast shifts, on 2005-2010 manual transmission and 2005-2008 auto transmission applications.

To hit 315 horsepower in the 2007-2008 Mustang "Bullitt," Ford Racing's air induction and exhaust changes were combined with a retuned crankshaft damper enabling higher peak engine speed. Similar changes were applied to the 319 horsepower 2007 Shelby GT. The freshened 2010 Mustang GT also achieves a 315 horsepower rating with intake, exhaust and calibration changes. 4.6L 3V truck applications, using the cast iron block and a long-runner intake manifold with single-bore throttle body, arrived for 2006-2010 Explorer and 2009-2010 F-150.

4.6L DOHC 4V

The Romeo-made 4.6L DOHC was first introduced in the 286 horsepower 1993 Lincoln Mark VIII. The Teksid®-cast (Italy) aluminum block includes four-bolt main bearing caps, also cross-bolted for added support. Chains borrowed from the 4.6L 2V connect the crank to the intake cams, which use short secondary chains to drive the exhaust cams. A high-flow oil pump, select fit main bearings and floating piston pins improve NVH and oil pressure robustness. Electronically controlled and vacuum-actuated Intake Manifold Runner Control (IMRC) allowed one set of the cylinder head's dual intake ports to be throttled closed, and then opened for peak power; a system upgraded to fully electronic control for 1995 model on-board-diagnostic (OBD) emissions requirements.

The 1995 Lincoln Continental 4.6L 4V was the Modular V8's first and only front-wheel-drive application, using a unique Windsor-cast (Cosworth® process) aluminum block. To protect

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

4.6L/5.4L V8 AND 6.8L V10 "MODULAR" (CONTINUED)

transmission durability, the engine was detuned via late intake valve closing, a fuel economy technique later applied to Ford hybrid engines. The transverse engine vehicle packaging created the legacy of this application: 100 mm bore centers and tight bore offset used for all 4.6L/5.4L/6.8L engines.

The 1996 Mustang SVT Cobra increased 4V performance to 305 horsepower with cylinder head intake port revisions and a new side-entry intake manifold. Durability enhancements included a fully counterweighted steel forged crankshaft for the higher engine speeds with a manual transmission, in addition to a crankcase windage tray, handling-baffled oil pan and patented full-flow oil cooler. Power rating increased to 320 horsepower in 1999, with "tumble port" cylinder heads enabling deletion of the Intake Manifold Runner Control. The Cobra was relaunched for 2001 model year, with intake manifold improvements supporting better robustness to the 315 horsepower rating. The Cobra also transitioned from the Teksid®-cast to Windsor-cast aluminum block; function was unaffected.

An Eaton® Roots-style supercharger was added for the 390 horsepower 2003-2004 Mustang SVT Cobra, code named "Terminator." Because of the high cylinder pressures, Romeo's aluminum block was replaced with the 2V's cast iron block. The new Terminator left a gap in the Mustang line-up, going down to the 260 horsepower 4.6L 2V Mustang GT, so the original SVT Cobra engine was revised for the 305 horsepower 2003-2004 Mustang Mach 1 feature car, including a working shaker hood scoop mounted to the engine and available automatic transmission (with cast crankshaft). 2003-2005 Lincoln Aviator and 2003-2004 Mercury Marauders also featured this base engine. Early 2003 and 2005 model production used the Nemak®-Monterrey®-cast aluminum block; later 2003 and 2004 production used the Windsor-made (Cosworth® process) aluminum castings.

Ford Racing's 5.0L "Cammer" crate engine is based on a big bore version of the 4.6L 4V. There are other ways to achieve this iconic displacement: some 5.0L short blocks have been created with only stroke increase, and others have combined bore and stroke increase.

5.4L SOHC 2V/3V

To replace the 5.8L OHV, a longer-stroke version of the 4.6L was developed for 1996 F-150. The 5.4L's under-square geometry creates challenges such as higher piston speeds and less stiff crank geometry. To maintain good NVH and durability, numerous changes were made to beef up the original 4.6L, such as a forged steel heat-treated crank with eight-bolt flange, stronger head casting material and redesigned tight main bearing cap alignment dowels. Longer stroke and connecting rods drove a higher block deck height. Select fit main bearings and floating piston pins were adopted from the 4.6L 4V. A high-strength cast iron crank was developed for 2V Econoline applications.

Cylinder head layout, port design and camshaft timing have been tied to the 4.6L development. The 1996 two-valve original swirl port was upgraded to the "Performance Improved" (PI) port and camshaft in 1999 for F-150 and Expedition. F-250/F-350 Super Duty and Econoline followed in 2000.

300 horsepower arrived in 2003, with the three-valve cylinder head for Falcon (Australia) and the redesigned 2004 model F-150, and came to Expedition and F-Series Super-Duty applications for 2005. The truck intakes used a Charge Motion Control Valve (CMCV) port throttle, similar to the original 4.6 4V IMRC, to shroud the two intake ports. This CMCV was deleted for 2009 5.4L models, with slight chamber changes restoring in-cylinder motion. The three-valve layout drives tight packaging of the centrally mounted spark plug, so a special long-reach plug design was developed; this plug design migrated to a smaller diameter (12 mm cylinder head thread) in early 2008.

Originally branded "Triton" for F-Series, E-Series and Expedition applications, the 5.4L is most associated with the Windsor Engine Plant, but engine assembly and machining have also been supplemented by the Essex Engine Plant nearby.

For performance applications, the 1999-2000 F-150 SVT Lightning used a 360 horsepower 5.4L 2V with an Eaton® Roots-style supercharger, upgraded to 380 horsepower for 2001-2004 models, with a detuned version offered in the 2002-2003 Harley-Davidson® edition F-150. The 2007-2008 F-150 Harley-Davidson® edition was also offered with a retrofitted Roots-style supercharger. Of course, Ford Racing offers performance parts for the 5.4Ls.

5.4L DOHC 4V

The combination of Romeo 4V cylinder heads and the Windsor 5.4L bottom end began with the limited production 2000 SVT Cobra "R," hand-assembled at Ford's Engine Manufacturing Development Operations. New Cobra "R" cylinder head castings incorporated open intake ports. A standard Windsor steel crank was rebalanced for higher strength connecting rods.

For the next 5.4L 4V application—1999 to 2004 Lincoln Navigator—regular Romeo 4.6L 4V heads, with smaller tumble ports (see 4.6L 4V), were used to optimize drivability and emissions.



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ENGINE HISTORY

4.6L/5.4L V8 AND 6.8L V10 "MODULAR" (CONTINUED)

A long runner intake targeted low-end torque and mid-range performance.

Ford Performance Vehicles (FPV) in Australia adopted the 5.4L 4V for their 2004 Falcon and Falcon Ute. Engine assembly is contracted to Prodrive Engineering, using a mix of North American- and Australian-sourced components. 2009 models are now developed to over 425 horsepower.

The Ford GT mid-engined super car combined a new aluminum block with Cobra "R" cylinder heads, using a special compact cam drive, a production-based steel crankshaft rebalanced for unique connecting rods, a belt-driven external oil pump and Lysholm® supercharger. Romeo Engine Plant Niche Assembly Line even attached each dry sump oil tank for testing, then shipping it strapped to the engine for vehicle installation. While the GT production ended in 2006, Ford Racing continues to offer performance components.

5.4L 4V supercharged production continues on the Romeo Niche Line for the Mustang Shelby Cobra GT500. This design reverted to some more conventional components: cast iron Windsor block, a Roots blower and regular oil pan. Launched for 2007 with 500 horsepower, Ford Racing offers several intake, exhaust and calibration options for more performance. The 2008 Shelby® GT500KR ("King of the Road") model incorporated these changes for a 540 horsepower rating. The 2010 model GT500 adds dual knock sensors, also achieving 540 horsepower.

6.8L SOHC 2V/3V

The 5.4L added two cylinders for the 1997 6.8L Econoline, with a cylinder head-mounted balance shaft and steel split pin crankshaft for even firing. The Windsor-made 6.8L also replaced the big block 7.0L/7.5L in Super-Duty (F-250, F-350) and Motorhome applications. All 2V applications utilized the PI cylinder head starting in 2000.

The three-valve upgraded performance to over 350 horsepower for 2005 Super-Duty and Motorhome chassis. The 6.8L 3V head is similar to the 5.4L 3V. The 3V also employs a dual-mode intake manifold with an electrically actuated Long-Short Runner Control (LSRC) valve. The 6.8L's cam-driven balance shaft precludes Variable Cam Timing, since the balance shaft must remain in phase with the crankshaft.

Ford Power Products offers 6.8Ls modified for Compressed Natural Gas (CNG) generator usage, large hybrid gas/electric buses and a supercharged version for hydrogen-powered buses.



OTHER V8 ARCHITECTURES

3.4L DOHC 4V "SHO" ENGINE

Yamaha® produced this all-aluminum V8 for 1996 Taurus SHO, as a replacement for the 3.0L/3.2L SHO V6. Its 60-degree design improves crash crush zone in front-wheel-drive vehicles, but requires an internal balance shaft. The architecture was the basis for the 2006 Volvo® V8 (XC90, S80).

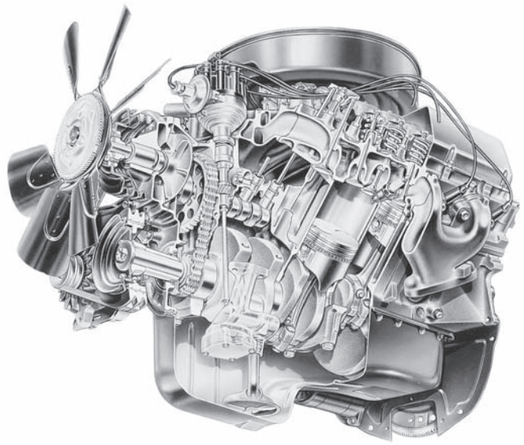
3.9L DOHC 4V ENGINE

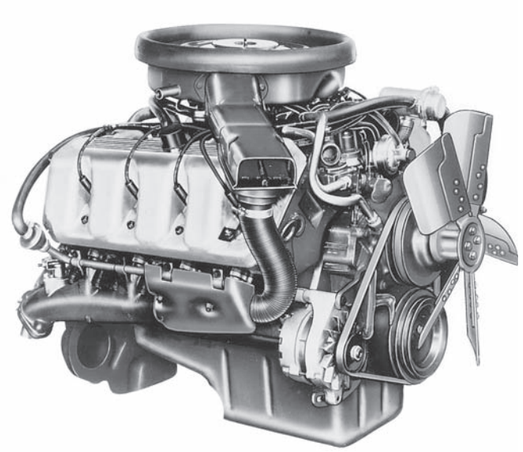
Lima Engine Plant adopted the Jaguar® AJ 4.0L V8 architecture for the 2000-2005 Lincoln LS and 2002-2005 Thunderbird. This compact architecture used a direct-acting mechanical bucket tappet, and a full main bearing bedplate replacing separate main bearing caps with a structural oil sump. A unique air-assisted fuel injection system was added to optimize emissions, controlled by a 3-way idle air by-pass valve. Another emissions feature was "precision cooling," with minimized water jacket cross -sectional areas to increase the fluid velocity in the jackets and thereby increase heat transfer. 2003-2006 models added electronic throttle control and variable intake valve timing, with more conventional fuel injection, achieving 280 horsepower.

6.2L SOHC 2V "BOSS" ENGINE

The F-150 SVT Raptor, unveiled at the 2008 SEMA® Show, introduced the new two-valve 6.2L with twin spark plugs and variable cam timing. Built at Romeo Engine Plant, its 115 millimeter bore centers enable bigger valves for better breathing than the Modular V8. The engine will replace 5.4L and most 6.8L engines in F-250/F-350 Super-Duty applications. Ford Racing developed a pre-production engine for the 2008 Baja 1000 and experimental class drag racing. Look for this new cast iron block engine in other future applications.

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429/429CJ/429SCJ/429 BOSS/460

During The Golden Age of Muscle, high-performance versions of 429/460 engines flashed on the scene like a firefly. The glow was brief—from 1969 to 1971. The memory lingers on. All of those cubic inches! Never again available directly from the factory ready for competition. Luckily, engines and pieces are still around. There are several ways to go, depending on the performance level you want, be it simply a Bracket Drag Racer, or something more potent, like an offshore power boat, big torquing engine for truck pulls or a Pro Stock drag machine. Here's a brief description of production engines to give you an idea of part interchangeability and general performance level.

429/460

The 429 "Thunder Jet" was introduced in 1968. It's your basic passenger car "wedge" engine design with hydraulic cam, 2-bolt main caps and either 2V or 4V carburetor. Cast iron "rail" rocker arms are mounted on non-adjustable, positive stop studs (1968-1972). 1973 and later 429/460 engines use pedestal-mount rocker arms as described for 351C engines on page 90. The 460 is a stroked version of the 429. With modifications, these engines can be used for most competition, except offshore boats or with a supercharger.

429CJ (COBRA JET)

Take a base 429, then add a hotter hydraulic cam, larger CFM carburetor, heads with bigger ports and valves, plus a few other items and you have a 429CJ. 1970 engines had 2-bolt mains; 1971 models 4-bolts. Engines built before 11/1/1969 use an adjustable, non-positive stop rocker arm stud, so a mechanical cam is easily installed.

429SCJ (SUPER COBRA JET)

Now, we're talking about an engine you can modify for serious competition. The 429SCJ has 4-bolt main caps (#2, #3 and #4 journals), mechanical cam, adjustable non-positive stop rocker arm studs, stamped rocker arms and push rod guide plates. The pistons are forged aluminum and con rod bolt seats are spot faced. As with the CJ, production ended in 1971.

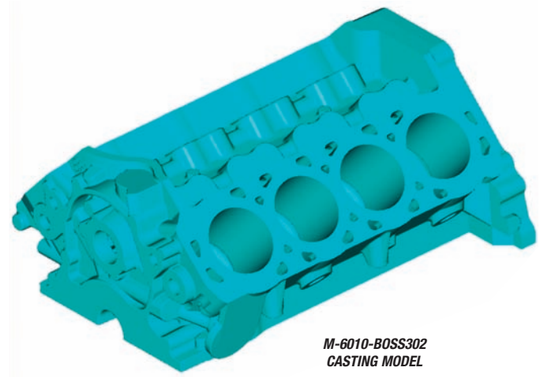
429 BOSS

This is an all-out competition design with aluminum heads and hemi combustion chambers (technically, they're "crescent-shaped"). The first few hundred in 1969 for NASCAR® competition were called "S" engines; the later street version is a "T" engine. "T" engine con rods are spot faced for a .375" bolt and hex nut. "S" engine con rods are beefier, 0.056" shorter, have wider bearing journals and use a .5" bolt with 12-point nut.

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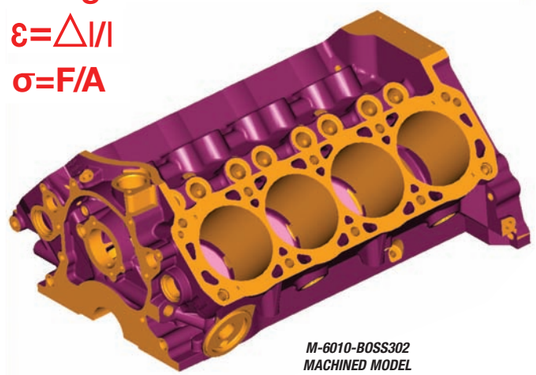
BLOCK CASTING TECH

Ford Racing Performance Parts engineers create cylinder blocks and heads using the latest processes in computer modeling, high-speed machining and casting simulation. These processes were developed while creating components for the NASCAR® racing series. These high-tech processes deliver high-quality components for the track and the street.



M-6010-BOSS302
CASTING MODEL

$v^2=2gh$
$\varepsilon=\triangle l/l$
$\sigma=F/A$

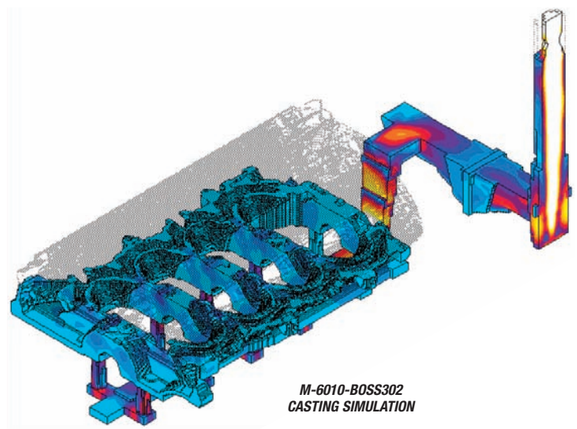


M-6010-BOSS302
MACHINED MODEL

Every new major component at Ford Racing starts out as a detailed solid CAD (computer aided design) model of the casting. The next step is to add the final machining to the model. Once the virtual machining is added to the model, it's ready to be used to determine the mass of the component and to perform CAE (computer aided engineering) analysis. CAE analysis is performed to insure the component isn't over-designed which would create unnecessary weight. The analysis is also used to insure that the component has the required strength and durability for high-performance applications. After the CAE analysis is complete and the results are acceptable, the next step is to insure the component is feasible for casting. This is done with casting simulation software.

The art of making a high-quality casting involves proper metal filtering, keeping metal velocities low and directional solidification. All of this can be done in the virtual casting world with simulation software.

The final step in creating a new cast engine component is machining the molds. The molds are high-speed machined on CNC (computer numerically controlled) machines. The same CAD model that was used for the previous simulations is used for the machining, creating an exact copy of the virtual part. Liquefied metal is poured into sand cores made from the molds. After cooling, the sand cores are broken off leaving the high-quality FRPP component.



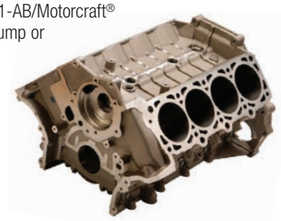
M-6010-BOSS302
CASTING SIMULATION

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5.0L ALUMINUM CYLINDER BLOCK – ROAD-RACE APPLICATIONS

M-6010-T50*

- The "Cammer" 5.0L block is the foundation of Ford Racing's road-racing success, competing in both Grand-Am's Daytona Prototype and KONI Challenge as well as FIA
- Used in the FR500C/GT/GT3/GT4 Competition Mustangs
- Engineered and optimized to be the ideal road race modular block
- Race-proven revised water jackets and between-bore cross-drilling for improved engine cooling
- Designed for minimal weight while retaining strength and durability for naturally aspirated engine combinations
- Big bore 4.6L aluminum block with cast iron liners
- 94 mm (3.70") cylinder bore size. Stock cylinder bore size 90.2 mm (3.552")
- 227 mm (8.9370") deck height (same as 4.6L)
- Produces 5.0L displacement when used with a 4.6L stock stroke crankshaft, stock length connecting rods and custom 94 mm-diameter pistons
- Cross-bolted main bearing caps
- Requires Water Pump YR3Z-8501-AB/Motorcraft® PW-402 long 87 mm (3.425") Pump or YW7Z-8501-BB/Motorcraft® PW-409 short 65 mm (2.559") Pump
- Same block that is used in the 5.0L "Cammer" crate engine
- Replacement Sleeve M-6055-B

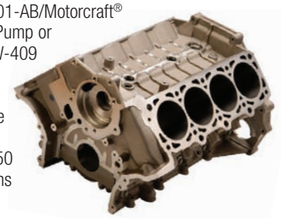


5.0L ALUMINUM CYLINDER BLOCK – STREET/STRIP APPLICATIONS

M-6010-SST50*

NEW

- Big bore 4.6L aluminum block with cast iron liners
- 94 mm (3.70") cylinder bore size. Stock cylinder bore size 90.2 mm (3.552")
- 227 mm (8.9370") deck height (same as 4.6L)
- Produces 5.0L displacement when used with a 4.6L stock stroke crankshaft, stock length connecting rods and custom 94 mm-diameter pistons
- Cross bolted main bearing caps
- Machined for heater return fitting (heater return fitting included)
- Thermostat bypass drilled in LH deck face
- Compatible with 2V/3V/4V cylinder heads
- Reduced valley depth limits intake manifold/supercharger applications
- Will accept production 3V production intake or 3V Whipple® supercharger
- Will not accept 2003-2004 Cobra production supercharger
- Will not accept 1996-2001 Cobra or 2003-2004 Mach 1 production intake manifold
- Will not accept 1996-2004 4.L 2V production intake manifold
- Requires Water Pump YR3Z-8501-AB/Motorcraft® PW-402 long 87 mm (3.425") Pump or YW7Z-8501-BB/Motorcraft® PW-409 short 65 mm (2.559") Pump
- Same block that is used in the 5.0L "Cammer" crate engine
- Replacement Sleeve M-6055-B
- Head Changing Kit M-6067-3V50 recommended for 3V applications



5.0L CAST IRON BOSS CYLINDER BLOCK

M-6010-BOSS50*

The BOSS 5.0 block is a 4.6L deck height, 94 mm cylinder bore cast iron block. Cast in Ford's Cleveland plant, it uses a proprietary iron mix to yield the strongest possible casting strength with least porosity and greatest consistency.

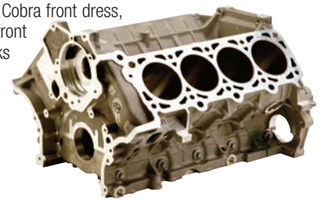
- Siamese 94 mm bore
- 17 mm main web minimal thickness
- 4-bolt main with interference fit nodular iron machined caps
- Increased main web window size for less oil movement and greater power
- Weighs approximately 165 lbs



4.6L ALUMINATOR CYLINDER BLOCK FOR SUPERCHARGED

M-6010-A46SC*

- Latest generation aluminum 4.6L block
- Features chilled bulkhead casting process for a stronger main web and bulkheads
- Round main web windows reduce stress areas for potential failure
- Ball burnished 17 mm-thick main caps for strength and rigidity
- Machined for 2003-2004 Cobra front dress, will also fit some 2-valve front dress from iron 4.6L blocks
- Knock sensor mounting bosses eliminated for use with supercharger applications



4.6L ALUMINATOR CYLINDER BLOCK NATURALLY ASPIRATED

M-6010-A46NA*

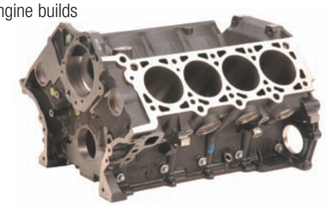
- Latest generation aluminum 4.6L block
- Features chilled bulkhead casting process for a stronger main web and bulkheads
- Round main web windows reduce stress areas for potential failure
- Ball burnished 17 mm-thick main caps for strength and rigidity
- Works with most production 4.6L aluminum block front dress



4.6L PRODUCTION CAST IRON CYLINDER BLOCK

M-6010-D46**

- Production replacement 4.6L SOHC 2V cylinder block
- Great for custom engine builds
- Fully machined

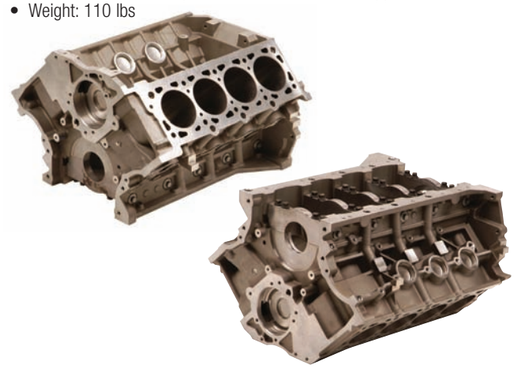


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5.4L ALUMINUM CYLINDER BLOCK DRY SUMP

M-6010-GT**

- Original equipment for the 2005 Ford GT supercar
- 356-T6 aluminum casting with cast iron sleeves
- 90.2 mm bore
- Dry sump machined, can be machined for wet sump
- Enhanced bulkhead and main webbing strength compared to production 4.6L aluminum block
- Machined for piston oil squirters
- Block modifications required for starter in non-GT applications
- Weight: 110 lbs



5.4L ALUMINUM CYLINDER BLOCK WET SUMP

M-6010-GTWS*

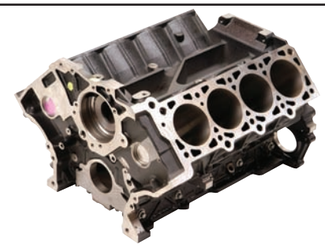
- Machined for wet sump block mount modular oil pump, modular wet sump oil pan, dipstick, torque converter access and starter mounting pocket
- 356-T6 aluminum casting with cast iron sleeves
- Finish honed 90.2 mm bore, ready to assemble
- Enhanced bulkhead and main webbing strength compared to production 4.6L aluminum block
- Machined for piston oil squirters, includes blockoff plugs. Oil squirters not included
- Weight: 110 lbs



5.4L PRODUCTION CAST IRON CYLINDER BLOCK

M-6010-M54**

- Production 5.4L block
- Windsor-style main cap locators
- 90.2 mm bore size
- Newer casting design features lower-end improvements to minimize noise, vibration and harshness





NHRA® Super Comp Aeromotive Dragster
FRPP Content:
Ford Racing 5.4L Cobra Jet Engine

ENGINE GROUP PART NUMBER	302 FORD M-6010-BOSS302*	302 FORD M-6010-B302BB*	351 FORD M-6010-BOSS35192*	351 FORD M-6010-BOSS35195*	351 FORD M-6010-BOSS351BB*	351 FORD M-6010-CG351*
Description/Intended Usage	Professional Competition	Professional Competition	Professional Competition	Professional Competition	Professional Competition	Professional Competition
Block Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Compacted Graphite Iron
Nominal Deck Height	8.206"	8.206"	9.200"	9.500"	9.500"	9.125"
CID Capacity	363	363	427	454	468	434
Cylinder Design	Siamese	Siamese	Siamese	Siamese	Siamese	Siamese
Cylinder Bore Range	4.000-4.125"	4.000-4.125"	4.000-4.125"	4.000-4.125"	4.000-4.185"	4.000-4.180"
Oil Sump Design	Wet	Wet	Wet	Wet	Wet	Dry
Crankshaft Journal Diameter	2.2480"	2.248"	2.750"	2.750"	2.750"	2.248"
Main Cap Bolts	Four on 2,3,4	Four on 2,3,4	Four on 2,3,4	Four on 2,3,4	Four on 2,3,4	Four
Bearing Cap Material	Nodular Iron	Nodular Iron	Nodular Iron	Nodular Iron	Nodular Iron	Billet Steel
Recommended Max. Stroke	3.400"	3.400"	4.000"	4.250"	4.250"	4.000"
Rear Crankshaft Seal Type	One Piece	One Piece	One Piece	One Piece	One Piece	One Piece
Cam Bearing Design	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam
Oil Filter Mount	Block	Block	Block	Block	Block	Remote
Hyd. Roller Cam. Compatible	Yes	Yes	Yes	Yes	Yes	No
Cam Plug	M-6026-S351	M-6026-S351	M-6026-S351	M-6026-S351	M-6026-S351	M-6026-S351

ENGINE GROUP PART NUMBER	351 FORD M-6010-CG452*	460 FORD M-6010-SCJ*	460 FORD M-6010-A460*	NASCAR® FORD M-6010-R500*	NHRA® FORD M-6010-JC50*	NHRA® FORD M-6010-JC51*
Description/Intended Usage	Professional Competition	Professional Competition	Professional Competition	Professional Competition	Professional Competition	Professional Competition
Block Material	Compacted Graphite Iron	Cast Iron	Cast Iron	Compacted Graphite Iron	Compacted Graphite Iron	Compacted Graphite Iron
Nominal Deck Height	9.125"	10.322"	10.322"	9.000"	9.125"	9.125"
CID Capacity	434	598	598	–	–	–
Cylinder Design	Siamese	Siamese	Siamese	Non-Siamese	Siamese	Siamese
Cylinder Bore Range	4.000-4.180"	4.360-4.625"	4.360-4.625"	4.000-4.185"	4.590-4.750"	4.590-4.750"
Oil Sump Design	Dry	Wet	Wet	Dry	Dry	Dry
Crankshaft Journal Diameter	2.248"	3.000"	3.000"	2.000-2.250"	2.500"	2.500"
Main Cap Bolts	Four	Four on 2,3,4	Four on 2,3,4,5	Four	Four	Four
Bearing Cap Material	Steel	Nodular Iron	Nodular Iron	Steel	Steel	Steel
Recommended Max. Stroke	4.000"	4.500"	4.500"	–	–	–
Rear Crankshaft Seal Type	One Piece	Two Piece	Two Piece	One Piece	One Piece	One Piece
Cam Bearing Design	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam	Std.	Std.	Roller	Roller	Roller
Oil Filter Mount	Remote	Block	Block	Remote	Remote	Remote
Hyd. Roller Cam Compatible	No	–	–	–	–	–
Cam Plug	M-6026-S351	Std.	–	–	–	–

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE COMPONENTS – BLOCKS



FR BOSS 302



Did you know…
The BOSS 302 block features cylinder bores designed for stroker applications without additional clearancing. Durability tested up to 3.400" stroke, some racers have run as much as 3.500" stroke and 9.00 ets!

FR BOSS 351



	STOCK 302	1969-1970 BOSS 302	FR BOSS 302	1971 BOSS 351	FR BOSS 351 9.2"	FR BOSS 351 9.5"
Main caps	2-bolt cast iron	4-bolt cast iron (2,3,4)	4-bolt nodular iron machined splayed (2,3,4)	4-bolt cast iron	4-bolt nodular iron machined splayed (2,3,4)	4-bolt nodular iron machined splayed (2,3,4)
Siamese bore	No	No	Yes with engineered cross drilling	No	Yes with engineered cross drilling	Yes with engineered cross drilling (BB no cross drilling)
Freeze plugs	Press	Screw in tapered pipe thread	Screw in O-ring sealed straight thread	Press	Screw in O-ring sealed straight thread	Screw in O-ring sealed straight thread
Material	Cast iron	Cast iron	Diesel grade heat treated cast iron	Cast iron	Diesel grade heat treated cast iron	Diesel grade heat treated cast iron
Head bolts	7/16"	7/16"	1/2"	1/2"	1/2"	1/2"
Recommended Max. Bore	4.030"	4.030"	4.125"	4.030"	4.125"	4.125" (BB 4.185 with sonic check)
Front oil crossover for lifter galley	No	No	Yes	No	Yes	Yes
Main bolts	7/16"	7/16" (all) 3/8" outer (2,3,4)	1/2" (all) 3/8" outer (2,3,4)	1/2" (all) 3/8" (all)	1/2" (all) 3/8" outer (2,3,4)	1/2" (all) 3/8" outer (2,3,4)
Oil galley plugs	Pipe thread and press in	Pipe thread	Screw in O-ring sealed straight thread	Pipe thread and modified locking	Screw in O-ring sealed straight thread	Screw in O-ring sealed straight thread
Hydraulic roller compatible	Yes	No	Yes	No	Yes	Yes
Clutch cross shaft pivot hole	No	Yes	Yes	Yes	Yes	Yes
Rear main seal	1-piece	2-piece	1-piece	2-piece	1-piece	1-piece
CID capacity	347	347	363	408	427	454 (BB 468)

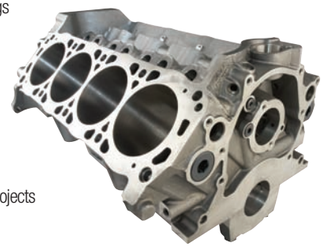
*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

BOSS 302 CYLINDER BLOCKS

M-6010-BOSS302* Finished at 3.990" to 3.995" rough bore
M-6010-B302BB* Finished at 4.115" rough bore

The legend is reborn with these all-new 302 blocks! Stronger than the original!

- 8.2" deck height, finished at 8.200" plus .010" to .015"
- Maximum recommended stroke 3.400"
- Splayed 4-bolt main on 2, 3, 4, main caps
- 2-bolt main on first and fifth main caps
- Main bearing bores finished to low limit
- Finished lifter bores
- Machined to accept factory roller lifter guides and lifter guide retainer
- Fits factory Mustang oil pan with custom oil pickup tube
- Revised oiling and cooling system passageways
- Siamese bore with drilled coolant crossover holes (except on M-6010-B302BB)
- Increased bulkhead material
- Threaded core and galley plugs (straight thread port plugs with O-ring)
- Requires special length ½" Head Bolts M-6065-BOSS or Head Studs M-6014-BOSS recommended with M-6049-X306/307/Z304DA Heads
- Designed for M-6049-X306/X307/C3/D3/Z304DA Cylinder Heads. Not designed for production 302/351W or M-6049-Y302/Y303/X302/X303/X304/X305 Cylinder Heads
- Uses common OD Cam Bearings M-6261-J351/R351
- Unique Cam Plug M-6026-S351 included
- M-6051-S331 or M-6051-CP331 Head Gasket recommended
- Weighs approximately 175 lbs
- Great price and value
- The foundation for 8.2" deck projects



BOSS 351 CYLINDER BLOCK 9.2" DECK

NEW

M-6010-BOSS35192*

The all-new 351 9.2" deck block!

- Same as M-6010-BOSS35195 except at 9.2" deck height
- 4.125" bore capacity, finished at 3.990" to 3.995" rough bore
- 9.2" deck height, finished at 9.200" plus .010" to .015"
- Maximum recommended stroke 4.00", clearance dependent on crankshaft/ connecting rod manufacturer
- Splayed 4-bolt main on 2, 3, 4, main caps
- 2-bolt main on 1 and 5 main caps
- Main bearing bores finished to low limit
- Finished lifter bores
- Machined to accept factory roller lifter guides and lifter guide retainer
- Revised oiling and cooling system passageways
- Siamese bore with drilled coolant crossover
- Increased bulkhead material
- Threaded core and galley plugs (straight thread port plugs with O-ring)
- Requires special length ½" Head Bolts M-6065-BOSS or Head Studs M-6014-BOSS recommended with M-6049-X306/307/Z304DA Heads
- Designed for M-6049-X306/X307/C3/D3/Z304DA Cylinder Heads. Not designed for production 302/351W or M-6049-Y302/Y303/X302/X303/X304/X305 Cylinder Heads
- M-6051-S331 or M-6051-CP331 Head Gasket recommended
- Weighs approximately 195 lbs
- Great price and value
- The foundation for 9.2" deck projects



BOSS 351 CYLINDER BLOCK 9.5" DECK

NEW

M-6010-BOSS35195*

The legend is reborn with this all-new 351 block! Stronger than the original!

- 4.125" bore capacity (sonic check recommended), finished at 3.990" to 3.995" rough bore
- 9.5" deck height, finished at 9.500" plus .010" to .015"
- Maximum recommended stroke 4.250", clearance dependent on crankshaft/ connecting rod manufacturer
- Splayed 4-bolt main on 2, 3, 4, main caps
- 2-bolt main on 1 and 5 main caps
- Main bearing bores finished to low limit
- Finished lifter bores
- Machined to accept factory roller lifter guides and lifter guide retainer
- Revised oiling and cooling system passageways
- Siamese bore with drilled coolant crossover
- Increased bulkhead material
- Threaded core and galley plugs (straight thread port plugs with O-ring)
- Requires special length ½" Head Bolts M-6065-BOSS or Head Studs M-6014-BOSS recommended with M-6049-X306/307/Z304DA Heads
- Designed for M-6049-X306/X307/C3/D3/Z304DA Cylinder Heads. Not designed for production 302/351W or M-6049-Y302/Y303/X302/X303/X304/X305 Cylinder Heads
- Uses common OD Cam Bearings M-6261-J351/R351
- Unique Cam Plug M-6026-S351 included
- M-6051-S331 or M-6051-CP331 Head Gasket recommended
- Weighs approximately 205 lbs
- Great price and value
- The foundation for 9.5" deck projects



BOSS 351 CYLINDER BLOCK 9.5" DECK BIG BORE

NEW

M-6010-BOSS351BB*

The all-new 351 9.5" deck block for big bore builds!

- Same as M-6010-BOSS35195 except allows for bigger bore by deleting coolant crossover holes between cylinders
- 4.185" bore capacity (sonic check recommended), finished at 4.12" rough bore
- 9.5" deck height, finished at 9.500" plus .010" to .015"
- Maximum recommended stroke 4.250", clearance dependent on crankshaft/ connecting rod manufacturer
- Splayed 4-bolt main on 2, 3, 4, main caps
- 2-bolt main on 1 and 5 main caps
- Main bearing bores finished to low limit
- Finished lifter bores
- Machined to accept factory roller lifter guides and lifter guide retainer
- Revised oiling and cooling system passageways
- Increased bulkhead material
- Threaded core and galley plugs (straight thread port plugs with O-ring)
- Requires special length ½" Head Bolts M-6065-BOSS or Head Studs M-6014-BOSS recommended with M-6049-X306/307/Z304DA Heads
- Designed for M-6049-X306/X307/C3/D3/Z304DA Cylinder Heads. Not designed for production 302/351W or M-6049-Y302/Y303/X302/X303/X304/X305 Cylinder Heads
- Uses common OD Cam Bearings M-6261-J351/R351
- Unique Cam Plug M-6026-S351 included
- Weighs approximately 195 lbs
- Great price and value
- The foundation for big bore 9.5" deck projects



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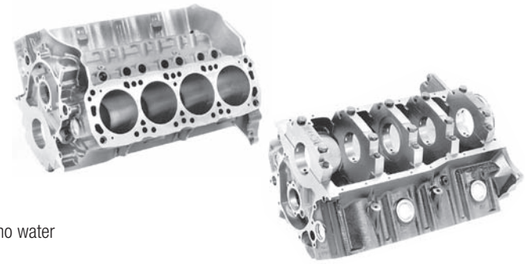
ENGINE COMPONENTS – BLOCKS

351 SIAMESE BORE CYLINDER BLOCK DRY SUMP

M-6010-R452*

- 4.180" overbore capacity
- Cast iron block with 4-bolt main caps and strengthened structural sections
- Nodular iron main caps
- Can be bored/stroked to produce 434 cubic inches
- Siamese cylinder bores
- Bore range from 4.000"-4.180"
- Dry sump oiling design
- 2.248" main journal diameter (stock 302 size)
- Weighs approximately 190 lbs
- For professional competition (NASCAR®)
- Semi-finished lifter bores and main bearing bores—must be honed to fit
- Uses common OD Cam Bearings M-6261-J351/R351. See page 115
- Requires Cam Plug M-6026-S351 included

NOTE: Siamese blocks are solid casting between the cylinder bores. There are no water passages between them. This is done to increase the strength of the block.



351 SIAMESE BORE LIGHT-WEIGHT CYLINDER BLOCK DRY SUMP

NEW

M-6010-CG452*

- 4.180" max bore capacity
- Compacted graphite cast iron material—stronger than grey iron
- 4-bolt main caps and strengthened structural section
- Billet main caps of 4140 steel
- Can be bored and stroked to produce 434 cubic inches
- Siamese cylinder bores
- Bore range from 4.000" to 4.180"
- Dry sump oiling design
- 2.248" main journal diameters (stock 302 size)
- Weighs approximately 157 lbs (33 lbs lighter than grey iron version)
- For professional competition
- Lifter bores, semi-finished, ready to hone
- Main bearing bores—must be honed to fit
- Uses common OD Cam Bearings M-6261-J351
- Requires Cam Plug M-6026-S351 included
- "O" ringed—threaded core and galley plugs included
- 9.125" deck height



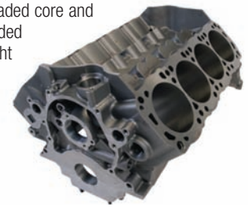
Partial machined block shown

351 SIAMESE BORE LIGHT-WEIGHT CYLINDER BLOCK DRY SUMP

NEW

M-6010-CG351*

- 4.180" max bore capacity
- Compacted graphite cast iron material—stronger than grey iron
- 4-bolt main caps and strengthened structural section
- Billet main caps of 4140 steel
- Can be bored and stroked to produce 434 cubic inches
- Siamese cylinder bores
- Bore range from 4.000" to 4.180"
- Dry sump oiling design
- 2.248" main journal diameters (stock 302 size)
- Weighs approximately 157 lbs (33 lbs lighter than grey iron version)
- For professional competition
- NO LIFTER BORES, machining for lifter bores required
- Main bearing bores—must be honed to fit
- Uses common OD Cam Bearings M-6261-J351/R351
- Requires Cam Plug M-6026-S351 included
- "O" ringed—threaded core and galley plugs included
- 9.125" deck height



Partial machined block shown

FR9 NASCAR® CYLINDER BLOCK

NEW

M-6010-R500* 9.000" deck height

Features:

- Light-weight compacted graphite iron casting
- Cross-flow cooling
- Cast-in camshaft tunnel
- Inner and outer piston squirter provisions
- Front engine plate mounting (no side mounts)
- Dry sump only design
- 4-bolt steel main caps
- Internal oil passages to the cylinder heads

Specifications:

- Deck Height: 9.000"
- Bore Spacing: 4.500"
- Camshaft Height: 6.150"
- Bore Size Range: 4.000"-4.185"
- Main Journal Diameter: 2.000"-2.250"
- Cam Bearing Diameter: 60 mm roller

Required Components:

- Cylinder Head: M-6049-E1
- Water Manifold: M-8C368-FR9
- Water Pump Assembly: M-8051-FR9

Recommended Use:

- Approved for the NASCAR® Sprint Cup Series
- Circle track competition

Builder Notes:

- Semi-finished cylinder bores, main bearing bores and lifter bores—must be honed to final size
- The FR9 engine is unique and does not share any components with previous 351 Windsor- or Cleveland-based engines
- For FR9 engine related components, contact Roush-Yates® Performance Parts, phone (704) 662-6982



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



AVAILABLE AFTER SPRING 2010. Call the Techline at (800) FORD788.

FORD RACING 460 SCJ CYLINDER BLOCK

M-6010-SCJ* 10.322" deck height

- Cast iron block with 4-bolt main caps on journals 2, 3 and 4
- Nodular iron main caps
- Can be bored/stroked to produce 605 cubic inches
- Siamese cylinder bores
- Bore range from 4.360"-4.625"
- Wet sump oiling design
- Priority oiling to the mains
- Threaded core and galley plugs (straight thread port plugs with O-ring)
- 3.000" main journal diameter
- Weight, TBD
- High-strength block for professional competition

NOTE: Siamese blocks are solid casting between the cylinder bores. There are no water passages between them. This is done to increase the strength of the block.

	STOCK 429	1970-1971 429 SCJ	FR SCJ
Main caps	2-bolt cast iron	4-bolt cast iron (2,3,4)	4-bolt main nodular (2,3,4)
Siamese bore	No	No	Yes
Freeze plugs	Press fit	Press fit	Screw in O-ring sealed straight thread
Material	Cast iron	Cast iron	Cast iron
Head bolts	9/16"	9/16"	9/16"
Recommended Max. Bore	4.390"	4.390"	4.625"
Priority oiling to the mains	No	No	Yes
Main bolts	1/2"	1/2" (all) 3/8" outer (2,3,4)	1/2" (all) 1/2" outer (2,3,4)
Oil galley plugs	Pipe thread and modified locking	Pipe thread and modified locking	Screw in O-ring sealed straight thread
CID capacity	545	545	605



STOCK 429



1970-1971 429 SCJ



M-6010-SCJ

460 SIAMESE BORE CYLINDER BLOCK

M-6010-A460* 10.322" deck height

Proudly Made in the USA

- Cast iron block with 4-bolt main caps on journals 2, 3 and 4
- Nodular iron main caps
- Can be bored/stroked to produce 598 cubic inches
- Siamese cylinder bores
- Bore range from 4.360"-4.600"
- Wet sump oiling design
- 3.000" main journal diameter
- Weighs approximately 290 lbs
- High-strength block for professional competition

NOTE: Siamese blocks are solid casting between the cylinder bores. There are no water passages between them. This is done to increase the strength of the block.



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See pages 3-9 for important safety, emissions and warranty information.

4.6L/5.4L 2V POWER IMPROVEMENT (PI) CYLINDER HEAD ASSEMBLIES

NEW

M-6049-P46** RH 2V
M-6050-P46** LH 2V

Proudly Made in the USA

- Current production 4.6L SOHC 2V Romeo engine aluminum cylinder heads
- Fully machined and assembled with production Mustang GT valve train and camshaft
- Great for custom engine builds
- Less expensive than replacing valve train and remachining a used cylinder head
- Less expensive alternative to aftermarket performance heads
- Can be used on 1996-1998 engines with additional modifications and parts
- 43.9cc /- 1.5cc combustion chamber
- Raises compression on 1996-1998 engines to 10:1

NOTE: Requires installation of oil galley plugs (not included).



M-6049-P46 shown



M-6050-P46 shown

4.6L/5.4L 3V CYLINDER HEADS

M-6049-N3V** RH
M-6050-N3V** LH

Proudly Made in the USA

NEW

- Production 3V cylinder head
- Finished machined casting with guides and seats installed
- Ready for assembly
- Direct replacement for 2008-2010 Mustangs with 12 mm spark plugs
- Heads will fit early cars originally equipped with "High Thread" design spark plugs. Requires spark plug and ignition coil update

NOTE: Engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E. Engines with early style 16 mm "High Thread" design spark plugs can be identified by coil engineering number 3L3E part number.







4.6L/5.4L CNC PORTED 3V CYLINDER HEAD ASSEMBLIES

Proudly Made in the USA

NEW

M-6049-N3VPA* RH
M-6050-N3VPA* LH



- New production cylinder head castings
- CNC ported to increase flow and performance
- 50.3cc combustion chamber
- Intake flow increased approximately 20%
- Exhaust flow increased approximately 30%
- Bronze guides
- Assembled with production springs, valves, retainers, locks and seals
- Does not include camshaft, followers and hydraulic lash adjusters
- Minimize your vehicle down time waiting for a shop to port your heads. Get a brand new head for a little more than the price of exchange!
- No exchange required
- Requires 2008-2010 12 mm spark plugs
- Heads will fit early cars originally equipped with "High Thread" design spark plugs. Requires spark plug and ignition coil update

NOTE: Engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E. Engines with early style 16 mm "High Thread" design spark plugs can be identified by coil engineering number 3L3E part number.

4.6L/5.4L HIGH-FLOW CNC HEADS

NEW

M-6049-463VP3* RH
M-6050-463VP3* LH

Proudly Made in the USA



- New production cylinder head castings
- CNC ported to increase flow and performance
- 50.3cc combustion chamber
- Increased valve sizes, 35.00 mm intakes and 38.00 mm exhaust
- Intake flow increased (see www.fordracingparts.com)
- Exhaust flow increased (see www.fordracingparts.com)
- Bronze guides, light-weight steel retainers, upgraded valve springs
- Does not include camshaft, followers and hydraulic lash adjusters
- Minimize your vehicle down time waiting for a shop to port your heads. Get brand new heads for a little more than the price of exchange!
- No exchange required
- Requires 2008-2010 12 mm spark plugs
- Heads will fit early cars originally equipped with "High Thread" design spark plugs. Requires spark plug and ignition coil update

NOTE: Engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E. Engines with early style 16 mm "High Thread" design spark plugs can be identified by coil engineering number 3L3E part number.



Brandon Davis –
SPEED World Challenge Champion
2010 Mustang GT
FRPP Content:
Ford Racing 5.4L Engine Block
Ford Racing Aluminum 4V Ford GT Cylinder Heads

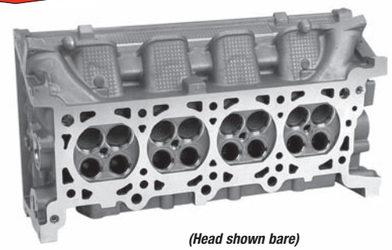
*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE COMPONENTS – HEADS

FORD GT CYLINDER HEAD ASSEMBLIES

Proudly Made in the USA

M-6049-GT** RH
M-6099-GT** LH



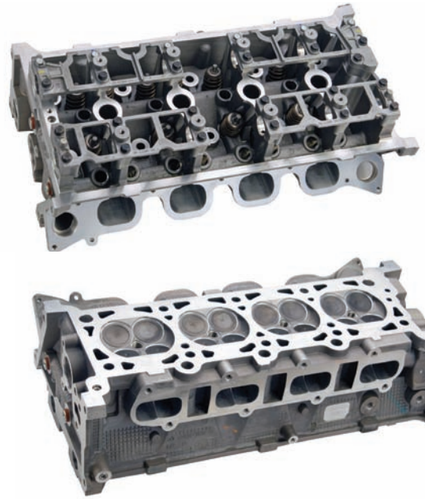
(Head shown bare)

- Ford GT heads feature a reduced-size lash adjuster allowing for a raised intake port, creating a more direct intake path
- These heads are the final revision of the 2000 Cobra "R" heads
- The most durable, highest-flowing Modular engine cylinder heads available
- Same casting used on M-6007-R50 Grand-Am Cup Race engine
- Fully loaded assembly
- 37 mm intake valves, 32 mm exhaust valves
- Intake valve lift: 11.14 mm, exhaust valve lift: 11.36 mm
- 52.7cc +/- 1.5cc combustion chambers

4.6L/5.4L CNC PORTED 4-VALVE CYLINDER HEAD ASSEMBLIES

Proudly Made in the USA

M-6049-464P* RH CNC ported
M-6050-464P* LH CNC ported

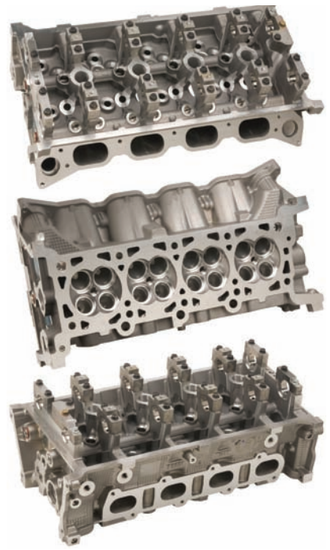


- New production cylinder head castings
- Fits 1999-2004 DOHC 4.6L Mustangs
- 52cc combustion chambers
- CNC ported to increase flow and performance
- Intake flow increased approximately 15%
- Exhaust flow increased approximately 29%
- Assembled with 2004 Cobra production springs, valves, retainers, locks and seals
- Does not include camshafts, followers and hydraulic lash adjusters
- Minimize your vehicle down time waiting for a shop to port your heads. Get a brand new head for a little more than the price of exchange!
- No exchange required

FR500C CYLINDER HEADS

Proudly Made in the USA

M-6049-DAC* RH
M-6050-DAC* LH



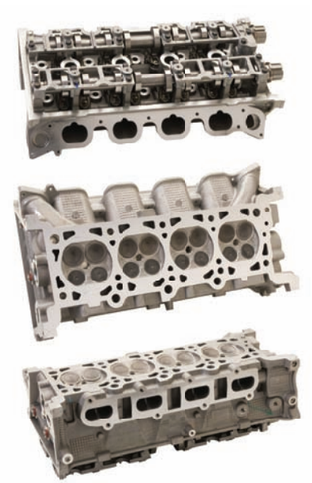
- Ford GT heads feature a raised intake port, creating a more direct intake path
- These heads are the final revision of the 2000 Cobra "R" heads
- The most durable, highest-flowing Modular engine cylinder heads available
- Used on M-6007-R50 Grand-Am Cup Race engine
- Same as production Ford GT heads but with bronze guides and beryllium copper valve seats
- 52.7cc +/- 1.5cc combustion chambers

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

4.6L/5.4L 4V CYLINDER HEAD ASSEMBLIES W/CAMS

M-6049-464V* RH
M-6050-464V* LH

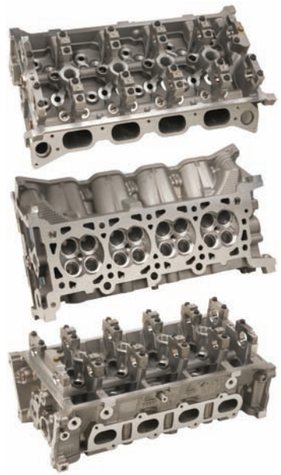
- Fully assembled with production valves, springs, cams and followers
- Production 2003-2004 Cobra/Mach 1 cylinder head
- Production 2003-2004 Mach 1 camshafts



DP/MR CYLINDER HEADS

M-6049-DAMR* RH
M-6050-DAMR* LH

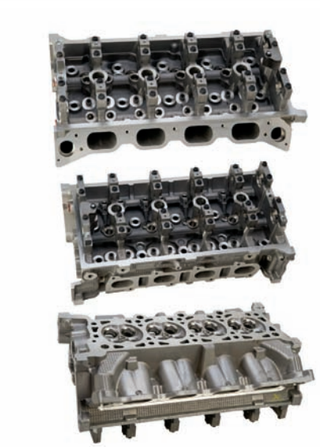
- Ford GT head without seats and guides
- Same as used on Mustang FR500GT3, Daytona® Prototype and Matech® Concepts' Ford GT



MUSTANG SVT 5.4L CYLINDER HEADS

M-6049-MSVT* RH
M-6050-MSVT* LH

- Production Mustang SVT 5.4L cylinder head
- Finished machined bare casting ready for assembly
- Valve guides are installed
- Oil restrictor is included with head
- Head is 100% leak tested



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE COMPONENTS – HEADS

302/351W "TURBO SWIRL" ALUMINUM CYLINDER HEADS

M-6049-X306*
Assembled head (64cc chamber)
M-6049-X307*
Assembled head (58cc chamber)



THE FAST, EASY WAY TO BOLT ON 65 HORSEPOWER! TRUE BOLT-ON PERFORMANCE

- For use on 289/302/351 Windsor-style engines
- Improved airflow over original GT-40 aluminum heads
- Intake flows approximately 240 cfm at .550" lift (at 28" of H_20)
- Exhaust flows approximately 170 cfm at .500" lift (at 28" of H_20)
- Machined for 1.94" intake and 1.54" exhaust valve diameters
- Ford Racing "X" heads use either GT-40 or aftermarket performance intake manifolds
- Intake port volume 178cc, exhaust port volume 62cc
- High-temperature exhaust valve seats. Thick deck for improved sealing, increased section thickness in critical areas for porting and webbed rocker bosses for improved strength. Designed for bolt-on rocker arms, machined for tapered seat spark plug or gasketed. Compatible with Ford Racing intakes, headers and valve train components. Can be machined for diagonal exhaust header flange mounting
- High-quality original equipment style 356-T6 aluminum castings, machining and components
- Each aluminum head weighs approximately 22 lbs—approximately 25 lbs lighter than each cast iron GT-40 head
- These GT-40 style heads use AGSF-32C Spark Plugs
- Each GT-40X head is leak tested prior to assembly
- Assembled with M-6507-J302 Intake Valves, M-6505-G302 Exhaust Valves, M-6513-A50 Valve Springs. The valve springs are compatible with all Ford Racing roller camshafts
- Designed to be used on Ford Racing BOSS blocks with Head Gasket M-6051-CP331

INSTALLATION NOTES

- Will not fit 1986 5.0L with flat-top pistons unless pistons are notched for valve relief
- Must use Head Bolt Kit M-6065-D289 to install cylinder heads on 289/302 blocks or head bolt and Head Gasket Kit M-6051-A50 and Intake Gasket M-9439-A50/A51
- Check rocker arm clearance to valve springs with production rocker arms
- Check your intake manifold for port match; not all intakes are compatible due to the tall high-flow ports
- Must use M-9439-A50 Intake Gasket
- Designed for bolt-down Rocker Arms M-6564-B351 or M-6564-A50

302/351W HIGH-FLOW ALUMINUM CYLINDER HEADS

M-6049-Z304D* Bare head
M-6049-Z304DA* Assembled head
M-6049-Z304P* CNC ported head



BARE HEAD FEATURES

- This cylinder head was designed using Solid Modeling Technology
- Cast from prime A356-T6 aluminum
- Fits 5.0L/5.8L Windsor engines
- Heads are cast with high-flow ports
- 20-degree inline valves
- Suggested valve sizes: 2.02" intake and 1.60" exhaust
- Requires competition valve job and bowl blending
- Steel alloy intake and exhaust valve seats installed (no valve job)
- Manganese-bronze valve guides installed with semi-finished ID
- 63cc CNC'd combustion chamber
- Intake port volume as cast: 204cc
- Exhaust port volume as cast: 85cc
- Bare head weighs 27 lbs
- Accepts both tapered seat and gasket style 14 mm spark plugs (Motorcraft® AGSP-32-PP, Autolite® 3924, 3925)
- Requires Guide Plate M-6566-Z304D (not included)
- Requires 7/16" screw-in studs (not included)
- Requires M-6564-F351 Roller Rocker Arms (not included)
- Uses M-6505-B304 Exhaust Valve and M-6507-A304 Intake Valve (not included)
- Raised exhaust port exit, custom headers may be required

ASSEMBLED HEAD FEATURES

- Premium stainless steel 2.02" Intake M-6507-A304 and 1.60" M-6505-B304 Exhaust Valves
- Uses M-6513-BH Beehive™-style Valve Springs with machined retainers and machined valve locks. Most hydraulic cams can be used with these springs. 130 lbs @ 1.800", 293 lbs @ 1.200" and CB @ 1.085"
- Includes laser cut Guide Plates M-6566-Z304D for use with 5/16" push rods and 7/16" rocker studs
- Requires M-6564-F351 Roller Rocker Arms (not included)
- Check piston to valve clearance including radial valve clearance before installing these cylinder heads on your engine
- Cork valve cover gasket recommended

PORTED HEAD FEATURES

- CNC ported version of M-6049-Z304D Cylinder Head to increase flow on intake and exhaust
- Intake and exhaust airflow increased approximately 10%
- Bare casting

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

302/351W HIGH-FLOW ALUMINUM CYLINDER HEAD AND ROCKER PACKAGE

M-6049-Z304A2*

- Blowout pricing on the venerable Z304 heads!
- This kit contains 2 high-flow M-6049-Z304A Cylinder Heads and a set of M-6564-K351 Roller Rockers!
- Supplies are limited so get yours while you can!





302/351W HIGH-FLOW ALUMINUM CYLINDER HEAD PACKAGE

M-6049-Z304DA2*

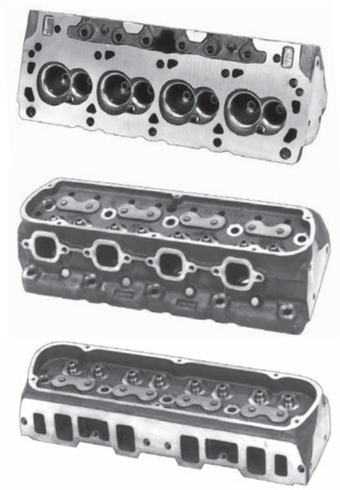
- The latest iteration of high-flow Z304D cylinder heads with a special package price!
- This kit contains 2 high-flow M-6049-Z304DA Cylinder Heads
- Roller rockers sold separately, M-6564-K351 Roller Rockers!



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302/351W FORD RACING "SPORTSMAN" SHORT TRACK CAST IRON CYLINDER HEADS

M-6049-N351* Bare head (64cc chamber)



The N351 "Sportsman" cylinder head has been retooled and is now in stock and ready to ship. Designed for Ford engines in NASCAR Late Model Series® Stock Cars, IMCA®, WISSOTA®, UARA® and most other stock car sanctioning groups on 351W engines. Developed by Ford Racing with the help of Robert Yates.

- For use in NASCAR Late Model Series® Stock, WISSOTA®, IMCA®, DIRT® and most other stock car sanctioning groups on 351W engines
- Machined for 2.02" intake and 1.60" exhaust valve diameters
- Intake and exhaust valves have been moved .070" to unshroud the intake valve
- Valve angle changed from 20 degrees to 10 degrees to further improve airflow
- Intake port volume 200cc, exhaust port volume 82cc (/- 2cc nominal)
- Thick deck and reinforced structure for improved sealing, increased section thickness in critical areas and webbed rocker bosses for improved strength. Designed for stud mount rocker arms. Compatible with stock and Ford Racing intakes
- These heads use .708" reach taper seat spark plugs

INSTALLATION NOTES

- Requires M-6564-F351 Roller Rocker Arms with offset intake valve push rod cup
- Unique header flange required
- Check head bolt length, may require non-stock length head bolt

Parts to assemble M-6049-N351*:

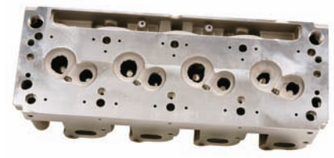
M-6566-D351*	Push rod guide plate (pkg. of 8)
M-6527-C311*	Rocker arm studs (pkg. of 16)
M-6505-A351*	High-flow stainless steel exhaust valve
M-6507-A351*	High-flow stainless steel intake valve
M-6514-A50	Retainers (pkg. of 16)

HIGH-PORT HEAD

M-6049-SC1*

- Unfinished combustion chambers, typical finished volumes range from 40cc to 70cc
- Raised intake and exhaust runners for better airflow and greater power
- Fits 302 and 351 Ford Racing blocks
- Used for Drag, Sprint Car and Circle Track Racing
- Intake and exhaust runner raised .400" over Yates® C3 head for better flow characteristics
- Intake valves up to 2.180" diameter, 5.685" long
- Exhaust valves up to 1.625" diameter, 5.565" long
- Redesigned integral rocker pad for greater stiffness
- Uses M-9424-W352 Intake Manifold with 9.200" deck block
- Uses Motorcraft® AGS Series spark plugs
- Cylinder head comes semi-finished. Machining does not include valve seat bores
- Must be ported
- Bronze guides and valve seats included





HIGH-PORT NASCAR® HEAD

M-6049-D3*

M-6049-D35* Without seats, guides or push rod holes

- Fits 5.0L and 5.8L Ford Racing blocks
- Raised intake and exhaust ports
- Used primarily in NASCAR® and ARCA® racing
- Intake and exhaust runners raised .400" over Yates® C3 head
- Capable of 400 cfm intake, 267 cfm exhaust
- Accepts intake valves up to 2.180" diameter, exhaust valves up to 1.625" diameter
- Integral rocker pad for greater stiffness
- Cylinder head comes semi-finished. Combustion chamber and ports, unfinished
- Bronze guides and valve seat inserts included (not installed)
- Intake manifold mounting bolt holes 90° to mounting flange
- Use with M-9424-D451 or -D452 Intake Manifold



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SUPER COBRA JET CYLINDER HEADS

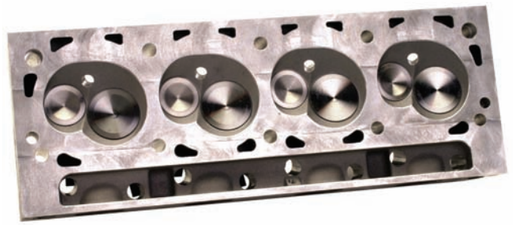
M-6049-SCJ* Bare head
M-6049-SCJA* Assembled head with dual springs
M-6049-SCJB* Assembled head with dual springs/damper

- Revised valve angles and locations to reduce cylinder wall shrouding and improve flow
- Redesigned combustion chambers to accommodate the more centrally located valves
- Standard Cobra Jet intake and exhaust manifolds bolt on
- Current valve covers fit
- 2.200" intake valve, 1.76" exhaust valve
- Flows approximately 330 cfm intake and 225 cfm exhaust
- 72cc combustion chambers
- 290cc intake runner, 148cc exhaust runner
- 25-50 hp increase over Ford Racing aluminum Cobra Jet heads depending on displacement and camshaft
- Uses Motorcraft® AGSP Series spark plugs

NOTE: If replacing Ford Racing or production Cobra Jet heads, new intake valve notches are required.









2.3L ALUMINUM CYLINDER HEAD

M-6049-E23A* D-port aluminum head
Available from: Esslinger® Engineering
1930 Doreen Ave.
South El Monte, CA 91733
Telephone: (626) 444-4919

NHRA® PRO STOCK CYLINDER HEAD

M-6049-E460*

- Made from 356-T6 aluminum
- Raw casting only

FR9 NASCAR® CYLINDER HEAD

NEW

M-6049-E1*

Features

- Light-weight A356-T6 aluminum casting
- Cross-flow cooling
- Internal oil passages for valve train lubrication
- Splayed and canted intake valves
- Five-bolt head bolt pattern

Specifications

- Intake valve angle: 11.0° x 4.0°
- Exhaust valve angle: 7.5° x 0°
- Valve spacing: 1.94"
- Intake flange angle: 90°
- Exhaust flange angle: 60°

Required Components

- Cylinder Block: M-6010-R500
- Water Manifold: M-8C368-FR9

Recommended Use

- Approved for the NASCAR® Sprint Cup Series
- Circle track competition

Builder Notes

- Heads are semi-finished requiring porting and combustion chamber machining
- Valve guides and seats are not included
- Water Manifold M-8C368-FR9 mounts directly to the cylinder heads
- The FR9 engine is unique and does not share any components with previous 351 Windsor- or Cleveland-based engines
- For FR9 engine related components, contact Roush-Yates® Performance Parts, phone (704) 662-6982





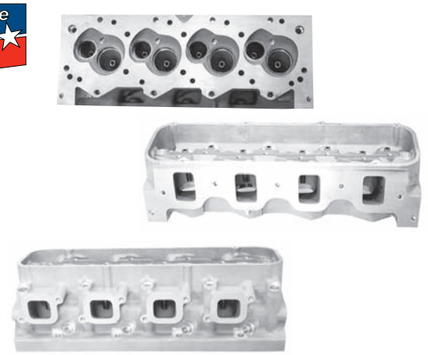
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ENGINE COMPONENTS – HEADS

FORD RACING 460 "SPORTSMAN" WEDGE-STYLE CYLINDER HEAD

M-6049-C460*

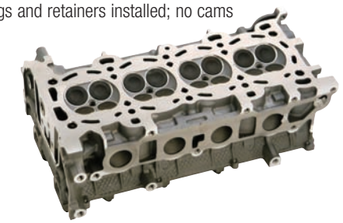
- For use with M-6010-A460 Ford Racing Cylinder Block
- Used for professional competition and serious "Sportsman" racers
- Made from 356-T6 aluminum, with bronze valve guides and a premium valve seat insert material compatible with titanium valves
- Valve angles are 7.5 degrees intake, 8.0 degrees exhaust with no side cant
- Raised intake and exhaust ports
- 65cc wedge-style combustion chamber
- 4.600" recommended bore size (4.500" minimum)
- 2.450" intake, 1.900" exhaust recommended diameters
- Port and combustion chamber design based on Ford Racing 351 Yates® cylinder head



2003-2008 FOCUS 2.0L/2.3L DURATEC® CNC PORTED ALUMINUM HEAD

M-6049-D23P*

- Fits 2003-2008 Focus with 2.0L/2.3L Duratec® engine
- High-Flow Duratec® cylinder head casting from 2.3L Duratec® engine
- CNC porting increases flow approximately 15% on intake and exhaust
- Accepts stock valve train
- Valves, springs and retainers installed; no cams



PRO STOCK HEAD – MIRROR IMAGE CHAMBERS

NEW

M-6049-JC50*

- Fits Pro Stock Engine Block M-6010-JC50 only
- Semi-finished 356-T6 alloy cylinder head with valve arrangement of I-E E-I I-E E-I
- Can accommodate intake valves of 2.600" diameter and exhaust of 1.900"
- Requires:
  - Rocker Cover M-6582-JC50
  - Cylinder Head Stud Kit M-6014-JC50

PRO STOCK HEAD – SEQUENTIAL CHAMBERS

NEW

M-6049-JC51*

- Fits Pro Stock Engine Block M-6010-JC51 only
- Semi-finished and designed by HTC-Profiler with valve arrangement of I-E I-E I-E I-E
- Can accommodate intake valves of 2.550" diameter and exhaust of 1.850"
- Requires:
  - Rocker Cover M-6582-JC51
  - Cylinder Head Stud Kit M-6014-JC51

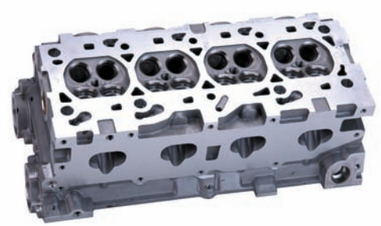
2000-2004 FOCUS 2.0L ZETEC® CNC PORTED ALUMINUM HEAD

M-6049-ZX3P* Assembled head

- Fits 2000-2004 Focus ZX3 2.0L
- CNC'd for flow improvement and includes 3-angle valve job
- Cast from prime 319 aluminum
- Assembled with 21-4N stainless steel intake and exhaust valves and production valve springs (tappets, cams and cam seals not included)
- Intake valve diameter: 33 mm
- Exhaust valve diameter: 30 mm
- Chamber volume: 47.7cc (nominal)
- Bare head weighs 28.3 lbs
- Production intake and exhaust manifolds bolt on

TYPICAL AIRFLOW (@ 28" OF H_2O DEPRESSION) AS DELIVERED

LIFT	INTAKE FLOW (SCFM)	EXHAUST FLOW (SCFM)
.050	38.0	32.8
.100	80.7	74.9
.150	119.1	109.1
.200	153.7	144.6
.250	181.0	167.9
.300	193.0	186.0
.350	204.8	188.5
.400	214.0	193.1
.550	220.3	195.2



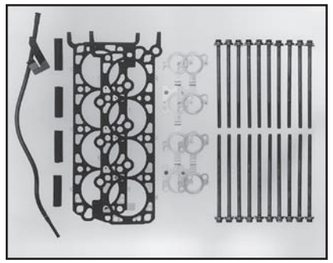
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CYLINDER HEAD CHANGING KITS

Proudly Made in the USA

M-6067-D46** SOHC 2V
M-6067-T46** DOHC 4V

- Contains all components necessary for changing cylinder heads on 1996-2004 4.6L Mustang
- Includes several parts that make this task significantly easier
- Highly recommended when installing M-6049-D46/P46 Cylinder Heads
- Kit includes multi-layer steel head gaskets and high-strength torque-to-yield head bolts



M-6067-D46 shown

CYLINDER HEAD STUD KIT

Proudly Made in the USA

M-6014-Z304*

- Use when installing M-6049-Z304/Z304A/Z304D/Z304DA Heads on a 351W block (except BOSS351 block)
- ½" diameter studs with 12-point nuts and hardened washers
- Sold in engine sets



C460 "SPORTSMAN" HEAD STUD KIT

Proudly Made in the USA

M-6014-G500*

- Fits M-6049-C460 Heads on M-6010-A460 Block
- Includes .500" studs, nuts and washers
- Manufactured by ARP® exclusively for Ford Racing

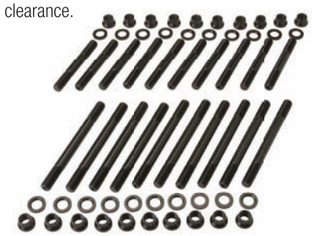
FORD RACING BOSS CYLINDER HEAD STUD KIT

Proudly Made in the USA

M-6014-BOSS

- 1/2" cylinder head studs required for installation of the Ford Racing M-6049-X306/X307/Z304DA Heads onto the M-6010-BOSS302, M-6010-B302BB, M-6010-BOSS35195, M-6010-BOSS35192, M-6010-BOSS351BB Blocks
- Includes 12-point nuts and hardened washers
- Sold in engine sets

NOTE: Check header to head stud and nut for clearance.



FORD RACING BOSS BLOCK HEAD BOLT SET

Proudly Made in the USA

M-6065-BOSS

- 1/2" cylinder head bolts required for installation of the Ford Racing M-6049-X306/X307/Z304DA Heads onto the M-6010-BOSS302, M-6010-B302BB, M-6010-BOSS35195, M-6010-BOSS35192, M-6010-BOSS351BB Blocks
- Includes hardened washers
- Sold in engine sets

HEAD BOLT KIT

Proudly Made in the USA

M-6065-D289* 351W type heads on 289/302 block

- Use when installing stock 351W, Ford Racing cast iron (M-6049-L302/L303) or Ford Racing aluminum Head (M-6049-Y302/Y303/X302/X303/X304/X305/X306/X307) on 289/302 blocks
- Kit features 20 ARP® cylinder head bolts with 7/16" diameter thread
- Includes 20 special stepped washers
- Sold in engine sets



3V 5.0L HEAD CHANGING KIT

Proudly Made in the USA

M-6067-3V50*

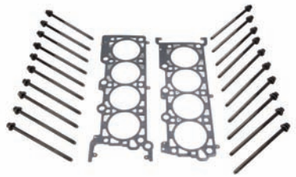
- Fits 5.0L Modular engine with 94 mm bore and 3V heads
- Kit includes multi-layer steel head gaskets and high-strength torque-to-yield head bolts
- Compatible with M-6010-BOSS50 or M-6010-T50 Blocks with 3V cylinder heads

5.4L 4V S/C HEAD CHANGING KIT

NEW

M-6067-MSVT

- Fits 5.4L DOHC engines
- Original equipment on 2007-2010 Mustang SVT and 2008 Mustang FR500CJ race car
- Improved sealing for high cylinder pressure applications
- Kit includes multi-layer steel head gaskets and high-strength torque-to-yield head bolts



BOSS 302 MAIN STUD AND BOLT KIT

NEW

M-6345-302MS

- Fits Ford Racing 302 BOSS Block M-6010-BOSS302
- Kit contains ten 1/2" main studs, washers and nuts. Six 3/8" bolts and washers

BOSS 351 MAIN STUD AND BOLT KIT

NEW

M-6345-351MS

- Fits Ford Racing 351 BOSS Blocks M-6010-BOSS35192, M-6010-BOSS35195 and M-6010-BOSS351BB
- Kit contains ten 1/2" main studs, washers and nuts. Six 3/8" bolts and washers



4.6L ALUMINUM BLOCK MAIN CAP BOLT KIT

NEW

M-6345-A46

- Fits 4.6L block M-6010-A46NA and M-6010-A46SC
- Kit contains main bolts for one block
- Bolts are torque-to-yield and must be replaced after each use



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CHECKING CAMSHAFT TIMING

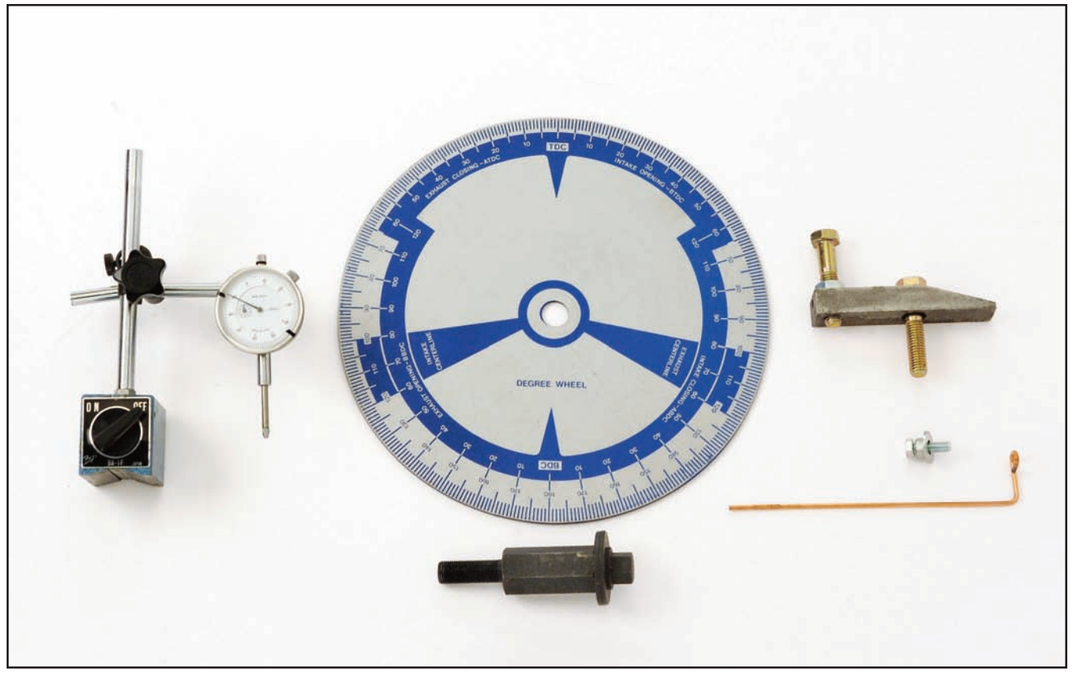
In order to check cam timing, you will need some specialty tools. You will need a degree wheel, dial indicator with magnetic base and a heavy wire for a timing pointer. Choose a large diameter wheel as they are easier to read and more durable. Some manufacturers sell kits with a rigid, adjustable pointer that mounts easily to the front of the engine. The other option is a heavy wire that is mounted to the block and bent into position.

Start with placing the dial indicator and stand on the right side block deck to measure travel of the CENTER of piston number 1 (passenger side, front). Bring number 1 to TDC (Top Dead Center) by observing when the dial indicator stops moving. Bolt the degree wheel to the front of the crankshaft, and attach the pointer to the front of the block so that the pointer is positioned at the zero degree reading on the wheel. To find exact TDC, first set the dial indicator to zero at the point of highest piston travel. Next, turn the crankshaft counterclockwise about 90 degrees. Then, slowly rotate the crankshaft clockwise (the normal direction of engine rotation) until the indicator is .030" below the TDC (zero) setting. Note the reading of the degree wheel at this point. Then, continue turning the crankshaft clockwise past the TDC about 90 degrees. Slowly rotate the crankshaft backwards counterclockwise until the same .030" below TDC is seen on the dial indicator. Again, note the degree wheel reading. Next, rotate the degree wheel so the pointer falls at the AVERAGE of the two observed readings. Lastly, relocate the pointer exactly over the zero reading of the degree wheel, and you will have perfectly dialed in TDC. Redo the procedure to satisfy yourself that the setting is correct, and then proceed to measure cam timing.

Install the number 1 cylinder intake lifter in the proper lifter bore. Position the dial indicator so the tip is on the edge of the lifter or in the center of the lifter. Extensions for the dial indicator may be necessary. Carefully line up the dial indicator so the travel of the indicator is linear to the lifter. Rotate the engine and observe the action of the lifter. Make sure the fully open and fully closed positions of the lifter are within the travel range of the dial indicator. Rotate the crankshaft until the lifter is at the highest point of its travel, and set the dial indicator to zero. Continue rotating the engine clockwise until the lifter starts to travel up again. Slowly continue until the lifter is .030" below the point of maximum travel, and note the reading of the degree wheel. Start rotating the crank again until the lifter is .030" below the maximum travel on the closing side of the cam lobe. Note the degree wheel reading. The AVERAGE of the two readings taken is the location of maximum intake lift ATDC (After Top Dead Center).

Compare this to the installation recommendation of the cam manufacturer, as it should be relatively close. The timing should be within one degree of the recommended setting. If there is a need to adjust the timing, FRPP has multi-index timing chain sets which have nine keyways to adjust cam timing.

NOTE: Many cam manufacturers provide .050" lift cam timing information. To check this, reset the dial indicator to zero with the lifter at zero lift. Then rotate the crank in the clockwise direction until .050" lift is shown on the indicator. Note the intake open degrees. Then proceed clockwise until the intake closing at .050" lift is reached. Compare the readings to the cam card. Together with the maximum lift information, this data will tell you where the cam is degreed. Once corrections are made, measure the cam timing once more to verify the fix was correct.



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4.6L 4V CAMSHAFT DRIVE KIT
M-6004-A464

Camshaft drive kit for the 4.6L 4-valve with aluminum block.
Kit includes production:

- Tensioner arms
- Chain guides
- Cover gaskets and seal
- Primary and secondary timing chain
- Secondary and chain tensioners
- Camshaft sprockets, spacer and washer
- Crankshaft sprocket
- Trigger wheel
- Fasteners
- Recommended for use with Aluminator short blocks and 4V heads
- Will not fit 1993-1998 camshafts

Proudly Made in the USA



4-VALVE HIGH LIFT CAMSHAFT KIT
M-6550-T46*

Proudly Made in the USA

- Fits 1999-2004 production 4V DOHC 4.6L cylinder heads
- Excellent power to 7000 rpm
- 12 mm lift, 258 degrees intake and 254 degrees exhaust, 109 center line
- Kit includes cams, valves, valve springs, valve seals and followers
- May require calibration to achieve optimum performance



ZETEC® 4-CYLINDER DOHC 2.0L 16V STREET PERFORMANCE CAMSHAFTS
M-6252-A203*

Proudly Made in the USA

- Radical Street/Strip profile
- Manual transmission with headers
- CNC ported head with port matched intake
- Increased compression recommended: 10.5:1-12.0:1
- Excellent power naturally aspirated PLUS super nitrous cam or with supercharger
- RPM range: 3,000-8,000

VALVE LIFT		DURATION @ .050"		ADVERTISED DURATION		LOBE SEPARATION
INT.	EXT.	INT.	EXT.	INT.	EXT.	
9.9 mm (.390")	9.9 mm (.390")	218°	218°	240°	240°	110°

2005-2010 MUSTANG GT HIGH LIFT HOT ROD CAM SET
M-6550-3V*

Proudly Made in the USA



- Give any 3-valve 4.6L or 5.4L a "lopey" idle reminiscent of 1960s muscle cars! No one will believe it's a Modular engine!
- More lift, duration and power than any other camshaft available for use with stock valve train
- Currently being used in Rough Rider off-road race trucks
- Engineered specifically for naturally aspirated applications by the same designers of the stock camshafts
- No other cam manufacturer has the aggressive sound and durability these cams offer
- Excellent upgrade for the 2005-2010 Mustang GT 4.6L 3V engine
- Increases lift from the stock 11 mm to 12 mm
- Intake/exhaust duration of 221/240 degrees (@ 0.050" lift), lobe separation of 110 degrees
- Compatible with production springs, followers and lash adjusters up to 6800 rpm
- Approximately 50 hp gain with the stock intake manifold and M-6049-463P/M-6050-463P CNC Heads at 6500 rpm. Approximately 30 hp gain with stock heads (with long tube headers and M-9603-M463 Cold Air Kit)
- **Requires custom calibration (not included) to achieve optimum performance.** Recommended WOT cam timing values included
- Featured in M-6007-A463NA Crate Engine

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE COMPONENTS – CAMSHAFTS

FORD RACING CAMSHAFTS

The Ford Racing Camshaft Specification chart describes individual cams currently available from Ford Racing. Refer to page 83 for performance characteristics and usage guidelines. See page 118 for valve springs.

Proudly Made in the USA

SMALL BLOCK V8 HYDRAULIC ROLLER TAPPET CAMSHAFTS

PART NUMBER	ENGINE	ROCKER RATIO	INTAKE EVENTS (0.050") OPEN	INTAKE EVENTS (0.050") CLOSE	EXHAUST EVENTS (0.050") OPEN	EXHAUST EVENTS (0.050") CLOSE	DURATION (SAE) INT.	DURATION (SAE) EXH.	LIFT (INCHES) LOBE	LIFT (INCHES) VALVE	LOBE CENTER INT.	LOBE CENTER EXH.
M-6250-B303* ① ② ③ ⑥	1985 and Later 302 Roller Cam	1.60	5° BTC	39° ABC	49° BBC	5° BTC	284°	284°	.300 I	.480 I	107°	117°
							224°	224°	.300 E	.480 E		
M-6250-E303 ① ② ③ ⑥ ⑦	1985 and Later 302 Roller Cam	1.60	0° BTC	40° ABC	40° BBC	0° BTC	282°	282°	.311 I	.498 I	110°	110°
							220°	220°	.311 E	.498 E		
M-6250-F303* ① ② ③ ④ ⑥ ⑧	1985 and Later 302 Roller Cam	1.60	4° BTC	42° ABC	52° BBC	6° BTC	288°	288°	.320 I	.512 I	109°	119°
							226°	226°	.320 E	.512 E		
M-6250-X303* ① ② ③ ④ ⑥ ⑨	1985 and Later 302 Roller Cam	1.60	5° BTC	39° ABC	49° BBC	5° BTC	286°	286°	.339 I	.542 I	107°	117°
							224°	224°	.339 E	.542 E		
M-6250-Z303* ① ② ③ ④ ⑤ ⑥ ⑩	1985 and Later 302 Roller Cam	1.60	7° BTC	41° ABC	51° BBC	3° ATC	290°	290°	.345 I	.552 I	107°	117°
							228°	228°	.345 E	.552 E		

NOTE:
Camshaft intake and exhaust valve events are measured at 0.050" tappet lift. The duration figures in the shaded area are taken at 0.050" tappet lift. This is useful to check the cam with a degree wheel during installation. The solid color is advertised duration. For comparison purposes, add intake and exhaust lobe centers and divide by 2 to calculate "camshaft lobe separation" specification for Ford Racing camshafts.

NOTES:
① On EFI engines, performance camshafts work only with mass air induction systems. Will not work with Explorer EEC-V EFI.
② Also fits 1994-1997 351W with factory roller cam when used with mass air EFI.
③ Stock 5.0L HO cam advertised specs are 266°/266° duration, 0.444"/0.444" lift.
④ May require piston modification for piston-to-valve clearance. Valve clearance should be checked.
⑤ May require longer push rods.
⑥ Hi-Stall torque converter recommended for automatic trans.
⑦ Emissions legal with 5-speed manual trans. E.O. #D-225-16.
⑧ Great for superchargers. Manual transmission recommended.
⑨ Good torque and power up to 6200 rpm. Manual transmission recommended.
⑩ Good torque and power up to 6500 rpm. Manual transmission recommended.

CAM LUBE
M-19579-A12

- Highest-quality cam lube for camshaft replacement and engine assembly
- Recommended for use with all Ford Racing flat tappet camshafts
- Distributed in cases of 12
- Single bottles may be available from your Ford Racing Distributor, part number CM-19579-A1
- Use engine oil on roller camshafts



CAMSHAFT BEARINGS
M-6261-R351*

Proudly Made in the USA

- Fits 302/351 Ford Racing Blocks
- Common outer and inner diameter replacement cam bearings for use in M-6010-R302/S302/R351/R352/S351/V351/W351/R451/R452/R453/B302BB/BOSS302/BOSS35192/BOSS35195/BOSS351BB
- Use with custom ground common OD camshaft

M-6261-J351*

- Fits 302/351 Ford Racing Blocks
- Common outer diameter service replacement cam bearings for use in M-6010-R302/S302/R351/R352/S351/V351/W351/R451/R452/R453/B302BB/BOSS302/BOSS35192/BOSS35195/BOSS351BB cast iron blocks
- Use with standard camshaft



M-6261-R351 shown

CAMSHAFT BEARINGS – ROLLER
(SOLD IN ENGINE SETS)

Proudly Made in the USA

These low-friction, roller camshaft bearings only require oil "splash" lubrication. Oil feed holes can be totally blocked off to reduce oil aeration and windage losses. Engine block must be machined to accept bearing size shown in chart.
NOTE: The 351 cam journals are NOT production dimensions. The 429-460 dimensions are production. These roller bearings require an SAE 8620 steel camshaft.



PART NUMBER	APPLICATION	OD DESCRIPTION	ID DESCRIPTION	LENGTH
M-6261-C351*	302/351W 351 Ford Racing	2.283"	2.051"	0.625"
M-6261-A460*	429/460 Wedge	2.500"	2.125"	0.625"
M-6261-D351* ①	351 Ford	(1-4) 2.48" (5) 2.28"	(1-4) 2.165" (5) 1.969"	0.787"

NOTES: ① Requires special camshaft retainer plate sold separately.

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

VALVE LASH AND LIFTER PRE-LOAD

Valve lash and lifter pre-load are commonly referred to as "setting the valves." This critical assembly process is a key operation for all engine builders and technicians. Setting the valves provides the camshaft lobe profiles to be transferred into valve motion. To attain the performance features designed into the camshaft, the lash or pre-load must be properly set.

Lash vs. Pre-Load

Lash

Valve lash by definition is the gap between the rocker arm and the tip of the valve stem. The rocker arm may have ground radius or a steel roller, and the valve tip is ground perpendicular to the valve stem. This gap is usually measured with feeler gauges and is adjusted by threaded nut. The adjuster nut is locked in position with a set screw. Each valve is adjusted individually.

Valve train systems that have a lash setting must utilize a solid tappet. This tappet can be a solid roller tappet or a solid flat tappet. Solid tappets do not allow any movement within the tappet itself. The system must also provide a means for fine-tuning the lash, in most cases a threaded adjuster and locking device.

Pre-Load

Lifter pre-load by definition is the distance the plunger, inside the tappet, is depressed from the fully extended position. This movement takes place inside the tappet itself. Both hydraulic flat and hydraulic roller tappets contain components that meter and retain a small reservoir of oil. This pre-load correctly positions the plunger into the working range of the tappet body. Total plunger travel is approximately .140".

For hydraulic valve train systems, the lifter pre-load can be adjusted by using a threaded adjuster and locking device, by shimming the rocker arm pedestal and by push rod length.

Setting Lash and Pre-Load

Both lash and pre-load are set when the camshaft is on the base circle. Knowing when the cam is on the base circle is the key to setting the valves correctly. There is one bulletproof way for determining when the lifter is on the base circle and it is displayed on the graph below. A trick for remembering the sequence is to use "I.C.E." I.C.E. stands for: INTAKE (valve) CLOSES – (lash) EXHAUST. By looking at the chart, it becomes clear that the exhaust must be on the base circle when the intake valve closes. Conversely, for insuring the intake is on the base circle, this condition occurs when the exhaust valve opens. This works for every single cam no matter how high the lift or long the duration.

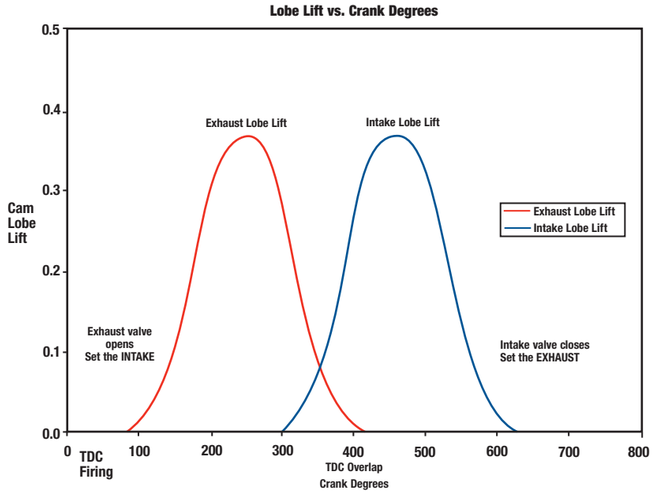
In summary, always remember "I.C.E."

Intake valve closes (I.C.E.)	Set the ***EXHAUST VALVE***
Exhaust valve opens	Set the ***INTAKE VALVE***

For example:

- Bring cylinder #1 to TDC (FIRING)
- Rotate engine clockwise until the exhaust lifter (or push rod tip) begins to open
- Set the lash or pre-load on the INTAKE valve for cylinder #1
- Rotate the engine clockwise until the intake valve opens and just closes
- Set the lash or pre-load on the EXHAUST valve for cylinder #1
- Repeat for the rest of the engine

When setting or checking lash and pre-load, don't be in a hurry; for initial engine builds, put one rocker on at a time. If you are checking lash, do one cylinder at a time and mark each valve checked on the corresponding rocker arm with a marker.



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INTAKE VALVES – SINGLE GROOVE (SOLD INDIVIDUALLY)

PART NUMBER	APPLICATION	HEAD DIAMETER	TIP LENGTH	TOTAL LENGTH	DESCRIPTION
M-6507-J302*	GT-40 Head Aluminum M-6049-Y302/X302/X304/ X305/X306/X307	1.940"	0.383"	5.078"	Premium stainless steel, swirl polished, under-cut stem.
M-6507-A304*	M-6049-Z304/Z304D/ Z304DA	2.02"	0.290"	5.340"	Premium stainless steel.
M-6507-A351*	M-6049-N351/R351	2.020"	0.250"	5.140"	Premium stainless steel.
M-6507-B429*	429/460 Wedge SCJ Aluminum M-6049-SCJ/ SCJA/SCJB	2.20"	0.250"	5.265"	Premium stainless steel.



Intake Valve

EXHAUST VALVES – SINGLE GROOVE (SOLD INDIVIDUALLY)

PART NUMBER	APPLICATION	HEAD DIAMETER	TIP LENGTH	TOTAL LENGTH	DESCRIPTION
M-6505-A351*	M-6049-N351/R351	1.600"	0.250"	5.140"	Premium stainless steel.
M-6505-A429*	429/460 Wedge CJ/SCJ Aluminum M-6049-A429/B429/C429	1.76"	0.250"	5.050"	Premium stainless steel.
M-6505-B304*	M-6049-Z304D/Z304DA	1.600"	0.290"	5.365"	Premium stainless steel.
M-6505-G302*	GT-40 Head C.I. M-6049-L302/303 Aluminum M-6049-Y302/Y303/X302/ X303/X304/X305 M-6049-X306/X307	1.540"	0.383"	5.078"	Premium stainless steel, swirl polished, under-cut stem.



Exhaust Valve

ZETEC® 30 MM EXHAUST VALVE

M-6505-ZX3*

- Service replacement exhaust valve for the CNC'd Ford Racing Zetec® Cylinder Head M-6049-ZX3P
- 30 mm diameter

ZETEC® 33 MM INTAKE VALVE

M-6507-ZX3*

- Service replacement intake valve for the CNC'd Ford Racing Zetec® Cylinder Head M-6049-ZX3P
- 33 mm diameter

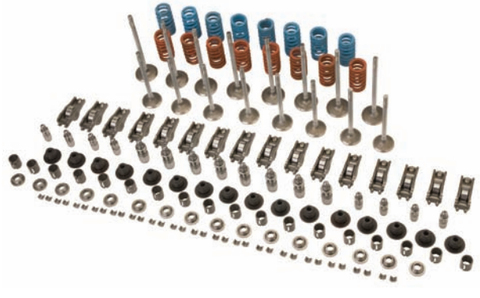


VALVE KIT FOR MUSTANG SVT HEAD

NEW

M-6C521-MSVT**

- Fits 2007-2010 Mustang SVT 5.4L RH Cylinder Head M-6049-MSVT and Mustang SVT 5.4L LH Cylinder Head M-6050-MSVT
- Production Mustang SVT 5.4L 4V valve kit
- Includes:
  - Intake and exhaust valves
  - Valve keepers and retainers
  - Roller followers
  - Intake and exhaust hydraulic lash adjusters
  - Cylinder head dowels
- Includes enough parts to assemble one cylinder head
- Camshafts **not** included



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

VALVE SPRINGS ①②

PART NUMBER	APPLICATION	TYPE	ID	OD	MINIMUM LOADS – NEW SPRINGS CLOSED	OPEN
M-6513-A50	289/302/351W with Ford Racing, GT-40 cylinder heads (pkg. of 16) ⑤⑥⑦	Single ③	1.006"	1.500"	110 lbs @ 1.820"	240 lbs @ 1.400"
M-6513-A351	289/302/351W/460 ⑥	Dual ④	0.800"	1.460"	135 lbs @ 1.850"	394 lbs @ 1.175"
M-6513-BH	M-6049-Z304DA Ford Racing Cylinder Heads	Single Beehive™ Conical	0.656" 0.885"	1.055" 1.290"	130 lbs @ 1.800"	313 lbs @ 1.175"



Valve Spring with Damper

VALVE SPRING NOTES:
① Valve springs with the same load rating (but with different color-coded stripes) may be packaged together.
② 1977 and later 302 engines have different installed heights for intake and exhaust valves.
③ With damper. ④ Requires nylon valve stem seal.
⑤ For use on production heads see below for valve spring retainer chart and notes.
⑥ Sold in pkg. of 16. ⑦ Not recommended with stock rocker arm, may have interference.

VALVE SPRING SEAT (SOLD IN PKG. OF 16)

For use with aluminum cylinder heads to prevent damage to valve spring seat area.

PART NUMBER	CYLINDER HEAD USAGE	SPRING OD	OD CUP	ID CUP	SEAT DESCRIPTION MATERIAL	THICKNESS
M-6536-SCJ	M-6049-B429	1.550"	1.680"	0.577"	Machined Steel	0.062"
M-6536-BH	M-6049-Z304DA	1.290"	1.300"	0.880"	Machined Steel	0.060"



VALVE SPRING RETAINERS (SOLD IN PKG. OF 16)

PART NUMBER	APPLICATION VALVE	APPLICATION SPRING	DESCRIPTION	SPRING OD	RETAINER OD	STEP DIMENSIONS 1ST STEP	2ND STEP
M-6514-A50	Single lock groove. 11/32" dia. stem.	M-6513-A50 M-6513-B351 M-6049-N351 and all GT-40 ①②	7° Machined Steel	1.500"	1.375"	1.060"	0.675"
M-6514-B50 ①	Single lock groove. 11/32" dia. stem.	M-6513-A50 ②	7° Machined Steel	1.500"	1.375"	1.060"	0.675"
M-6514-BH	Single lock groove. 11/32" dia. stem.	M-6513-BH	10° Machined Steel	1.055"	1.045"	0.640"	



NOTES: ① Use of M-6514-B50 Retainers on 1979-1995 production valves of 5.0L (302) HO and production GT-40 engines eliminates exhaust rotators and will result in 1.800" intake and exhaust spring "installed height." ② With Ford Racing stainless steel valves.

VALVE SPRING KEEPERS (SOLD IN ENGINE SET PKG. OF 16)

PART NUMBER	TYPE AND USAGE RECOMMENDATIONS
M-6518-B351	Machined and hardened. 7° design with single lock groove. For all-out competition and use with titanium valves.
M-6518-BH	Machined and hardened. 10° design with single lock groove. For use with M-6514-BH Retainers only!



ZETEC® HIGH LIFT VALVE SPRING SET

M-6513-ZX3E

- Springs will work with most cams up to .450" lift
- Works with most high lift aftermarket Zetec® cams
- Can be changed on vehicle, NO MACHINING REQUIRED
- Includes valve springs and retainers



VALVE STEM SEALS POSITIVE-TYPE, GUIDE-MOUNTED SEAL

PART NUMBER	TYPE	APPLICATION NOTES	PACKAGING
M-6571-A50** Guides must be machined to 0.530" diameter. See page 84 for details. Fits most production 0.550"-0.570" diameter guides.	Rubber	GT-40 cylinder heads. No machining required.	Pkg. of 8 intake and 8 exhaust seals.

VALVE GUIDE KIT

M-6510-Y303 Sold in sets of 4

- Replacement valve guides for M-6049-Y302/Y303/X302/X303/X304/X305/X306/X307
- .300" inside diameter (undersize)
- .557" outside diameter (standard)



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See pages 3-9 for important safety, emissions and warranty information.

VALVE PUSH ROD GUIDE PLATE (SOLD IN PKG. OF 8)

See page 85 for installation instructions. Use with mechanical cams, threaded stud, adjustable (non-rail) rocker arms and hardened push rods. May require modification for use with roller rocker arms.

PART NUMBER	CYLINDER HEAD	PUSH ROD DIAMETER
M-6566-D351	M-6049-N351/N352	.3125"
M-6566-SCJ	M-6049-SCJ/SCJA/SCJB	.375"
M-6566-Z304D	M-6049-Z304D/Z304DA	.3125"



M-6566-D311 shown

VALVE ROCKER ARM STUD (SOLD IN PKG. OF 16)

Requires head to be tapped for threaded rocker arm stud. See page 85 for instructions.

PART NUMBER	APPLICATION	DESCRIPTION
M-6527-C311	302 BOSS/351C BOSS, 429/460 Wedge	7/16" dia. shoulder with 7/16" dia. threads. ① Mounting length is 1.850". For use with stud girdles.

NOTE: ① Mounting length is from face of head to top of the stud.



Rocker Arm Stud M-6527-C311 shown

ROCKER CHANNEL KIT

M-6588-A50**

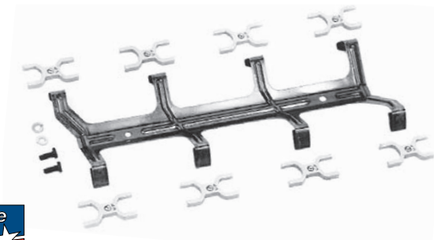
- Fits 5.0L/5.8L production heads and GT-40 heads
- For production stamped steel and Ford Racing bolt-on roller rockers
- Ties 2 rocker arms together for proper alignment



ROLLER CAM CONVERSION KIT

M-6253-A50**

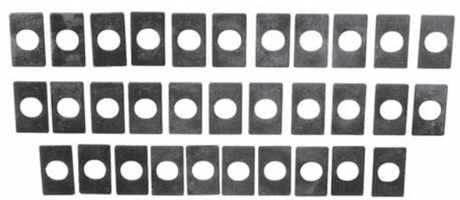
- This kit is designed to help engine builders assemble our short blocks to complete engines
- Kit includes (8) hydraulic roller lifter powdered metal tie bars, (1) retainer plate and (2) bolts
- Fits 1985-2001 302, 1994-1997 351W, 1996-2004 M-6010-A4/A58/R302/A351/B351/C351/R351/R352/S351/V351/W351 Race Blocks
- For production non-roller cam blocks, use M-6500-S58 Lifters



VALVE ROCKER ARM PEDESTAL SHIM KIT

M-6529-A302*

Use with bolt-on Roller Rocker Arms M-6564-A50, M-6564-B351, -C351 and -E351 to obtain correct lifter pre-load. Shim kit includes 16 thin and 16 thick shims, which can be used to reduce lifter pre-load by 0.030" (thin shim), 0.060" (thick shim) or 0.090" (thin plus thick shim).



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See pages 3-9 for important safety, emissions and warranty information.

ENGINE COMPONENTS – ROCKER ARMS

PERFORMANCE FEATURES:

- Reduces friction and horsepower loss
- Increases high-rpm train stability

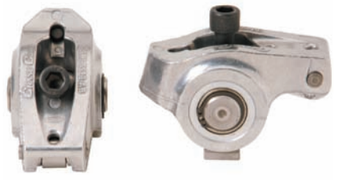
DESIGN FEATURES:

- High-strength trunnion supported by needle roller bearings
- Grade 8 adjusting nuts
- Precision machined from 2024 high-tensile strength aircraft alloy extrusions

PART NUMBER PACKAGE OF 16	APPLICATIONS	DESCRIPTION RATIO	MOUNTING	VALVE TYPE	NOTES
M-6564-A351*	289/302/351W and Ford Racing aluminum Cylinder Heads M-6049-J302	1.60:1	Stud	Inline	Requires 3/8" stud, push rod guide plates and hardened push rods. Cast iron cylinder heads require pedestal machining.
M-6564-D351*		1.70:1	Stud	Inline	
M-6564-K351*	289/302/351 Ford Racing aluminum Cylinder Head M-6049-Z304 (does not fit M-6049-Z304D, M-6049-Z304DA)	1.60:1	Stud	Inline	Requires 7/16" stud, push rod guide plates and hardened push rods. Cast iron cylinder heads require pedestal machining.
M-6564-B351* ①②	302/351W – 1978 and later with production heads. Cast iron and aluminum GT-40 heads	1.60:1	Bolt On	Inline	For stock production cast iron cylinder heads with hydraulic non-adjustable valve train. Does not require guide plates, hardened push rods or pedestal machining. Includes pedestal inserts and bolts.
M-6564-A50* ①②	302/351W – 1978 and later with production heads. Cast iron and aluminum GT-40 heads	1.70:1	Bolt On	Inline	Same as "Cobra" 5.0L Mustang. These rocker arms have beefy trunnions for extra long life. Die-cast aluminum construction.
M-6564-F351*	M-6049-N351/N352 "Sportsman" Head, M-6049-Z304D, M-6049-Z304DA	1.65:1	Stud	Inline	7/16" stud mount intake rocker with .150" offset push rod cup (pkg. of 16).
M-6564-C351*	351C/351M/400 1973 and later 429/460 production Cylinder Heads	1.73:1	Bolt On	Canted	For stock production canted valve cylinder heads with hydraulic non-adjustable valve train. Does not require guide plates, hardened push rods or pedestal machining. Includes pedestal inserts and bolts.
M-6564-A460*	351C/351M/400 302 BOSS/429/460, 429 CJ/SCJ and Ford Racing high-port aluminum Cylinder Heads	1.73:1	Stud	Canted	For canted valve cylinder heads. Requires 7/16" stud, push rod guide plates and hardened push rods. Some cast iron cylinder heads require pedestal machining.

NOTES: ① The M-6564-B351 and -A50 bolt-on Roller Rocker Arms will not clear the stamped rocker cover on standard 5.0L EFI engines. "Taller" valve covers, such as the production 5.0L EFI HO die-cast aluminum cover or Ford Racing Chrome Cover M-6582-D302 can be used if the baffle is modified in the RH cover. The M-6582-E302 polished aluminum Valve Cover will clear all rocker arms and stud girdles, but will not fit under the EFI manifold unless a 1" Spacer M-9486-A53 is used between the upper and lower sections of the intake. M-6582-E302 will not fit 1994-1995 Mustang or 1990-1993 T-Bird.

② Rocker channels not included.



"Cobra" Roller Rocker



Bolt-On Type Roller Rocker Arm Assembly



Stud-Mounted Type

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE COMPONENTS

VALVE TAPPETS (SOLD IN ENGINE SETS OF 16)

PART NUMBER	APPLICATION	TYPE/DESCRIPTION
M-6500-B303** Replaces A303	289/302/351/429/460	Hydraulic. OEM replacement.
M-6500-R302**	302 (5.0L) EFI Small block	Hydraulic. Roller tappet OEM replacement.



Hydraulic Roller Tappet M-6500-R302 shown

Flat Tappet

HY-VO TIMING CHAIN AND GEAR SET

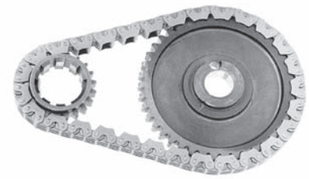
M-6268-F302*

- Developed with combined efforts from Roush® Industries, Borg-Warner Automotive® and Morse TEC®
- This new generation timing chain set is twice as strong as a standard roller chain and three times as strong as a timing belt
- Improved tolerances for reduced backlash
- It gained 2 horsepower at 7000 rpm
- Multi-indexing crank sprocket
- Use with hardened Thrust Plate M-6269-A351
- Replacement Hy-Vo Timing Chain M-6268-G302

REPLACEMENT HY-VO TIMING CHAIN

M-6268-G302*

- Replacement Hy-Vo Timing Chain for M-6268-F302



Hy-Vo Timing Chain and Gear Set M-6268-F302

EARLY BLOCK HYDRAULIC ROLLER LIFTER SET

M-6500-T58

NEW

Sold in engine sets. Use to install hydraulic roller lifter camshaft in a "non-roller" block. Fits 289/302/351W/351C.

NOTE: May require custom push rods and minor clearancing.



FORD GT AND MUSTANG SVT 5.4L LASH ADJUSTERS

M-6500-GT

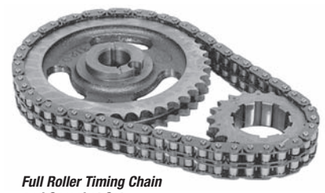
NEW

- Unique lash adjusters fit Ford GT and Mustang SVT 5.4L DOHC cylinder heads
- Includes 16 intake and 16 exhaust lash adjusters



TIMING CHAIN AND SPROCKET SETS

PART NUMBER	APPLICATION	DESCRIPTION
M-6268-A302*	289/302/351W/351	Full roller chain with 9-position multi-index crank sprocket. Ford Racing includes thrust plate. Cam sprocket is made from cast iron.
M-6268-B302*	289/302/351W/ 351 Ford Racing	Same as M-6268-A302, except cam sprocket is made from steel for maximum competition engines. Use with hardened Thrust Plate M-6269-A351.
M-6268-A351*	351C/351M/400	Full roller chain with 9-position multi-index crank sprocket.
M-6268-A390*	390/427/428	Does not fit 1961-1963 camshafts. Full roller chain with 9-position multi-index crank sprocket.
M-6268-B429*	429/429 BOSS/460	Cast iron cam sprocket. Full roller chain with 9-position multi-index crank sprocket.
M-6268-A460*	429/429 BOSS/460	Steel cam sprocket for maximum competition engines. Full roller chain with 9-position multi-index crank sprocket.
M-6287-B302*	289/302/351W/ 351 Ford Racing	Eccentric for M-6268-B302 and A302 kits—mechanical fuel pump drive, with 3/8" bolt.
M-6287-C302*	289/302/351W/ 351 Ford Racing	Eccentric for M-6268-B302 and A302 kits—mechanical fuel pump drive, with 7/16" bolt.



Full Roller Timing Chain and Sprocket Set

CAMSHAFT THRUST PLATE

PART NUMBER	APPLICATION	DESCRIPTION
M-6269-A351	302/351 Ford Racing	Steel replacement for production cast iron thrust plate for severe service. Use with steel timing chain sprocket.
M-6269-A460	429/460	Low-friction roller bearing camshaft thrust plate. Requires machining of camshaft sprocket thrust surface.



M-6269-A460 *M-6269-A351*

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

460/460 FORD RACING SINGLE-PLANE INTAKE MANIFOLD

Proudly Made in the USA

M-9424-C460*

- For use with 10.322 deck height block and M-6049-C460 "wedge" Race Heads
- 8.64" carburetor pad height
- High-rpm power
- For use on drag race engines



289/302 SINGLE-PLANE VICTOR JR.® INTAKE MANIFOLD

Proudly Made in the USA

M-9424-D302*

- For use with 8.206" deck height block and inline valve heads
- 5.35" at the front of the carburetor pad, 5.42" at the rear
- Single-plane Victor Jr.®-style intake 3500-8000 rpm range
- For use with high-rpm small block application



289/302 DUAL-PLANE INTAKE MANIFOLD

Proudly Made in the USA

M-9424-F302*

- For use with 8.206" deck height block and inline valve heads
- 4.375" at the front of the carburetor pad, 5.250" at the rear
- Dual-plane intake
- 1500-6000 rpm range
- For use with mid-rpm small block application, great for street cars and mild race engines
- Excellent fuel distribution
- Does not fit "Z" or the GT-40 "X" heads



429/460 SINGLE-PLANE VICTOR JR.® INTAKE MANIFOLD

Proudly Made in the USA

M-9424-G429*

- For use with 10.322" deck height block and production or Ford Racing CJ/SCJ heads
- 6.30" carburetor pad
- Single-plane Victor Jr.®-style intake 3500-8000 rpm range
- For use with high-rpm big block application

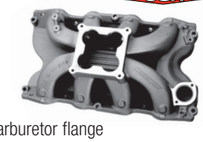


429/460 SINGLE-PLANE DOMINATOR® FLANGE INTAKE MANIFOLD

Proudly Made in the USA

M-9424-H429*

- For use with 10.322" deck height block and production and Ford Racing CJ/SCJ heads
- 6.30" carburetor pad
- Single-plane Victor®-style intake 3500-8000 rpm range with Dominator® carburetor flange
- For use with high-rpm big block application



351W SINGLE-PLANE VICTOR JR.® INTAKE MANIFOLD

Proudly Made in the USA

M-9424-V351*

- For use with 9.500" deck height block and inline valve heads
- 5.75" carburetor pad
- Single-plane Victor Jr.®-style intake 3500-7500 rpm range
- For use with high-rpm small block application



351W DUAL-PLANE "PERFORMER® RPM" INTAKE MANIFOLD

Proudly Made in the USA

SALE

WHILE SUPPLIES LAST Limited Quantity!

M-9424-Z351*

- For use with 9.500" deck height block and inline valve heads
- 4.30" at the front of the carburetor pad, 5.30" at the rear
- Dual-plane "Performer® RPM"-style intake
- 1500-6500 rpm range
- For use with any mid-rpm small block application, great for street cars and mild race engines



PART NUMBER	ENGINE BLOCK	DECK HEIGHT	CYLINDER HEADS	CARBURETOR PAD "A"	DIMENSIONS "B"	TYPE/NOTES
M-9424-C460*	Ford Racing 460	10.322"	M-6049-C460	8.64"	8.64"	Single-plane single 4V
M-9424-D302*	289/302	8.206"	Inline Valves	5.35"	5.42"	Single-plane, Victor Jr.® 3500-8000 rpm range
M-9424-E302C*	289/302	8.206"	M-6049-X306/X307 M-6049-Z304D/DA/P	4.30"	5.50"	Dual-plane single 4V Performer® RPM 1500-6500 rpm range
M-9424-F302*	302	8.206"	Inline Valves	4.375"	5.25"	Dual-plane intake manifold 1500-6000 rpm range
M-9424-G429*	429/460	10.322"	Production and M-6049-A429/ B429/SCJ/SCJA/SCJB	6.30"	6.30"	Single-plane, Victor®
M-9424-H429*	429/460	10.322"	Production and M-6049-A429/ B429/SCJ/SCJA/SCJB	6.30"	6.30"	Single-plane, Dominator® flange
M-9424-V351*	351W	9.500"	Inline Valves	5.75"	5.75"	Single-plane, Victor Jr.® 3500-7500 rpm range
M-9424-Z351*	351W	9.500"	M-6049-X306/X307 M-6049-Z304D/DA/P	4.30"	5.30"	Dual-plane single 4V Performer® RPM 1500-6500 rpm range
M-9424-BT58*	351	9.200"	M-6049-D3/D35	—	—	Single-plane single 4V NASCAR®
M-9424-C58*	351	9.200"	M-6049-D3/D35	—	—	Single-plane single 4V NASCAR®
M-9424-D451*	351	9.200"	M-6049-D3/D35	6.40"	6.40"	Single-plane single 4V NASCAR®
M-9424-D452*	351	9.200"	M-6049-D3/D35	—	—	Single-plane single 4V NASCAR®
M-9424-D453*	351	9.200"	M-6049-D3/D35	—	—	Single-plane single 4V NASCAR®

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE COMPONENTS – INTAKE MANIFOLDS

351 FORD RACING INTAKE

Proudly Made in the USA

M-9424-BT58*

- The latest intake manifold for NASCAR®
- Fits 9.200" deck height blocks with M-6049-D3/D35 Heads
- Generous wall thickness for custom porting
- 4.00" depth, carb. flange to plenum floor
- Tuned for substantial power improvement over 8500 rpm compared to other aftermarket intakes
- Does not have valley tray (for weight reductions)
- Accommodates Nationwide® and truck tuning ranges



351 FORD RACING NASCAR® INTAKE

Proudly Made in the USA

M-9424-C58*

- The latest intake manifold for NASCAR®
- Fits 9.200" deck height blocks with M-6049-D3/D35 Heads
- Generous wall thickness for custom porting
- 4.00" depth, carb. flange to plenum floor
- Tuned for substantial power improvement over 8500 rpm compared to other aftermarket manifolds
- Does not have a valley tray (for weight reductions)



429/460 DUAL-PLANE INTAKE MANIFOLD

Proudly Made in the USA

WHILE SUPPLIES LAST Limited Quantity!

SALE

M-9424-J429*

- For use with 10.322" deck height block and production or Ford Racing CJ/SCJ heads
- 5.84" carburetor pad height
- Dual-plane "Performer® RPM" style intake with standard Holley® carburetor flange
- 1500-6500 rpm range



COBRA EFI INTAKE MANIFOLD "REPLICA"

M-9424-Z51P*

- Replica of the production 1993 Cobra intake manifold
- Airflow is good up to 350 horsepower
- Kit includes upper intake manifold and lower intake manifold
- Fits 1986-1993 5.0L Mustangs
- Polished version of the M-9424-Z51



351 FORD RACING SINGLE-PLANE INTAKE MANIFOLD

Proudly Made in the USA

M-9424-D452*

- The latest intake manifold for NASCAR®
- Fits 9.200" deck height blocks with M-6049-D3/D35 Heads
- Weighs 19 lbs with generous wall thickness for custom porting
- 4.00" depth, carb. flange to plenum floor
- Tuned for substantial power improvement over 8500 rpm compared to other aftermarket manifolds
- Does not have a valley tray (for weight reductions)
- Replaces M-9424-W351



4.6L PERFORMANCE IMPROVEMENT (PI) INTAKE MANIFOLD

Proudly Made in the USA

M-9424-P46**

- Current production plastic intake manifold used on 2001-2004 4.6L SOHC 2V Mustang GT
- Less expensive alternative to aftermarket performance intake manifolds for PI head swaps
- Manifold fits 1999-2004 Power Improvement head ports
- Great for custom engine builds
- Can be used on 1996-1998 engines with PI heads
- Additional modifications and parts required



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FR9 NASCAR® RESTRICTOR PLATE INTAKE MANIFOLD

NEW

M-9424-E551*

Restrictor plate intake manifold for FR9 Engine Block M-6010-R500

Features:
- For use with M-6049-E1 Heads
- A356-T6 aluminum casting
- Plenum and runner interiors are as-cast
- Open plenum design
- Intended operating range is 6000-9500 rpm
- Approved for NASCAR® restrictor plate and open Sprint Cup events

Required Components:
- Cylinder Head: M-6049-E1

Recommended Use:
- Approved for the NASCAR® Sprint Cup Series
- Circle track competition

Builder Notes:
- Intake manifold plenum and runners require porting before use
- The FR9 engine is unique and does not share any components with previous 351 Windsor- or Cleveland-based engines
- For FR9 engine related components, contact Roush-Yates® Performance Parts, phone (704) 662-6982



FR9 NASCAR® INTAKE MANIFOLD

NEW

M-9424-E552*

Intake manifold for FR9 Engine Block M-6010-R500

Features:
- For use with M-6049-E1 Heads
- A356-T6 aluminum casting
- Plenum and runner interiors are as-cast
- Open plenum design
- Intended operating range is 6000-9500 rpm
- Approved for NASCAR® open Sprint Cup events

Required Components:
- Cylinder Head: M-6049-E1

Recommended Use:
- Approved for the NASCAR® Sprint Cup Series
- Circle track competition

Builder Notes:
- Intake manifold plenum and runners require porting before use
- The FR9 engine is unique and does not share any components with previous 351 Windsor- or Cleveland-based engines
- For FR9 engine related components, contact Roush-Yates® Performance Parts, phone (704) 662-6982

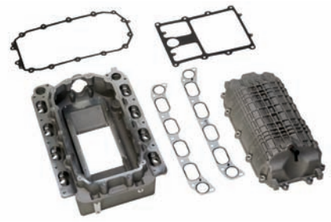


FORD GT MANIFOLD KIT

NEW

M-9424-GTK**

- Fits 5.4L with Ford GT DOHC cylinder heads
- Perfect for racers to use as a base for a custom intake manifold
- Excellent base for drag racing classes requiring stock lower intake manifold
- Includes Ford GT lower manifold and intake gaskets



FOCUS ZETEC® PERFORMANCE INTAKE MANIFOLD

M-9424-ZX3R*

WHILE SUPPLIES LAST Limited Quantity!!

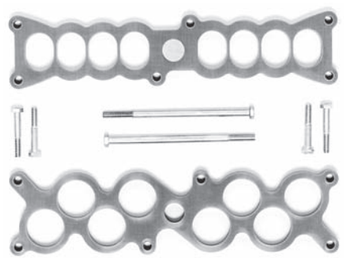
- Fits 2000-2004 2.0L Zetec® equipped ZX3/4/5/W
- Inspired by the intake on the FR200 show car
- Bolts in to stock location with all fittings and EGR
- Requires M-9926-ZX3R Throttle Body
- Increased flow makes this the best manifold available in the market for forced-induction or high-revving Zetec® engines
- This is intended for serious racers
- Not a bolt-on intake, fabrication is required
- Requires the Ford Racing Alternator Bracket M-10039-ZX3R or a custom bracket
- Limited supply



EFI HEAT SPACER

M-9486-A51* Stock 5.0L manifold – .5"
M-9486-A52* GT-40 manifold – .5"
M-9486-A53* GT-40 manifold – 1" thick
for clearance with M-6582-E302P Valve Covers

New and improved quality, made in the USA. CNC machined from Westinghouse®. Type C phenolic material fits between the upper and lower manifolds to help dissipate heat and significantly increase performance. Includes longer bolts.



EFI UPPER-TO-LOWER INTAKE MANIFOLD GASKET

M-9486-A50*

GT-40 upper-to-lower gasket. Fits M-9424-Z51 or M-9424-Z51P Intake Manifold.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE SWAP OIL PAN KITS

PART NUMBER	SUMP	CAPACITY	FINISH	APPLICATION/DESCRIPTION
M-6675-A50	Rear	5-quart	Unplated	5.0L oil pan kit. Includes rear sump oil pan, dipstick, dipstick tube, pickup and main cap stud. Ideal for engine swaps. Fits 1979-1995 Mustangs and Fox chassis vehicles. Fits 1983-2001 production blocks and M-6010-A50/B50 Blocks. **NOTE:** Does not have provision for low oil sender. Fasteners not included.
M-6675-A58	Rear	5-quart	Unplated	351W/5.8L oil pan kit. Includes rear sump oil pan, dipstick, dipstick tube, pickup and main cap stud. Ideal for engine swaps. Fits 1979-1995 Mustangs and Fox chassis vehicles. Fits 1969-1997 production blocks and M-6010-A351/A58 Blocks. Same pan as used on 351 crate engines. Fasteners not included.
M-6675-A460	Rear	6-quart	Unplated	429/460/7.5L oil pan kit. Includes rear sump oil pan, dipstick, dipstick tube, pickup and main cap stud. Ideal for engine swaps. Fits 1979-1995 Mustangs and Fox chassis vehicles. Fits 1969-1997 production blocks and M-6010-A75 Blocks. Same pan as used on 460 crate engines. Fasteners not included.



M-6675-A50



M-6675-A58



M-6675-A460

SERPENTINE 1979-1993 FOX CONVERSION KIT

M-6670-A50**

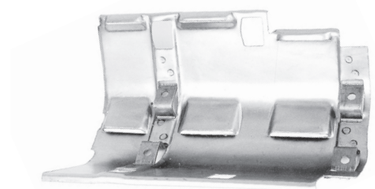
This kit is intended for customers that purchase one of our 5.0L long block crate engines and plan to install it in a 1979-1993 Mustang or other Fox chassis vehicle. This kit includes: dual sump oil pan, oil pump pickup tube, dipstick, dipstick tube, crankshaft damper, timing pointer, M-8501-C50 reverse rotation serpentine Water Pump and M-6059-D351 Timing Chain Cover.
NOTE: Does not have provision for low oil sender. Fasteners not included.



OIL PAN WINDAGE TRAY KIT 289-302

M-6687-A302

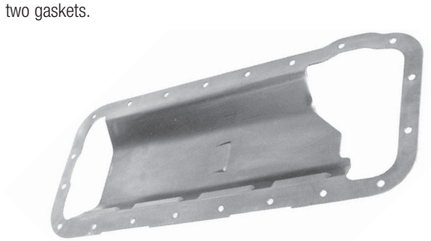
Kit consists of windage tray and attaching bolts originally designed for the 1969-1970 302 BOSS engine with front sump oil pan. Requires modification if used with rear sump pan; oil pan designed for use with rack-and-pinion steering or oil pan for 302 Ford Racing blocks.



OIL PAN WINDAGE TRAY – KIT 352 THRU 428

M-6687-A390

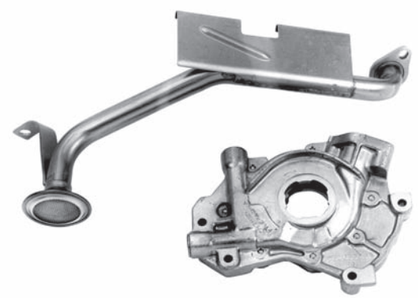
352 thru 428 "FE" V8 engines. Consists of windage tray and two gaskets.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

HIGH-VOLUME OIL PUMP
M-6600-D46

- Original equipment on 4.6L 4V
- Increases flow on 4.6L 2V engines



4.6L HIGH-PRESSURE OIL PUMP AND PICKUP
M-6600-E46

- Fits 2005-2009 Mustang 4.6L and 2007-2009 Mustang SVT 5.4L
- Stock replacement for 2007-2009 Mustang SVT 5.4L
- Highest volume and pressure production pump available for Modular engines
- Recommended for applications requiring higher volume and pressure
- Pump can be used with 3V and 4V pickup tubes



OIL PUMPS

M-6600-M50 289/302
Standard volume
Requires bolt-on pickup (not included)

M-6600-D2 289/302
High volume
Requires bolt-on pickup (not included)

M-6600-B3 351W
High volume
Requires bolt-on pickup (not included)

M-6600-A460 429/460
Wedge high volume
Fits rear sump Ford truck oil pan. Bolt-on style pickup (not included). Does not fit 429 Cobra Jet

NOTE: High-volume pumps may require minor modification of oil pan.



429/460 Oil Pump



289/302 Oil Pump

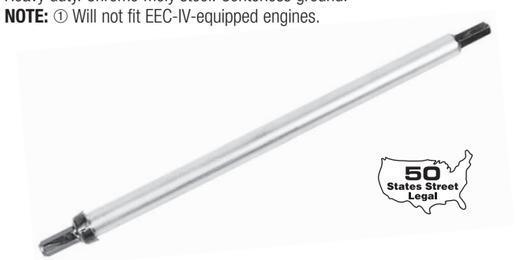
BOSS 302 OIL PICKUP TUBE
M-6622-BOSS302*

- For use with M-6010-BOSS302 Block
- Clears 4-bolt main caps
- Fits stock Fox body Mustang pans
- Fits F1SE pans used on 1991-1995 Mustang



OIL PUMP DRIVESHAFTS

M-6605-B302 289-302 EFI and non-EFI
M-6605-A351 351C
M-6605-A341 351W/All 351 Ford Racing ①
M-6605-A429 429/429 BOSS/460
Heavy duty. Chrome moly steel. Centerless ground.
NOTE: ① Will not fit EEC-IV-equipped engines.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FORD RACING HIGH-PERFORMANCE OIL FILTERS
SOLD AS CASE OF 12

- Synthetic-Polymer/Cellulose-Fiber blend media
- Heavy-gauge base and canister for higher burst strength and impulse fatigue resistance
- High-quality silicone anti-drain back valve
- Non-stick sealing gasket for ease of installation and removal
- Long life with standard and synthetic motor oils
- Up to 50% more filtering capacity than standard filters
- Improved filtering efficiency
- This technology is only available through Ford Racing Performance Parts

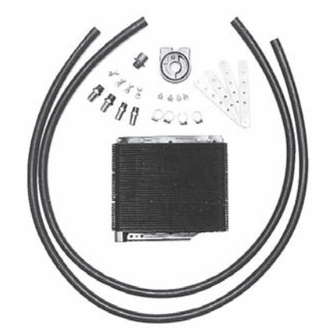
MOTORCRAFT PART NUMBER	PERFORMANCE FILTER	PART NUMBER
FL1A	CM-6731-FL1A (Each) ①	**M-6731-FL1A** (Case of 12)
FL820S	CM-6731-FL820 (Each) ①	**M-6731-FL820** (Case of 12)
FL784	CM-6731-FL784 (Each) ①	**M-6731-FL784** (Case of 12)

NOTE: ① Check Ford Racing Distributors for single filter part numbers.



ENGINE OIL COOLER KIT HEAVY-DUTY SELF-REGULATING TYPE
M-6642-S101

Unique patented "stacked-plate" design provides efficiency improvement of 35% over "fin-and-tube" coolers. This 8" x 11" x 1.5" unit has a heat rejection rate of 20,500 BTUs per hour. The self-regulating feature bypasses cold engine oil automatically (without thermostats or valves) until oil viscosity decreases and allows oil to flow through the main body of the cooler. Kit includes all fittings, attaching hardware and instructions. Use on engines with FL1A filters.



REMOTE-MODIFIED OIL FILTER ADAPTER KIT
M-6881-C100

All engines with 3/4"-16 thread filter and 2.435" diameter O-ring. This kit contains all necessary parts to mount the oil filter off the engine, including block adapter, oil filter mount, hose and attaching parts. Not recommended for performance engines. Use M-6880-S.



2005-2009 4.6L WATER INLET/OIL FILTER ADAPTOR
M-6881-A5

- Fits 2005-2009 4.6L aluminum block engines and Ford Racing Aluminator engines
- Requires 2" lower hose
- Significant improvement in engine cooling by reducing the pressure drop to the water pump
- 7/8"-14 AN straight thread O-ring fittings for oil inlet/outlet
- 1/4"-18 NPFS fittings for oil temp./pressure
- Requires remote oil filter lines, fittings and filter adapter for installation (not included)



1996-2004 4.6L/5.4L WATER INLET/REMOTE FILTER ADAPTOR
M-6881-C

- Fits 1996-2004 4.6L/5.4L cast iron and aluminum block engines
- Requires 2" lower hose
- Significant improvement in engine cooling by reducing the pressure drop to the water pump
- 7/8"-14 AN straight thread O-ring fittings for oil inlet/outlet
- 1/4"-18 NPFS fittings for oil temp./pressure
- Requires remote oil filter lines, fittings and filter adapter for installation (not included)



OIL FILTER ADAPTER
M-6880-A50

- Screws into block and rotates filter toward front of engine to provide clearance for engine swaps and chassis modifications
- Fits most Ford engines that use Motorcraft® FL1A oil filter (filter sold separately)



OIL GALLERY RESTRICTOR KITS

M-6799-A302 289/302/351W
M-6799-R351* 351 Ford Racing
M-6010-R351/R352/S351/V351/W351
Increases oil flow to main bearings by reducing oil to valve train.



M-6799-A302 shown

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

GASKET SET

- Manifold application M-9424-C460
- Cylinder Head application M-6049-C460/D460
- Gasket thickness .125"



Intake Manifold Gasket with Print-O-Seal®

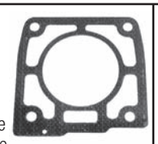
PART NUMBER	MANIFOLD APPLICATION	CYLINDER HEAD APPLICATION	PRINT-O-SEAL®	GASKET THICKNESS ± .004
M-9439-A50*	All	M-6049-L302/L303/X302/X303/X304/X305/Y302/Y303/X306/ X307/Z304/Z304A/Z304D/Z304DA with or without EGR ①②③	Yes	0.070"
M-9439-G460*	M-9424-C460	M-6049-C460/D460	No	0.060"
M-9439-H460*	M-9424-C460	M-6049-C460/D460	No	0.125"

NOTES: ① Synthetic rubber Print-O-Seal® (Fel-Pro Inc.®) bead around ports provides improved sealing.
② Redesigned for improved port location and allows mild porting.
③ Teflon® coated, steel reinforced.

EGR SPACER-TO-INTAKE MANIFOLD GASKET

M-9464-A50*

This gasket is manufactured with a larger 70 mm bore diameter to accommodate the Ford Racing 65 mm throttle body and EGR spacer. Fits between EGR spacer and intake manifold. If you have ever tried to modify the production gasket to fit a larger spacer, you will truly appreciate these pieces. Also use with M-9927-A50 Adapter.



NEW

GRAPHITE INTAKE GASKET FOR STD PORT

M-9439-G50**

- Graphite intake gasket for standard 302 and 351W intake port openings
- Fits all production heads with rectangle water openings and GT40 cast iron heads

NEW



CRANKSHAFT REAR MAIN OIL SEAL

M-6701-A460**
M-6701-B351**

429/460 two-piece, split-lip design 351W from 7/11/83, Ford Racing one-piece seal. Use on Ford Racing 351W blocks manufactured after 6/1/1993

50 States Street Legal

High-temperature resistant Viton® material.
Viton® is a registered trademark of Dupont® Performance Elastomers.



302 CRANKSHAFT REAR MAIN OIL SEAL

M-6701-B302**

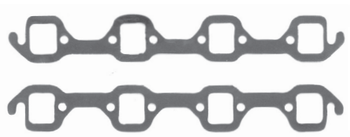
50 States Street Legal

- Direct replacement one-piece crankshaft rear main seal for 1983-2001 5.0L/302 blocks
- Also fits Ford Racing Blocks M-6010-R302, M-6010-A50, M-6010-B50 and M-6010-BOSS302

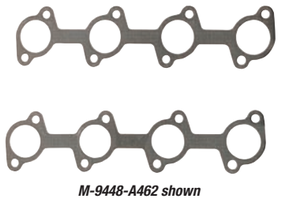


REPLACEMENT HEADER GASKETS

PART NUMBER	CYLINDER HEAD APPLICATION
M-9448-A351*	"Sportsman" Head M-6049-N351
M-9448-B302**	Production 289/302/351W, M-6049-Y303/L302
M-9448-A462*	4.6L SOHC
M-9448-A463V**	4.6L/5.4L 3V NEW
M-9448-A464*	4.6L DOHC
M-9448-3V*	4.6L/5.4L 3V (sold in pkg. of 12)
M-9448-C54**	5.4L Cobra NEW



M-9448-B302 shown

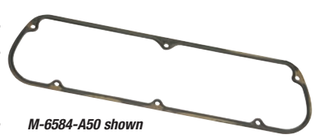


M-9448-A462 shown

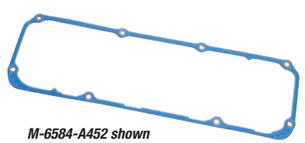
NOTE: Header flanges available from Hedman® headers. Contact local distributor.

VALVE ROCKER ARM COVER GASKETS (SOLD IN PAIRS)

PART NUMBER	APPLICATION	DESCRIPTION/NOTES
M-6584-A50**	5.0L/302/351W	Production-type design featuring metal gasket with bonded O-ring. Part of high-performance 5.0L Gasket Kit M-6051-A50 (see page 130). Designed for valve covers without a gasket lip.
M-6584-A460*	429/460 Wedge	Competition-quality gasket set. Cork-rubber material is laminated to a steel core to produce superior strength and resistance to distortion and creep. Recommended for use with die-cast Rocker Arm Cover M-6582-C460 or M-6582-R460.
M-6584-A452*	351C/351M/400 and M-6049C3L/SCI/ C3H/D3 Heads	Precision edge-molded silicone rubber sealing beads on a rigid carrier to resist high heat and high vacuum. Built-in torque limiters prevent over-compression and gasket splitting. Great for on-again/off-again applications.



M-6584-A50 shown



M-6584-A452 shown

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE COMPONENTS – GASKETS

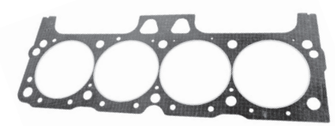
CYLINDER HEAD GASKETS (SOLD IN PAIRS) ①

PART NUMBER	CYLINDER BORE APPLICATION	BORE DIAMETER	GASKET DIAMETER	COMPRESSED THICKNESS	COMPRESSED VOLUME	DESCRIPTION
M-6051-A302**	289/302/351W Production-Type Cast Iron and Aluminum Heads	4.00"	4.100"	0.042"	9.1cc	4.00" standard bore "competition" gasket for cast iron or aluminum cylinder heads on 302 and 351W production blocks. Features solid metallic core with wire-encased combustion chamber seal for applications. Surfaces are Teflon® coated.
M-6051-B51**	302 Production	4.00"	4.100"	0.040"	8.8cc	4.00" standard bore expanded graphite gasket for high-performance applications. Part of M-6051-A50 5.0L Gasket Kit described on page 130. Requires torque-to-yield cylinder head bolts (available from Ford and Lincoln-Mercury dealers).
M-6051-S331*	302/351	4.00"	4.100"	0.040"	8.8cc	Pre-flattened steel wire combustion ring. Exhaust side is straight to accommodate FRPP block water passages.
M-6051-CP331*	302/351	4.00"	4.100"	0.040"	8.8cc	Pre-flattened copper wire combustion ring. Exhaust side is straight to accommodate FRPP block water passages.
M-6051-B341*	Big Bore 351 Ford Racing Blocks	4.125"	4.160"	0.040"	9.1cc	4.125" overbore "competition" gasket. Same as Gasket M-6051-D331 except designed for Ford Racing blocks with larger 4.125" overbore. Bore flange valve pockets have been added to unshroud intake and exhaust valves. Set includes unique right- and left-hand gaskets!
M-6051-R351*	302/351 Ford Racing	Up to 4.125"	4.160"	0.040"	9.0cc	For use on M-6010-R351/R352/R451/R452/ BOSS302/B302BB/BOSS35195/BOSS35192/ BOSS351BB.
M-6051-A427*	All "FE" V8	Up to 4.230"	4.400"	0.040"	9.7cc	Race-quality gasket with steel wire combustion ring and stainless steel armor.
M-6051-A441**	429/460 Wedge	4.360" Standard	4.500"	0.0425"	11.2cc	Race-quality "competition" gasket. Features solid metal core and wire-encased combustion chamber seal.
M-6051-B460*	429/460 Wedge	Up to 4.625"	4.670"	0.038"	10.7cc	Competition gasket with round water openings to match M-6010-A460 Engine Blocks.

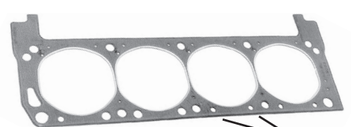
NOTES:
① Several different water hole patterns have been used on 302 and 351W Ford Racing cylinder blocks and heads since their introduction. Engine assemblers should lay the head gasket on the block and the cylinder head (with front of gasket toward the front of the engine) to make sure there is a path for coolant flow from the block into the head. In some cases, holes may have to be drilled in the block or head, or punched in the gasket.



M-6051-S331



M-6051-B460



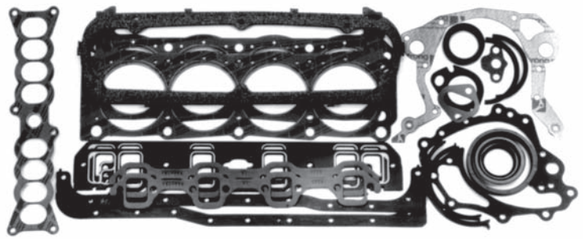
M-6051-B341

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

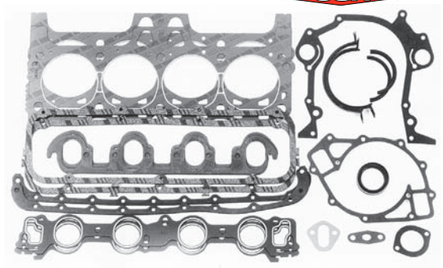
HIGH-PERFORMANCE ENGINE GASKET SETS

Ford Racing introduces three complete overhaul gasket sets. Manufactured to Ford's specs by Fel-Pro®. The kits include race-quality head gaskets and Print-O-Seal® intakes, oil pan and valve cover gaskets. They also include front and rear oil seals plus all gaskets for a complete rebuild. These high-performance gasket sets are a must when rebuilding.

M-6003-A50** ① Fits 289/302/351W (1963-2001)



M-6003-A429** Fits 429/460 (1968-1987)



NOTE: ① Does not include one-piece rear main for 351W, use M-6701-B351.

HIGH-PERFORMANCE GASKET KIT FOR 5.0L ENGINE

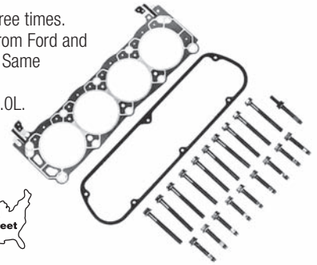
M-6051-A50** ①②

Recommended for high-performance applications and with Ford Racing supercharger kits. This gasket kit really works and will eliminate sealing issues associated with 5.0L engines for most applications. The kit includes: 2 expanded graphite Head Gaskets (M-6051-B51), 2 high-tech metal with bonded O-ring Rocker Cover Gaskets (M-6584-A50) and 1 engine set of torque-to-yield cylinder head bolts.

NOTES:

① The bolts can be used three times. New bolts are available from Ford and Lincoln-Mercury dealers. Same parts as used on production 1993-2001 5.0L.

② Do not use kit with "lipped" valve covers.



50 States Street Legal

ONE-PIECE RUBBER OIL PAN GASKETS

50 States Street Legal

M-6710-A50** 5.0L

Designed for use with smooth-rail oil pans. One-piece design, rubber bonded on steel reinforcement. Fits 1983-2001 block/oil pans with dipstick in the block.



M-6710-A351** 351/5.8L

Designed for use with smooth-rail oil pans. One-piece design, rubber bonded on steel reinforcement.

M-6710-A460** 429/460

Designed for use with smooth-rail oil pans. One-piece design, rubber bonded on steel reinforcement.



FR9 WATER PUMP ASSEMBLY

NEW

M-8501-FR9*

Features:

- Includes water pump and housing
- Light-weight aluminum castings
- EMP Stewart Components® race-proven pump cartridge
- Designed to mount to front engine plate

Recommended Use:

- Circle track competition

Builder Notes:

- The FR9 engine is unique and does not share any components with previous 351 Windsor- or Cleveland-based engines
- For FR9 engine-related components, contact Roush-Yates® Performance Parts, phone (704) 662-6982

FR9 WATER OUTLET MANIFOLD

NEW

M-8C368-FR9*

Features:

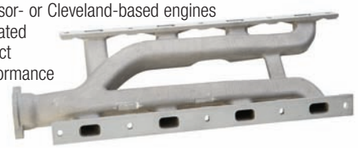
- Light-weight aluminum casting
- Straight outlet to accommodate LH or RH radiator water inlet
- Provision for water temperature sensor
- For use with M-6049-E1 Heads

Recommended Use:

- Circle track competition

Builder Notes:

- O-ring sealing provisions are machined into M-6049-E1 Cylinder Head
- The FR9 engine is unique and does not share any components with previous 351 Windsor- or Cleveland-based engines
- For FR9 engine-related components, contact Roush-Yates® Performance Parts, phone (704) 662-6982



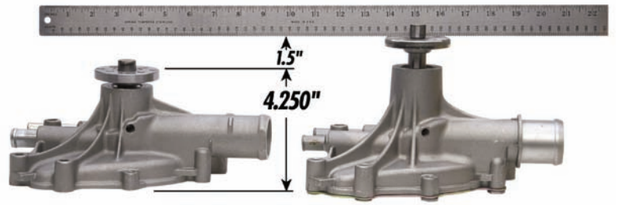
*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

STREET ROD SHORT V-BELT WATER PUMP

M-8501-E351S*

- Driver-side radiator hose inlet
- Provides approx. 1.5" of space at the front of the engine allowing for more radiator-to-fan clearance without a recessed fire wall
- Must use with long style (3.950") 4-bolt damper. Can also use M-6316-A50 or M-6316-C351 with appropriate spacer. See page 135
- .750" pulley pilot shaft
- Fits M-6059-D351 Timing Chain Cover





STOCK FLOW REPLACEMENT WATER PUMPS

M-8501-C50**

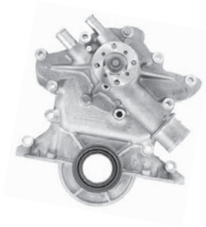
- Reverse rotation serpentine belt aluminum water pump for 1986-1993 5.0L/5.8L engines
- Standard shaft and bearing with stamped impeller
- Provides good flow and pressure for engines that operate below 6000 rpm
- Can be used on 1979-1985 with minor modifications



SHORT SERPENTINE BELT WATER PUMP KIT

M-8501-A50*

- Engine overall length from front of water pump to back of block is 27"
- Serpentine belt, reverse rotation, approx. 1.75" shorter than old style pumps
- Kit includes special timing chain cover with short water pump and gaskets. Driver side radiator hose inlet
- Meets OEM specifications for water flow
- A V8 water pump for a V8 engine. Must use electric fuel pump



SHORT SERPENTINE BELT WATER PUMP

M-8501-D50**

- Same water pump used in short serpentine Water Pump Kit M-8501-A50
- Direct replacement for 1994-1995 Mustang 5.0L/302
- Can be used with the Explorer timing chain cover found on M-6007-B50/B51/XE3/XB3 Crate Engines
- A new water pump for the price of a remanufactured pump



STOCK FLOW 302/351W REPLACEMENT WATER PUMPS

M-8501-G351**

- Standard rotation V-belt aluminum water pump for 5.0L/5.8L engines
- Standard shaft and bearing with stamped impeller
- Provides good flow and pressure for engines that operate below 6000 rpm
- Can be used with M-6059-D351 Timing Chain Cover or stock V-belt timing cover



MAXIMUM-FLOW 302/351W ALUMINUM WATER PUMP

NEW

M-8501-F351*

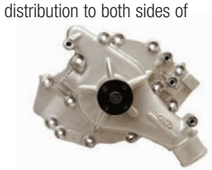
- Standard rotation water pump for 1970-1978 5.0L and 1970-1987 351W engines
- Features premium-quality aluminum casting, HD 3/4" ball/roller bearing, CNC-machined curved vane impeller and billet steel hub
- Driver-side water inlet
- Provides maximum flow, maximum pressure and equal distribution to both sides of the block



MAXIMUM-FLOW 429/460 ALUMINUM WATER PUMP

M-8501-C460*

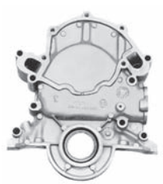
- Standard rotation water pump, fits most 1970 and newer V-belt engines and accepts stock brackets and pulleys
- Features premium-quality aluminum casting, HD 3/4" ball/roller bearing, CNC-machined curved vane impeller and billet steel hub
- Driver-side water inlet
- Provides maximum flow, maximum pressure and equal distribution to both sides of the block



REPLACEMENT FRONT TIMING CHAIN COVER

M-6059-D351**

- Aluminum replacement with fuel pump boss
- Fits 289/302/351W
- For standard rotation pump or M-8501-B50/C50 Reverse Rotation Pump
- Has dipstick tube hole

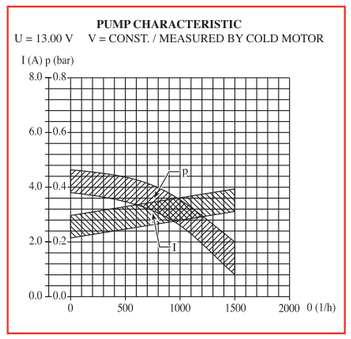


*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ELECTRIC WATER PUMP
M-8501-L54**

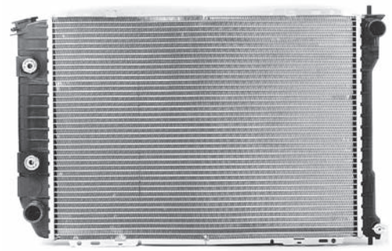


- Production 2003 F-150 Lightning intercooler coolant circulation pump
- Inlet and outlet hose connection diameter is 19 mm/3/4"
- Can be used in many coolant pumping applications



1979-1993 V8 MUSTANG ALUMINUM RADIATOR
M-8005-C*

- Fits 1979-1993 V8 Mustang applications
- Improves cooling, better than a 3-core copper/brass radiator
- Saves weight on the front end
- Has cooler for auto transmission or power steering
- Easily installed, modification required



1986-1993 MUSTANG HIGH-TEMPERATURE BLUE SILICONE RADIATOR HOSE KIT
M-6052-B Fits 1986-1993 5.0L Mustang



- Six high-quality molded hoses for upper and lower radiator
- Thermostat bypass, three heater core hoses for A/C-equipped Mustangs
- Original equipment on police package Mustangs
- Fits better than the other kits with unmolded hoses
- Includes 12 special hose clamps with inner band for silicone hoses

2005-2009 MUSTANG GT DE-GAS BOTTLE
M-8080-A



- Fits 2005-2009 Mustang GT
- Coolant expansion/fill tank features a billet radiator-style neck
- Comes with the Ford Racing 16-lb Cap M-8100-A
- Same part as used on the Mustang FR500S race car

RADIATOR CAP WITH "FORD RACING" LOGO
M-8100-A



- Service replacement for the Mustang FR500S race car
- 16-lb cap
- Fits most radiators
- Does not fit production de-gas bottles

FORD GT COOLANT OVERFLOW CAP
M-8006-GT



- Ford GT coolant overflow cap with billet cover
- "GT" logo machined in cap surface
- Fits both coolant overflow and intercooler reservoir

1997-2004 MUSTANG COBRA ALUMINUM RADIATOR
M-8005-C03**

- Fits 1997-2004 Mustang V8 with manual transmission
- Original equipment on the 2003 Mustang Cobra
- Easy bolt-in installation

NOTE: Will fit 1996 Cobra that has factory cooling system update.



2004-2006 F-150 ALUMINUM RADIATOR
M-8005-P221*

- Fits 2004-2006 F-150
- Will not fit 2004 F-150 Heritage
- All-aluminum construction
- Recommended for high-performance applications
- Thermally efficient up to 700 horsepower
- Uses OEM fan and mounting points



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

1985-1993 MUSTANG A/C ELIMINATOR KIT
M-8511-A50*



- Fits 1985-1993 Mustang
- Bracket conversion kit to remove air conditioning compressor for racing applications
- Two-piece bracket kit moves the power steering pump up to where the A/C compressor was
- Hardware included
- Requires new belt (not included)

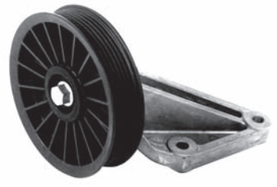
1979-1993 MUSTANG OFF-ROAD IDLER BRACKET
M-8604-A50*



- Fits 1979-1993 302/351 Mustang applications when catalytic converters are not used
- Competition air pump idler bracket for off-road use only where air pump is not necessary
- Idler is a direct bolt-on replacement for stock air pumps and uses a standard serpentine belt
- Uses stock belt

1991-2009 A/C ELIMINATOR KITS
M-19216-A50 Fits 1994-1995 Mustang and 1991-1993 Thunderbird with 5.0L engine
M-19216-D46 Fits 1996-2009 Mustang with 4.6L engine SOHC/DOHC

- Cast aluminum idler pulley bracket replaces the air conditioning compressor
- Removes weight from the front of car for better weight transfer when racing
- Bolts included
- Uses stock belt



1985-1993 MUSTANG 351W ENGINE SWAP ACCESSORY DRIVE KITS
M-8511-A351 Power steering bracket only
M-8511-B351 Power steering and A/C bracket

- Fits 1985-1993 Mustang 351W
- These brackets allow use of your 5.0L front end accessory drive components when swapping to a 351W (5.8L) engine. Simply replace production bracket with the new bracket using all existing bolts and hardware. Serpentine belt selection will vary depending on whether or not you choose to use optional underdrive pulleys



M-8511-B351 *M-8511-A351*

COBRA JET SOLID MOTOR MOUNT KIT
M-6038-A



- Service replacement for the Mustang FR500CJ race car
- Modified Mustang SVT engine support brackets
- Engine support brackets fit 2007-2009 5.4L Mustang SVT block only
- Steel, chassis-side non-isolated mounts
- For drag racing applications only

REPLACEMENT PARTS FOR M-6010-C302/J351/K351 ALUMINUM BLOCKS
M-6012-A351*

Service replacement cylinder bore sleeve for Ford Racing 302 and 351 aluminum cylinder blocks. Sleeve ID 3.985". Sleeve OD 4.251". Flange thickness .250". Flange diameter 4.500". Sleeve overall length 5.820". The length can be trimmed to fit.

M-6012-B351*
Same as M-6012-A351 except OD is .010" oversize.

M-6012-C351*



- Replacement sleeves for the M-6010-Z351 Block
- Standard 4.280" OD and 3.990" ID
- Sold in set of 8

2007-2009 MUSTANG SVT AND COBRA JET A/C DELETE KIT
M-19216-CJ



- Service replacement for the Mustang FR500CJ race car
- Can also be used to delete the A/C compressor on 2007-2009 5.4L Mustang SVT; shorter than stock belt required
- Designed to work with Crankshaft Damper M-6316-CJ and 10-rib factory drive belt
- Includes fasteners

1979-1995 460 FOX ENGINE SWAP MOUNTS
M-6038-A460*



- Use in 1979-1995 Mustang and other Fox-chassis cars to mount 429/460 engines
- Rubber-insulated mount kit is designed to work with M-6675-A460 Rear Sump Oil Pan Kit and custom headers
- Does not fit I-6 cylinder front crossmember

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ALUMINATOR ACCESSORY DRIVE KITS

NEW

Proudly Made in the USA

M-8600-A46SC*

- The easy way to dress our Aluminator short blocks or long blocks! Take the cost and guess work out of finding the correct accessories!
- Complete front end accessory drive to dress the supercharged Aluminator Long Block M-6007-A46SC
- Designed for use on M-6007-A46SC
- Includes alternator, power steering pump, A/C eliminator, all pulleys and fasteners and belts
- Tensioner and crankshaft damper included on long block, NOT included in kit
- Fits 2003-2004 Mustang Cobra

M-8600-A46NA*

- The easy way to dress our Aluminator short blocks or long blocks! Take the cost and guess work out of finding the correct accessories!
- Complete front end accessory drive to dress the naturally aspirated Aluminator Long Block M-6007-A46NA
- Designed for use on M-6007-A46NA, parts and routing derived from 2004 Mustang Mach 1
- Includes alternator, power steering pump, A/C eliminator, all pulleys and fasteners and belt
- Tensioner and crankshaft damper included on long block, NOT included in kit
- Will work on some 1999-present 2-valve 4.6L applications if FEAD routing is same as 2004 Mustang Mach 1



Photo may vary

STARTER INDEX PLATE SMALL BLOCK

NEW

Proudly Made in the USA

M-7007-B

- Metal plate that goes between the block and the transmission bellhousing
- Fits 1979-1995 Mustang V8 with manual transmission and production bellhousing
- Fits Bellhousing M-6392-E and M-6392-R58
- The starter index plate positions the starter to ensure proper starter drive to flywheel ring gear alignment



STARTER INDEX PLATE MODULAR BLOCK

Proudly Made in the USA

NEW

M-7007-A

- Metal plate that goes between the block and the transmission bellhousing
- Fits 4.6L/5.4L Modular engine with manual transmission except Ford GT
- Fits Bellhousing M-6392-M46
- The starter index plate positions the starter to ensure proper starter drive to flywheel ring gear alignment



PLUG AND DOWEL KITS

Proudly Made in the USA

M-6026-A302** 289/302/351W

Necessary dowels, cup plugs and pipe plugs for rebuilding production V8 blocks.

M-6026-R351* 351 Ford Racing

Necessary dowels, cup plugs and pipe plugs for rebuilding Ford blocks: M-6010-R302/R351/R352/R353/R354/R355/S302/S351/V351/W351.

M-6026-A460*

Use with M-6010-A460 Cylinder Block. Kit includes cam plug, oil gallery plugs, transmission dowels and head dowels.

M-6026-A Aluminum

NEW

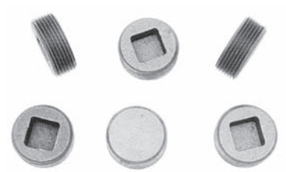
Service replacement plug and dowel kit for M-6010-BOSS302/BOSS35192/BOSS35195/BOSS351BB and 351 race blocks with O-ring threaded plugs. Black anodized aluminum plugs with Buna® "O" rings for the oil galleries, water drains and core holes. Dowels for front cover, clutch housing and cylinder heads.



M-6026-A302 shown

M-6026-B302*

289/302/351W/351C Threaded freeze plug (1.25" NPT) kit for all small V8 engine blocks. Does not include dowels.



FORD RACING CYLINDER BLOCK CAMSHAFT PLUG

Proudly Made in the USA

M-6026-S351*

Service camshaft plugs for Ford Racing blocks M-6010-R302/S302/R351/R352/R353/R354/R355/S351/V351/W351/BOSS302/BOSS351. Package of 10.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

SERPENTINE BELT HORSEPOWER PULLEY KITS – MUSTANG 5.0L

Proudly Made in the USA

M-8509-A50* 1987-1993 5.0L Mustang with serpentine drive belt, A/C and power steering

Contains steel crankshaft, water pump and alternator pulleys, plus bolts and installation instructions. Reduces accessory drive rpm by water pump – 14% and alternator – 22%…and significantly improves performance! Pulleys are manufactured on state-of-the-art CNC machines and have an awesome blue finish over zinc plating. Pulleys use production serpentine belt.

WARNING: Engine cooling will be reduced.



1965-1969 MUSTANG BILLET SINGLE-GROOVE PULLEY SET

Proudly Made in the USA

M-8509-CM*

- Fits 1965-1969 Mustang with 289/302/351W
- 3-bolt crank pulley
- Single-groove crank pulley
- Single-groove water pump pulley

1970-1978 MUSTANG BILLET SINGLE-GROOVE PULLEY SET

Proudly Made in the USA

M-8509-DM*

- Fits 1970-1978 Mustang with 302/351W/351C
- 4-bolt crank pulley
- Single-groove crank pulley
- Single-groove water pump pulley

1970-1978 MUSTANG BILLET DUAL-GROOVE PULLEY SET

Proudly Made in the USA

M-8509-EM*

- Fits 1970-1978 Mustang with 289/302/351W/351C
- 4-bolt crank pulley
- Dual-groove crank pulley
- Single-groove water pump pulley



CRANKSHAFT PULLEY SPACERS

Proudly Made in the USA

Use these crankshaft pulley spacers with Ford Racing M-6316-C351/A50/D302 Crank Dampers to achieve proper belt alignment on past model 5.0L and 5.8L Windsor engines.

PART NUMBER	ENGINE	YEAR	CRANK PULLEY BOLT PATTERN	SPACER THICKNESS
M-8510-A351	351W	1979 and earlier	4	0.350"
M-8510-B351	302 351W	1980 and later	4	0.950" 0.950"
M-8510-C351	302 ① 351W ①	1980 and later All	4	0.875" 0.875"
M-8510-D351		All	4	0.875" 0.909"



Crankshaft Pulley Spacer M-8510-A351 shown

NOTE:
① With 0.917" Ford Racing crank sprocket.

INSTALLATION NOTES
1979 and earlier 351W with 0.917" Ford Racing crank sprocket can use Spacer M-8510-A351 if 0.070" is machined from the rear of the damper hub. Early 3-bolt crank pulleys generally bolt directly to the damper (damper is drilled for 3- and 4-bolt patterns). However, sheave alignment should be checked and the pulley shimmed as necessary to correct any misalignment.

460/514 CRANKSHAFT DAMPER SPACER

Proudly Made in the USA

M-6359-D460

- Spacer with counterweight for 1979-1997 externally balanced 460 engines
- Used on Ford Racing crate engines
- Same as discontinued production service part D9TZ-6359-A



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

5.0L CRANKSHAFT DAMPER KIT
M-6316-M50**

- New stock replacement damper for most 1981-1995 5.0L engines
- 50 oz.-in. balance factor
- Kit includes E4TZ-A Damper and FITZ-A Timing Pointer
- 3.950" overall length



302/351W CRANKSHAFT DAMPER KIT
M-6316-K351**

- New stock replacement damper for most 302/351W engines with left-hand water pump inlet
- Fits 1970-1980 302, 1970-1997 351W crankshafts with external balance, 28.2 oz.-in. balance factor
- 4-bolt pulley pattern
- 3.950" overall length
- Includes E8TZ-B Damper and F1TZ-A Timing Pointer



2008 MUSTANG SVT CRANKSHAFT DAMPER
M-6312-SVT*

- New factory replacement damper from the 2008 Mustang SVT 5.4L 4V engine
- 10 lbs lighter than the 2007 factory SVT crankshaft damper
- Must be installed on the 2007 Mustang SVT when using Ford Racing Supercharger M-6066-SGT to qualify for warranty



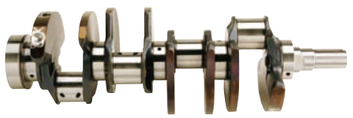
COBRA JET SFI CRANKSHAFT DAMPER
M-6316-CJ*

- SFI-certified crankshaft damper used on Mustang FR500CJ race car
- Increases Supercharger rpm by 10% (calibration recommended)
- Production-length belt required when used with A/C Eliminator M-19216-CJ
- Requires a longer-than-production belt when used with A/C
- Billet aluminum construction for reduced weight
- Requires minor clearancing of timing chain cover for installation



4.6L COBRA STEEL CRANKSHAFT
M-6303-D46**

- Original equipment replacement crankshaft for 1996-2001 4.6L DOHC Cobra engine
- Can be used in 4.6L SOHC engines if "8-bolt" flywheel is used
- May require minor block modifications for counterweight clearance



5.4L LIGHTNING STEEL CRANKSHAFT
M-6303-M54**

- Original equipment for the 1999-2004 Lightning SVT 5.4L
- Forged steel
- 106 mm stroke
- Standard journal diameters
- 8-bolt flywheel



514/521 STROKER CRANKSHAFT FOR 429/460
M-6303-A514*

- 514 cubic inch displacement with standard bore 429/460 block
- Cast nodular iron, stronger than an offset ground production cast iron crankshaft
- 4.30" stroke
- 3.000" main journal diameter (same as stock 429/460)
- 2.500" rod journal diameter, 2.000" rod journal width
- For use in 1969-1996 460 blocks
- Requires custom pistons, rods and balancing



Photo may vary

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CRANKSHAFT DAMPERS



M-6316-A460



M-6316-A50/M-6316-C351



M-6316-A50

PART NUMBER	ENGINE	BALANCE	NOTES	MASS (LBS)
M-6316-A50**	302 (1981-1993)	50 oz.-in. ①	Meets SFI 18-1 ②	12.1 ③
M-6316-C351*	302/351 HO	28.2 oz.-in. ①	Meets SFI 18-1 ②	11.5 ③
M-6316-A460*	429/460	Neutral	Meets SFI 18-1	10.1
M-6316-A521*	514/521 ④	Neutral	Meets SFI 18-1	10.1 NEW
M-6316-D302	302/351	Neutral	Meets SFI 18-1	10.6 ③ NEW

NOTES: ① Damper has removable weight that allows use as a neutral balance unit for internally balanced crankshafts. 1994-2001 Mustang and Explorer require modification.
② Does not clear early timing chain cover with rear installed seal.
③ 3.000" overall length.
④ Tuned for use on 521 crate engine.

302/351W BILLET TIMING POINTERS
M-6023-B351

- Billet aluminum, adjustable timing pointer for 302/351W engines
- It is designed for a 10 o'clock TDC location with considerable adjustment range for accurate positioning
- The pointer is contoured to fit with minimum clearance to the damper for reduced parallax effect when checking timing
- Ball milled Ford Racing logo
- Machined finish, clear anodized
- Includes fasteners
- Perfect for Street Rods

M-6023-C351

- Billet aluminum, adjustable timing pointer for 302/351W engines
- It is designed for a 10 o'clock TDC location with considerable adjustment range for accurate positioning
- The pointer is contoured to fit with minimum clearance to the damper for reduced parallax effect when checking timing
- Ball milled Ford Racing logo
- Machine finished, clear anodized
- Includes fasteners
- Perfect for Street Rods





429/460 BILLET TIMING POINTER
M-6023-A460

- Billet aluminum adjustable timing pointer for 429/460/514 engines
- The pointer is contoured to fit with minimum clearance to the damper for reduced parallax effect when checking timing
- Fits 5"-7" diameter crank dampers
- Offers up to 30 degrees of pointer adjustments
- Ball milled Ford Racing logo
- Machine finished, clear anodized
- Includes fasteners
- Perfect for Street Rods



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See pages 3-9 for important safety, emissions and warranty information.

2007-2009 MUSTANG SVT POWER UPGRADE PACKAGE

M-2007-FR1SVT

Proudly Made in the USA

50 States Street Legal

- Fits 2007-2009 Mustang SVT. **Will NOT fit 2010**
- Approximate increase of 40 peak hp over stock (540 hp @ 6250 rpm, 510 lb-ft @ 4500 rpm)
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - 2007-2009 Mustang SVT Cold-Air Kit with Performance Calibration M-9603-SVT07
  - 2007-2009 Mustang SVT Muffler Set M-5230-SVT1
  - Performance Oil Filter M-6731-FL820
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle



2007-2009 MUSTANG SVT DRAG PACK

M-2007-FR2SVT

50 States Street Legal

Proudly Made in the USA

With the Drag Pack, you'll launch harder and accelerate faster while maintaining drivability.
Drag racing should be conducted at enclosed, dedicated facilities only.

- Fits 2007-2009 Mustang SVT
- 113 mm Cold Air Kit M-9603-SVT07
- 3.73:1 ratio Ring and Pinion M-4209-F373N
- Gear Installation Kit M-4210-A
- "Shorty" Headers M-9430-C54C
- Short Throw Shifter designed by Ford Racing and Hurst M-7210-B
- Performance Oil Filter M-6731-FL820
- Premium fuel only
- **Due to multiple calibrations, online registration is required to receive ProCal tool after purchase**
- Engine calibrations are developed and supported for U.S. and Canadian vehicles only
- 50-States Street Legal E.O. #D-308-13
- 540 hp @ 6250 rpm
- 510 lb-ft @ 4500 rpm
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2010 MUSTANG GT POWER UPGRADE PACKAGE

M-FR1-MGTA

Proudly Made in the USA

NEW

50 States Street Legal

- Fits 2010 Mustang GT with automatic or manual transmission. For 2005-2009 Mustang GT, see M-FR1-MGT
- Approximate increase of 10 peak hp/up to 8 lb-ft over stock
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - 2010 Mustang GT High-Flow K&N/Ford Racing Air Filter with Performance Calibration M-9603-MGT
  - 2010 Mustang GT/SVT FR500S Muffler Kit (50 State) M-5230-SA
  - Performance Oil Filter M-6731-FL820
- Premium (91 octane or higher) fuel only
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle



2005-2009 MUSTANG GT POWER UPGRADE PACKAGE

M-FR1-MGT

50 States Street Legal

Proudly Made in the USA

- Fits 2005-2009 Mustang GT with manual or automatic transmission. For 2010 Mustang GT, see M-FR1-MGTA
- Approximate increase of 20 peak hp over stock
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - 2005-2009 Mustang GT Cold-Air Kit with Performance Calibration M-9603-GTB
  - 2005-2009 Mustang GT Muffler Set M-5230-GTA
  - Performance Oil Filter M-6731-FL820
- Utilizes production-quality components which mount in the stock location. The high-flow molded plastic bucket features a painted Ford Racing logo with unique clean-air tube which provides an enhanced intake sound
- Premium (91 octane or higher) fuel only
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle



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See pages 3-9 for important safety, emissions and warranty information.

2010 MUSTANG V6 POWER UPGRADE PACKAGE
M-FR1-MV6*

Proudly Made in the USA

NEW



- Fits 2010 Mustang V6 with automatic or manual transmission. For 2005-2009 Mustang V6, see M-2007-FR1V6
- Approximate increase of 15 peak hp/up to 17 lb-ft over stock
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - High-Flow K&N/Ford Racing Washable Air Filter M-9601-MV6
  - True Dual Exhaust with X-Pipe and FR500S Performance Mufflers M-5230-MV62
  - Performance Oil Filter M-6731-FL820
- Premium (91 octane or higher) fuel only
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

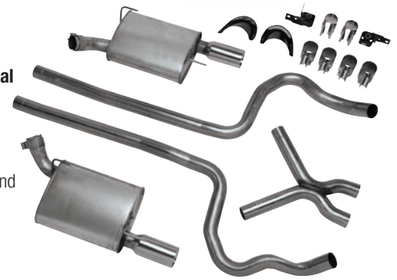
2005-2009 MUSTANG V6 POWER UPGRADE PACKAGE
M-2007-FR1V6

Proudly Made in the USA

50 States Street Legal



- Fits 2005-2009 Mustang V6 with manual or automatic transmission. For 2010 Mustang V6, see M-FR1-MV6
- Approximate increase of 15 peak hp/up to 17 lb-ft over stock
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - 2005-2009 Mustang V6 Cold Air Kit with Performance Calibration M-9603-V605
  - 2005-2009 Mustang V6 Dual Exhaust Kit (50 State) M-5230-V6
  - Performance Oil Filter M-6731-FL820
- Utilizes production-quality components which mount in the stock location. The high-flow molded plastic bucket features a painted Ford Racing logo with unique clean-air tube which provides an enhanced intake sound
- Premium (91 octane or higher) fuel only
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle



FORD GT POWER UPGRADE PACKAGE
M-2005-GT*

Proudly Made in the USA



- Fits 2005-2006 Ford GT
- Approximately 100 hp increase
- Kit includes supercharger pulley and Pro-Cal tool with official Ford Racing calibration
- Detailed instructions included
- E.O. #D-231-29
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2010 MUSTANG GT FORD RACING PERFORMANCE CALIBRATION WITH HIGH-FLOW K&N AIR FILTER
M-9603-MGT

NEW

Proudly Made in the USA



- Fits 2010 Mustang GT with automatic or manual transmission. For 2005-2009 Mustang GT, see M-9603-GTB
- Approximate increase of 9 hp/up to 4 lb-ft over stock
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - 2010 Mustang GT High-Flow K&N/Ford Racing Air Filter M-9601-MGT
- Premium (91 octane or higher) fuel only
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

2007-2009 MUSTANG SVT 5.4L 4V COLD AIR TUNER KIT (CALIBRATION REQUIRED)
M-9603-M54SC*

NEW

Proudly Made in the USA



- Fits 2007-2009 Mustang SVT
- Designed for those who want the Ford Racing intake for aftermarket performance tuning/calibration
- Kit comes with hardware only! Calibration not included! Kit intended for aftermarket calibrators
- Ford Racing cold air kits utilize production-quality components which mount in the stock location (reuse of mass air meter sensor required)
- Kit includes 113 mm mass air meter and no calibration
- For replacement air filter element, see M-9601-D
- **A performance calibration is necessary to prevent engine damage. Calibration not included!**
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

2010 MUSTANG V6 FORD RACING PERFORMANCE CALIBRATION WITH HIGH-FLOW K&N AIR FILTER
M-9603-MV6

Proudly Made in the USA

NEW



- Fits 2010 Mustang V6 with automatic or manual transmission. For 2005-2009 Mustang V6, see M-9603-V605
- Approximate increase of 12 peak hp/up to 13 lb-ft over stock
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - 2005-2010 Mustang V6 High-Flow K&N Air Filter M-9601-MV6
- Premium (91 octane or higher) fuel only
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

2007-2009 MUSTANG SVT 113 MM COLD AIR KIT
M-9603-SVT07

Proudly Made in the USA

50 States Street Legal



- Fits 2007-2009 Mustang SVT
- Approximate increase of 40 hp/30 lb-ft over stock
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - 113 mm mass air sensor housing
  - Disposable Air Filter Element M-9601-D
- Premium (91 octane or higher) fuel only
- **Due to multiple calibrations, online registration is required to receive ProCal tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Engine calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

2005-2009 MUSTANG GT COLD AIR KIT WITH PERFORMANCE CALIBRATION
M-9603-GTB

Proudly Made in the USA



- Fits 2005-2009 Mustang GT with manual or automatic transmission. For 2010 Mustang GT, see M-9603-MGT
- Approximate increase of 20 hp over stock
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - Disposable Air Filter Element M-9601-B
- Utilizes production-quality components which mount in the stock location. The high-flow molded plastic bucket features a painted Ford Racing logo with unique clean-air tube which provides an enhanced intake sound
- Premium (91 octane or higher) fuel only
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

ENGINE PERFORMANCE – COLD AIR KITS/FILTERS

MUSTANG COLD AIR TUNER KIT (CALIBRATION REQUIRED)

M-9603-M463* Fits 2005-2009 Mustang GT with manual or automatic transmission
M-9603-M40* Fits 2005-2009 Mustang V6 with manual or automatic transmission

NEW

Proudly Made in the USA

- Designed for those who want the Ford Racing cold air intake for aftermarket performance tuning/calibration
- Kit comes with hardware only! Calibration not included! Kit intended for aftermarket calibrators
- Ford Racing cold air kit utilizes production-quality components which mount in the stock location. The higher flowing molded plastic bucket features a painted Ford Racing logo with unique air tube providing an enhanced intake sound and 85 mm mass air meter housing (reuse of mass air meter sensor required)
- For replacement air filter element, see M-9601-B
- **Calibration is necessary to prevent engine damage! Calibration not included!**
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle



2005-2009 MUSTANG V6 COLD AIR KIT WITH PERFORMANCE CALIBRATION

M-9603-V605

Proudly Made in the USA





- Fits 2005-2009 Mustang V6 with manual or automatic transmission. For 2010 Mustang V6, see M-9603-MV6
- Approximate increase of 12 peak hp/up to 13 lb-ft over stock
- Kit includes:
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
  - Disposable Air Filter Element M-9601-B
- Utilizes production-quality components which mount in the stock location. The high-flow molded plastic bucket features a painted Ford Racing logo with unique clean-air tube which provides an enhanced intake sound
- Premium (91 octane or higher) fuel only
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

REPLACEMENT FILTERS

2010 MUSTANG GT HIGH-FLOW K&N/FORD RACING AIR FILTER

M-9601-MGT

NEW

- K&N 4-ply panel washable air filter
- Fits stock 2010 Mustang GT airbox. **Will NOT fit 2005-2009**
- Flows approximately 22% more than stock filter at 1.5" H_2O delta pressure
- Co-engineered by K&N and Ford Racing
- Does not require PCM recalibration



Proudly Made in the USA

2005-2010 MUSTANG V6 HIGH-FLOW K&N AIR FILTER

M-9601-MV6

NEW

- K&N 4-ply panel washable air filter
- Fits stock 2005-2010 Mustang V6 airbox
- Flows approximately 22% more than stock filter at 1.5" H_2O delta pressure
- Does not require PCM recalibration



Proudly Made in the USA

2007-2009 MUSTANG SVT COLD AIR AND SUPERCHARGER UPGRADE KIT REPLACEMENT AIR FILTER

M-9601-D**

Proudly Made in the USA

- Replacement air filter for the 2007-2009 Mustang SVT 113 mm Cold Air Kit M-9603-SVT07 and M-6066-SGT Supercharger Upgrade Kit



2005-2009 MUSTANG GT/V6 COLD AIR KIT DISPOSABLE HIGH-FLOW AIR FILTER REPLACEMENT

M-9601-B

- Replacement disposable air filter for Ford Racing 2005-2009 Mustang GT M-9603-GTB Cold Air Kit and 2005-2009 Mustang V6 M-9603-V605 Cold Air Kit
- Original equipment replacement air filter for 2008-2009 Mustang Bullitt. Not for use with stock 2005-2010 Mustang GT or V6 airbox



Proudly Made in the USA

AIR FILTER ELEMENT

M-9601-C**

NEW

- Service replacement air filter for M-9603-GT06 Cold Air Kit



Proudly Made in the USA

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



ProCal

PERFORMANCE CALIBRATIONS

ProCal is included in select Ford Racing Cold Air Kits, Power Upgrade Packages, and Supercharger Kits.

Ford Racing Performance Calibrations are engineered to generate optimal horsepower and torque, while delivering:

-Engine Durability
-Exceptional Drivability
-50 State Emissions Compliancy

ProCal Tool - New and Improved!

- Enhanced Features: Now accepts input for axle ratio and tire size.
- Easy to read display.
- Step-by-Step calibration loading instructions.
- OBD II Diagnostic code display capability

Trust Ford Racing's ProCal to unlock your vehicle's potential without putting your powertrain at risk.





Ford RACING





www.fordracing.com



DYNAMOMETER TESTING AND FORD RACING CALIBRATIONS

A question we at Ford Racing Performance Parts are often asked is "Why do certain companies claim to make more power with their power upgrade kits than you do with your kits?" To address that question properly, it is necessary to understand some of the intricacies of chassis dynamometer testing as well as some of the compromises that must be made in order to simultaneously meet our standards for performance, emissions, durability and safety.

CHASSIS DYNAMOMETER TESTING

There are two main types of chassis dynamometers (dynos) in widespread use today.

- An inertia dyno uses a large spinning drum that is accelerated by the drive wheels of the test vehicle. Power is then computed by knowing the inertia of the drum and how quickly it was accelerated. Torque can then be calculated by knowing the speed of the drum.
- An eddy-current dyno absorbs and measures power by rotating a metallic disc through a magnetic field.



Without getting into which dyno is more "correct" under what conditions, and why, we will simply say that these two types of dynos typically do not always give the same result even with all else being equal. It is generally not possible to accurately compare numbers from one type of dyno with those from the other type of dyno. Each type of dyno has its own advantages and disadvantages, but as long as all the tuning work is done on the same type of dyno, it doesn't really matter which one is used.

With any dyno testing there is a need for correction factors that are applied to the raw numbers the dyno actually measures. These correction factors are an attempt to correct for varying atmospheric conditions such as humidity, barometric pressure and air temperature. The two most common standards are SAE J1349 and SAE J607 (sometimes known as "STD" on some dynos). How correction factors are calculated is given in the "Crate Engine" section of this catalog. For this article understand that these correction factors will give results that are different from each other, with SAE J1349 typically about 4% lower than SAE J607. OEMs will almost always quote J1349 corrected numbers when advertising horsepower and torque. Some "tuning" shops will report STD numbers because they are always higher than SAE. Be sure to ask which correction factor is being used when comparing dyno numbers!

Whenever comparing dyno results, always be sure that the numbers are corrected to the same standard. Despite these correction factors, atmospheric conditions can play an additional role in terms of ignition timing. The correction factors account only for the change in the density of the air due to atmospheric conditions and cannot account for things like engine borderline spark sensitivity. As inlet air temperature increases, the PCM will generally retard spark to prevent detonation using the particular octane of fuel for which it was calibrated. Correction factors cannot account for this because different engine designs can have different spark sensitivity and different

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See pages 3-9 for important safety, emissions and warranty information.

ENGINE PERFORMANCE – TECH TIPS

sensitivity of torque relative to ignition timing. Basically this means that the closer the actual conditions are to the SAE J1349 standard (77 deg F inlet air, 29.31 inHg barometric pressure), the more comparable the results are to those quoted by the manufacturer. Unless otherwise explicitly stated, **all horsepower numbers in the Ford Racing catalog have been determined by using the SAE J1349 standard.**

When testing a particular calibration or performance-enhancing part by performing back-to-back dyno runs, it is critical to keep test conditions as similar as possible between the runs. This sounds obvious, but is very commonly overlooked by many aftermarket companies who frequently publish dyno charts depicting large gains, but fail to give all the necessary data to show the tests were run under similar conditions. In order to be certain that the test conditions are as similar as possible, the following data is mandatory and needs to be collected for each run:

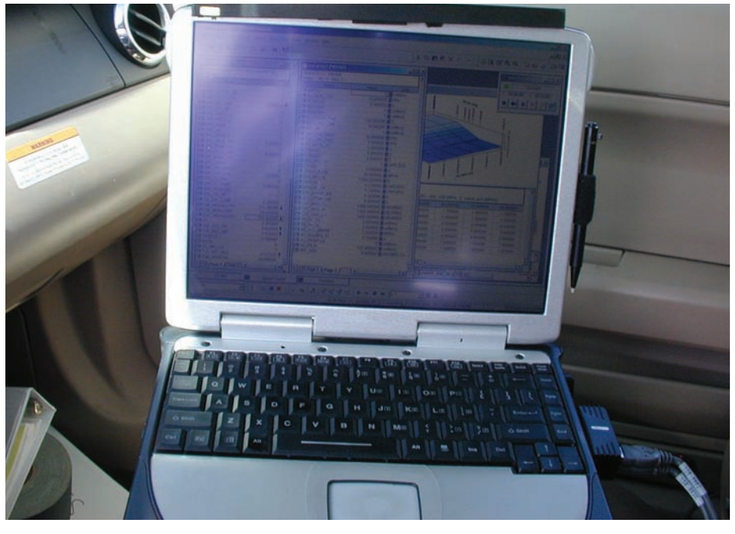
- Ambient air temperature
- Barometric pressure
- Inlet air temperature (on a forced-induction car, this is usually downstream of the power adder)
- Air/fuel (A/F) ratio (preferably upstream of any catalyst)

Truly meaningful power numbers cannot be collected without this data!

It is also a good idea to make sure the A/F ratio sensor (often called a "wideband" sensor) in use on the dyno has not been exposed to leaded fuel and has not been in service for an excessive period of time (greater than six months, depending on frequency of use). A/F ratio is the single most important parameter to measure accurately when doing any sort of dyno tuning, so it is critical the sensor is providing accurate information. When doing any PCM calibration on a dyno, **the resulting calibration will only be as good as the A/F sensor.**

These additional inputs should be used for ideal dyno testing and calibration:

- Air/fuel ratio and spark advance commanded by the PCM
- Fuel injector pulsewidth
- Fuel pump duty cycle (in the case of ERFS)
- MAF sensor voltage
- Fuel pressure
- Engine oil temperature
- Differential oil temperature



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DYNAMOMETER TESTING AND FORD RACING CALIBRATIONS (continued...)

How drivetrain affects wheel horsepower:
Most chassis dyno tests are performed using the "roll-on" method, where the vehicle's drive wheels are accelerated in a particular gear from a low speed to a high speed (generally to the rev limit of the engine) in one continuous sweep. Because of this constant acceleration, engine and transmission inertia, drive wheel inertia, tire characteristics, gear ratio and axle ratio can all affect the final measured horsepower. Generally a heavier wheel will take more torque to accelerate at the same rate as a lighter wheel, so heavier wheels will tend to reduce the measured wheel horsepower. Gear ratio comes into play because as the gear ratio strays from a 1:1, the efficiency drops and therefore the measured horsepower at the wheels also drops. This is why most dyno runs are run in the 1:1 gear (i.e., 4th gear in a 5-speed overdrive transmission) whenever possible. The same logic applies to axle ratio as well, which means that **changing nothing but axle ratio can have an effect on measured wheel horsepower**. Remember, this does NOT change brake (flywheel) horsepower, only the delivered wheel horsepower due to the change in drivetrain efficiency. When comparing dyno numbers, be sure the wheels, tires, gear ratio and gear, as well as all the other parameters previously mentioned, are the same from run to run!

How calibration can cause misleading dyno results:
Production calibrations have an inferred catalyst temperature protection model which constantly calculates the temperature in the hottest part of the hottest catalyst. This calculated temperature is based on many PCM parameters, such as engine speed, load, ingested air mass, time, inlet air temperature, EGR flow rate and many others.

When the catalyst model calculates that the catalyst temperature is about to exceed a level that is safe for the catalyst (generally around 1650 deg F), the PCM will richen the A/F mixture as necessary to lower the exhaust gas temperature and cool the catalyst. This richened A/F ratio will decrease power output, but is absolutely necessary to keep the catalyst from being permanently damaged. Unless A/F ratio is monitored during a dyno pull, the dyno operator will have no idea when catalyst temperature protection has been invoked and can make erroneous conclusions with regard to power output.

As a trivial example of how this can affect dyno testing, consider a supercharged production vehicle with production calibration performing back-to-back runs under identical conditions except as noted. The car is driven to a dyno facility and immediately put on the dyno and a run is performed, yielding a result of 420 hp. In this example, A/F ratio is not monitored. A part is swapped for another "high-performance" part and another dyno run is performed, resulting in 430 hp. The dyno operator concludes the "high-performance" part is worth 10 hp. This is not accurate because when the car was first dyno tested, its catalysts were sufficiently hot that catalyst temperature protection was invoked during the dyno pull which reduced power output by richening the A/F ratio. While the car was having the parts swapped, the catalysts cooled down enough that during the next dyno pull catalyst temperature protection was not invoked. The engine made more power on the second pull because it was running a leaner A/F ratio closer to optimal and not necessarily because of the "high-performance" part. If the dyno operator was monitoring A/F ratio, this would have been readily apparent.

If the operator was monitoring the A/F ratio *commanded by the PCM*, the activation of catalyst temperature protection would become self-evident. In this example, the erroneous conclusion that was reached suggested the "high-performance" part was worth 10 hp when it really wasn't, but the opposite can also occur quite easily. Without covering every possible scenario, it will suffice to say that dyno numbers are ONLY meaningful when supporting data such as A/F ratio, inlet air temperature and the others listed above are also provided.

There is also a model for oxygen sensor protection and exhaust valve protection that when not taken into account can cause misleading dyno data. In general, exhaust temperatures greater than about 1650 deg F can damage exhaust valves, and extreme care is taken in production calibrations to ensure that sustained engine operation beyond that temperature does not occur. This is rarely an instantaneous failure but rather one that over time "tulips" the exhaust valves and ultimately will fail the engine.

Aftermarket cold air kit manufacturers that claim to work without the need of a PCM recalibration are a common source of misleading dyno power claims. Some of the manufacturers of these kits claim enormous power gains using nothing but their kit and a production calibration. Most of these claims are not supported with A/F, inlet temperature or spark advance traces during the dyno pulls that are shown in their advertising. In some cases, the apparent increase in power is due to differing dyno test conditions as mentioned previously, while in other cases they can be due to the fact that the MAF sensor transfer function in the PCM is left stock. If the cold air kit flows more air and the MAF transfer function in the PCM is stock, it will not "know" about the extra air that's entering the engine. This will result in the engine running an A/F ratio that is leaner than it should be for engine durability. While this has the potential to produce more power, it can also be potentially damaging to catalysts, exhaust valves, piston rings and other engine components. The commanded spark advance can also be incorrect and result in detonation or pre-ignition with potentially catastrophic results. One should be very suspect if a particular cold air kit claims a huge power increase over stock at low engine rpm and without a calibration. Air inlet restrictions generally only become significant at higher airflows, so if a claim is made that a cold air kit increases torque at 2000 rpm without the aid of a calibration, you can be sure that varying dyno test conditions or a significant change in A/F ratio are the cause. **Ask for more supporting data!**

Similar misleading results can be caused by a failure to keep inlet air temperature constant between runs. The PCM will retard spark timing to prevent detonation as inlet air temperature increases, lowering power output. On a forced-induction car, the inlet air temperature is generally measured after the power adder (and after the intercooler, if applicable) and can be MUCH greater than ambient temperature. Careful monitoring of A/F ratio and inlet air temperature are critical to making accurate conclusions regarding the effectiveness of various high-performance parts.

Secondary factors that also affect measured wheel horsepower are engine oil temperature, differential oil temperature, humidity, etc. **It simply cannot be overstated that all conditions need to be as similar as possible between dyno runs in order to have a meaningful scientific conclusion, which requires the supporting data previously discussed.**

FORD RACING CALIBRATIONS

The calibrations that Ford Racing provides for our cold air and supercharger kits are done by Ford engineers who, in many cases, worked on the actual production vehicles. No one is more familiar with Ford engines and Ford control systems than Ford engineers. Extreme care is taken to provide as much power and torque as can be safely delivered, but also to deliver extremely high durability and exceptional drivability. Most of our kits are also 50-state emissions legal and many are now even offered with a warranty when dealer installed.



Most aftermarket tuners other than Ford Racing do a few "tricks" that we do NOT recommend such as:

- **Turning off the inferred catalyst, oxygen sensor and exhaust valve temperature protection logic** discussed in the previous section. This prevents the PCM from richening the A/F ratio to protect these components which can result in more power under certain conditions. The downside is **drastically** decreased durability of these expensive components, which can result in the check engine light coming on as well as increased exhaust emissions due to failed catalytic converters. Ford Racing does not compromise durability or emissions by turning off this calibration logic.
- They often advance spark timing to potentially unsafe levels. We test our calibrations in a wind tunnel and in hot dry weather to verify that

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DYNAMOMETER TESTING AND FORD RACING CALIBRATIONS (continued...)

potentially damaging spark knock or catastrophic pre-ignition does not occur. We also do cold weather and altitude testing as well as extensive emissions and durability testing on several vehicles before we release a calibration to the customer. Most other companies do not have the time or the resources to do the same type of testing that we do. Some companies do not realize that they need to perform this type of testing in the first place!

Automatic transmission calibration is an area where Ford Racing sets itself apart from other "tuners." We generally make extensive calibration changes to not only improve shift quality and give the transmission a more performance-oriented feel, but take great care to ensure that durability is not compromised to levels we feel would be unacceptable to a customer. In development we monitor things like clutch slip times, slip energies, band temperatures and other variables to make calibration changes as appropriate so that the customer can be sure of a quality product that will continue to deliver improved performance in the long-term. As mentioned before, these changes are performed by the same engineers who designed and developed the vehicles in the first place, and who are more familiar than anyone with their performance and durability envelopes.

Many of our competitors develop their calibrations exclusively on a chassis dyno and go straight from there to the end customer. While dyno work is a critical part of the development process, it is only one piece of a very complex puzzle. Calibrating for wide open throttle (WOT) is generally simple, but the bulk of the calibration effort is getting the part (and closed) throttle drivability correct. Our calibrations are developed not only on the dyno, but also on the street for production (or better) quality drivability, and across many vehicles to allow for manufacturing tolerances. Varied driving conditions, constant data monitoring and long-term testing ensure consistent drivability and exceptional durability.

In recent years, cars and trucks have shifted toward electronic throttle control (ETC) or "drive-by-wire" systems for packaging, cost and enhanced calibration functions. Ford Racing calibrations for ETC vehicles take advantage of some of the increased functionality offered by these systems by changing the relationship between the pedal and the throttle for improved "performance feel." This allows us to provide substantial improvements in "performance feel" even on the kits where the peak horsepower increase might be considered modest by some. The peak power numbers do not always tell the whole story.

Why some companies claim to make more power:
Some claims are due to poor and misleading dynamometer test practices as well as a fundamental lack of understanding of the way Ford PCMs work. Others are genuine but at the expense of engine, catalyst or drivetrain durability and emissions.

Hopefully this article gives you the tools necessary to determine what is real dyno horsepower, manipulated false horsepower and temporary horsepower waiting to cause a failure. We are confident that as a potential customer you will agree that no one knows your car or truck better than the Ford engineers who designed it in the first place. Our kits offer the best blend of performance, durability and drivability that exist on the market today.



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2010 MUSTANG SVT 750 HP SUPERCHARGER UPGRADE KITS

Proudly Made in the USA NEW 50 States Street Legal

M-6066-MSVT29C Black wrinkle
M-6066-MSVT29PC Polished

- Fits 2010 Mustang SVT
- Does **NOT** fit 2007-2009 Mustang SVT
- Produces 750 hp @ 6100 rpm and 719 lb-ft @ 4200 rpm @ 17psi boost
- Kit includes:
  - 2.9L twin screw supercharger assembly with "Crusher" inlet
  - Whipple® 123 mm MAF housing and zip tube
  - FRPP 65 mm dual-bore throttle body
  - FRPP upgraded dual fuel pump assembly
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

2010 MUSTANG SVT 660 HP SUPERCHARGER UPGRADE KIT

Proudly Made in the USA NEW

M-6066-MSVTA Black wrinkle



- Fits 2010 Mustang SVT. For 2007-2009, see M-6066-SGT
- Produces 660 hp @ 6100 rpm and 619 lb-ft at 4700 rpm @ 15psi boost
- Kit includes:
  - 2.3L Twin Vortices Series (TVS) supercharger features 4-lobe 160-degree twist rotors
  - Air Inlet Resonator Eliminator M-9B659-MSVT for improved airflow and strut tower clearance
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
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- Unlike our competitors, Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer. See page 7 for details
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50 States Street Legal

2007-2009 MUSTANG SVT 605 HP SUPERCHARGER UPGRADE KIT

Proudly Made in the USA 50 States Street Legal

M-6066-SGT Black wrinkle



- Fits 2007-2009 Mustang SVT. For 2010, see M-6066-SVTA (coming soon)
- Produces 605 hp @ 6250 rpm/554 lb-ft @ 4500 rpm with 93 octane at approximately 13psi of boost
- Kit includes:
  - 2.3L Twin Vortices Series (TVS) supercharger features 4-lobe 160-degree twist rotors
  - Open element cold air intake system. For replacement air filter, see M-9601-D
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
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NOTE: 2007 Mustang SVT must use upgraded Damper M-6312-SVT to be eligible for limited warranty.

2007-2010 MUSTANG SVT SUPERCHARGER UPGRADE WITHOUT CALIBRATION

Proudly Made in the USA NEW 50 States Street Legal

M-6066-TVS* Black wrinkle



- Fits 5.4L DOHC 2007-2010 Mustang SVT
- 2.3L Twin Vortices Series (TVS) supercharger features 4-lobe 160-degree twist rotors
- **Supercharger only!**
- **Does not include open element cold air intake system**
- **Calibration NOT included!**
- **Recalibration of engine management system is mandatory to prevent engine damage**
- Premium fuel required
- Damper upgrade M-6312-SVT strongly recommended for 2007 Mustang SVT to prevent crankshaft failure

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2005-2007 MUSTANG GT 400 HP SUPERCHARGER KITS

M-6066-M463V 2005-2006 Black wrinkle
M-6066-M463P 2005-2006 Polished
M-6066-M463V7 2007 Black wrinkle
M-6066-M463P7 2007 Polished



- Fits Mustang GT with manual or automatic transmission. For 2008-2009 see M-6066-M463V8, 2010 see M-6066-MGT400C
- Produces 400 hp/400 lb-ft with 93 octane at approximately 5psi of boost
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - Open air high-flow intake
  - Intake manifold
  - Drive belt
  - 32 lb/hr, 4-hole, high-impedance Fuel Injectors M-9593-MU32
  - FRPP 3V Cold Spark Plugs (16 mm) M-12405-3V0
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer. See page 7 for details
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

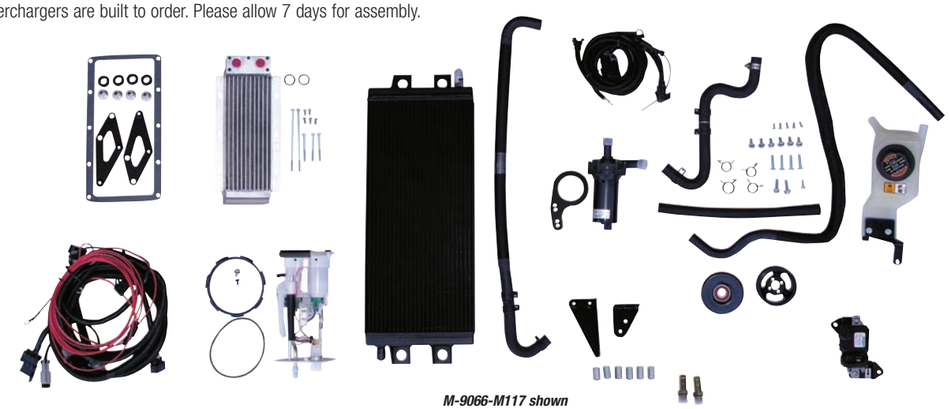
NOTES:
- 2008 engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E.
- 2005-2008 engines with early style 16 mm “High Thread” design spark plugs can be identified by coil engineering number 3L3E part number.
- All 2009 engines use 12 mm spark plugs.
- All spark plugs must be gapped from .032" to .035".
- Superchargers are built to order. Please allow 7 days for assembly.

2005-2006 MUSTANG GT 550 HP BIG BOOST KIT

M-9066-M11

- Fits 2005-2006 Mustang GT with **MANUAL transmission ONLY**. For 2007-2009, see M-9066-M117
- Big Boost kit converts M-6066-M463V and M-6066-M463P Superchargers from 400 hp to 550 hp
- Produces 550 hp at 6000 rpm/542 lb-ft at 4400 rpm with 93 octane at approximately 11psi of boost
- Kit includes:
  - Complete air-to-liquid intercooler system
  - Dual fuel pump, fuel pump driver and Harness M-9407-GT05
  - Replacement pulley
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTES:
- All spark plugs must be gapped from .032" to .035".
- Superchargers are built to order. Please allow 7 days for assembly.



M-9066-M117 shown

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See pages 3-9 for important safety, emissions and warranty information.

2008-2010 MUSTANG GT 400 HP SUPERCHARGER KITS

M-6066-M463V8 2008-2009 Black wrinkle
M-6066-M463P8 2008-2009 Polished
M-6066-MGT400C 2010 Black wrinkle NEW
M-6066-MGT400PC 2010 Polished NEW



- Fits Mustang GT with manual or automatic transmission
- Produces 400 hp/400 lb-ft with 93 octane at approximately 5psi of boost
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - Closed, high-flow, emissions-legal air intake with HC trap
  - Intake manifold
  - Drive belt
  - 32 lb/hr, 4-hole, high-impedance Fuel Injectors M-9593-MU32
  - FRPP 3V Cold Spark Plugs (16 mm) M-12405-3V0
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, Ford Racing Power Upgrade Packages are 50-state emissions legal and eligible for limited warranty when installed by a Ford or Lincoln-Mercury Dealer. See page 7 for details
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

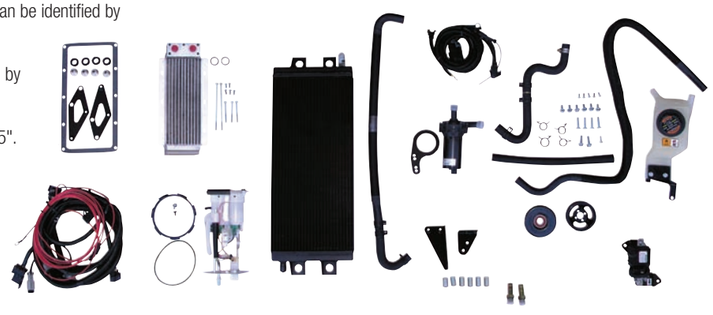
NOTES:
- 2008 engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E.
- 2005-2008 engines with early style 16 mm “High Thread” design spark plugs can be identified by coil engineering number 3L3E part number.
- All 2009 engines use 12 mm spark plugs.
- All spark plugs must be gapped from .032" to .035".
- Superchargers are built to order. Please allow 7 days for assembly.

2007-2009 MUSTANG GT 550 HP BIG BOOST KIT

M-9066-M117

- Fits 2007-2009 Mustang GT with **MANUAL transmission ONLY**. For 2005-2006, see M-9066-M11
- Big Boost kit converts M-6066-M463V7, M-6066-M463P7, M-6066-M463V8, M-6066-M463P8 Superchargers from 400 hp to 550 hp
- Produces 550 hp at 6000 rpm/542 lb-ft at 4400 rpm with 93 octane at approximately 11psi of boost
- Kit includes:
  - Complete air-to-liquid intercooler system
  - Dual fuel pump, fuel pump driver and Harness M-9407-GT05
  - Replacement pulley
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- Spark Plugs M-12405-3V12MM recommended for 2008-2009 cars equipped with late style 12 mm spark plugs, sold separately
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal
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NOTES:
- 2008 engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E.
- 2005-2008 engines with early style 16 mm “High Thread” design spark plugs can be identified by coil engineering number 3L3E part number.
- All 2009 engines use 12 mm spark plugs.
- All spark plugs must be gapped from .032" to .035".
- Superchargers are built to order. Please allow 7 days for assembly.



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Proudly Made in the USA

MUSTANG GT AUTO TRANS 475 HP SUPERCHARGER KITS

NEW

M-6066-MGT475 2005-2006 Black wrinkle
M-6066-MGT475P 2005-2006 Polished
M-6066-MGT475A 2007 Black wrinkle
M-6066-MGT475PA 2007 Polished
M-6066-MGT475B 2008-2009 Black wrinkle
M-6066-MGT475PB 2008-2009 Polished
M-6066-MGT475C 2010 Black wrinkle
M-6066-MGT475PC 2010 Polished

- Fits Mustang GT with automatic transmission only
- Produces 475 hp @ 6200 rpm/442 lb-ft @ 4500 rpm with 93 octane at approximately 8psi of boost
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - High-flow air intake
  - Intake manifold
  - Complete air-to-liquid intercooler system
  - Dual fuel pump, fuel pump driver and harness
  - Drive belt
  - 32 lb/hr, 4-hole, high-impedance Fuel Injectors M-9593-MU32
  - FRPP 3V Cold Spark Plugs (16 mm) M-12405-3V0
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
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NOTES:

- 2008 engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E.
- 2005-2008 engines with early style 16 mm “High Thread” design spark plugs can be identified by coil engineering number 3L3E part number.
- All 2009 engines use 12 mm spark plugs.
- All spark plugs must be gapped from .032" to .035".
- Superchargers are built to order. Please allow 7 days for assembly.

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ENGINE PERFORMANCE – SUPERCHARGERS

MUSTANG GT 550 HP SUPERCHARGER KITS

Proudly Made in the USA

M-6066-M11 2005-2006 Black wrinkle
M-6066-M11P 2005-2006 Polished
M-6066-M117 2007 Black wrinkle
M-6066-M11P7 2007 Polished

- Fits Mustang GT with manual transmission. For 2008-2009 see M-6066-M118, 2010 see M-6066-MGT550C
- Produces 550 hp at 6000 rpm/542 lb-ft at 4400 rpm with 93 octane at approximately 11psi of boost
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - Open air high-flow intake
  - Intake manifold
  - Complete air-to-liquid intercooler system
  - Dual fuel pump, fuel pump driver and Harness M-9407-GT05
  - Drive belt
  - 32 lb/hr, 4-hole, high-impedance Fuel Injectors M-9593-MU32
  - FRPP 3V Cold Spark Plugs (16 mm) M-12405-3V0
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTES:

- 2008 engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E.
- 2005-2008 engines with early style 16 mm “High Thread” design spark plugs can be identified by coil engineering number 3L3E part number.
- All 2009 engines use 12 mm spark plugs.
- All spark plugs must be gapped from .032" to .035".
- Superchargers are built to order. Please allow 7 days for assembly.

M-6066-M118 2008-2009 Black wrinkle
M-6066-M11P8 2008-2009 Polished
M-6066-MGT550C 2010 Black wrinkle NEW
M-6066-MGT550PC 2010 Polished NEW

- Fits Mustang GT with manual transmission only
- Produces 550 hp at 6000 rpm/542 lb-ft at 4400 rpm with 93 octane at approximately 11psi of boost
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - Closed, high-flow, emissions-legal air intake with HC trap
  - Intake manifold
  - Complete air-to-liquid intercooler system
  - Dual fuel pump, fuel pump driver and harness
  - Drive belt
  - 32 lb/hr, 4-hole, high-impedance Fuel Injectors M-9593-MU32
  - FRPP 3V Cold Spark Plugs (16 mm) M-12405-3V0
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
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NOTES:

- 2008 engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E.
- 2005-2008 engines with early style 16 mm “High Thread” design spark plugs can be identified by coil engineering number 3L3E part number.
- All 2009 engines use 12 mm spark plugs.
- All spark plugs must be gapped from .032" to .035".
- Superchargers are built to order. Please allow 7 days for assembly.



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See pages 3-9 for important safety, emissions and warranty information.

2004 F-150 SUPERCHARGER KITS

M-6066-F104 Black wrinkle
M-6066-F104P Polished

- Fits 2004 F-150 with 5.4L 3-valve engine. For 2005-2008, see M-6066-F105
- Produces additional 160 hp and 160 lb-ft of torque at the rear wheel with 93 octane
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - Open air high-flow intake
  - Intake manifold
  - Drive belt
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTES:

- Installation of this kit will void your new vehicle powertrain warranty.
- Superchargers are built to order. Please allow 7 days for assembly.



M-6066-F104P shown

2005-2008 F-150 SUPERCHARGER KITS

M-6066-F105 Black wrinkle
M-6066-F105P Polished

- Fits 2005-2008 F-150 with 5.4L 3-valve engine. For 2004, see M-6066-F104
- Produces additional 160 hp and 160 lb-ft of torque at the rear wheel with 93 octane
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - Open air high-flow intake
  - Intake manifold
  - Drive belt
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTES:

- Installation of this kit will void your new vehicle powertrain warranty.
- Superchargers are built to order. Please allow 7 days for assembly.



M-6066-F105P shown

1999-2000 LIGHTNING SUPERCHARGER UPGRADE KITS

M-6066-L90 Black wrinkle
M-6066-L90P Polished

- Fits 1999-2000 F-150 Lightning. For 2001-2004, see M-6066-LR
- Produces additional 80 hp and 80 lb-ft of torque at the rear wheel with 93 octane
- Designed for use with factory twin-bore throttle body
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - 90 mm Mass Air Meter M-12579-L54 from 2001-2004 Lightning
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTE:

- Superchargers are built to order. Please allow 7 days for assembly.



M-6066-L90P shown

2001-2004 LIGHTNING SUPERCHARGER UPGRADE KITS

M-6066-LR Black wrinkle
M-6066-LRP Polished

- Fits 2001-2004 F-150 Lightning. For 1999-2000, see M-6066-L90
- Produces approximately 80 hp and 80 lb-ft of torque at the rear wheel with 93 octane
- Designed for use with factory twin-bore throttle body
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - Ford Racing ProCal tool with performance calibration for significantly improved throttle response and performance feel
- **Due to multiple powertrain calibrations, online registration is required to receive ProCal calibration delivery tool after purchase**
- **Ford Racing does not ship ProCal tools directly overseas. Customers must make special arrangements with their Ford Racing Distributor**
- Powertrain calibrations are developed and supported for U.S. and Canadian vehicles only
- Unlike our competitors, all Ford Racing Power Upgrade Packages are 50-state emissions legal
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTE:

- Superchargers are built to order. Please allow 7 days for assembly.



M-6066-LRP shown

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ENGINE PERFORMANCE – SUPERCHARGERS

2003-2004 MUSTANG COBRA SUPERCHARGER UPGRADE KITS FOR AFTERMARKET THROTTLE BODY

M-6066-CT46HP Black wrinkle
M-6066-CT46PHP Polished

- Fits 2003-2004 Mustang Cobra
- Simple bolt-on produces additional 85 hp and 50 lb-ft of torque at the rear wheel with 93 octane
- Designed for use with most **aftermarket single-blade oval-bore throttle body**. For stock throttle body, use M-6066-CT46P
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - Supercharger inlet
  - Manifold adapter plate
  - Hardware kit
- Requires PCM, fuel pump and MAF meter upgrades
- Installation of this kit will void your new vehicle engine warranty
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTE: Superchargers are built to order. Please allow 7 days for assembly.



M-6066-CT46 shown

2003-2004 MUSTANG COBRA SUPERCHARGER UPGRADE KITS

M-6066-CT46 Black wrinkle
M-6066-CT46P Polished

- Fits 2003-2004 Mustang Cobra
- Simple bolt-on produces additional 85 hp and 50 lb-ft of torque at the rear wheel with 93 octane
- Designed for use with **factory twin-bore throttle body**. For most aftermarket single-blade oval-bore throttle bodies, use M-6066-CT46HP
- Kit includes:
  - 2.3L twin screw supercharger assembly
  - Supercharger inlet
  - Manifold adapter plate
  - Hardware kit
- Does not require PCM, fuel pump or MAF meter upgrades
- Installation of this kit will void your new vehicle engine warranty
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTE: Superchargers are built to order. Please allow 7 days for assembly.

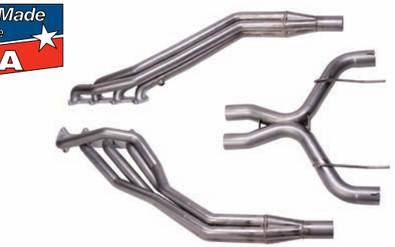


M-6066-CT46P shown

4.6L 3V LONG TUBE HEADERS

M-9430-MC*

- Service replacement for the Mustang FR500S race car
- Stainless steel construction
- OFF-ROAD ONLY! NOT STREET LEGAL!



5.4L COBRA JET ENGINE LONG TUBE RACE HEADERS

M-9430-CJ

- Fits 5.4L 4V Cobra Jet Engine M-6007-CJ, Romeo 605 Engine M-6007-TVS and stock Mustang SVT Engine M-6007-C54
- Original equipment on the 2008 and 2010 Cobra Jet Mustangs
- 1-7/8" OD primary tubes and 3/8"-thick 1-pc. laser cut flanges
- Merge collectors with scavenger spikes
- Turndowns and stainless steel band clamps included
- HEGO bungs included
- Use D9ZZ-9G458-A to plug holes if not using HEGOs
- Headers made from 304 stainless steel material
- Welded-on Cobra Jet Logo for authenticity
- Compatible with OEM gaskets
- Dyno-developed design for exceptional racing performance
- OFF-ROAD ONLY! NOT STREET LEGAL!



FORD GT REAR EXIT HEADERS

M-9430-GTX*

- Replaces factory exhaust manifolds, cat pipe and mufflers
- Two-piece construction with race-style slip joint
- 1-3/4" primary tube size
- Includes collector-type race mufflers
- Includes installation hardware
- OFF-ROAD ONLY! NOT STREET LEGAL!
- Exits in stock location



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See pages 3-9 for important safety, emissions and warranty information.

"SHORTY" HEADERS

AVAILABLE IN STAINLESS STEEL OR CERAMIC-COATED STAINLESS STEEL



M-9430-P50 shown



M-9430-E462 shown

PART NUMBER	TYPE	APPLICATION	TUBE DIAMETER
M-9430-P50*	Stainless Steel	1986-1993 Mustang 5.0L ①③⑤⑥	1.625"
M-9430-P51*	Ceramic Coated	1986-1993 Mustang 5.0L ①②③⑤⑦	1.625"
M-9430-E462*	Stainless Steel	1996-2004 Mustang GT 4.6L SOHC	1.625"
M-9430-E465*	Ceramic Coated	1996-2002 4.6L Cobra DOHC ②⑧	1.625"
M-9430-T50*	Stainless Steel	1990-1995 F-Series Truck and E-Series Van with 5.0L engine ③	1.625"
M-9430-T58*	Stainless Steel	1990-1996 F-Series Truck and E-Series Van with 5.8L engine ③	1.625"
M-9430-C54*	Stainless Steel	2007-2009 Mustang SVT 5.4L DOHC	1.875"
M-9430-C54C*	Ceramic Coated	2007-2009 Mustang SVT 5.4L DOHC	1.875"
M-9430-S197*	Stainless Steel	2005-2009 Mustang GT 4.6L 3V	1.625"
M-9430-S197C*	Ceramic Coated	2005-2009 Mustang GT 4.6L 3V	1.625"
M-9430-ZX3L*	Stainless Steel	2000-2004 Focus 2.0L Zetec®	1.500"
M-9430-ZX3LC*	Ceramic Coated	2000-2004 Focus 2.0L Zetec®	1.500"
M-9430-ZM7993*	Stainless Steel	1986-1993 Mustang wth 302 and "Z" heads	1.750"
M-9430-ZM7993C*	Ceramic Coated	1986-1993 Mustang wth 302 and "Z" heads	1.750"

NOTES: ① Also fits early Fox vehicles with modifications.
② Jet-Hot® Lifetime Warranty.
③ Production and all GT-40 heads.
⑤ Finally, a header that fits the new angled spark plug 5.0L GT-40 "P" cylinder head. Fits 1986-1993 Mustangs with stock or aftermarket H-pipe. Also fits 1979-1985 Mustangs and other Fox chassis with minor modification.
⑥ M-9430-P50 replaces M-9430-SSC.
⑦ M-9430-P51 replaces M-9430-C50.
⑧ 4.6L does not fit 2003 exhaust flange.

FEATURES:

STAINLESS STEEL

409 stainless exhaust material is titanium-stabilized ferritic stainless steel. 409 stainless is used in applications where appearance is a secondary consideration to properties and corrosion resistance and where some weldability is required. An example of stainless usage is catalytic converter assemblies. 409 stainless has excellent forming characteristics and is rust-through resistant. A surface rust will form in most instances. This rust retards further corrosion.

- 409 stainless steel tubes
- Machined flange
- Bolts to stock exhaust pipes
- Includes gaskets, bolts and studs
- Designed by Ford Racing engineers

CERAMIC-COATED STAINLESS STEEL

- Identical to stainless steel header, but with Jet-Hot® ceramic finish
- Stain and rust resistant
- Super-premium quality
- Lifetime Warranty
- Finest short-tube headers you can buy

HEADER LIMITED WARRANTY

This limited warranty becomes void if the product shows evidence of bending or mutilating of parts or burnout resulting from improper tuning. Warranty covers rust-through only and does not cover cosmetic rust or discoloration of material. This limited warranty shall be limited to the repair, adjustment or replacement of defective parts only. Does not cover any labor claims. Ask your dealer for a copy of this Jet-Hot® limited warranty, or call (800) 432-3379.

STREET ROD HEADER

M-9430-SR302*

- Put a Ford in your Ford with this compact 4 into 1 clamshell design street rod header
- Fits most 289/302/351W applications
- Jet-Hot® ceramic-coated 409 stainless steel. Stain and rust resistant. Lifetime Warranty (see below)
- 1-5/8" primary tubes with 2-1/4" ball style collector for easy exhaust pipe connection
- Includes short outlet pipes with O_2 sensor fittings
- Will also fit "GT-40P" heads
- Designed for maximum clearance in the narrow frames of early Fords
- Machined flange
- Bolts to stock exhaust pipes
- Includes gaskets, bolts and studs
- Designed by Ford Racing engineers
- Finest short-tube headers you can buy





"STAGE 8" LOCKING HEADER BOLT SYSTEMS

These kits fit most V8 and many other engines. Includes 16 bolts and locking hardware.

PART NUMBER	SIZE	FITS
M-9432-A50	3/8"-16 x .75" ①	Most headers
M-9432-A51	3/8"-16 x 1" ①	Ford Racing "Shorty" headers
M-9432-A54	8 mm-1.25 x 22 mm	4.6L/5.4L modular V8 engines

- Header fasteners positively will not back out. Eliminates need to monitor and tighten bolts regularly
- Grade 8 aircraft-quality bolts made in U.S.A. Duplex nickel-plated
- Manufacturer's Lifetime Warranty

NOTE: ① Will not fit 4.6L/5.4L modular V8.



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See pages 3-9 for important safety, emissions and warranty information.

2007-2009 MUSTANG SVT MUFFLER KIT (50 STATE)

M-5230-SVT1



- Fits 2007-2009 Mustang SVT. For 2010 Mustang SVT, see M-5230-MSVTC, M-5230-MSVTL or M-5230-SA
- T-304 stainless construction
- Deeper, throatier exhaust note
- Ford Racing embossed 3.5" polished exhaust tips
- 50-state drive-by noise legal

2007-2009 MUSTANG SVT MUFFLER KIT (49 STATE)

M-5230-SGT



- Fits 2007-2009 Mustang SVT. For 2010 Mustang SVT, see M-5230-MSVTC, M-5230-MSVTL or M-5230-SA
- T-304 stainless construction
- Louder, throatier exhaust
- Includes mufflers with Ford Racing embossed 3.5" tips
- 49-state drive-by noise legal (not legal in CA)

2005-2009 MUSTANG GT EXHAUST KIT (49 STATE)

M-5230-5GT



- Fits 2005-2009 Mustang GT. For 2010, see M-5230-MGTL
- T-304 stainless construction
- Louder, throatier exhaust note
- Includes mufflers with Ford Racing embossed 3.5" exhaust tips
- 49-state drive-by noise legal (not legal in CA)

2005-2009 MUSTANG GT MUFFLER KIT (50 STATE)

M-5230-GTA



- Fits 2005-2009 Mustang GT. For 2010, see M-5230-MGTC
- 409 stainless body with highly polished 4.0" diameter tips
- Louder, throatier exhaust note
- Included in 2005-2009 Mustang GT Power Upgrade Package M-FR1-MGT
- **Standard on the 2007-2008 Shelby GT and GTH**
- 50-state drive-by noise legal

NOTE: 409 stainless exhaust material is titanium-stabilized ferritic stainless steel. 409 stainless is used in applications where appearance is a secondary consideration to mechanical properties and corrosion resistance and where some weldability is required. An example of 409 stainless usage is catalytic converter assemblies. 409 stainless has excellent forming characteristics and is rust-through resistant. A surface rust will form in most instances. This rust retards further corrosion.

2005-2009 SPECIAL EDITION MUSTANG GT MUFFLER KIT

M-5230-GTB



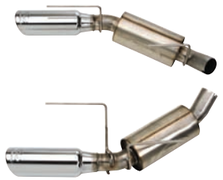
- Fits 2005-2009 Mustang GT. For 2010, see M-5230-MGTC
- Muffler used as standard equipment on the 2008 Mustang Bullitt
- Throatier exhaust note
- Aluminized 409 stainless steel corrosion-resistant body with a polished 304 stainless 3.5" diameter tips
- 50-state drive-by noise legal

2010 MUSTANG SVT MUFFLER KIT (50 STATE)

M-5230-MSVTC

NEW

- Fits 2010 Mustang SVT. For 2007-2009 Mustang SVT, see M-5230-SVT1
- T-304 stainless construction
- Louder, throatier exhaust
- Includes mufflers with Ford Racing embossed 3.5" tips
- 50-state drive-by noise legal

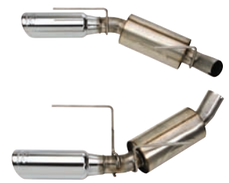


2010 MUSTANG SVT MUFFLER KIT (49 STATE)

M-5230-MSVTL

NEW

- Fits 2010 Mustang SVT. For 2007-2009 Mustang SVT, see M-5230-SGT
- Same as M-5230-SGT except with extended tips to fit 2010 Mustang
- T-304 stainless construction
- Louder, throatier exhaust
- Includes mufflers with Ford Racing embossed 3.5" tips
- 49-state drive-by noise legal (not legal in CA)



2010 MUSTANG GT MUFFLER KIT (50 STATE)

M-5230-MGTC

NEW

- Fits 2010 Mustang GT. For 2005-2009, see M-5230-GTA, M-5230-GTB
- T-304 stainless construction
- Louder, throatier exhaust note
- Includes mufflers with Ford Racing embossed 3.5" exhaust tips
- 50-state drive-by noise legal



2010 MUSTANG GT MUFFLER KIT (49 STATE)

M-5230-MGTL

NEW

- Fits 2010 Mustang GT. For 2005-2009 Mustang GT, see M-5230-5GT
- T-304 stainless construction
- Louder, throatier exhaust note
- Same as M-5230-5GT except with extended tips to fit 2010 Mustang
- Includes mufflers with Ford Racing embossed 3.5" exhaust tips
- 49-state drive-by noise legal (not legal in CA)



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2005-2009 MUSTANG GT/2007-2009 MUSTANG SVT FR500S MUFFLER KIT (50 STATE)

M-5230-S

- Fits 2005-2009 Mustang GT and 2007-2009 Mustang SVT. For 2010 Mustang GT/SVT, see M-5230-SA
- Homologated for use on the Mustang FR500S
- Body of mufflers embossed with Ford Racing logo
- Aluminized 409 stainless steel corrosion-resistant body with polished 304 stainless 3.5" diameter tips
- Throatier exhaust note
- 50-state drive-by noise legal



2010 MUSTANG GT/SVT FR500S MUFFLER KIT (50 STATE)

M-5230-SA

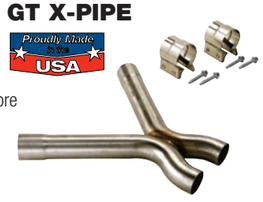
- Fits 2010 Mustang GT and 2010 Mustang SVT. For 2005-2009 Mustang GT or 2007-2009 Mustang SVT, see M-5230-S
- Same as M-5230-S except with black powdercoated body and extended tips to fit 2010 Mustang
- Aluminized 409 stainless steel corrosion-resistant body with polished 304 stainless 3.5" diameter tips
- Body of mufflers embossed with Ford Racing logo
- Throatier exhaust note
- 50-state drive-by noise legal



2005-2010 MUSTANG GT X-PIPE

M-5251-R*

- Fits 2005-2010 Mustang GT
- T-409 stainless steel X-pipe
- Converts your factory H-pipe to a more efficient X-pipe
- Requires cutting of factory exhaust for installation
- Clamp-on installation—does not require welding!



2010 MUSTANG V6 MUFFLER (50 STATE)

M-5230-MV61

- For 2010 Mustang V6. For 2005-2009 Mustang V6, see M-5230-5V6
- T-304 stainless construction
- Louder, throatier exhaust note
- Includes muffler with Ford Racing embossed 3.5" exhaust tip
- 50-state drive-by noise legal



2005-2009 MUSTANG V6 MUFFLER (50 STATE)

M-5230-5V6*

- Fits 2005-2009 Mustang V6. For 2010 Mustang V6, see M-5230-MV61
- T-304 stainless construction
- Louder, throatier exhaust note
- Includes muffler with Ford Racing embossed 3.5" exhaust tip
- 50-state drive-by noise legal



2010 MUSTANG V6 DUAL EXHAUST KIT (50 STATE)

M-5230-MV62

- Fits 2010 Mustang V6. For 2005-2009 Mustang V6, see M-5230-V6
- Includes Mustang FR500S Performance Mufflers embossed with Ford Racing logo
- Black powdercoated aluminized 409 stainless steel corrosion-resistant body with polished 304 stainless 3.5" diameter tips
- Includes X-pipe
- Louder, throatier exhaust note
- Includes 2010 Mustang GT rear lower valance, black, for dual exhaust
- 50-state pass-by noise legal

NOTE: 409 stainless exhaust material is titanium-stabilized ferritic stainless steel. 409 stainless is used in applications where appearance is a secondary consideration to mechanical properties and corrosion resistance and where some weldability is required. An example of 409 stainless usage is catalytic converter assemblies. 409 stainless has excellent forming characteristics and is rust-through resistant. A surface rust will form in most instances. This rust retards further corrosion.

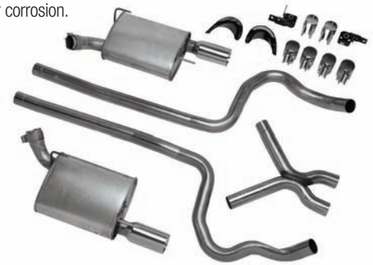


2005-2009 MUSTANG V6 DUAL EXHAUST KIT (50 STATE)

M-5230-V6

- Fits 2005-2009 Mustang V6. For 2010, see M-5230-MV62
- Includes mufflers used as standard equipment on the 2008 Mustang Bullitt
- Aluminized 409 stainless body mufflers with polished 304 stainless 3.5" diameter tips
- Louder, throatier exhaust note
- Includes X-pipe
- Requires minor modification of rear bumper cover (template included in kit)
- 50-state drive-by street legal

NOTE: 409 stainless exhaust material is titanium-stabilized ferritic stainless steel. 409 stainless is used in applications where appearance is a secondary consideration to mechanical properties and corrosion resistance and where some weldability is required. An example of 409 stainless usage is catalytic converter assemblies. 409 stainless has excellent forming characteristics and is rust-through resistant. A surface rust will form in most instances. This rust retards further corrosion.



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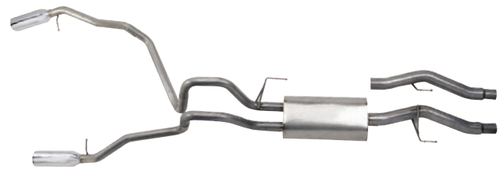
ENGINE PERFORMANCE – EXHAUST KITS

2004-2007 F-150 SPLIT REAR EXHAUST SYSTEM

M-5230-SR**

- Fits 2004-2007 F-150 2WD and 4WD, Super crew with short bed (does not fit Heritage or Lightning models)
- Made of high-quality T-304 stainless steel
- 4.6L and 5.4L compatible
- Unique polished tips with Ford Racing logo
- Will not fit 2004 F-150 Heritage



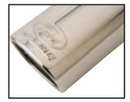


2001-2003 F-150 HARLEY-DAVIDSON® SPLIT REAR EHXAUST SYSTEM

M-5230-HDSR**

- Fits 2001-2003 F-150 Harley-Davidson® pickup
- Made of high-quality T-304 stainless steel
- Unique tips

WHILE SUPPLIES LAST. Limited Quantity!!





2004-2008 F-150 2WD LIGHTNING STYLE EXHAUST SYSTEM

M-5230-L**

- Fits 2004-2008 F-150 2WD (will not fit 2004 Heritage or Lightning models)
- Lightning SVT-inspired styling
- Unique tips
- Made of high-quality T-304 stainless steel
- Additional lengths to fit all wheelbases included in the kit



2006-2008 F-150 LIGHTNING STYLE EXHAUST

M-5230-L06EC*

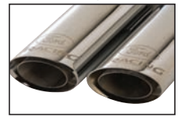
- Fits 2006-2008 F-150 2WD
- Lightning SVT-inspired styling
- Unique tips
- Made of high-quality T-304 stainless steel
- Fits extended cab and crew cab



2009-2010 FORD RACING F-150 CHROME EXHAUST TIPS

M-5255-F15R

- Fits 2010 F-150 SVT Raptor and 2009-2010 F-150 Harley-Davidson® truck with twin-pipe exhaust
- Chromed stainless steel tips etched with Ford Racing logo
- 3.5" outside diameter
- Angle cut design
- Easy-to-install clamp-on design
- Includes clamps





FORD GT PERFORMANCE MUFFLER KIT

M-5230-GT*

- Substantially louder than stock muffler
- Exits in stock location
- Mounts at all stock points
- Includes installation hardware
- OFF-ROAD ONLY! NOT STREET LEGAL!



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

TECH TIPS

CLUTCH/TRANSMISSION INSTALLATION TIPS

1986 and newer V8 Mustangs

The flywheel-to-crankshaft bolts must be hand-torqued to 75-85 lb-ft (302/351W) and 54-64 lb-ft (4.6L).

The 10.5" pressure plate bolts must be torqued to 12-24 lb-ft and 11" pressure plate bolts to 33 lb-ft + 1/4 turn.

Be sure to use the alignment dowels in the flywheels.

Pressure plate bolts and alignment dowels for the 10.5" clutch can be purchased using PN M-6397-A302. Pressure Plate Bolts N808969-S100 and Alignment Dowels PN D1FZ-6397-B are for the 11" pressure plate.

Evenly tighten bolts in a circular direction one turn at a time.

Bellhousing alignment is crucial for proper clutch and transmission function.

Due to production tolerances of engine blocks and bellhousings, it is possible for the transmission centerline and crankshaft centerline to be misaligned. Misalignment can cause transmission gear wear, transmission jumping out of gear, driveline vibration, clutch pedal vibration, pilot bearing noise, release bearing noise or excessive clutch spin time. It may also damage the pilot bearing, transmission mainshaft bearing and clutch hub. It will also cause harsh shifting.

Before installing the bellhousing, check the block mounting surface and bellhousing surfaces for nicks, dents, paint debris, etc. These are some things that could affect the accuracy of your measurements.

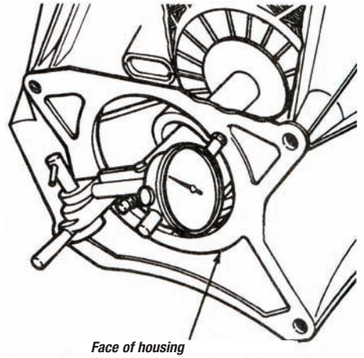
HOW TO CHECK BELLHOUSING ALIGNMENT

The first step is to check bellhousing face runout. You are checking for parallelism of the back of the bellhousing to the back of the block. Install the dial indicator (as shown in Fig.1). Rotate the crankshaft and mark down the reading. Be sure to push the crankshaft against the thrust bearing for an accurate reading. Maximum runout is .010. The next step is checking bellhousing bore runout. You are checking to see if the bellhousing bore centerline is aligned with crankshaft centerline. Reposition the dial indicator in the bellhousing bore (as shown in Fig. 2). Rotate the crankshaft and mark down the readings. Maximum out of concentricity is .015. If the bore runout is out of spec, install appropriate offset dowels.

Offset alignment dowels can be purchased from Lakewood®.

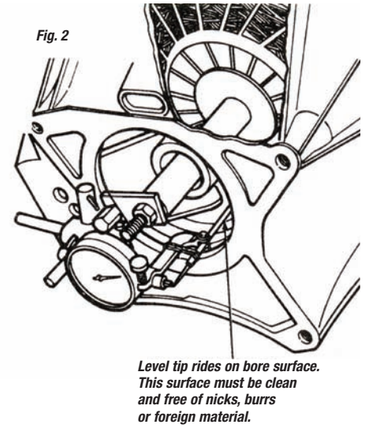
.007 PN 15950
.014 PN 15960
.021 PN 15970

Fig. 1



Face of housing (must be clean and free of nicks, burrs or foreign material).

Fig. 2

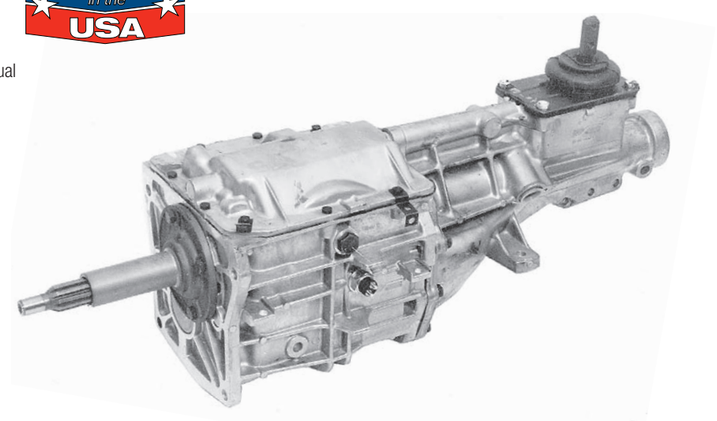


Level tip rides on bore surface. This surface must be clean and free of nicks, burrs or foreign material.

UPGRADED SUPER-DUTY T-5 TRANSMISSION

M-7003-Z*

- 1979-1993 V8 only
- Heavy-duty "World Class" T-5 5-speed manual transmission with short throw shifter
- 300 lb-ft torque capacity
- Gear ratios: 1st 2.95; 2nd 1.94; 3rd 1.34; 4th 1.00; 5th 0.63
- Double moly 2nd speed, 3rd speed and countershaft cluster gears
- Carbon fiber 3-4 blocker rings
- Improved synchronizers and bearings
- 1.0625" diameter 10-spline input shaft
- 28-spline output shaft
- 7-tooth speedometer drive gear
- Cobra style pocket bearing
- Steel input bearing retainer



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

TREMEC® 5-SPEED EXTRA HD TRANSMISSION (CLOSE RATIO)

M-7003-R58C*

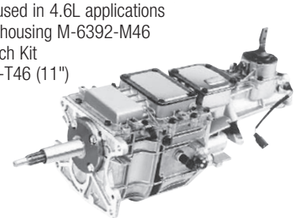
- 600 lb-ft torque capacity
- Gear ratios: 1st 2.87; 2nd 1.90; 3rd 1.34; 4th 1.00; 5th 0.82
- Features improved shift forks, one-piece counter-shaft, gears made of 4615 steel which increases the torque capacity over that of the M-7003-R58 model
- Input shaft is 26 spline and output shaft is 31 spline
- Requires a unique Bellhousing M-6392-R58 to install in a 1979-1995 Mustang
- To fit in a 1979-1993 Mustang, use M-5059-A Crossmember
- To fit in a 1994-1995 Mustang, modify vehicle crossmember, lengthen driveshaft .625" and use Clutch Fork E6ZZ-7515-A
- 31-spline driveshaft yoke required
- Unique clutch disc designed for 26-spline input must be used
- Can be used in 4.6L applications with Bellhousing M-6392-M46



TREMEC® 5-SPEED EXTRA HD TRANSMISSION (CLOSE RATIO, 26 SPLINE)

M-7003-R58H*

- Close ratio 1st through 4th
- 600 lb-ft torque capacity
- Gear ratios: 1st 2.87; 2nd 1.90; 3rd 1.34; 4th 1.00; 5th 0.68
- Features improved shift forks, one-piece counter-shaft, gears made of 4615 steel which increases the torque capacity over that of the M-7003-R58 model
- Input shaft is 26 spline; output shaft is 31 spline
- Requires Bellhousing M-6392-R58 to install in a 1979-1995 Mustang
- For 1979-1993 Mustang applications, use M-5059-A Crossmember (1979-1981 will require modification)
- For 1994-1995 Mustang applications, modify vehicle crossmember, lengthen driveshaft .625" and use Clutch Fork E6ZZ-7515-A
- 31-spline driveshaft yoke required, M-4841-A recommended
- Requires unique Clutch Disc M-7550-T302 (10.5") designed for use with 26-spline input
- Can be used in 4.6L applications with Bellhousing M-6392-M46 and Clutch Kit M-7560-T46 (11")



TREMEC® 6-SPEED HD TRANSMISSIONS

T-56 TRANSMISSION WITH ELECTRONIC SPEEDOMETER

M-7003-F*



M-7003-F shown

- This is the same Tremec® HD 6-speed manual transmission used in the 2000 Cobra "R" and the Ford Racing FR500 Mustang
- Fits 4.6L SOHC/DOHC engines
- Can be used in 1999-2004 Mustang and Cobra
- May require shorter driveshaft, modified crossmember/trans mount and other minor modifications
- 440 lb-ft torque capacity
- Gear ratios: 1st 2.97; 2nd 2.07; 3rd 1.43; 4th 1.00; 5th .80; 6th .62
- Does not have mechanical speedometer connection needed for use in earlier Mustangs
- 10-spline input, 31-spline output
- 2003-2004 Cobra requires changing 28-spline yoke to 31-spline

T-56 TRANSMISSION WITH MECHANICAL SPEEDOMETER

M-7003-G*

- Has mechanical speedometer drive for 1998 and older modular engine applications
- Fits 4.6L SOHC/DOHC engines
- 440 lb-ft torque capacity
- Gear ratios: 1st 2.97; 2nd 2.07; 3rd 1.43; 4th 1.00; 5th .80; 6th .62
- 7-tooth speedometer gear
- 10-spline input, 31-spline output

T-56 TRANSMISSION 5.0L

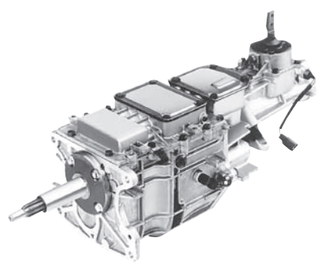
M-7003-H*

- For 5.0L/5.8L engine applications
- 440 lb-ft torque capacity
- Gear ratios: 1st 2.97; 2nd 2.07; 3rd 1.43; 4th 1.00; 5th .80; 6th .62
- 7-tooth speedometer gear
- 10-spline input, 31-spline output

TREMEC® 5-SPEED HD TRANSMISSION (WIDE RATIO)

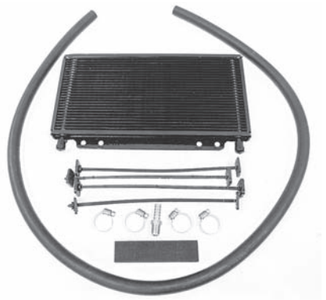
M-7003-R58W*

- Replaces M-7003-R58
- Gear ratios: 1st 3.27; 2nd 1.98; 3rd 1.34; 4th 1.00; 5th 0.68 (wide ratio)
- Features improved shift forks, one-piece counter-shaft, gears made of 4615 steel which increases the torque capacity over that of the M-7003-R58 model
- Input shaft is 10 spline 1.0625 and the output shaft is 31 spline
- Requires a unique Bellhousing M-6392-R58 to install in a 1979-1995 Mustang
- To fit in a 1979-1993 Mustang, use M-5059-A Crossmember
- To fit in 1994-1995 Mustang, modify vehicle crossmember, lengthen driveshaft .625" and use Clutch Fork E6ZZ-7515-A
- 31-spline driveshaft yoke required
- Can be used in 4.6L applications with Bellhousing M-6392-M46



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See pages 3-9 for important safety, emissions and warranty information.

HD TRANSMISSION OIL COOLER KIT (SELF-REGULATING)
M-7095-SR
- Unique patented "stacked-plate" design offers 35% improvement in efficiency over fin-and-tube coolers
- .75" x 7.25" x 11" unit weighs only 2.5 lbs
- Full 18,000-lb GVW rating
- Self-regulating design feature bypasses cold transmission fluid automatically (without thermostats or valves) until its viscosity decreases and allows fluid to flow through the main body of the cooler
- SAE thread fittings



ADJUSTABLE #3 CROSSMEMBER (TRANSMISSION MOUNT)
M-5059-A



This crossmember is a "double hump" design that simplifies installation of dual exhaust systems on Fox vehicles. The outer tubes are not welded to the center support, and thus can be adjusted to fit most engine/transmission combinations. It directly fits all Fox vehicles with a 4.5" dimension between the crossmember mounting brackets. It can be used on Fox vehicles with a 2.75" mounting dimension by relocating the brackets. It does not fit 1982 and later Continental or 1984 and later Mark VII, because they have a unique crossmember.

4.5" MOUNTING DIMENSION	
YEAR	FOX VEHICLE
1980-1988	T-Bird/Cougar
1982-1993	Mustang/Capri
1982	Fairmont/Zephyr
1983 and later	LTD/Marquis

2.75" MOUNTING DIMENSION	
YEAR	FOX VEHICLE
1978-1981	Fairmont/Zephyr
1979-1981	Mustang/Capri
1981-1982	Granada/Monarch

T-56 CROSSMEMBER
Proudly Made in the USA
M-5059-B*
- Production crossmember from the 2003-2004 Mustang Cobra
- Fits 1999-2004 Mustang when changing to a T-56 6-speed transmission
- Includes transmission mount



T-5 BEARING RETAINERS
Proudly Made in the USA
M-7050-A Fits 1983-1993 V8 applications
M-7050-B Fits 1994-1995 V8 applications
- Replacement T-5 bearing retainer with steel throwout bearing sleeve
- Fits production and Ford Racing T-5 transmissions



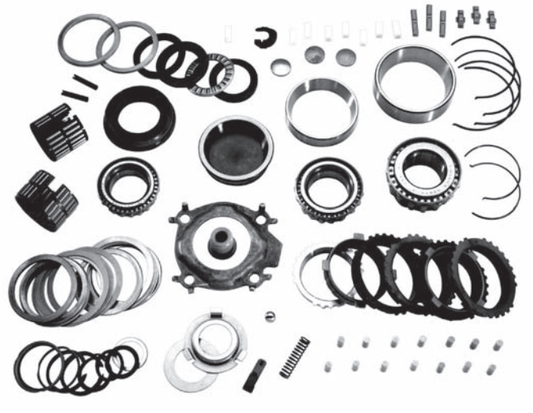
FORD GT TRANSAXLE COOLER KIT
Proudly Made in the USA
M-7095-GT
- Kit includes cooler and all installation hardware, fittings, lines and brackets for Ford GT
- A must for aggressive driving and open-track events
- OEM fit
- Originally designed for production installation



T-5 REBUILD KIT
M-7000-A*

This 94-piece world class T-5 transmission rebuild kit can be used on all of the following T-5 applications:
- M-7003-A/X/Z
- 1985-1995 5.0L Mustang
- 1985-1993(1) 2.3L Mustang
- 1985-1986 2.3L SVO Mustang
- 1985-1988(1) 2.3L Thunderbird Turbo Coupe
- 1994-2000 3.8L Mustang

NOTE: (1) 1987-1993 models will require additional input bearing and race. See your Ford or Lincoln-Mercury dealer.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2007-2009 MUSTANG SVT BLACK SHIFT KNOB AND STICK
M-7213-J
- A Ford Racing exclusive
- Fits the stock 2007-2009 Mustang SVT shifter and the Ford Racing M-7210-B Short Throw Shifter
- 6-speed black shift knob with Ford Racing logo and black powdercoated steel stick
- **Standard equipment on the Ford Racing Mustang Challenge race car**
- Shifter knob thread size 3/8"-16, will not fit stock shifter stick

Proudly Made in the USA



2007-2009 MUSTANG SVT WHITE SHIFT KNOB AND STICK
M-7213-K
- A Ford Racing exclusive
- Fits the stock 2007-2009 Mustang SVT shifter and the Ford Racing M-7210-B Short Throw Shifter
- 6-speed white shift knob with Ford Racing logo and stainless steel handle
- Shifter knob thread size 3/8"-16, will not fit stock shifter stick

Proudly Made in the USA



2005-2010 MUSTANG V6/GT SHORT THROW "FORD RACING" SHIFT KNOBS (5-SPEED)
M-7213-N White shift knob
M-7213-P Black shift knob

NEW

- Fits 2010 Mustang GT Short Throw Shifter M-7210-MGTA
- Fits 2005-2009 Mustang GT Short Throw Shifter M-7210-MGT
- Fits 2005-2009 Mustang GT Short Throw Shifter M-7210-T1
- Fits 2010 Mustang V6 Short Throw Shifter M-7210-MV6A
- Fits 2005-2009 Mustang V6 Short Throw Shifter M-7210-MV6
- Fits 2005-2009 Mustang V6 Short Throw Shifter M-7210-V

Proudly Made in the USA



M-7213-N

M-7213-P

T-56 BLACK LEATHER SHIFT KNOB
M-7213-B
- Fits 2003-2004 Mustang Cobra and most FRPP T-56 transmissions
- Black leather shift knob with brushed aluminum insert on top, inscribed with 6-speed pattern
- Does not fit 2005 and newer Mustangs



1983-2004 MUSTANG EMBOSSED LEATHER SHIFT KNOB 5-SPEED
WHILE SUPPLIES LAST Limited Quantity!!
M-7213-D
- Fits 1983-2004 Mustang with 5-speed transmissions
- Embossed leather, simulated carbon fiber with brushed aluminum insert on the top, inscribed with 5-speed pattern



1983-2004 MUSTANG SHIFT KNOB
WHILE SUPPLIES LAST Limited Quantity!!
M-7213-E
- Embossed leather, simulated carbon fiber shift knob, no shift pattern logo
- Fits 1983-2004 manual transmission Mustang with 5- or 6-speed



1983-2004 MUSTANG BLACK LEATHER SHIFT KNOB 5-SPEED
M-7213-G
- Fits 1983-2004 Mustang with 5-speed transmission
- Black leather shift knob with brushed aluminum insert on the top, inscribed with 5-speed pattern



1983-2004 MUSTANG (MACH 1) SHIFT KNOB 5-SPEED
M-7213-H
- Fits 1983-2004 Mustang with 5-speed transmission
- 2003 Mustang Mach 1 production manual transmission shift knob
- Aluminum finish inscribed with 5-speed pattern



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2007-2009 MUSTANG SVT SHORT THROW SHIFTER
M-7210-B

- Fits 2007-2009 Mustang SVT
- Urethane body vibration isolators
- 25% reduction in throw
- Bolts in stock location
- Requires reuse of production stick and knob or the Ford Racing exclusive M-7213-J Black Knob and Stick or M-7213-K White Knob and Stainless Steel Stick
- See www.fordracingparts.com for the most up-to-date warranty information



2010 MUSTANG GT SHORT THROW SHIFTER
M-7210-MGTA

NEW

- Designed by Ford Racing and Hurst®
- Fits 2010 Mustang GT. For 2005-2009 Mustang GT, see M-7210-MGT
- Teflon® bearing with unique shifter rod and OE main stamping
- Chrome stick with "Ford Racing" white shift knob
- Includes jam nut and shifter boot
- Urethane body vibration isolators
- Reduced throw
- For replacment "Ford Racing" black shift knob, see M-7213-P
- Shifter rebuild kit, see M-7211-A



2005-2009 MUSTANG GT SHORT THROW SHIFTER
M-7210-MGT

NEW

- Designed by Ford Racing and Hurst®
- Fits 2005-2009 Mustang GT. For 2010 Mustang GT, see M-7210-MGTA
- Chrome stick with "Ford Racing" white shift knob
- Teflon® bearing with unique shifter rod and OE main stamping
- Includes jam nut
- Urethane body vibration isolators
- Reduced throw
- For replacement "Ford Racing" black shift knob, see M-7213-P
- Shifter rebuild kit, see M-7211-A



2010 MUSTANG V6 SHORT THROW SHIFTER
M-7210-MV6A

NEW

- Designed by Ford Racing and Hurst®
- Fits 2010 Mustang V6. For 2005-2009 V6, see M-7210-MV6
- Teflon® bearing with unique shifter rod and OE main stamping
- Chrome stick with "Ford Racing" white shift knob
- Includes jam nut and shifter boot
- Urethane body vibration isolators
- Reduced throw
- For replacment "Ford Racing" black shift knob, see M-7213-P
- Shifter rebuild kit, see M-7211-A



2005-2009 MUSTANG V6 SHORT THROW SHIFTER
M-7210-MV6

NEW

- Designed by Ford Racing and Hurst®
- Fits 2005-2009 Mustang V6. For 2010 Mustang V6, see M-7210-MV6A
- Chrome stick with "Ford Racing" white shift knob
- Teflon® bearing with unique shifter rod and OE main stamping
- Includes jam nut
- Urethane body vibration isolators
- Reduced throw
- For replacment "Ford Racing" black shift knob, see M-7213-P
- Shifter rebuild kit, see M-7211-A



1979-2004 MUSTANG HURST® T-5/T-45 SHIFTER
M-7210-M

- Fits T-5 and T-45 transmission. Does not fit Tremec® 3650 transmission, 2001 and newer Mustang Cobra, Mustang Bullitt and Mustang GT (3650 transmission has the drain plug in the bottom of the case)
- One-piece 6061-T6 aluminum CNC-machined base
- Positive stops to prevent over-travel
- Super short throw
- Chrome stick and white knob
- Fits 1979-1995 Mustang V8 with T-5 transmission
- Fits 1994-2004 Mustang V6 with T-5 transmission
- Fits 1996-2001 Mustang V8 with T-45 transmission



T-56 CHROME SHIFTER
M-7210-T56

- Shifter fits most Ford T-56 variants
- Features a chrome stick and white knob
- Does not fit 2005 and newer Mustangs



FORD GT SHORT THROW SHIFTER
M-7210-GT

- Fits Ford GT only
- Reduces throw and cross gate by approximately 25% compared to stock
- Anodized billet aluminum and stainless steel construction
- Bolts in stock location
- Includes hardware
- Maintains production ergonomics by not relocating shift knob



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

T-5 LEATHER SHIFT BOOT
M-7277-A

This upgraded leather shift boot fits all 1983-1996 Mustang vehicles equipped with T-5 transmissions, and can be adapted to others. Similar to leather boot in 1984-1986 Mustang SVO.



10TH ANNIVERSARY MUSTANG COBRA SHIFT BOOT
M-7277-B

WHILE SUPPLIES LAST! Limited Quantity!!

- Embossed leather, simulated carbon fiber shift boot
- Fits 1994-2004 Mustang with manual transmission
- Attaching glue not included



2005-2010 MUSTANG FORD RACING SHIFTER SERVICE KIT
M-7211-A

NEW

- Service kit for Ford Racing 2005-2010 Mustang GT and V6 5-speed short throw shifters:
  - 2005-2009 Mustang GT M-7210-T1 and M-7210-MGT
  - 2010 Mustang GT M-7210-MGTA
  - 2005-2009 Mustang V6 M-7210-V and M-7210-MV6
  - 2010 Mustang V6 M-7210-MV6A
- Kit includes stalk with Teflon® bearing and parts to reassemble
- Does not fit production shifter or M-7210-U



MODULAR BELLHOUSING INSTALLATION KIT
M-7771-A

NEW

- Kit includes:
  - 1 clutch ball stud
  - 7 bellhousing-to-block bolts
  - 2 starter-index-plate-to-bellhousing bolts
  - Fits M-6392-M46 Bellhousing. See M-7007-A for starter index plate



BELLHOUSINGS
M-6392-E

- 1979-1993 5.0L T-5 bellhousing
- Can be used as a replacement part or for building a kit car or street rod
- Cast aluminum, produced from the original production tooling



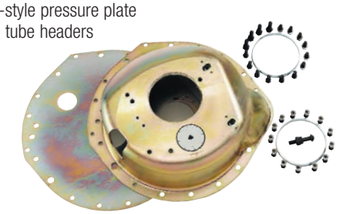
M-6392-M46

- 4.6L/5.4L Tremec® 3550 Cobra "R" bellhousing
- Use to mate the Tremec® 3550 transmission to the 4.6L/5.4L Modular engines
- Minor modification is required for transmission clearance and mounting in some applications
- Cast aluminum production style bellhousing



UNIVERSAL SAFETY BELLHOUSING
M-6392-C

- Steel safety bellhousing with block plate
- Fits 1979-1993 Mustangs with T-5 or Tremec® 5-speeds and cable-operated clutch linkage
- Will not work with long-style pressure plate
- May interfere with long tube headers



CLUTCH HOUSING
M-6392-R58

- Unique clutch housing required for Tremec® 5-speed transmission used in the 1995 Mustang Cobra "R" models with 351W
- Will also fit 289/302/351C engines
- Requires diaphragm-type clutch



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



M-6375-H46



M-6375-E302



M-6375-G302

AUTOMATIC TRANSMISSION FLYWHEELS

Proudly Made in the USA

PART NUMBER	MATERIAL	RING GEAR	UNBALANCE	APPLICATION
M-6375-A50	Stamped Steel	164-Tooth	50 oz.-in.	Fits 1981-2001 5.0L engine with AOD or C-4 trans. with large bellhousing. Will not fit C-6.
M-6375-G302	Stamped Steel	164-Tooth	28 oz.-in.	Fits 289/302/351W,C,M with large bellhousing C-4 trans. and AOD.
M-6375-H46	Stamped Steel	164-Tooth	0 Balance	Fits 4.6L/5.4L 8-bolt crankshaft with hp 11.25" 4R70W torque converter.

8.8" RING GEAR BOLT SET

M-4216-A300

Proudly Made in the USA

- 7/16"-20 x .875" bolts
- Set of 10 bolts
- Can also be used for automatic transmission flywheels



Did you know…

1968-1980 302 engines were built with a 28-ounce imbalance factor.

1981-2001 302 engines were built with a 50-ounce imbalance factor.

1969-1997 351W engines were built with a 28-ounce imbalance factor.

1970-1974 351C engines were built with a 28-ounce imbalance factor.

NOTE: Severe engine damage will result if you use the wrong flywheel or damper on your engine.



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See pages 3-9 for important safety, emissions and warranty information.

DRIVELINE – FLYWHEELS

MANUAL TRANSMISSION FLYWHEELS

PART NUMBER	MATERIAL	RING GEAR	UNBALANCE	APPLICATION
M-6375-A302B ①	Billet Steel	157-Tooth	28.2 oz.-in.	Pre-1981 302 engines and 351 engines using 157T flywheel. Meets SFI 1.1. NEW
M-6375-A302AB ①③	Aluminum	157-Tooth	28.2 oz.-in.	Pre-1981 302 engines and 351 engines using 157T flywheel. Reduced rotating mass for faster engine acceleration in race applications. Meets SFI 1.1. NEW
M-6375-B302 ①	Cast Iron	157-Tooth	50.0 oz.-in.	1981 and later 302 engines. Exact replacement for 1986-1995 Mustang stock unit.
M-6375-C302B ①	Billet Steel	157-Tooth	50.0 oz.-in.	1981 and later 302 engines. Meets SFI 1.1. NEW
M-6375-C302AB ①③	Aluminum	157-Tooth	50.0 oz.-in.	1981 and later 5.0L/302 engines. Reduced rotating mass for faster engine acceleration in race applications. Meets SFI 1.1. NEW
M-6375-D302B ①	Billet Steel	157-Tooth	0 oz.-in.	All small blocks with 0 unbalance rotating assemblies. Meets SFI 1.1. NEW
M-6375-D302AB ①	Aluminum	157-Tooth	0 oz.-in.	302 engines and 351 engines using 157T flywheel with 0 unbalance rotating assemblies. Reduced rotating mass for faster engine acceleration in race applications. Meets SFI 1.1. NEW
M-6375-D46 ①②	Nodular Iron	164-Tooth	0 oz.-in.	4.6L SOHC Mustang. Has increased rpm capability over stock cast iron flywheel.
M-6375-D46A (6-bolt) ①②④	Nodular Iron	164-Tooth	0 oz.-in.	4.6L SOHC Mustang. Has increased rpm capability over stock cast iron flywheel. NEW
M-6375-J46A (8-bolt) ④	Nodular Iron	164-Tooth	0 oz.-in.	Used in M-7060-C46. Works with an 11" clutch. NEW
M-6375-G46A (8-bolt) ①②	Aluminum	164-Tooth	0 oz.-in.	4.6L SOHC Mustang GT/DOHC Mustang Cobra. Has increased rpm capability over stock Cobra flywheel. Fits 10.5" and 11" clutch. Meets SFI 1.1. NEW
M-6375-Z460	Billet Steel	176-Tooth	24.2 oz.-in.	Fits 1979-1997 460 including M-6007-C460/D460/A514/D514/521FT/521RT. For external balance only. 11" long or diaphragm-style clutch with 5/16" holes. 11.5" and 12" long or diaphragm-style clutch. 11" diaphragm Ford trucks even pattern. Meets SFI 1.1. NEW

NOTES:

① Diaphragm clutch uses metric bolts and dowel pins. Requires metric Pressure Plate Bolts N602549-S51M and alignment Dowel Pins D1FZ-6397-B. Ford Racing Kit M-6397-A302.

② 4.6L engines may have 6 or 8 bolts to attach to the crankshaft. Check the engine code before ordering. Romeo-built engines have 6 bolts and Windsor-built engines have 8 bolts. All Cobra engines have 8 bolts. The 8th character in the VIN is (X) for Windsor engine plant or (W) for Romeo engine plant.

③ Has bolt-on counterweight 4" long for A302, 7.2" long for C302.

④ Requires Bolt and Dowel Kit M-6397-A46 for 11" clutch applications.



M-6375-A302B shown

11" PRESSURE PLATE BOLT AND DOWEL KIT

M-6397-A46

Proudly Made in the USA

- Use with Ford Racing flywheels to align and attach the 11" diaphragm-style clutch and pressure plate to the flywheel
- This kit includes 3 dowel pins that are necessary to align and stiffen the pressure plate shell. **NOTE:** If the dowels are not used, the clutch may chatter and the engine vibrate
- Includes pressure plate bolts and dowel pins for use with 11" modular flywheel



10.5" PRESSURE PLATE BOLT AND DOWEL KIT

M-6397-A302

Proudly Made in the USA

- Use with Ford Racing flywheels to align and attach the 10.5" diaphragm-style clutch pressure plate to the flywheel
- This kit includes three dowel pins that are necessary to align and stiffen the pressure plate shell. **NOTE:** If these dowels are not used, the clutch may chatter
- This kit includes six 8 mm bolts with integral lock washers. **NOTE:** Ford Racing and production flywheels have metric bolt holes for diaphragm-style clutches. Ford Racing billet steel flywheels also have 5/16"-18 SAE bolt holes for "long" style clutches



BOLT – RING GEAR TO DIFFERENTIAL CASE

M-4216-A200
M-4216-A210

Proudly Made in the USA



- Sold in pkg. of 10
- 7/16"-20 x .9375" bolt
- The most popular 9" ring gear bolt, for use on open differentials, Detroit Lockers and spools

NOTE: Will NOT fit Traction-Lok differentials. Same as flywheel bolts.

4.6L MANUAL FLYWHEEL BOLTS

M-6379-B

Proudly Made in the USA



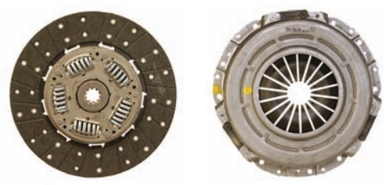
- Fits 4.6L Modular engines with manual transmission flywheels
- M10 x 1 x 26.5 bolt
- Package of 8

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

CLUTCHES

PART NUMBER	DESCRIPTION	ENGINE	DIAMETER	TECHNICAL INFORMATION
M-7550-B ①	Disc	V8	11"	HD disc with dual segmented carbon/composite lining. Designed for use with 26-spline input shaft. Replacement for FR500S.
M-7550-X302 ①②③	Disc	V8	10.5"	HD disc with carbon/copper lining on flywheel side and carbon lining on pressure plate side.
M-7550-T302 ①③	Disc	V8	10.5"	HD disc with carbon/copper lining on flywheel side and carbon lining on pressure plate side. Designed for 26-spline shaft on M-7003-R58C and M-7003-R58H transmissions. Will work with M-7563-A302N/B302/C302N/D302 pressure plates.
M-7563-B302 ①③④	Pressure Plate	V8	10.5"	HD diaphragm-type with centrifugal assist. Has approx. 25% more capacity than stock Mustang unit. Cast iron plate.
M-7563-A302N ①②③④	Mustang HD Kit	V8	10.5"	Consists of M-7550-A302N Disc, M-7563-A302N Pressure Plate and D9ZZ-7548-A Throwout Bearing.
M-7560-A302N ①②③④	Mustang HD Clutch Kit	V8	10.5"	Consists of M-7550-A302N Disc, M-7563-A302N Pressure Plate and D9ZZ-7548-A Throwout Bearing.
M-7560-T46 ①	11" Clutch Kit	4.6L	11"	Kit contains 11" clutch disc with 26-spline hub and pressure plate. Clutch disc with carbon/copper lining on flywheel side and carbon lining on pressure plate side. Centrifugal assist design pressure plate with 25% more torque capacity than production Cobra. Used when installing M-7003-R58C and M-7003-R58H transmission into 1996-2004 4.6L Mustang with production 11" flywheel or Ford Racing flywheels M-6375-F46, M-6375-G46 or M-6375-R00.
M-7560-D46 ①②	11" Clutch Kit	V8	11"	This kit increases clutch capacity of the 1996-1998 Mustang Cobra 4.6L DOHC 4V by 10% (requires Flywheel M-6375-G46 or equivalent) and increases clutch disc burst speed 10% over 1999-2001 Cobra. Kit contains 2003 Cobra 11" pressure plate and 11" clutch disc.
M-7060-A54 ①	2007-2008 Mustang SVT Clutch Kit	5.4L	215 mm	Kit contains 26-spline dual disc clutch, pressure plate, pressure plate attaching bolts and flywheel. Original equipment on 2007-2008 Mustang SVT.

NOTES: ① Clutches have NO warranty!
② All clutch discs have 1.0625" 10-spline hub.
③ Fits all 1986-2001 Mustang GT, 1993-1998 Cobra with T-5 or T-45 transmissions. 2001-2004 Mustang GT with 3650 transmission and 1999-2003 Cobra use an 11" clutch. OK to mix and match Ford Racing clutch discs and pressure plates, but do NOT install a FRPP pressure plate with a stock disc or vice-versa as disengagement problems may occur. Installation of 10.5" clutch assemblies on 1979-1985 vehicles equipped with 10" clutch requires new flywheel (see page 167). Metric fasteners and dowel pins must be used with 10.5" clutches.
④ Requires metric Pressure Plate Bolts N602549-S51M and alignment Dowel Pins D1FZ-6397-B. Racing Kit M-6397-A302 (see page 167).



2005-2010 MUSTANG HIGH-PERFORMANCE CLUTCH FLUID LINE UPGRADE

M-7512-A

- Service replacement for the Mustang FR500CJ and FR500S race car
- Fits 2005-2010 Mustang V6, GT and Mustang SVT with manual transmission
- Upgraded clutch fluid line for high-temperature, high-performance applications
- Replaces factory plastic line
- Stainless steel hard line with braided stainless steel flex hose reduces line expansion



1979-2004 MUSTANG V8 HD THROWOUT BEARING

M-7548-A

- Fits 1979-2004 Mustang with manual transmission and V8 engine
- Self-centering bearing design
- Heavy-duty design lasts longer than most aftermarket bearings



ROLLER PILOT BEARING FOR 289/302/351C AND 351W

M-7600-A

- Production roller pilot bearing fits 289, 302, 351C and 351W crankshafts
- Designed for .669 diameter input shaft

NOTE: Pre-greased—do not add extra grease. Clutch and bearing damage may occur.



ROLLER PILOT BEARING 4.6L/5.4L MODULAR ENGINES

M-7600-B

- Production roller pilot bearing fits 4.6L/5.4L Modular engines

NOTE: Pre-greased—do not add extra grease. Clutch and bearing damage may occur.



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DRIVELINE – CLUTCHES

1979-1993 MUSTANG V8 CLUTCH LINKAGE UPGRADE KIT

M-7553-A302

This kit consists of a beefed-up clutch release fork and heavy-duty, self-adjusting Teflon®-lined clutch cable. Fits 1979-1993 Mustang.

NOTES:
① 1984 and later cars have heavy-duty cable as original equipment.
② 1986 and later cars have beefed-up clutch release fork as original equipment.
③ To install this kit in 1979-1981 vehicles with manual adjustment clutch mechanisms, the 1982 and later self-adjusting quadrant mechanism must be purchased from Ford and Lincoln-Mercury dealers.



1982-2004 MUSTANG V8 ADJUSTABLE CLUTCH LINKAGE KITS

M-7553-B302 Cable and quadrant 1982-1995
M-7553-C302 Service cable 1982-1995
M-7553-D302 Cable and quadrant 1996-2004
M-7553-E302 Service cable 1996-2004

- Includes all parts required to convert stock non-adjustable clutch cable to fully adjustable type
- Now you can adjust clutch pedal travel to your driving habits



1979-2004 MUSTANG V6 AND V8 TOPSIDE CLUTCH ADJUSTER

M-7554-A

- Fits 1979-2004 Mustang V6 and V8
- Allows you to adjust clutch engagement without going under the car
- Eliminates the rubber bushing at the engine compartment bulkhead for more precise clutch action



1982-2004 MUSTANG V8 DOUBLE-HOOK CLUTCH QUADRANT

M-7583-A

- Fits 1982-2004 Mustang V8
- Double-hook design lets you use an adjustable clutch cable or topside clutch adjuster and stock cable
- CNC machined from billet aluminum



1994-2004 MUSTANG CLUTCH LEVER

M-7515-A

- Fits 1996-2004 Mustang V8
- Stock replacement clutch lever



MUSTANG FR500S CERI-METALLIC CLUTCH DISC

NEW

M-7550-C

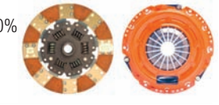
- Optional replacement for the Mustang FR500S race car
- Direct replacement for M-7550-B Clutch Disc
- 11" clutch disc designed for 1-1/8" x 26-spline input shaft
- Puck-style, Ceri-Metallic lining
- Designed to be used with production pressure plate



2000-2004 FOCUS ZX3/ZX5 CENTERFORCE CLUTCH KIT

M-7563-Z3

- Fits 2000-2004 2.0L Zetec® Focus ZX3/4/5, not applicable to SVT
- Centerforce "Dual Friction" clutch system improves clamping force by more than 90%
- Improves clutch feel while maintaining easy pedal effort
- Includes clutch disc and pressure plate



COBRA JET 9" AXLE

M-4001-CJ*

Complete 9" axle assembly. Put some bite in your late model Mustang with this competition-tested 9" axle from the Mustang Cobra Jet! Features:
- Competition proven in Mustang Cobra Jet
- Narrowed axle housing as compared to stock Mustang axle
- Uses stock Mustang control arm and shock mounting
- Nodular iron housing
- Strange® Pro Race axles
- 9130 Strange® Pro Gear ring and pinion set
- Strange® lightweight spool
- Forged aluminum pinion support

Technical specifications:
- Gear ratio: 4.10:1
- Ring gear diameter: 9"
- Differential: Spool
- Axle spline count: 35
- Width axle flange to axle flange: 63.27"
- Yoke: 35-spline chrome moly, 1350 U-joint
- Wheel studs: 5/8"-18

Fits:
- Model: Mustang Cobra Jet
- Years: 2008

Fits with modifications:
- All 2005-present Mustang with correct offset wheel/tire combination

Required components:
- Cobra Jet Wheel (coming)

Recommended use:
- Drag racing

Recommended components and accessories:
- Cobra Jet Rear Suspension Kit, M-5649-CJ

Service Components:
- Pinion seal kit
- Carrier
- Axle shafts
- Gearset

Includes these Ford Racing parts:
- See service components

Used in these Ford Racing parts:
- Mustang Cobra Jet, M-FR500-CJ

Performance:
- Tested to over 800hp

Used by:
- All Mustang Cobra Jet racers including Hajek Motorsports 2009 Winternationals Stock Eliminator Champion Mustang piloted by John Calvert Racing!

Key words: modular, 9 inch, nine inch, late model

NEW

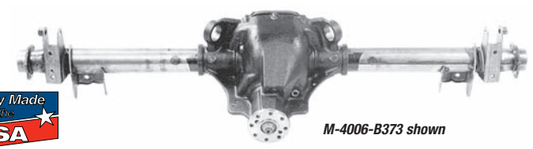


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See pages 3-9 for important safety, emissions and warranty information.

28-TOOTH 8.8" TRACTION-LOK REAR AXLE ASSEMBLIES
(LESS BRAKES AND SHAFTS)

WHILE SUPPLIES LAST! Limited Quantity!!

Proudly Made in the USA



M-4006-B373 shown

FEATURES…
- Approximately 35% stronger than the production 7.5" axle
- Units are fully assembled with housing (including all applicable brackets), gearset and 28-tooth Traction-Lok differential
- Bolts into the Fox vehicles listed with each part number that was originally equipped with 7.5" axle
- Axle assembly requires 28-tooth axle shafts and rear drum brakes

PART NUMBER	RATIO	VEHICLE APPLICATION	
M-4006-B373*	3.73:1	1979-1998 Mustang ①	1981-1982 Granada/Monarch
		1979-1986 Capri	1983-1985 LTD/Marquis
		1978-1982 Fairmont/Zephyr	

NOTE: ① 1986-1995 Mustang 5.0L vehicles are factory-equipped with 28-tooth 8.8" axle assembly.

2005-2010 8.8" MUSTANG AXLE KIT
M-4006-S197*

Proudly Made in the USA



- Factory 8.8" axle housing kit for 2005-2010 Mustang
- Perfect for building a custom axle!
- Allows you to customize your gearset and differential
- Includes:
  - –Axle housing
  - –Housing vent
  - –Left and right 31-spline production axle shafts
  - –2005-2009 Mustang pinion flange
  - –2003-2004 Cobra 1350 pinion flange
  - –Cover bolts
  - –Pinion washer
  - –C-locks
  - –M-4210-B Ring and Pinion Installation Kit
  - –M-1126-C Shim Kit

2005-2010 MUSTANG GT AXLE ASSEMBLIES

Proudly Made in the USA

M-4001-A355* 3.55 axle assembly
- Fits 2005-2010 Mustang GT
- 8.8" 3.55 gear ratio axle assembly
- 31-spline axles and Traction-Lok differential
- Includes axle shafts

M-4001-A373* 3.73 axle assembly
Axle assembly used as standard equipment on the 2008 Special Edition Mustang
- Fits 2005-2010 Mustang GT and Mustang SVT
- 8.8" 3.73 gear ratio axle assembly used as standard equipment on the 2008 Bullitt Mustang
- 31-spline axles and Traction-Lok differential with carbon fiber clutches
- High-torque pinion bearing, same as Mustang SVT
- Includes axle shafts



1999-2004 MUSTANG 3.73 28-SPLINE AXLE
M-4006-D373*

Proudly Made in the USA

NEW

- 1999-2004 Mustang GT 8.8" axle assembly (less brakes and shafts)
- 28-spline Traction-Lok differential
- 3.73 gear ratio
- Compatible with stock 1999-2004 axle shafts

1979-2004 HEAVY-DUTY 8.8" 5-LUG 31-SPLINE MUSTANG AXLE SETS (SOLD IN PAIRS)

M-4235-E* 1999-2004 Mustang
M-4235-D* 1994-1998 Mustang
M-4235-F* 1979-1993 Mustang

Proudly Made in the USA



- Heavy-duty SAE 1550 steel
- Studs and O-rings included
- 31 spline
- 5-lug, 4.5" bolt circle

1979-1993 MUSTANG HEAVY-DUTY 8.8" 4-LUG 31-SPLINE AXLE SHAFT
M-4235-B*

Proudly Made in the USA



- 1979-1993 Mustang with 8.8" axle
- Heavy-duty 31-spline axle shaft (29.16" long) for applications using 31-spline differentials
- 4-lug, 4.25" bolt circle

1979-1993 MUSTANG/CAPRI 5-LUG REAR BRAKE DRUM/AXLE SHAFT KITS
M-1126-A*

Proudly Made in the USA

- Fits 1979-1993 Mustang with 8.8" rear axle
- Converts 4-lug 28 spline with 9" drum brakes to 5-lug 4.5" bolt circle
- Includes 1 pair 9" x 1-3/4" brake drums and 1 pair of 28-spline 5-lug axle shafts

REDUCED PRICE

WHILE SUPPLIES LAST! Limited Quantity!!



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See pages 3-9 for important safety, emissions and warranty information.

DRIVELINE – AXLES

8.8" AXLE BEARING AND SEAL KIT
M-1225-B

Proudly Made in the USA

- Fits 1986-2004 Mustang
- 8.8" axle shaft bearing and seal kit for non-IRS axles
- Kit contains (2) outer axle shaft bearings and seals
- 2.256" OD bearing



8.8" AXLE BEARING AND SEAL KIT
M-1225-B1

Proudly Made in the USA

- Fits the 2005-2010 Mustang GT and 2007-2010 Mustang SVT
- 8.8" axle shaft bearing and seal kit
- Kit contains (2) outer axle shaft bearings and seals
- 2.5308/2.5315 bearing OD
- 1.6189/1.6194 bearing ID



AXLE GIRDLE
M-4033-G1

Proudly Made in the USA



- Fits 8.8" Ford
- Light-weight 356-T6 aluminum casting replaces rear cover on 8.8"
- Load bolts provide additional support for differential bearing caps
- Increase ring and pinion gear life
- Will not fit IRS

NOTES: Check exterior clearance to chassis/suspension. Will not fit 2005-2010 Mustang.

2005-2010 MUSTANG GT/SVT AXLE GIRDLE
M-4033-G2



- Low-profile design to fit 2005-2010 Mustang GT and 2007-2010 Mustang SVT
- Light-weight 356-T6 aluminum casting replaces rear cover on 8.8"
- Load bolts provide additional support for differential bearing caps
- Increase ring and pinion gear life

Proudly Made in the USA

NOTE: Check exterior clearance to chassis/suspension.

8.8" IRS BEARING AND SEAL KIT
M-4413-A

Proudly Made in the USA

- For use in rebuild 8.8" IRS differentials
- Kit includes (2) stub shaft pilot bearings and (2) stub shaft pilot bearing housing seals



1979-2004 MUSTANG 8.8" AXLE INSTALLATION KIT
M-4050-B

- 1979-2004 non-IRS Mustang
- Contains (2) bushings, (2) C-locks and (1) 4-ounce bottle of friction modifier
- Included with every Ford Racing 8.8" axle assembly, now available separately in this kit in response to requests from racers and fabricators

Proudly Made in the USA



2003-2004 COBRA PINION FLANGE
M-4851-B

Proudly Made in the USA

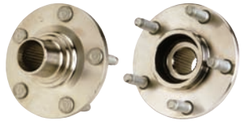


- Original equipment on 2003-2004 Mustang Cobra
- Designed for use with 1350 U-joint flange
- 4.25" bolt circle
- Fits all 8.8" rear drive pinions

KIT CAR IRS HUB
M-1109-A

Proudly Made in the USA

- 5 x 4.5" bolt circle, 2.775" wheel pilot hub for popular Mustang-size wheels
- Should be used with IRS Knuckle M-5970-A
- Original equipment on 1999-2004 Mustang Cobra



8.8" IRS HOUSING KIT
M-4010-A88

Proudly Made in the USA



- Aluminum IRS differential housing, rear cover, rear cover bolts, oil slinger and vent tube
- Does not include gear set, gear installation kit or IRS-compatible differential
- Original equipment on 1989-1997 T-Bird,1993-1998 MK-VIII, 1999-2004 Mustang Cobra with 8.8"

KIT CAR IRS BEARING
M-1215-A

Proudly Made in the USA

- For use with kit car IRS Hub M-1109-A
- Original equipment on 1993-1998 Mark VIII, 1989-1997 Thunderbird and 1999-2004 Cobra



KIT CAR IRS KNUCKLE SET
M-5970-A

Proudly Made in the USA



- Knuckles for use in kit car IRS systems
- Original equipment on 1989-1997 Thunderbird and 1993-1998 Mark VIII
- Includes M-1215-A
- Use with M-1109-A, sold separately
- Hub not included

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8.8" RING GEAR AND PINION SETS

PART NUMBER	RATIO	AXLE
MUSTANG/RANGER/F-150		
M-4209-F308*	3.08:1	8.8"
M-4209-F327*	3.27:1	8.8"
M-4209-G355A*	3.55:1	8.8"
M-4209-F373N*	3.73:1 ①	8.8"
M-4209-G410A*	4.10:1	8.8"
M-4209-G430M*	4.30:1	8.8"
M-4209-G456*	4.56:1	8.8"





M-4209-F308 shown

NOTES:
① Replaces our popular M-4209-F373. New manufacturing technology utilizing a Face Hob Process which features a single-pass pinion tooth machining operation compared to a conventional three-pass process for machining. CNC cut and lapped gear teeth. Higher strength and better quality gears are produced with the Face Hob Process. **NOTE:** These new gears look a little different; the gear teeth are cut on a different angle and the ring gear has a bevel on the back of the gear.

SPEEDOMETER GEAR USAGE CHART – 7.5" AND 8.8" AXLE

The chart specifies the driven gear recommended to obtain approximately correct mph readings when the listed Ford Racing ring and pinion gear sets are used in conjunction with the indicated speedometer drive gear and Mustang original equipment. 15"/16"/17" tires (800-815 revolutions/mile). A dash in the chart indicates that particular combination cannot be obtained. If you are using oversize/undersize tires, obtain the revolutions/mile information from the tire manufacturer and plug it into the formula below. The part numbers of the various speedometer drive and driven gears are shown in the charts. The gears can be obtained from any Ford and Lincoln-Mercury dealer. They are not available from Ford Racing. The drive gears on T-5/T-45/SROD/Tremec® manual transmissions can be changed. The drive gear on Ford rear-wheel automatic transmissions is machined into the output shaft. Changing the drive gear is impractical since it requires a new output shaft and transmission teardown. Most have 7 or 8 teeth.

SPEEDOMETER DRIVEN GEAR TEETH			
	DRIVE GEAR TEETH		
AXLE RATIO	6T	7T ①	8T ②
3.08	–	18	20
3.27	16	19	21
3.45/3.55	17	20	–
3.73	18	21	–
4.10	20	–	–
4.30	21	–	–

NOTES: ① Used in most vehicles with V8 and T-5 transmissions from 1983-1989 and 1996-1998 Cobra with T-45 transmissions.
② Used on 1990-1995 Mustang V8 with T-5 transmissions and 1996-1998 Mustang GT with T-45 transmissions.
③ Discontinued.

T-5 MANUAL TRANS. DRIVE GEARS (17285)			MANUAL TRANS. DRIVEN GEARS (17271)			AUTO TRANS. DRIVEN GEARS (17271)		
NUMBER OF TEETH	COLOR	SERVICE PART NUMBER	NUMBER OF TEETH	COLOR	SERVICE PART NUMBER	NUMBER OF TEETH	COLOR	SERVICE PART NUMBER
6	Black	E3ZZ-B	16	Wine	C0DZ-A	16	Blue	D0AZ-A ③
7	Yellow	E3ZZ-A	17	White	C3DZ-C	17	Green	C7SZ-A
8	Green	F0ZZ-A	18	Yellow	C0DD-B	18	Gray	C7SZ-B ③
T-45 MANUAL TRANS. DRIVE GEARS (17285)			19	Pink	C0DZ-B	19	Tan	C7VY-A
			20	Black	C1DZ-A	20	Orange	C8SZ-B
7		F6ZZ-AA	21	Red	C4OZ-A	21	Purple	D0OZ-B
8		F6ZZ-BA						

SPECIAL APPLICATIONS DRIVEN GEAR CALCULATION EXAMPLE

STEP 1
If your axle/tire combination is not in the above charts, you can calculate the number of teeth required on the driven gear by using this formula:

STEP 2
- T-5 Trans.
- Drive Gear Teeth = 7
- Axle Ratio = 3.73
- Tire Rev. Per Mile = 815 (225/60 VR15)

STEP 3
You would select driven gear with closest whole number of teeth, which would be the 21-tooth C40Z-17271-A part.

$$\text{Driven Gear Teeth} = \frac{\text{Drive Gear Teeth} \times \text{Axle Ratio} \times \text{Tire Rev. Per Mile}}{1000} = \frac{7 \times 3.73 \times 815}{1000} = 21.3 \text{ (driven gear teeth)}$$

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DRIVELINE – RING AND PINION

IRS 8.8" RING AND PINION INSTALLATION KIT
M-4210-A
- Fits IRS
- Kit includes pinion and carrier shims, crush sleeve, pinion seal, pinion nut, ring gear bolts and cover gasket
- Use for changing ring and pinion gear or differential



NON-IRS 8.8" RING AND PINION INSTALLATION KIT
M-4210-C
- Fits 1986-2004 Mustang for non-IRS axles
- Includes everything that M-4210-B has and axle shaft bearings and axle shaft seals
- Use for changing ring and pinion gear or differential



IRS 8.8" RING AND PINION INSTALLATION KIT
M-4210-B
- Fits IRS
- Includes everything that M-4210-A has and pinion gear and carrier bearings
- Use for changing ring and pinion gear or differential



FRICTION MODIFIER FOR CLUTCH-TYPE LIMITED-SLIP DIFFERENTIALS
M-19546-A12 Case of 12 (single bottles CM-19546-A1)
Specially formulated additive to provide smooth operation of clutch-type limited slip differentials.



2007-2010 MUSTANG SVT 8.8" RING AND PINION INSTALLATION KIT
M-4210-B1
- Fits 2007-2010 Mustang SVT and the 2008 Special Edition Mustang
- Includes everything that M-4210-A has and carrier bearings and high-torque pinion bearing
- High-torque pinion bearing used in 2007-2010 Mustang SVT and 2008 Special Edition Mustang
- Use for changing ring and pinion gear or differential



"DAYTONA" PINION BEARING RETAINER
M-4614-A
M-4614-B
- High-strength aluminum (206T6)
- Both pinion bearing retainers are a direct fit and functional replacement for the C3AZ-4614-B unit, which is no longer serviced by the Ford Customer Service Division
- Each comes complete with large rear cup (TBAA-4616-A) or (HM89410) and small front cup (B7A-4614-A) or (M88010)

NOTE: Use large rear bearing TBAA-4621-A (HM-89443) and small front bearing B7A-4621-A (M-88048) with these retainers.



UNIVERSAL PINION NUT
M-4213-A Sold in pkg. of 100
- Universal-design 3/4"-20 hex flange pinion lock nut
- Fits 6.75", 7.5", 8.8" and 9" axle assemblies



"BENDA" PINION SEAL 9" AXLE
M-4676-A111
This premium Viton® oil seal was developed for high-speed, high-temperature applications by Dave Benda, Materials Control Supervisor, Ford Sterling Plant. Viton® is a registered trademark of Dupont® Performance Elastomers.



PINION BEARING SUPPORT 9" AXLE
M-4614-BR
- Fits standard 28-spline 9" pinion gears
- Race-prepared "Daytona" pinion bearing support
- Deburred and prepped for build-up of your 9" carrier assembly



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

8.8" TRACTION-LOK LIMITED SLIP DIFFERENTIALS

M-4204-F288 28 spline
M-4204-F318 31 spline

- 8.8" differential
- Features plate-type clutches
- Will accept anti-lock exciter ring
- Requires 4 ounces of CM-19546-A1 Friction Modifier with initial fill



8.8" TRACTION-LOK LIMITED SLIP DIFFERENTIAL

M-4204-F318C

- 8.8" differential
- Fits 31-spline axles
- Fits solid or independent rear suspension
- Carbon fiber clutch plates for increased durability
- Will accept anti-lock exciter ring
- Requires 4 ounces of CM-19546-A1 Friction Modifier with initial fill
- Original equipment in 2003-2004 Mustang Cobra



8.8" T-2 TORSEN® DIFFERENTIALS

M-4204-T28 28 spline
M-4204-T31 31 spline

- 8.8" differential
- Torsen® T-2 type differential
- Features full-time torque-sensing, torque-biasing
- M-4204-T28 fits 1999 Cobra/Thunderbird/Mark VII with IRS (2000-2004 Cobra has 31 spline)



7.5" TRACTION-LOK LIMITED SLIP DIFFERENTIAL

M-4204-C75

- 7.5" differential
- Fits 28-spline axles
- Features plate-type clutches
- Will accept anti-lock exciter ring
- Requires 4 ounces of CM-19546-A1 Friction Modifier with initial fill



8.8" DIFFERENTIAL

M-4204-F3180

- 8.8" differential
- Fits 31-spline axles
- Open-type differential
- Will accept anti-lock exciter ring



8.8" TRACTION-LOK REBUILD KIT

M-4700-B

- Fits all 8.8" Traction-Lok differentials
- Kit includes clutch pack, shims and friction modifier





9" TRAC-LOK LIMITED SLIP DIFFERENTIAL

M-4204-F28A

- 9" differential
- 28 spline
- 4-spring aggressive torque bias
- Street/strip application
- 1536 steel billet case caps
- Cast high-strength nodular iron case
- OEM profile gears made of high-manganese, high-chromium alloy steel
- Rebuildable



9" TRAC-LOK LIMITED SLIP DIFFERENTIAL

M-4204-F31A

- 9" differential
- 31 spline
- 4-spring aggressive torque bias
- Street/strip application
- 1536 steel billet case caps
- Cast high-strength nodular iron case
- OEM profile gears made of high-manganese, high-chromium alloy steel
- Rebuildable



8.8" AUBURN™ HD LIMITED SLIP DIFFERENTIAL

M-4204-A28 28 spline

- 8.8" differential
- Features cone-type clutches
- Will accept anti-lock exciter ring
- Requires 4 ounces of CM-19546-A1 Friction Modifier with initial fill
- Recommended for street use only



STERLING AXLE "TRUE TRAC"® LIMITED SLIP DIFFERENTIAL

M-4204-TT312

- Torque-sensing differential applies torque to wheel with best traction
- Refined enough for street use, stout enough for rigorous off-road duty
- 35 spline fits all Sterling axle 10.25" and 10.5" gears
- Full floating axles only, will not fit C-clip axles



8.8" TRACTION-LOK REBUILD KIT WITH CARBON DISCS

M-4700-C

- Fits all 8.8" Traction-Lok differentials
- Kit includes carbon fiber clutch pack, shims, S-spring and instruction sheet
- Carbon fiber discs designed for higher torque usage
- Used in 2003-2010 Mustang SVT



FOCUS TORSEN® DIFFERENTIALS

M-4204-F20 MTX-75 transaxle
M-4204-SVTF 2002-2004 Focus SVT

- Torsen® T-2 type differential
- Features full-time torque-sensing, torque-biasing
- Responds immediately to variable driving conditions
- Provides better traction, acceleration and handling than the factory open differential



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

DRIVELINE – DIFFERENTIALS

CARRIERS

Ford Racing offers a variety of nodular iron, steel and aluminum carriers for the popular 9" axle.



M-4141-B shown

PART NUMBER	MATERIAL CARRIER	BRG. CAP	APPROX. WEIGHT	BRG. CAP ID	ADJUSTER NUT	DIFF. BRG.	DIFF. RACE	AXLE SHAFT COMPATIBILITY	NOTES
M-4141-H ①	Nodular Iron	4130 Steel	26#	3.250"	Machined Steel	LM-104949	LM-104911	31/35/40T	Heavy Duty Light Weight
M-4141-J WHILE SUPPLIES LAST Limited Quantity!!	Nodular Iron	4130 Steel	26#	2.9528"	Machined Steel	2MM9109W1 Ball Bearings	—	31T	Heavy Duty

① Used with Detroit Locker M-4204-L31 with 31-tooth spline road racing applications.

9" STEEL DIFFERENTIAL CARRIER

M-4141-HS

- Developed using Finite Element Analysis (FEA) to withstand the demands of NASCAR® racing. Finite Element Analysis is a method for predicting the response of a geometric structure due to the environment it is being designed to function in. The process starts by creating a geometric model. The model is then subdivided, or meshed into many small geometric pieces, or elements of basic geometric shape. These basic shapes can easily give results for stress and strain where the larger geometric structure cannot
- Steel casting has nearly double the tensile and yield strength and enlongation vs. cast iron
- Case investment cast from 8620 steel
- Bearing caps machined from 4130 steel
- ARP® bolts
- 3.250" differential bearing diameter
- Approximate weight: 21 lbs



DIFFERENTIAL BEARING ADJUSTER LOCK AND BOLT KIT

M-4144-B

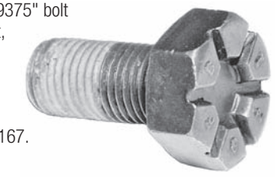
- Kit includes 2 locks and 2 bolts to secure differential bearing adjusting nuts on 9" nodular carriers produced after November 1989



BOLT – RING GEAR TO DIFFERENTIAL CASE

M-4216-A200 Sold in pkg. of 100 7/16"-20 x .9375" bolt
M-4216-A210 Sold in pkg. of 10 7/16"-20 x .9375" bolt

The most popular 9" ring gear bolt, for use on open differentials, Detroit Lockers and spools.
NOTE: Will NOT fit Traction-Lok differentials.
Same as flywheel bolts, see page 167.



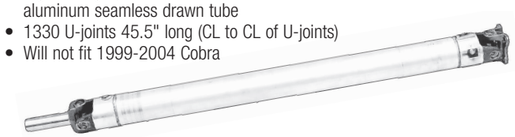
*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

HD ALUMINUM DRIVESHAFT ASSEMBLIES

M-4602-G Fits 1979-1995 Mustang/Capri 5.0L vehicles with T-5/SROD/C-4/A0D, 1979-1993 with Tremec® transmissions and 7.5" or 8.8" axles. 28-spline yoke

M-4602-J Fits 1996-2004 Mustang and 1996-1998 Cobra 4.6L with manual transmission. 31-spline yoke

- High-strength, 3.5" diameter 0.114" wall thickness 6061-RT62 aluminum seamless drawn tube
- 1330 U-joints 45.5" long (CL to CL of U-joints)
- Will not fit 1999-2004 Cobra



DRIVESHAFT YOKE 31 SPLINE

M-4841-A

- Fits 31-spline output shafts
- Uses 1330 U-joints
- Use with M-7003-R58C, M-7003-R58W, M-7003-R58H, M-7003-F, M-7003-G, M-7003-H and production T-45, C-6 and 3650 transmissions



28-SPLINE DRIVESHAFT SLIP YOKE

M-4841-B

- For replacement use or custom driveshaft construction
- Fits C-4, AOD and T-5 transmissions
- Designed for 1330 U-joint



COBRA JET DRIVESHAFT LOOP

M-5478-CJ

- Service replacement for the Mustang FR500CJ race car
- Meets most drag racing sanctioning body requirements
- Contains driveshaft in the event of front U-joint breakage
- Fits 2005-2009 Mustang with TR6060 transmission and M-7210-B Shifter
- For use with one-piece driveshafts only



1979-2004 MUSTANG DRIVESHAFT SAFETY LOOP

M-5478-C2

- Bolts to the floor pan of all 1979-2004 Mustangs
- Must drill holes for installation
- Zinc plated
- Includes hardware
- Designed to fit with 3.5" aluminum driveshafts



2005-2010 MUSTANG GT AND 2007-2009 MUSTANG SVT DRIVESHAFT LOOP KIT

M-5478-S197B

- Fits 2005-2010 Mustang GT and 2007-2009 Mustang SVT
- Must drill holes for installation
- Zinc plated
- Includes hardware
- Includes front and rear loops for production two-piece driveshaft
- Will work with 2007-2009 Mustang SVT Short Throw 6-speed Shifter M-7210-B
- Used on the Mustang FR500S race car



COBRA JET DRIVESHAFT

M-4602-CJ

Cobra Jet Driveshaft Features:

- Competition-proven in Mustang Cobra Jet
- One-piece driveshaft with integrated slip yoke
- Uses factory Mustang SVT mounting at transmission
- 6061-T6 aluminum construction
- Balanced



Technical Specifications:

- Diameter: 4" .125" wall
- Design length: 51 3/4" -.25"
- Trans end: Flange w/1330 solid body U-joint
- Axle end: 1350 solid body U-joint

Fits:

- Model: Mustang Cobra Jet
- Year: 2008

Fits with Modifications:

- All 2005-present Mustang with TR6060 transmission and M-4001-CJ Rear Axle Assembly

Required Components:

- Cobra Jet Rear Axle M-4001-CJ

Recommended Use:

- Drag racing

Recommended Components and Accessories:

- Cobra Jet Driveshaft Loop M-5478-CJ

Service Components:

- U-joint

Includes These Ford Racing Parts:

- See service components

Used in These Ford Racing Parts:

- Mustang Cobra Jet M-FR500-CJ

Performance:

- Tested to over 800 hp

Used by:

- All Mustang Cobra Jet racers including Hajek Motorsports 2009 Winternationals Stock Eliminator Champion Mustang piloted by John Calvert Racing!

SPECIAL U-JOINT KIT

M-4635-A

- Kit consists of a hybrid 1310/1330 series cross, plus (4) 1.0625" OD and (2) 1.125" OD caps and locking clips
- Allows small and large Ford drivetrain components to be interchanged



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See pages 3-9 for important safety, emissions and warranty information.

"PUT A FORD ON YOUR FORD"

FRPP uses the Society of Automotive Engineers (SAE) and American Society for Testing and Materials (ASTM) standards: SAE J175 and J328 for impact and fatigue testing and ASTM B368 for chrome testing. These standards define a series of tests that ensure the safety and finish of a wheel.

THESE TESTS ARE THE MINIMUM STANDARD USED TO DEFINE THE ENDURANCE OF FRPP WHEELS.

IMPACT TESTING
This test simulates a curb impact on the side of a tire/wheel assembly. During testing, a tire/wheel assembly is mounted at a 13-degree angle to a test fixture by the hub. A weight is dropped from 9 inches onto the assembly at the tire/wheel intersection. The mass of the weight is determined by a formula, using the vehicle weight.

DYNAMIC CORNERING FATIGUE TESTING
This test simulates lateral loads applied to a wheel by the vehicle. During testing, a wheel is clamped to a fixture by the front face and a constant bending moment is applied through the hub. A wheel of new design will run a minimum of 1,000,000 cycles before approved. The load applied is determined by a formula, using the vehicle weight.

DYNAMIC RADIAL FATIGUE TESTING
This test simulates axial loads applied to a wheel by the vehicle. During testing, a tire/wheel assembly is mounted to an axle by the hub. A large drum drives the assembly while a load is applied perpendicular to the tire patch. A wheel of new design will run a minimum of 5,000,000 cycles. The load applied is determined by a formula, using the vehicle weight.

CHROME QUALITY TESTING
Copper-accelerated acetic acid-salt spray, commonly known as CASS testing, is the standard method used to test the corrosive performance of copper/nickel/chromium-plated wheels. The test is performed in a sealed chamber with a highly acetic spray directed onto the wheel for a predetermined amount of time, usually 66 hours.

2007-2009 MUSTANG SVT WHEEL

M-1007-S1895* ①

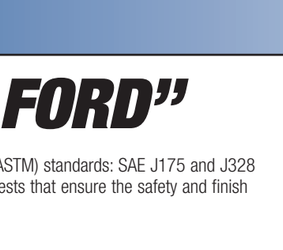
- Fits 2005-2010 Mustang GT and the 2007-2009 Mustang SVT
- 5-lug, 4.5" bolt circle
- 7.125" backspacing
- 45 mm offset
- 18" x 9.5" wide
- Includes SVT center cap
- Same as production 2007-2009 Mustang SVT
- Fits M-2300-S Brake Kit



2007-2009 MUSTANG SVT BLACK WHEEL

M-1007-S1895B* ①

- Fits 2005-2010 Mustang GT and 2007-2009 Mustang SVT
- 5-lug, 4.5" bolt circle
- 7.125" backspacing
- 45 mm offset
- 18" x 9.5" wide
- Includes SVT center cap
- Same as production 2007-2009 Mustang SVT except wheel openings are gloss black
- Fits M-2300-S Brake Kit



2007-2009 MUSTANG SVT BLACK WHEEL WITH MACHINED LIP

M-1007-S1895B1* ①

- Fits 2005-2010 Mustang GT and 2007-2009 Mustang SVT
- 5-lug, 4.5" bolt circle
- 7.125" backspacing
- 45 mm offset
- 18" x 9.5" wide
- Includes SVT center cap
- Same as production 2007-2009 Mustang SVT except wheel face is gloss black with a machined lip
- Fits M-2300-S Brake Kit



NOTE:
① For vehicles with 16" wheels from the factory: -installing 17" x 8" wheels, use Steering Stop 4R3Z-3932-BA -Installing 18" x 8.5" or 18" x 9.5" wheels, use Steering Stop 6R3Z-3932-CA. For vehicles with 17" wheels from the factory: -Installing 18" x 8.5" or 18" x 9.5" wheels, use Steering Stop 6R3Z-3932-CA.

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See pages 3-9 for important safety, emissions and warranty information.



2005-2010 MUSTANG GT BLACK WHEEL
M-1007-S1885B* ①
- Fits 2005-2010 Mustang GT
- Black painted finish
- 5-lug, 4.5" bolt circle
- 6.82" backspacing
- 50 mm offset
- 18" x 8.5" wide
- Includes Mustang center cap
- Fits 2005-2010 Mustang V6 with 2005-2010 Mustang V6 Brake Upgrade Kit M-2300-D



2005-2010 MUSTANG GT CHROME WHEEL
M-1007-S1885C* ①
- Fits 2005-2010 Mustang GT
- Chrome finish
- 5-lug, 4.5" bolt circle
- 6.82" backspacing
- 50 mm offset
- 18" x 8.5" wide
- Includes Mustang center cap
- Fits 2005-2010 Mustang V6 with 2005-2010 Mustang V6 Brake Upgrade Kit M-2300-D



2005-2010 MUSTANG SPECIAL EDITION BLACK WHEEL
M-1007-T178B* ①
- Fits 2005-2010 Mustang GT
- 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 45 mm offset
- 17" x 8" wide
- Includes center cap



2005-2010 MUSTANG GT CHROME WHEEL
M-1007-T178C* ①
- Fits 2005-2010 Mustang GT
- 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 45 mm offset
- 17" x 8" wide
- Includes center cap



2005-2010 MUSTANG GT SILVER WHEEL
M-1007-T178S* ①
- Fits 2005-2010 Mustang GT
- 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 45 mm offset
- 17" x 8" wide
- Includes center cap



MUSTANG SPINNER CAP
M-1096-B

Fits 2005-2009: 16" aluminum and 17" base GT wheels



NOTE:

① For vehicles with 16" wheels from the factory: -Installing 17" x 8" wheels, use Steering Stop 4R3Z-3932-BA -Installing 18" x 8.5" or 18" x 9.5" wheels, use Steering Stop 6R3Z-3932-CA. For vehicles with 17" wheels from the factory: -Installing 18" x 8.5" or 18" x 9.5" wheels, use Steering Stop 6R3Z-3932-CA.

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See pages 3-9 for important safety, emissions and warranty information.

DRIVELINE – WHEELS



2003 MUSTANG COBRA SILVER WHEEL
M-1007-S179*
- Fits 1994-2004 Mustang
- 5-lug, 4.5" bolt circle
- 6.12" backspacing
- 26 mm offset
- 17" x 9" wide
- Includes center cap



1999 MUSTANG COBRA POLISHED WHEEL
M-1007-G178*
- Fits 1994-2004
- 5-lug, 4.5" bolt circle
- 5.72" backspacing
- 30 mm offset
- 17" x 8" wide
- Includes center cap



10TH ANNIVERSARY MUSTANG COBRA WHEEL
M-1007-A179*
- Fits 1994-2004
- 5-lug, 4.5" bolt circle
- 6.12" backspacing
- 26 mm offset
- 17" x 9" wide
- Charcoal metallic finish
- Includes center cap



MUSTANG COBRA "R" CHROME WHEEL
M-1007-C58*
- Fits 1994-2004
- 5-lug, 4.5" bolt circle
- 5.98" backspacing
- 24 mm offset
- 17" x 9" wide
- Includes center cap
- Will clear M-2300-K Disc Brakes



1995 MUSTANG COBRA "R" SILVER WHEEL
M-1007-R58*
- Fits 1994-2004
- 5-lug, 4.5" bolt circle
- 5.98" backspacing
- 24 mm offset
- 17" x 9" wide
- Includes center cap
- Will clear M-2300-K Disc Brakes
- Same wheel used on 1995 Mustang SVT Cobra "R"



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



2001 MUSTANG GT SPECIAL EDITION BLACK WHEEL
M-1007-K178*
- Fits 1994-2004
- 5-lug, 4.5" bolt circle
- 5.72" backspacing
- 30 mm offset
- 17" x 8" wide
- Includes center cap



1998 MUSTANG COBRA SILVER WHEEL
M-1007-D178*
- Fits 1994-2004
- 5-lug, 4.5" bolt circle
- 5.72" backspacing
- 30 mm offset
- 17" x 8" wide
- Includes center cap



2000 MUSTANG COBRA "R" SILVER WHEEL
M-1007-R189*
- Fits 1994-2004
- 5-lug, 4.5" bolt circle
- 6.12" backspacing
- 20 mm offset
- 18" x 9.5" wide
- Includes center cap



2000 MUSTANG COBRA "R" CHROME WHEEL
M-1007-R189C*
- Fits 1994-2004
- 5-lug, 4.5" bolt circle
- 6.12" backspacing
- 20 mm offset
- 18" x 9.5" wide
- Includes center cap



FORD RACING MUSTANG COBRA "R" SILVER WHEEL
M-1007-R54*
- Fits 1979-1993
- 4-lug, 4.25" bolt circle
- 5.15" backspacing
- 15 mm offset
- 17" x 8" wide
- Includes center cap



FORD RACING MUSTANG COBRA "R" CHROME WHEEL
M-1007-R54C*
- Fits 1979-1993
- 4-lug, 4.25" bolt circle
- 5.15" backspacing
- 15 mm offset
- 17" x 8" wide
- Includes center cap



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See pages 3-9 for important safety, emissions and warranty information.

DRIVELINE – WHEELS





FORD RACING MUSTANG SILVER WHEEL
M-1007-F500*
- Fits 1994-2004
- 5-lug, 4.50" bolt circle
- 5.98" backspacing
- 24 mm offset
- 18" x 9" wide
- Includes Ford Racing center cap
- Cast-in Ford Racing logo



FORD RACING MUSTANG CHROME WHEEL
M-1007-F500C*
- Fits 1994-2004
- 5-lug, 4.50" bolt circle
- 5.98" backspacing
- 24 mm offset
- 18" x 9" wide
- Includes Ford Racing center cap
- Cast-in Ford Racing logo



FORD RACING MUSTANG BLACK WHEEL
M-1007-F500B*
- Fits 1994-2004
- 5-lug, 4.50" bolt circle
- 5.98" backspacing
- 24 mm offset
- 18" x 9" wide
- Includes Ford Racing center cap
- Cast-in Ford Racing logo



MCGARD® LOCKING LUG NUT KIT
M-1012-K
- (16) 1/2"-20 thread chrome cone seat lug nuts
- (4) chrome locking lugs
- (4) chrome valve stems, pull-through style
- Uses 13/16" lug wrench (not included)
- Fits most wheel applications, same as Lug Nut Kit M-1012-A



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



F-150 SVT RAPTOR CHARCOAL GREY WHEEL

M-1007-F15RAA

NEW

- Fits 2010 F-150 Raptor
- Charcoal grey painted finish with machined lip
- 6-lug, 135 mm bolt circle
- 6.16" backspacing
- 34 mm offset
- 17" x 8.5" wide
- Includes Ford Racing center cap
- Requires stem-mounted Sensor 9L3Z-1A189-A for Tire Pressure Monitoring System

F-150 SVT RAPTOR BLACK WHEEL

M-1007-F15RBA

NEW

- Fits 2010 F-150 Raptor
- Black painted finish with machined lip
- 6-lug, 135 mm bolt circle
- 6.16" backspacing
- 34 mm offset
- 17" x 8.5" wide
- Includes Ford Racing center cap
- Requires stem-mounted Sensor 9L3Z-1A189-A for Tire Pressure Monitoring System





2004-2009 F-150 LIGHTNING WHEEL

M-1007-L2010P*

Proudly Made in the USA

- Ford Racing exclusive. Proposed wheel for the never-produced Lightning
- Fits all 2004-2009 F-150 4WD only
- Does not fit 2004 F-150 Heritage
- Polished aluminum finish
- 6-lug, 135 mm bolt circle
- 7.125" backspacing
- 44 mm offset
- 20" x 10" wide
- Includes Ford Racing center cap



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

DRIVELINE – WHEELS



FORD GT FRONT WHEEL

M-1007-GTF*

- Forged front wheel available on 2005-2006 Ford GT
- Open lug design
- 5-lug, 4.5" bolt circle
- 6.90" backspacing
- 50 mm offset
- 18" x 9" wide
- Includes Ford GT center cap





FORD GT REAR WHEEL

M-1007-GTR*

- Forged rear wheel available on 2005-2006 Ford GT
- Open lug design
- 5-lug, 4.5" bolt circle
- 7.295" backspacing
- 40 mm offset
- 19" x 11.5" wide
- Includes Ford GT center cap



2000-2009 FOCUS SVT SILVER WHEEL

M-1007-S177*

- Fits 2000-2009 Focus SVT
- 4-lug, 108 mm bolt circle
- 5.94" backspacing
- 49 mm offset
- 17" x 7" wide
- Includes Focus SVT center cap
- Original equipment on the 2003 Focus SVT



2004 FOCUS SVT WHEEL

M-1007-S177A*

- Fits 2000-2007
- Original equipment on the 2003-2004 Focus SVT
- 4-lug, 108 mm bolt circle
- 5.94" backspacing
- 49 mm offset
- 17" x 7" wide
- Includes Focus SVT center cap



2003 FOCUS SVT EUROPEAN APPEARANCE PACKAGE 15-SPOKE DARK ARGENT WHEEL

M-1007-S177E*

- Fits 2000-2009
- 4-lug, 108 mm bolt circle
- 5.94" backspacing
- 49 mm offset
- 17" x 7" wide
- Includes Focus SVT center cap
- Original equipment on the 2003 Focus SVT



FORD RACING FOCUS RALLY WHEEL

M-1007-S177B*

- Fits 2000-2009
- 4-lug, 108 mm bolt circle
- 5.94" backspacing
- 49 mm offset
- 17" x 7" wide
- Includes Ford Racing center cap
- Same as M-1007-S177E, except painted black



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FORD RACING LUG NUTS AND CENTER CAPS

WHEEL PART NUMBER	CENTER CAPS M-1096-A	M-1096-B	M-1096-CA	M-1096-D	M-1096-FR	M-1096-FR1	M-1096-H	M-1096-J	M-1096-K	M-1096-M	M-1096-N	LUG NUTS PART NUMBER
M-1007-A179			O		O			O	O		X	M-1012-A M-1012-K
M-1007-B178C			O		O			O	X		O	M-1012-A M-1012-K
M-1007-C178							X					M-1012-A M-1012-K
M-1007-C58										X		M-1012-A M-1012-K
M-1007-D178			O		O			O	O		O	M-1012-A M-1012-K
M-1007-F1810												NA
M-1007-F500			O		X			O	O		O	M-1012-A M-1012-K
M-1007-F500B			O		X			O	O		O	M-1012-A M-1012-K
M-1007-F500C			O		X			O	O		O	M-1012-A M-1012-K
M-1007-G178			O		O						O	M-1012-A M-1012-K
M-1007-GTF												NA
M-1007-GTR												NA
M-1007-J178			O		O			O	X		O	M-1012-A M-1012-K
M-1007-K178			O		O			O	X		O	M-1012-A M-1012-K
M-1007-L2010												NA
M-1007-L2010P												NA
M-1007-L2085												NA
M-1007-L2085P												NA
M-1007-M167							X					M-1012-A M-1012-K
M-1007-M178			O		O			O	X		O	M-1012-A M-1012-K
M-1007-N167				X								M-1012-A M-1012-K
M-1007-R189								X	O			M-1012-A M-1012-K
M-1007-R54										X		M-1012-A M-1012-K
M-1007-R54C										X		M-1012-A M-1012-K
M-1007-R58										X		M-1012-A M-1012-K
M-1007-R189		O	O		O			X			O	M-1012-A M-1012-K
M-1007-R189C		O	O		O			X			O	M-1012-A M-1012-K
M-1007-S177		O	O		O				O			NA
M-1007-S177A			O		O						X	NA
M-1007-S177B		O	O		O			O			X	NA
M-1007-S177E			O		O						X	NA
M-1007-S179			O		O						X	M-1012-A M-1012-K
M-1007-S179C			O		O						X	M-1012-A M-1012-K
M-1007-S1885	X	O				O						M-1012-A M-1012-K
M-1007-S1885B	X	O				O						M-1012-A M-1012-K
M-1007-S1885C	X	O				O						M-1012-A M-1012-K
M-1007-S1895		O	O		O			O			X	M-1012-A M-1012-K
M-1007-S1895B		O	O		O			O			X	M-1012-A M-1012-K
M-1007-S1895B1		O	O		O			O			X	M-1012-A M-1012-K
M-1007-T178B	X	O										M-1012-A M-1012-K
M-1007-T178C	X	O										M-1012-A M-1012-K
M-1007-T178P	X	O										M-1012-A M-1012-K
M-1007-T178S	X	O										M-1012-A M-1012-K
M-1007-U1885	X	O										M-1012-A M-1012-K
M-1007-U1885P	X	O										M-1012-A M-1012-K
AS DELIVERED	X											
OPTIONS	O											

M-1096-CA



M-1096-FR



M-1096-FR1



M-1096-K



M-1096-A



M-1096-N



M-1096-J



M-1096-M



M-1096-D



M-1096-H



M-1096-B



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See pages 3-9 for important safety, emissions and warranty information.

2007-2010 MUSTANG SVT COUPE HANDLING PACK

M-2007-FR3SVT 2007-2009 Mustang SVT
M-FR3-MSVT 2010 Mustang SVT

- Make your Mustang SVT a corner-carving sidewinder with the added performance of the FR3 Handling Pack
- Uniquely tuned exclusively to fit 2007-2010 Mustang SVT Coupe
- Handling Pack includes:
  - Adjustable Dampers M-18000-C
  - Lowering Springs M-5300-L
  - Anti-roll Bar Kit M-5490-B
  - 2007-2009 Strut Tower Brace M-20201-C. 2010 Strut Tower Brace M-20201-MSVTC
- All components are designed to work together as a package
- Lowers car approximately 1.250"
- Dampers are adjustable and manufactured by Dynamic® Suspensions (the same company that makes dampers for the FR500C race car)

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



M-2007-FR3SVT shown

2005-2010 MUSTANG GT COUPE HANDLING PACK (1" DROP)

M-FR3-MGT

Put a little "Road Race" into your street car!

- Fits 2005-2010 Mustang GT Coupe. For Convertible see M-FR3-MCGT
- Handling Pack includes:
  - Dampers M-18000-A. For Adjustable Dampers, see M-18000-C, sold separately
  - Lowering Springs M-5300-P
  - Sway Bars M-5490-A
  - Strut Tower Brace M-20201-S197. Strut tower brace does not clear 2007-2010 plastic engine cover
- All components are designed to work together as a package
- Lowers car approximately 1"
- Dampers are manufactured by Dynamic® Suspensions (the same company that makes dampers for the FR500C race car)

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



2005-2010 MUSTANG GT CONVERTIBLE HANDLING PACK (1" DROP)

M-FR3-MCGT

Put a little "Road Race" into your street car!

- Fits 2005-2010 Mustang GT Convertible
- Handling Pack includes:
  - Dampers
  - Lowering springs
  - Sway Bars M-5490-D
  - Strut Tower Brace M-20201-S197. Strut tower brace does not clear 2007-2010 plastic engine cover
- All components are designed to work together as a package
- Lowers car approximately 1"
- Dampers are manufactured by Dynamic® Suspensions (the same company that makes dampers for the FR500C race car)

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.

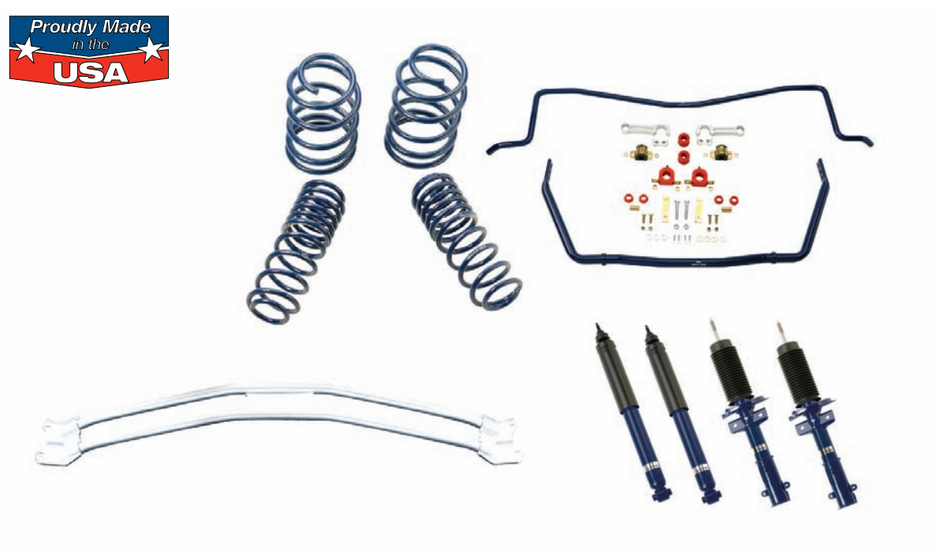


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See pages 3-9 for important safety, emissions and warranty information.

2005-2010 MUSTANG V6 COUPE HANDLING PACK
M-2007-FR3V6

- Fits 2005-2010 Mustang V6 Coupe
- Handling Pack includes Dampers (M-18000-A), Lowering Springs (M-5300-N), Anti-roll Bar Kit (M-5490-C) and Strut Tower Brace (M-20201-F)
- All components are designed to work together as a package
- Lowers car approximately 1.250"
- Dampers are manufactured by Dynamic® Suspensions (the same company that makes dampers for the FR500C race car)

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



1994-2004 MUSTANG HANDLING KIT
M-5400-A

- Kit includes increased-rate Mustang springs, anti-roll bars, shocks and struts tuned for use with this package
- Spring rates: front 600 lb-in and rear 250 lb-in
- Lowers 1994-1998 vehicles 1" and 1999-2004 vehicles .75"
- Will not fit 1999-2004 Cobra
- Due to vehicle assembly tolerances, amount lowered may vary



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See pages 3-9 for important safety, emissions and warranty information.

CHASSIS – HANDLING PACKS

2000-2005 FOCUS SUSPENSION KIT
M-3000-ZX3

- Fits 2000-2005 ZX3, ZX4 and ZX5 Focus
- Original equipment on Focus SVT
- Upgrades your stock Focus suspension to Focus SVT
- Improves handling characteristics without ride degradation
- Reduces ride height approximately .5"



2000-2005 FOCUS SUSPENSION KIT
M-3000-ZX3A*

- Fits 2000-2005 ZX3, ZX4 and ZX5 Focus
- Original equipment on Focus SVT suspension
- Upgrades your stock Focus suspension to Focus SVT
- Improves handling characteristics without ride degradation
- Reduces ride height approximately .5"
- Front struts come assembled with upper strut mounts and springs installed
- Kit does not include front or rear anti-roll bars, rear Anti-Roll Bar M-5400-Z3R recommended
- Additional hardware may be required for rear anti-roll bar installation
- Cars without factory rear stabilizer bar may require Adjustable Rear Subframe M-5035-ZX3



2000-2005 FOCUS DYNAMIC® DAMPER AND SPRING KIT
M-3000-ZXM

- Fits 2000-2005 Focus except wagon
- Tuned for track and street use
- Dynamic® Suspensions dampers—same manufacturer as those on the Mustang FR500C race car
- Kit includes front struts, rear shocks, front and rear springs
- Lowers car approximately 1.5"
- Gives a more aggressive-looking stance as well as increased handling dynamics
- May cause slightly harsher ride compared to stock springs
- May require M-5035-ZX3 (rear) and aftermarket camber plates (front) to achieve desired alignment

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2007-2010 MUSTANG GT/SVT ADJUSTABLE DAMPER KIT
M-18000-C
- Fits 2007-2010 Mustang SVT and 2005-2010 Mustang GT
- Engineered specifically for improved handling on both stock ride height and lowered 2007-2010 Mustang SVT and 2005-2010 Mustang GT
- Single adjustment with two-way response
- Recommended for Mustang SVT use with M-5300-L Spring Kit, M-5490-B Anti-roll Bar Kit and M-20201-C Strut Tower Brace (2007-2009 Mustang SVT only)
- Recommended for Mustang GT use with M-5300-P Spring Kit (1.0" drop), M-5300-K Spring Kit (1.5" drop), M-5490-A Anti-roll Bar Kit and M-20201-S197 Strut Tower Brace

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



ESCORT ZX2 TOKICO® STRUT KIT
M-18000-Z2

Heavy-duty Tokico® struts performance-tuned to match M-5560-Z2 Eibach® Spring Kit for ZX2 suspension. Provides improved body control with a firmer ride. Kit includes front and rear struts.



FOCUS DAMPER KITS
M-18000-ZX3 2000-2005 Focus except wagon
M-18000-ZX3B 2006-2007 Focus except wagon
- Improves handling
- Includes front dampers with mounts, spring seats and rear dampers

2005-2010 MUSTANG COUPE DYNAMIC® DAMPER KIT
M-18000-A
- Engineered specifically for improved handling on the 2005-2010 Mustang Coupe
- Dynamic® Suspensions dampers—same manufacturer as those on the Mustang FR500C race car
- Unique FRPP performance tune
- Designed specifically for lowered vehicles
- Mustang GT Coupe owners: Use with M-5300-K and M-5490-A for optimum performance
- Mustang V6 Coupe owners: Use with M-5300-N and M-5490-C for optimum performance

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



FOCUS DYNAMIC® DAMPER KITS
M-18000-ZXM 2000-2005 Focus except wagon
M-18000-ZXM1 2006-2007 Focus except wagon
- Tuned for track use
- Dynamic® Suspensions dampers—same manufacturer as those on the Mustang FR500C race car
- Kit includes front struts and rear shocks

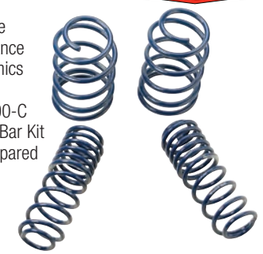




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See pages 3-9 for important safety, emissions and warranty information.

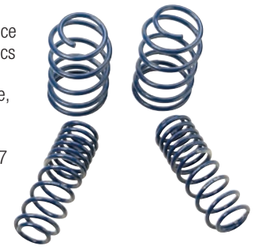
2007-2010 MUSTANG SVT 1.25" LOWERING SPRINGS
M-5300-L
- Fits 2007-2010 Mustang SVT Coupe
- Gives a more aggressive-looking stance as well as increased handling dynamics
- Lowers car approximately 1.25"
- Recommended for use with M-18000-C Damper Kit and M-5490-B Anti-roll Bar Kit
- May cause slightly harsher ride compared to stock springs

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications. May require alignment after installation.



2005-2010 MUSTANG GT 1.0" LOWERING SPRINGS
M-5300-P
- Fits 2005-2010 Mustang GT Coupe
- Gives a more aggressive-looking stance as well as increased handling dynamics
- Lowers car approximately 1.00"
- Progressive spring with increased rate, designed for increased handling and performance
- Use with M-18000-A, M-20201-S197 and M-5490-A for optimum performance
- May cause slightly harsher ride compared to stock springs

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications. May require alignment after installation.



2005-2010 MUSTANG GT COUPE 1.5" LOWERING SPRINGS
M-5300-K
- Fits 2005-2010 Mustang GT Coupe
- Gives a more aggressive-looking stance as well as increased handling dynamics
- Lowers car approximately 1.5"
- Progressive spring, designed for increased handling and performance
- Use with M-18000-A and M-5490-A for optimum performance
- May cause slightly harsher ride compared to stock springs

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications. May require alignment after installation.



2005-2010 MUSTANG V6 COUPE 1.5" LOWERING SPRINGS
M-5300-N
- Fits 2005-2010 Mustang V6 Coupe
- Gives a more aggressive-looking stance as well as increased handling dynamics
- Lowers car approximately 1.5"
- Progressive spring, designed for increased handling and performance
- Designed to be used with M-18000-A and M-5490-C
- May cause slightly harsher ride compared to stock springs

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications. May require alignment after installation.



2008 COBRA JET SPRING KIT
M-5300-Q
- Service replacement for the 2008 Mustang FR500CJ race car
- Kit includes front and rear springs
- For drag racing applications only



1979-2004 MUSTANG DRAG RACE SPRING KIT
M-3000-D
- Fits 1979-2004 Mustang (except 1999-2004 Cobra IRS)
- Includes front and rear coil springs and RH rear air bag
- Adjusting air pressure in air bag will reduce rear axle torque reaction which tends to lift right rear tire
- Spring rates F-300/465, LH rear 180, RR 180/350
- Recommended for drag race applications only



1979-2004 MUSTANG FRONT/REAR SPRING KITS
- Fits 1979-2004 Mustang
- Lower your Mustang and improve handling
- The height on some cars will vary

NOTE: Expect some deterioration in ride quality.

PART NUMBER	MODEL YEAR	AMOUNT LOWERED (V8) FRONT	AMOUNT LOWERED (V8) REAR	SPRING RATES (LB/IN) FRONT	SPRING RATES (LB/IN) REAR
M-5300-B ⑥	1979-2004 ⑤	.875" ①	.5" ②	425/530	200/300
M-5300-C ⑥	1979-2004 ⑤	.875" ①	.5" ②	650	200/300
M-5300-F ③⑥	1979-2004 ⑤	1.2"	1.0"	460/570	170/310
M-5300-G ④⑥	1979-2004 ⑤	1.2"	1.2"	500/570	170/310

NOTES:
① 1994-2004 models – 1-1/8".
② 1994-2004 models – 3/4".
③ Coupe only.
④ Convertible only.
⑤ Will not fit 1999-2001 Cobra.
⑥ Due to vehicle assembly tolerances, these specifications may vary.



M-5300-F shown

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FOCUS PERFORMANCE SPRING KITS

M-5560-ZXM 2000-2005 Focus except wagon
M-5560-ZXM1 2006-2007 Focus except wagon

- Lowers vehicle approximately 1.5"
- Gives a more aggressive-looking stance as well as increased handling dynamics
- May cause slightly harsher ride compared to stock springs
- May require M-5035-ZX3 (rear) and aftermarket camber plates (front) to achieve desired alignment

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



2006-2007 FOCUS PERFORMANCE SPRING KIT

M-5560-ZX3B

Proudly Made in the USA

- Fits 2006-2007 Focus except wagon
- Improves handling
- Lowers vehicle approximately 1.5"
- Includes front and rear springs
- May cause slightly harsher ride compared to stock springs
- May require M-5035-ZX3 (rear) and aftermarket camber plates (front) to achieve desired alignment



1999-2004 LIGHTNING/ HARLEY-DAVIDSON® LOWERING KIT

M-3000-L

Proudly Made in the USA

- Fits 1999-2004 F-150 Lightning/ F-150 Harley-Davidson®
- Lowers front and rear approximately 1.0"
- Improves appearance and lowers vehicle roll center for better handling with very acceptable ride characteristics
- Includes front coil springs and jounce bumpers, rear shackles and hangers



2004-2009 F-150 REAR LOWERING KIT

M-3000-G

- Fits 2004-2009 F-150
- Lowers rear of vehicle
- Lowers 2.0" on 2WD or 1.5" on 4WD
- Contains all installation hardware

Proudly Made in the USA



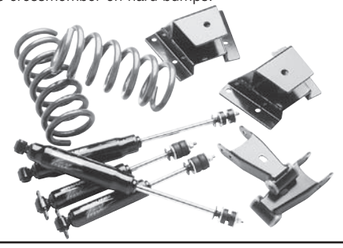
1997-2003 F-150 2WD LOWERING KIT

M-3000-T1

- Fits 1997-2003 F-150 and 2004 Heritage 2WD Standard Cab, SuperCab and SuperCrew with V6 or V8 (does not fit 4WD)
- For 1999-2003 SVT F-150 Lightning, see M-3000-L
- Lowers approximately 2" front and 4" rear
- Improves appearance and lowers vehicle roll center for better handling with very acceptable ride characteristics
- Includes front coil springs, rear shackles and hangers, (4) specially tuned high-pressure gas shocks
- Fits vehicles with V6 or V8 engines in standard cab (long and short bed) and SuperCab (short bed)

NOTE: When used on 2001 SuperCab with 6' box and 5" dia. driveshaft, the driveshaft may hit the crossmember on hard bumps.

Proudly Made in the USA



2004-2008 F-150 2WD LOWERING KIT

M-3000-T3

Proudly Made in the USA

- Fits 2004-2008 F-150 2WD Standard and Extended Cab with V6 or V8 (will not fit Heritage, SuperCrew or 4WD)
- Lowers approximately 2" front and 5" rear
- Improves appearance and lowers vehicle roll center for better handling with very acceptable ride characteristics
- Includes front coil springs, rear flip kit, specially tuned high-pressure gas rear shocks, bump stops and hardware



2000-2009 FOCUS ZX3/4/5 ADJUSTABLE REAR SUBFRAME

M-5035-ZX3

Proudly Made in the USA

- Fits 2000-2009 Focus ZX3/4/5
- Allows easy camber adjustment
- Features anti-sway bar mounts
- May be required to mount rear Stabilizer Bar M-5400-Z3 on 2005-2009 Focus



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See pages 3-9 for important safety, emissions and warranty information.

2007-2010 MUSTANG SVT ANTI-ROLL BAR KIT

M-5490-B

- Anti-roll bar kit designed for increased handling and performance on 2007-2010 Mustang SVT Coupe
- Designed to be used with M-18000-C Dampers, M-5300-L Springs and M-20201-C Brace
- Includes all mounting hardware

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



Proudly Made in the USA

2005-2010 MUSTANG GT COUPE ANTI-ROLL BAR KIT

M-5490-A

- Anti-roll bar kit designed for increased handling and performance on 2005-2010 Mustang GT Coupe
- Best when used with M-18000-A Dampers and M-5300-K Springs (1.5" drop), or M-5300-P Springs (1.0" drop)
- Includes all mounting hardware

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.

Proudly Made in the USA

2005-2010 MUSTANG V6 COUPE ANTI-ROLL BAR KIT

M-5490-C

- Anti-roll bar kit designed for increased handling and performance on the 2005-2010 Mustang Coupe V6
- Designed to be used with M-5300-N and M-18000-A
- Includes all mounting hardware

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



Proudly Made in the USA

2007-2009 MUSTANG SVT STRUT BRACE

M-20201-C

Proudly Made in the USA

- Fits 2007-2009 Mustang SVT
- **Standard on Shelby® GT500KR**
- Black powdercoated with etched Ford Racing logo
- Single large-diameter oval tube construction



2005-2010 MUSTANG GT STRUT TOWER BRACE

M-20201-S197

Proudly Made in the USA

- Fits 2005-2010 Mustang GT without plastic engine cover
- Parallel beam design for added rigidity
- Black powdercoated
- Stainless steel Ford Racing emblem
- Does not fit V6, supercharged GT or 2007-2010 GT with intake shroud

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



2005-2010 MUSTANG V6 STRUT TOWER BRACE

M-20201-F

Proudly Made in the USA

- Fits 2005-2010 Mustang V6
- Silver powdercoated with etched Ford Racing logo
- Parallel beam design for added rigidity

NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.



1979-1993 MUSTANG STRUT TOWER BRACE

M-20201-A50 ①

Proudly Made in the USA

- Fits 1979-1993 Mustang V8
- Designed to clear all production and many aftermarket components and accessories
- Comes complete with all necessary fasteners and instructions
- High-quality steel, "E"-coated and painted for corrosion resistance

NOTES: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.

① Will not fit 1979-1985 Mustang with dual snorkel air cleaner. Must use Ford Racing M-9600-A302 Air Cleaner or equivalent.



2000-2008 FOCUS REAR ANTI-ROLL BAR

M-5400-Z3R

Proudly Made in the USA

- Fits 2000-2008 ZX3/ZX4/ZX5 Focus
- Recommended with M-3000-ZX3A Suspension Kit
- Blue powdercoat finish
- Designed to increase handling and performance
- May require Adjustable Rear Subframe M-5035-ZX3 and additional hardware if not equipped with a factory rear sway bar

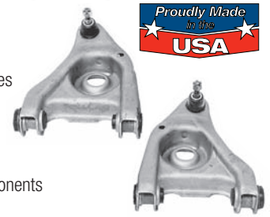


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HD REAR UPPER CONTROL ARM KIT
M-5500-A
- Fits 1979-1993 Mustang V8 and 1993-1998 Cobra
- Includes (2) upper control arms with bushings
- Bushings are approximately twice as stiff as current production bushings
- Improves handling and traction



1979-1993 MUSTANG/CAPRI FRONT LOWER CONTROL ARM UPGRADE KIT
M-3075-A
- Fits 1979-1993 Mustang/Capri
- Kit includes LH and RH lower control arm assemblies
- Upgrades to 1996 levels with low-friction ball joints and improved inner bushings
- Dramatically improves impact harshness qualities of vehicle
- Recommended when heavy-duty suspension components are added



NOTE: The ball joints in the kit have been upgraded. They have an improved nylon bearing to further reduce impact harshness. (Since no measurable wear could be detected after 250,000 miles of fleet testing, the wear detectors were eliminated.)

2005-2010 MUSTANG GT FRONT STRUT MOUNT UPGRADE (PAIR)
M-18183-A
- Fits 2005-2010 Mustang GT
- Original equipment on the 2007-2009 SVT Mustang
- Increased durometer, 28% stiffer than Mustang GT



2005-2010 MUSTANG GT FRONT LOWER CONTROL ARM UPGRADE KIT
M-3075-E
- Fits 2005-2010 Mustang GT
- Original equipment on 2007-2009 Mustang SVT
- Increased-strength ball joints
- Kit contains 1 RH and 1 LH lower control arm assembly



NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.

CASTER/CAMBER PLATE, FR500S
M-18183-B
- Service replacement for the Mustang FR500S race car
- Designed to work with Damper Kit M-18000-E



MUSTANG FR500C REAR UPPER CONTROL ARM BUSHINGS
M-5638-R
- Service replacement for the Mustang FR500C race car
- Includes bushings and sleeve for upper rear control arm
- Increased durometer bushing for precise handling and control



NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.

2005-2010 MUSTANG GT COUPE FRONT LOWER A-ARM BRACE UPGRADE KIT
M-5025-A
- Fits 2005-2010 Mustang GT Coupe
- Original equipment on convertible and 2007-2009 Mustang SVT
- Increases chassis stiffness



2005-2010 MUSTANG GT REAR LOWER CONTROL ARM UPGRADE KIT
M-5538-A
- Fits 2005-2010 Mustang GT
- Original equipment on 2007-2009 Mustang SVT
- Increased bushing durometer and stiffness for higher horsepower applications



NOTE: Some factory fasteners are one-time use. Please reference a Ford service manual for reuse information and correct torque specifications.

2008 COBRA JET REAR SUSPENSION KIT
M-5649-CJ
- Service replacement for the Mustang FR500CJ race car
- Also fits 2005-2010 Mustangs equipped with 8.8" rear
- Adjustable upper control arm and bracket
- Tubular lower control arms with urethane bushings
- Anti-roll bar with adjustable links
- For drag racing applications only



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2005-2010 MUSTANG V6 BRAKE UPGRADE KIT
M-2300-D*
- Fits 2005-2010 Mustang V6
- Upgrades Mustang V6 11.5" front rotors to the larger Mustang GT 12.4" rotors for increased stopping power
- Uses existing calipers and brake pads
- Easily installed, no bleeding required
- Requires 17" or larger 2005-2009 Mustang wheels such as M-1007-T178C for caliper clearance
- Allows use of M-1007-S1885, M-1007-S1885B and M-1007-S1885C 18"-style wheels on Mustang V6



1994-2004 MUSTANG GT REAR BRAKE BRACKET UPGRADE KIT
M-2300-M*
- Used to install Mustang Cobra, Mach 1 or Special Edition rear calipers on a 1994-2004 Mustang GT
- Kit includes production 11.65" rotors, caliper mounting brackets, moan braces, dust shields and dust shield bolts



1994-2004 MUSTANG GT–COBRA BRAKE UPGRADE KIT
M-2300-Q Fits 1994-2004 Cobra ①
M-2300-R Fits 1994-2004 Cobra
- This kit will upgrade the front brakes to 13" rotors and calipers
- Use with stock rear disc brakes
- Includes hoses and attaching parts
- Requires 17" wheel M-1007-R58 or equivalent

NOTE: ① Includes master cylinder.



M-2300-Q shown

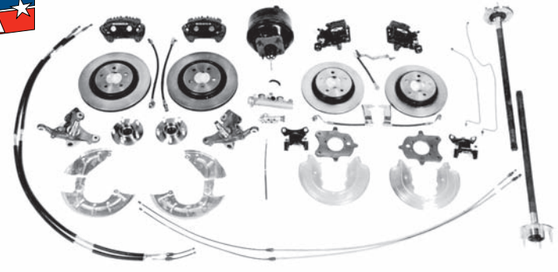
1994-2004 MUSTANG COBRA "R" FRONT BRAKE UPGRADE KIT
M-2300-X*
- Front brake upgrade for 1994-2004 Mustang GT and 1994-2004 Cobra
- Original equipment on 2000 Cobra "R"
- Kit includes Brembo® 4-piston calipers, brake lines, hardware and "upgraded" slotted rotors
- May require larger wheels like M-1007-R189/R189C/F500/F500C

NOTE: 1994-1995 GT requires 1994 Cobra master cylinder.

2005-2010 MUSTANG GT 14" BRAKE UPGRADE KIT
M-2300-S*
- Fits 2005-2010 Mustang GT
- Kit will upgrade the front brakes to 2007-2010 Mustang SVT 14" rotors and 4-piston calipers
- Includes 2007 Mustang SVT rear pads for use in stock Mustang GT rear calipers
- Includes Goodridge® DOT four-piece hose kit and attaching parts
- Requires 18" M-1007-S1895 or M-1007-S1895B wheel or equivalent for caliper clearance



5-LUG FRONT/REAR SUPER HEAVY-DUTY "COBRA" DISC BRAKE CONVERSION KIT
M-2300-K*
- Fits 1987-1993 Mustang GT and LX V8
- Kit upgrades brakes to 1993 Cobra "R"/1994 Cobra specs
- Includes:
  - 13.0" front and 11.65" rear rotors
  - Calipers and mounting brackets
  - Spindles, axle shafts, hubs
  - Cobra brake booster, master cylinder, adjustable proportioning valve
  - Hoses, tubes, attaching hardware
  - Instructions
- Installation is bolt-on, requiring only one flared connection
- Requires use of 17" x 8" wheels (not included in kit) with 5-hole, 4.5" diameter mounting pattern and 5.75" backspacing
- Rear inner fender lips should be "rolled" for tire clearance
- Some vehicles may also require front fender wheel well modifications, depending on tire size and ride height



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
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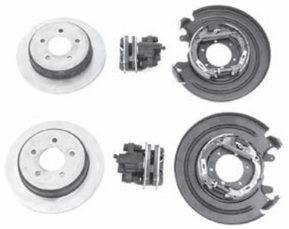
5-LUG LOW-COST REAR DISC BRAKE KIT LATE FORD 9" AND 8.8" TRUCK AXLE HOUSING

M-2300-G*

This rear disc brake kit may be low buck, but it really works! Kit includes 11" rotors, calipers, mounting brackets and attaching hardware. The rotors have the popular 5-hole, 4.5" diameter passenger car bolt pattern. Caliper mounting brackets fit the popular 8.8" truck/9" late Ford axle housings with 2" x 3.56" pattern and big 3.15" diameter bearing. This kit is designed for vehicle installations with a 2.5" brake gap (housing flange-to-axle shaft flange).

NOTES:

- Does not fit Mustang 8.8" axle.
- Hoses, tubes, parking brake cables and wheels are NOT included in this kit. Additional parts and machining may be required. For more information, call the Techline at (800) FORD788.



1994-1998 MUSTANG COBRA SEVERE-DUTY BRAKE UPGRADE KIT

M-2400-C

- Intended to upgrade braking performance of 1994-1998 Mustang Cobra
- Can be used as service replacement for 1994-2004 Mustang Cobra and M-2300-K Brake Kit
- Includes (2) improved strength brake hoses and (2) 13" Cobra brake rotors
- Highly recommended for open track events



2000-2004 ZX3/4/5 FOCUS COMPETITION RALLY BRAKE KIT

NEW

M-2300-ZX3R*

- Fits 2000-2004 ZX3/4/5 Focus
- Complete kit to put larger disc brakes on 2000-2004 ZX3/4/5 Focus
- Kit includes:
  - 280 x 25 mm vented front rotors and 280 mm solid rear rotors OEM 15" wheels
  - Calipers and mounting hardware
  - Front and rear knuckles

2000-2004 FOCUS 300 MM FRONT BRAKE UPGRADE KIT

M-2300-SVTF4

- Complete kit to install Focus SVT front brakes on the 2000-2004 ZX3/4/5 Focus
- Includes 300 mm front rotors
- Includes all calipers and mounting hardware for front brakes
- Includes front knuckles



2005-2009 FOCUS 300 MM FRONT BRAKE UPGRADE KIT

M-2300-SVTF5

- Complete kit to install Focus SVT front brakes on the 2005-2009 ZX3/4/5 Focus
- Includes 300 mm front rotors
- Includes all calipers and mounting hardware for the front brakes



2000-2004 FOCUS RALLY FRONT BRAKE KIT

M-2300-ZXR

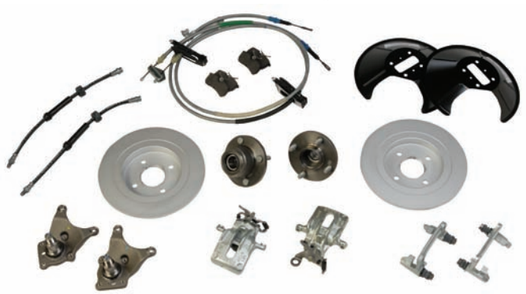
- Complete kit to put larger front brakes on 2000-2004 ZX3/4/5 Focus
- Fits inside 15" wheels
- Includes 278 mm front rotors
- Includes calipers and mounting hardware
- Includes front knuckles
- Designed for the Spec Rally Focus



2000-2008 FOCUS 280 MM REAR BRAKE UPGRADE KIT

M-2300-SVTR

- Complete kit to install Focus SVT rear brakes on the 2000-2008 ZX3/4/5 Focus
- 280 mm rear disc brake kit
- Includes rear calipers, knuckles and mounting hardware



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See pages 3-9 for important safety, emissions and warranty information.

CHASSIS – BRAKES

MUSTANG FR500S ROTOR KIT 48 VANE

M-1125-D

- Service replacement parts for the Mustang FR500S race car
- Left and right directional slotted rotors
- Increased cooling surface area
- 14" diameter rotors



MUSTANG FR500S FRONT ROTOR HAT KIT

M-1125-E

- Service replacement part for the Mustang FR500S race car
- Rotor hat for use with M-1125-D Rotors
- Used on FR500S and in the M-2300-J Brake Kit
- Kit contains one pair of rotor hats

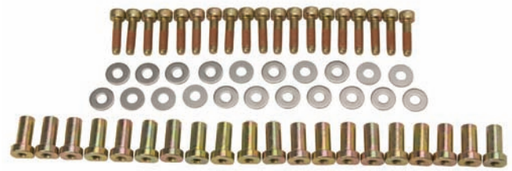


MUSTANG FR500C AND FR500S BRAKE ROTOR HARDWARE KIT

NEW

M-1125-F

- Hardware to attach rotor to hat
- Fits front brakes on Mustang FR500C and FR500S race car
- Part of Front Brake Kit M-2300-A and M-2300-J
- Part of Front Rotor Kit M-1125-D and M-1125-G
- Kit contains fasteners to assemble one pair of rotors



MUSTANG FR500C AND FR500S 72-VANE BRAKE ROTOR UPGRADE KIT

NEW

M-1125-G

- Fits FR500C KONI Challenge Mustang M-FR500-C, FR500S Miller Cup Mustang M-FR500-S and brake kits M-2300-A, M-2300-J
- Brake rotor upgrade kit for hard-braking tracks



FORD GT TWO-PIECE FRONT ROTOR SET

M-1125-GT*

- Fits 2005-2006 Ford GT
- Two-piece 355 mm diameter front rotors for track use
- Cross-drilled for improved cooling
- Aluminum hat reduces rotating and unsprung mass
- Sold in sets of two
- Fits with stock Ford GT calipers
- Weight: 22.1 lbs ea.



FORD GT TWO-PIECE REAR ROTOR SET

M-2026-GT*

- Fits 2005-2006 Ford GT
- Two-piece 330 mm diameter rear rotors for track use
- Cross-drilled for improved cooling
- Aluminum hat reduces rotating and unsprung mass
- Sold in sets of two
- Fits with stock Ford GT calipers
- Weight: 22.05 lbs ea.



1994-2004 MUSTANG COBRA FRONT CALIPER SET

M-2320-C

- Fits 1994-2004 Mustang Cobra with 13" rotors
- Replacement front calipers and brake pads
- Same calipers and pads used in the M-2300-K SHD Brake Kit for 1987-1993 Mustang



1994-2004 MUSTANG COBRA REAR CALIPER SET

M-2320-CR

- Fits 1994-2004 Mustang Cobra with 11.65" rotors
- Replacement rear calipers and brake pads
- Same calipers and pads used in the M-2300-K SHD Brake Kit for 1987-1993 Mustang GT



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9" DRUM BRAKE BACKING PLATE KIT
M-2209-B*

- Fits Brake Drum M-1126-B
- 11" x 2.25" brakes for late model 9" axle housing
- 3.150" center pilot hole
- .381" attaching bolt holes
- 3.56" x 2" attaching bolt pattern
- Kit includes (2) new assembled backing plates with brake shoes, wheel cylinder, self-adjuster, parking brake and springs
- Sold in pairs



Proudly Made in the USA

11" X 2.25" BRAKE DRUM
M-1126-B*

- Brake drum for Backing Plate Kit M-2209-B
- 5" on 4.5" bolt circle
- Axle center pilot hole 2.780"
- Sold individually

Proudly Made in the USA



FR500 BREMBO® BRAKE CALIPER KIT
M-2320-D

NEW

- Service replacement for the Mustang FR500C and FR500S race car
- Brembo®, F40/F50-style radial mount with 40/44 pistons
- Includes a pair of front calipers and hardware to attach caliper to mounting bracket
- Pads are not included, M-2001-R recommended
- Hoses not included, M-2078-A recommended



BRAKE PROPORTIONING VALVE
M-2328-C*

Proudly Made in the USA

- Compact, light-weight (.5 lb) billet aluminum brake proportioning valve
- "Kneepoint" is adjustable from 100 to 1000psi
- Inlet and outlet ports have 1/8"-27 NPT threads for maximum installation flexibility



MUSTANG GT/SVT BRAKE COOLING KIT
M-2004-A

- Fits 2007-2009 Mustang SVT
- Fits 2005-2009 Mustang GT with M-2300-S Brake Kit installed
- Includes backing plates with duct work
- Designed to direct air from the fascia to the rotor for improved brake and wheel bearing life



BRAKE BACKING PLATE T-BOLT AND NUT KIT
M-4002-B

- Use to attach brake backing plates to 9" axle housings
- 3/8"-24 x 1.3" T-bolts and locking nuts
- Sold in axle sets of 8 bolts and nuts

Proudly Made in the USA



UNIQUE SERVICE PARTS FOR M-2300-C, M-2300-F AND M-2300-K

Proudly Made in the USA

The following components from the M-2300-C, -F, -K kits are not serviced through Ford and Lincoln-Mercury dealer parts department. These parts are only available from Ford Racing to service M-2300-C, -F, -K kits when replacement parts are required.

PART NUMBER	DESCRIPTION	SERVICE KIT
M-2450-A*	Plug, Fixed Proportioning Valve	C/F/K
M-2809-A*	Parking Brake Cable	C/F/K
M-2810-A*	Parking Brake Cable (Front)	F/K

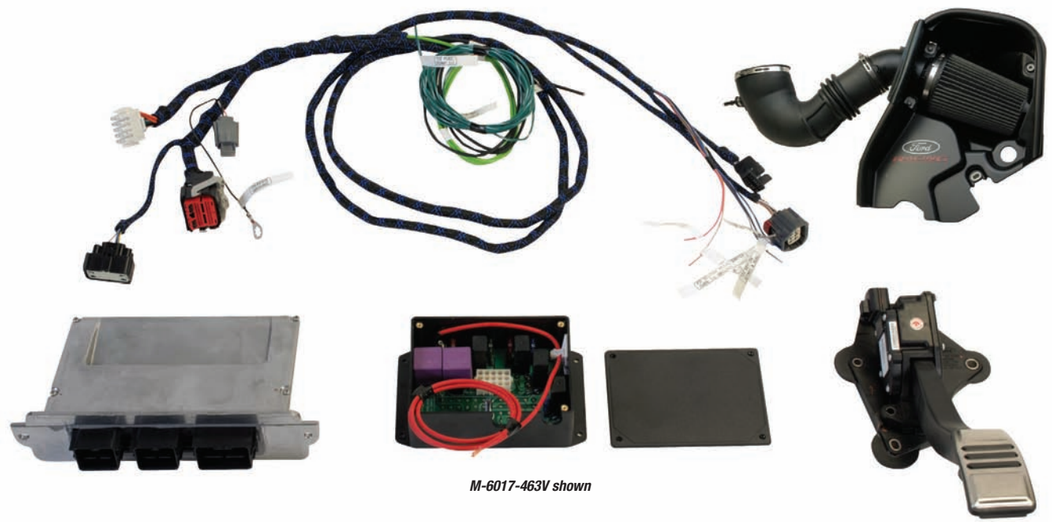
CALIPER HARDWARE KIT
M-2321-A

- Includes (2) coarse-thread banjo bolts and (4) washers
- Used to install front calipers M-2320-A and M-2320-AF

Proudly Made in the USA



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See pages 3-9 for important safety, emissions and warranty information.



M-6017-463V shown

CONTROL PACK – 5.4L 4V SUPERCHARGED
M-6017-54SC*

Proudly Made in the USA

- Take the complexity and mystery out of wiring a late model 5.4L 4V supercharged engine!
- Designed to run 2007-2009 Mustang SVT, M-6007-C54 5.4L supercharged Crate Engine. If used on 2010 Mustang SVT engine, additional changes are needed. Call Techline for additional information. For other applications, see the wire harness instruction sheet at www.fordracingparts.com
- Includes PCM with Ford Racing calibration
- Includes Ford Racing Cold Air Kit M-9603-SVT07 minus the ProCal tool (PCM included with the control pack already contains the Ford Racing calibration)
- Electronic Throttle Control accelerator pedal eliminates throttle cable routing problems
- Unique body harness replaces stock body harness and is designed for street rod installation
- Features OBD-II diagnostic port to assist in vehicle calibration upload and problem diagnosis
- Includes unique downsized power distribution module, inlet tube, MAF sensor with bolts, EGO sensors, thermostat housing with hoses and an integrated intercooler pump relay
- PCM with Ford Racing calibration requires return type fuel system, will not work with returnless fuel system
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTE: Installation of this PCM in a 2007-2009 Mustang SVT will result in a no-start condition. See "Tip Sheets" for more tech tips about EFI.

CONTROL PACK – 4.6L 3V
M-6017-463V*

Proudly Made in the USA

- Take the complexity and mystery out of wiring a late model 4.6L 3V engine!
- Designed to run the M-6007-A463NA 4.6L 3-valve Crate Engine. For other applications, see the wire harness instruction sheet at www.fordracingparts.com
- Includes PCM with Ford Racing calibration
- Includes Ford Racing Cold Air Kit M-9603-GTB minus the ProCal tool (PCM included with the control pack already contains the Ford Racing calibration)
- Electronic Throttle Control accelerator pedal eliminates throttle cable routing problems
- Unique body harness replaces stock body harness and is designed for street rod installation
- Features OBD-II diagnostic port to assist in vehicle calibration upload and problem diagnosis
- Includes unique downsized power distribution module, inlet tube, MAF sensor with bolts and EGO sensors
- PCM with Ford Racing calibration requires return type fuel system, will not work with returnless fuel system
- Federal and state laws prohibit any person from installing aftermarket add-on or modified parts prior to the sale of a new motor vehicle

NOTE: Installation of this PCM in a 2005-2009 Mustang GT will result in a no-start condition. See "Tip Sheets" for more tech tips about EFI.

SENSOR AND RELAY PACKAGE
M-12071-K302*

WHILE SUPPLIES LAST Limited Quantity!!

Sensors for use with the M-12071-A50 and M-12071-C302 Wiring Harness. Kit contains dual oxygen sensors; EGR solenoid, TAD and TAB solenoids; fuel, air-conditioning and EEC power relays. Engine-mounted and BAP sensors NOT included.

Proudly Made in the USA



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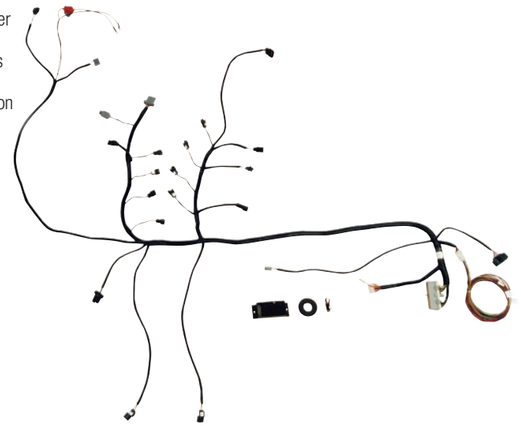
302/351W MULTIPORT EFI WIRING HARNESS

M-12071-A50*

Complete Harness from PCM to Injectors!

Proudly Made in the USA

Our technical support staff travels the country to dozens of various events and takes thousands of phone calls every year. One of the most common requests regarding the Electronic Fuel Injection wiring harness has come from performance enthusiasts requesting a cleaner-appearing harness and a simpler method to make connections. YOUR VOICE HAS BEEN HEARD! Ford Racing is committed to customer satisfaction and to meeting the demands and requests of its customers. We have tried to be as thorough as possible in developing a product which will provide you with the cleanest and simplest wiring harness on the market.



Some of the many new features of the multiport EFI wiring harness include:

- Revised for simplified installation; uses a single connector for all required connections
- Kit consists of a single harness with integral connections for injectors and O_2 sensors
- Fully loomed, from PCM to all sensors and injectors, to save time on installation
- Typical installation takes less than 1 hour
- Direct fit on 1986-1993 302 H.O. engines
- Can be easily adapted to many other Ford V8 push rod engines
- Requires PCM (not included) from 1989-1993 Mustang 5.0L H.O.
- Compatible with engines using both H.O. and non-H.O. firing orders
- Provisions for electric fan control output
- Kit includes compact fuse and relay box, "Check Engine" light and all necessary grommets
- For a detailed list of harness support parts, see harness instruction sheet at www.fordracingparts.com

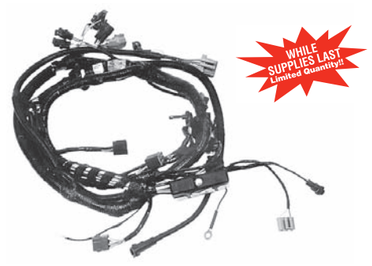
302/351W EFI MAIN HARNESS

M-12071-C302*

Proudly Made in the USA

The foundation of Ford Racing's multiport EFI wiring harness system

- Connects the mass airflow computer to the engine, sensors and relays
- Contains 26-page detailed instruction book with helpful hints and illustrations for easy hook-up
- Must be used with integral thick-film ignition module distributor
- Can be used with Engine Control Harness and Controls Kit M-12071-L302



302/351W ENGINE HARNESSES AND CONTROLS KIT

M-12071-L302*

Proudly Made in the USA

- Harness and sensor package to be used with the M-12071-C302 Main Harness
- Kit contains injector and HEGO harness
- Includes Air Charge Temperature (ACT), Engine Coolant Temperature (ECT), Exhaust Gas Recirculation (EGR) sensor and valve
- Use with 351W firing order
- Can be used with production 1992-1993 5.0L Mustang main harness



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IGNITION, FUEL SYSTEMS AND ELECTRICAL

PROPERLY SELECTING ELECTRONIC FUEL INJECTION COMPONENTS

One of the more commonly misunderstood aspects of Electronic Fuel Injection (EFI) is how to select the correct size fuel injectors, fuel pump and Mass Air Flow (MAF) sensor for a particular engine horsepower output. The following information is intended to offer a very brief tutorial on properly selecting the most common EFI components.



FUEL INJECTORS

First and foremost, adding larger fuel injectors alone will NOT create extra horsepower! The purchase of larger fuel injectors should only be considered when your engine has exceeded the horsepower capacity of the existing fuel injectors, at which point larger injectors are then required to SUPPORT the additional horsepower. If you add larger-than-stock injectors to an otherwise stock engine, you should not expect any horsepower increase whatsoever.

The nominal injection pressure for most Ford EFI systems is 39.15psi (270kPa) "across the injector." The term "across the injector" takes manifold pressure and fuel rail pressure into account, and is usually referred to as "delta pressure." (See "Measuring Fuel Pressure" below for more details.) Ford Racing's fuel injectors are always rated at 39.15psi delta, so the fuel injector sizing discussions found below will assume a fuel pressure of at least 39.15psi delta.

There are some exceptions to the above-mentioned nominal injection pressure. In relatively recent years, emissions regulations have become so stringent that the government is now regulating the emissions output that gasoline vehicles are allowed to produce even when the engine is not running! This is referred to as "evaporative emissions" and results from unburned hydrocarbons (raw fuel) emitting into the atmosphere from the fuel tank, fuel lines, injector leakage, intake manifold, etc. when the engine is shut off. This is the fundamental purpose of the charcoal canister (and hydrocarbon trap in the air-box on many vehicles) and is also the reason that Ford switched to the Returnless Fuel Systems (RFS) found in production vehicles today. These systems have only a fuel supply line from the tank to the engine, with no return line. The primary reason for these systems is that evaporative emissions increase as the temperature of the fuel in the tank increases. On a conventional return system, the fuel is sent to the engine through the supply line, and the excess is returned (via the mechanical fuel pressure regulator) to the tank through the return line. Since the engine is hot, this process heats up the fuel and thus increases evaporative emissions. To combat this, the returnless fuel systems were invented. Currently, Ford uses 2 primary types of RFS which are called Electronic Returnless Fuel System (ERFS) and Mechanical Returnless Fuel System (MRFS). The latter is the simpler of the two systems and controls the fuel rail to a constant pressure via a regulator in the tank, which is typically set to around 60psi. The Powertrain Control Module (PCM) then calculates the pressure across the injector either by inferring or measuring manifold pressure and subtracting from what it knows is the rail pressure set-point. ERFS, on the other hand, has no mechanical regulator at all, but instead has a Fuel Rail Pressure Transducer (FRPT) mounted on the fuel rail that measures fuel rail pressure relative to manifold pressure and feeds that information back to the PCM. The PCM then controls the Fuel Pump Driver Module (FPDM) which in turn varies the voltage to the fuel pump (or pumps) in the tank to supply the correct pressure and flow rate to the injectors. Most of the time this pressure is maintained at 39.15psi delta, but when the fuel temperature rises, this pressure can be boosted in order to delay the onset of boiling the fuel. Some vehicles also boost the pressure under some conditions in order to get away with using smaller flow-rate fuel injectors for various reasons beyond the scope of this tutorial. Both V6 and V8 Mustangs have used ERFS since the 1999 model year and continue to do so today. The purpose of going into all this detail is to convey the message that if you choose your fuel injectors based on a pressure of 39.15psi delta (which is the pressure at which Ford Racing specifies the flow rate), the injectors will be correctly sized regardless of which fuel system you actually have, and also to show you that fuel pressure on ERFS vehicles can change based on a number of conditions. These concepts will be important in the rest of this tutorial.

If you are trying to compare injector flow rates and you have flow data at one delta pressure, you can easily calculate the flow rate at a different delta pressure as follows:

Flow rate at new delta pressure = (flow rate at old pressure) x √(new pressure/old pressure)

Example: What is the flow rate for an injector at 43.5psi if it is rated at 60 lb/hr at 39.15psi?
Flow rate at 43.5psi delta = 60 * √(43.5/39.15) = **63.2 lb/hr**

You can use the following information to properly determine what size injectors are needed for various applications. For this example, we will use a naturally aspirated 5.0L V8 engine making 300 hp. Keep in mind that this is FLYWHEEL (also known as brake) horsepower, NOT wheel horsepower.

Engines require a certain fuel flow rate that is generally measured in lb/hr (pounds per hour) and can be calculated via knowledge of their Brake Specific Fuel Consumption (BSFC). By definition, BSFC represents how much fuel (in lb) is required per hour per each brake horsepower the engine produces. Most naturally aspirated production gasoline engines generally operate on a 0.42 to 0.52 lb/hp-hr BSFC at wide open throttle (WOT). High-performance gasoline and race engines (12.5:1 compression ratio and higher) which tend to be extremely efficient can sometimes have a BSFC as low as 0.38 to 0.42. More clearly stated, this means that if you have a gasoline engine that makes 300 brake horsepower, its total maximum fuel requirement in lb/hr can be calculated as follows:

Fuel flow requirement = (brake horsepower) x (BSFC)

Example: A 300 hp naturally aspirated gasoline-powered V8 requires what size fuel injector?

First, assume a BSFC of 0.50 lb/hr and injection pressure of 39.15psi across the injector.

300 hp x 0.50 lb/hp-hr = 150 lb/hr maximum total fuel flow requirement

Since this is the total fuel flow requirement to the engine, we must now divide this by the number of injectors being used to determine the flow rate necessary for each injector so that you can select the correct size injector from this catalog. In this example, we have an 8-cylinder engine using 1 injector per cylinder, which gives: **150 lb/hr/8 injectors = 18.8 lb/hr per cylinder**

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PROPERLY SELECTING ELECTRONIC FUEL INJECTION COMPONENTS (continued...)

So, technically, the engine only needs a 19 lb/hr fuel injector to support 300 hp, but this will require that the injector is at nearly a 100% duty cycle in order to achieve this horsepower level. Duty cycle refers to how long the injector needs to be open (flowing fuel) in order to supply the required amount of fuel. If the injector needs a 100% duty cycle at a particular engine speed and load to inject enough fuel, that means it is open all the time. Under most conditions, fuel is injected when the intake valves are closed, which helps with fuel atomization and efficiency. If the injectors need to be on 100% of the time to supply enough fuel, this means that some fuel is being injected while the intake valves are open. Depending on the overlap of the cam in the engine, some of this unburned fuel can be blown right past the exhaust valve, or be poorly atomized, which makes for a less efficient combustion process. Perhaps more importantly, operating a fuel injector between roughly 85% and 99% duty cycle does not give the injector sufficient time to close before it is commanded to open again. This can cause extreme variability in the amount of fuel actually injected, which can sometimes result in a rich condition. Similar issues exist at the low end of the flow region at extremely low duty cycles, but this is highly dependent on the type and flow rate of each model of injector. In this case the injector does not have enough time to fully open before it is commanded to close again, which causes extreme variability that can result in a lean condition. For these reasons, we generally recommended selecting an injector with a flow rate sufficiently high that it will not be required to exceed an 85% duty cycle. So to figure out what size fuel injector will result in an 85% duty cycle, divide the original result by 0.85: **18.75 lb/hr/0.85 = 22 .1 lb/hr requirement**.

Since the next popular injector size available is 24 lb/hr, this is the correct size injector that you should choose for this particular application. Keep in mind that this discussion assumes your fuel pump, lines, regulator, etc. are sufficient to be able to maintain at least 39.15psi across the injector at all engine speeds and loads (even under boost, if applicable). Now that you have selected an injector, the calibration (or "tune") in the PCM must either be changed or a different MAF must be used. (See "Mass Airflow Sensors" below for more details.)

This calculation can also be reversed to give the maximum safe hp a set of injectors can support, which gives:

max safe hp = [(injector size) x (total # of injectors) x (max duty cycle)]/BSFC

Example: The following guide is a general rule of thumb for sizing fuel injectors on an **8-cylinder engine** using a BSFC of 0.50. Forced-induction engines typically range from a BSFC of 0.55 to 0.65, with the latter value arising from the fuel enrichment necessary to keep exhaust temperatures below 1650 deg F and catalyst temperatures below 1700 deg F.

Naturally Aspirated: (19 lb x 8 x .85)/.50 = 258.4 or approx 258 hp @ 85% duty cycle
Forced Induction @ 0.55: (19 lb x 8 x .85)/.55 = 234.9 or approx 235 hp @ 85% duty cycle
Forced Induction @ 0.65: (19 lb x 8 x .85)/.65 = 198.8 or approx 199 hp @ 85% duty cycle

Inj Flow Rate (@ 40psid)	Naturally Aspirated hp (@ 0.50)	Forced-Induction hp (@ 0.65)
19 lb/hr	258 hp @ 85% Duty Cycle	199 hp @ 85% Duty Cycle
24 lb/hr	326 hp @ 85% Duty Cycle	251 hp @ 85% Duty Cycle
30 lb/hr	408 hp @ 85% Duty Cycle	314 hp @ 85% Duty Cycle
32 lb/hr	435 hp @ 85% Duty Cycle	335 hp @ 85% Duty Cycle
39 lb/hr	530 hp @ 85% Duty Cycle	408 hp @ 85% Duty Cycle
42 lb/hr	571 hp @ 85% Duty Cycle	439 hp @ 85% Duty Cycle
47 lb/hr	639 hp @ 85% Duty Cycle	492 hp @ 85% Duty Cycle
60 lb/hr	816 hp @ 85% Duty Cycle	628 hp @ 85% Duty Cycle

Remember, the above calculations assume a fuel pressure of 39.15psid. If you can raise fuel pressure and still be sure that your fuel pump can supply the desired flow rate, then these maximum horsepower numbers will increase.



FUEL PUMPS

Most EFI fuel pumps are rated for flow at 12 volts @ 40psi. Most vehicle charging systems operate anywhere from 13.2 V to 14.4 V. Within limits, the more voltage you feed a pump (for a given current), the faster it spins, resulting in a higher output of fuel from the same fuel pump. Rating a fuel pump at 12 V should offer a fairly conservative fuel flow rating allowing you to safely determine the pump's ability to supply an adequate amount of fuel for a particular application, assuming the gauge of wire feeding power to the pump is sufficient to carry the current required.

As previously mentioned, engines actually require a certain ***mass*** of fuel, NOT a certain ***volume*** of fuel per hour per horsepower. This can offer a bit of confusion since most fuel pumps are rated by volume, and not by mass. To determine the proper fuel pump required, a few mathematical conversions will need to be performed using the following information. There are 3.785 liters in 1 U.S. gallon and 1 gallon of gasoline (0.72 specific gravity @ 65° F) weighs 6.009 lb.

An additional fact to consider regarding the BSFC is that the specific gravity of the fuel that you are using is very important. The fuel that you put in your car should only be obtained from a source which supplies fuel intended for an automobile. Some people make the mistake of using aviation fuel (sometimes referred to as "Av Gas") thinking that the higher octane of this fuel may offer a performance gain. The problem is that TRUE aviation fuel has a much lower specific gravity (commonly as low as 0.62 to 0.65) than automotive grade fuel (0.72 to 0.76). Herein lies the problem: as previously stated, an engine requires a certain **mass** of fuel per hour per horsepower, and 1 gallon of aviation gasoline has a lower mass than 1 gallon of automotive gasoline. Since the specific gravity of aviation gasoline is only about 90% that of automotive gasoline, all other things being equal, your engine will run approximately 10% lean by using aviation gasoline. Be sure to take the specific gravity and stoichiometric ratio of your desired fuel into consideration when sizing the fuel pump and injectors.

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See pages 3-9 for important safety, emissions and warranty information.

IGNITION, FUEL SYSTEMS AND ELECTRICAL

PROPERLY SELECTING ELECTRONIC FUEL INJECTION COMPONENTS (continued...)

It is always a good idea to apply a safety factor to account for things such as pump-to-pump variability, voltage loss between the pump and the battery, etc., so we recommend you multiply the final output of the fuel pump by 0.90 to determine the capacity of the fuel pump at 90% output to be on the safe side.

To determine the overall capacity of a fuel pump rated in liters per hour (L/hr), use the following additional conversions:

Do:	*To Get:*
(L/hr)/3.785	→ U.S. gallons/hr
Multiply above by 6.009 lb/gallon	→ lb/hr
Multiply above by 0.9	→ Capacity in lb/hr at 90%
Divide above by BSFC	→ "Horsepower Capacity" (flywheel)

So for a fuel pump rated at 110 L/hr for example, supplying a naturally aspirated engine:

110/3.785	= 29.06 U.S. gallons/hr
29.06 x 6.009	= 174.62 lb/hr
174.62 x 0.9	= 157 lb/hr @ 90% capacity
157/0.50	= 314 hp safe naturally aspirated "Horsepower Capacity"

Safe "Horsepower Capacity" @ 40psi with 12 V assuming 0.5 lb/hp-hr BSFC

60 L/hr pump = 95 lb/hr X 0.90 = 86 lb/hr, safe for up to 170 naturally aspirated flywheel hp
88 L/hr pump = 140 lb/hr X 0.90 = 126 lb/hr, safe for up to 250 naturally aspirated flywheel hp
110 L/hr pump = 175 lb/hr X 0.90 = 157 lb/hr, safe for up to 310 naturally aspirated flywheel hp
155 L/hr pump = 246 lb/hr X 0.90 = 221 lb/hr, safe for up to 440 naturally aspirated flywheel hp
190 L/hr pump = 302 lb/hr X 0.90 = 271 lb/hr, safe for up to 540 naturally aspirated flywheel hp
255 L/hr pump = 405 lb/hr X 0.90 = 364 lb/hr, safe for up to 720 naturally aspirated flywheel hp

Very Important Note: For any type of forced-induction engine, the above maximum power levels will be reduced because as the boost pressure increases, the fuel pressure required from the pump also increases, creating an additional load to the fuel pump, which results in a decreased fuel flow rate at the higher pressure. In order to do proper fuel pump sizing for these applications, a fuel pump map is required, which shows flow rate versus delivery pressure for a given voltage. For example, a 255 L/hr pump at 40psi may only supply 200 L/hr at 58psi (40psi plus 18 lb of boost). Additionally, if you use a fuel supply line that is not large enough, this can result in decreased fuel flow due to the pressure drop. For example, a 255 L/hr at the pump may only result in 220 L/hr at the fuel rail because as the required pressure increases (due to the pressure loss from the supply line restriction), the maximum flow rate of the pump decreases. Figure 1 shows an example fuel pump map for a pump assembly at a supply voltage of 13 V.

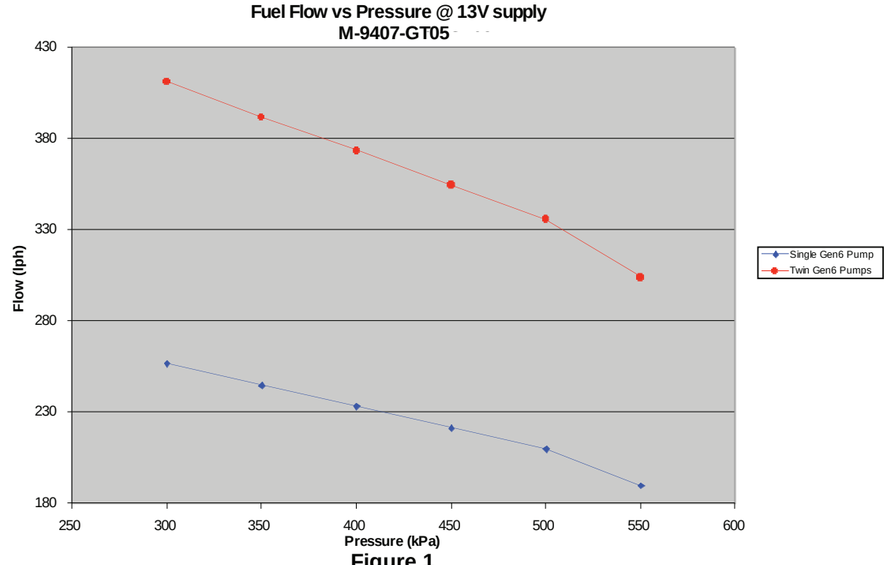


Figure 1

MEASURING FUEL PRESSURE

The above fuel pump sizing information should be regarded as a **guideline** in selecting the size of pump you need. Once installed in the car, you still need to **verify** that adequate fuel pressure (at least 39.15psi across the injector) is maintained at all engine speeds and loads. Do not skip this fuel pressure verification step, as failure to maintain adequate fuel pressure can cause issues ranging from calibration difficulty to engine failure due to running lean.

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PROPERLY SELECTING ELECTRONIC FUEL INJECTION COMPONENTS (continued...)



As mentioned earlier, all injector flow rates published in this catalog have been determined at a pressure of 39.15psi (270kPa) across the injector, but what does the phrase "across the injector" mean? To understand this fully, we first need to discuss three different methods of measuring pressure.

The first is called ***absolute*** pressure. This is defined as the pressure relative to a complete vacuum, such as would be found in outer space. For instance, atmospheric pressure (the air we breathe) is typically around 14.7psi absolute (29.93inHg) at sea level, depending on temperature and weather conditions. An engine that has a vacuum signal of 12 "inches" simply means that the absolute pressure in the intake manifold is 12inHg less than the atmospheric pressure. When you subtract the 12inHg from the atmospheric pressure of 29.93inHg, you are left with a positive pressure of 17.93inHg, or roughly 9psi absolute as compared to a complete vacuum. Sometimes you will see absolute pressure in psi written as "psia."

The second is called ***gauge*** pressure, which is pressure relative to atmospheric pressure. Gauge pressure is what everyone is most familiar with because it is what you measure when you check the air in your tires or when you connect a fuel pressure gauge to the fuel rail. An engine which makes 6psi of boost at sea level is actually equivalent to 20.7psi absolute (14.7 + 6 = 20.7). Sometimes you will see gauge pressure in psi written as "psig."

The third is called ***delta*** pressure and is very much like gauge pressure, but instead of being relative to atmospheric, it can be relative to any other pressure, such as the pressure in the intake manifold. Sometimes you will see delta pressure in psi written as "psid."

When we quote pressure "across the injector," what we really mean is the *delta* pressure (or difference) between the fuel rail and the intake manifold. On most EFI systems (non-MRFS), this is the pressure that the system controls, either by use of a mechanical regulator referenced to the intake manifold (in a traditional or "return" system), or by the use of the FRPT and the PCM (in ERFS). This means that if you connect a fuel rail pressure gauge to the fuel rail on one of these systems, you will see fuel pressure vary depending on intake manifold pressure. This is because the gauge is measuring gauge pressure, which is relative to atmospheric, but the EFI system is controlling the fuel rail pressure relative to intake manifold pressure which is changing depending on engine load (your right foot) among other things. On a naturally aspirated engine, the manifold pressure at idle is typically around 10psia, and the manifold pressure at Wide Open Throttle (WOT) will be atmospheric, so typically at the fuel rail you will see approximately 30psig at idle and at least 39.15psig at WOT, depending on whether or not you have ERFS and whether or not it is boosting pressure for one of the reasons mentioned in the previous section. On a forced-induction engine, the highest manifold pressure that the engine can reach will be atmospheric *plus* the maximum boost your configuration can obtain. This means that to keep 39.15psid across the injector, the gauge pressure will have to increase by the same amount as the maximum boost. A couple of examples should make these concepts more clear. First, consider a naturally aspirated conventional (non-ERFS, non-MRFS) EFI system with a mechanical regulator set at the stock pressure setting. The system will try to keep the pressure across the injector at 39.15psid regardless of engine load, so if you have a fuel pressure gauge attached to the fuel rail, you will see a maximum pressure of 39.15psig at WOT if the system is doing its job properly. Now consider a forced-induction engine making a maximum of 10psig boost, also with a conventional EFI system and mechanical regulator set to the stock pressure setting. The system will still try to keep the pressure across the injector at 39.15psi, so this time your fuel pressure gauge attached to the rail should read a maximum of 39.15 + 10 = 49.15psig. If it never gets to 49.15psig at WOT, your fuel system is inadequate for your engine. You will need to either increase the capacity of the pump, minimize the voltage loss between the pump and the battery or decrease the pressure loss between the pump and the engine through the use of larger lines, etc., and re-test. Do NOT try to "tune around" this type of fuel delivery problem. It will bite you in the long run, and can result in hard-to-diagnose problems at best, all the way to engine failure at worst. Note that at WOT, the fuel pump in the forced-induction engine must supply fuel at a higher pressure than in the naturally aspirated engine. As mentioned in the previous section, this means that the fuel pump supplying the forced-induction engine will have a lower maximum flow rate capability than the fuel pump supplying the naturally aspirated engine. This is a critical concept to grasp because it means that in general, **for engines with equal brake horsepower, the fuel pump supplying the forced-induction engine will need to have more capacity than the fuel pump supplying the naturally aspirated engine!**

MASS AIRFLOW SENSORS

On EFI systems that use a MAF sensor, this is the single most important sensor on the engine for determining a proper air/fuel (A/F) ratio. Unfortunately, it is also one of the most misunderstood sensors on the engine as well. The engine's air/fuel ratio and spark advance are determined by the PCM primarily from the input received from the MAF sensor. This is also why it is of critical importance that there are no air leaks (defined as air entering the intake stream between the MAF and the combustion chamber) in a MAF-based system. Air leaks can cause a check-engine light, rough idling, stalling, spark knock, drivability issues and, in extreme cases, complete engine failure, depending on their magnitude.

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IGNITION, FUEL SYSTEMS AND ELECTRICAL

PROPERLY SELECTING ELECTRONIC FUEL INJECTION COMPONENTS (continued...)



As with fuel injectors, changing the MAF alone will not result in more horsepower on an otherwise stock engine. A different MAF sensor should only be considered after engine modification which either causes the stock sensor to become a flow restriction or when the stock MAF sensor electronics are insufficient to measure the airflow that the modified engine is capable of ingesting. This latter point is critical in understanding when a MAF needs to be replaced. It is possible to have 2 MAF sensors that are equal in size, but capable of different maximum power levels. This is because the electronics in each MAF are different and are capable of measuring different maximum airflow, despite the fact that the size of the MAF housing is the same. For example, you can have 2 different 90 mm MAF sensors but one will be capable of measuring 60 lb/min of air, while the other can measure, say, 100 lb/min of air. They both present the same airflow restriction (which is dictated primarily by their physical size) but they are definitely NOT interchangeable. So how do you know how much air your MAF needs to be capable of measuring? If you have an approximation of the engine's BSFC at WOT, as well as a target air/fuel ratio in mind, then the amount of air that your MAF sensor needs to be capable of measuring (in lb/hr) can be calculated as follows. Note that this formula includes a safety factor of 10%.

Max airflow = 1.10 * (Power * BSFC * A/F Ratio)

Example: What is the max airflow a naturally aspirated 300 hp gasoline engine will ingest?

First, assume a BSFC of 0.50 lb/hp-hr and A/F ratio of 12:1.

Max airflow = 1.1 * (300 * 0.50 * 12) = **1980 lb/hr**

Now that we know the minimum size fuel injector and MAF that we need, we have to consider what the PCM will do with this new hardware. The two main methods of dealing with the installation of a new MAF and injectors are to either "trick" the PCM by careful selection of injectors and a "matched" MAF, or by changing the calibration in the PCM to match the MAF and injectors that you selected.

The first method requires a MAF sensor that has been "curved" to a certain flow rate of injector. For instance, let's say your engine originally came with 19 lb/hr injectors and you replaced them with 39 lb/hr injectors. To use this method, you will need a MAF with electronics that have been modified such that it will output a signal proportional to an airflow that is 19/39 times as great as the stock MAF would measure. This will result in the PCM delivering the correct amount of fuel despite the fact that the injector size has been increased from 19 lb/hr to 39 lb/hr. The downside of this method is that many other variables such as spark advance are determined from the MAF sensor through a parameter called "load." For a given engine rpm, as load increases, required spark advance decreases. Since, by using this method, the MAF outputs a signal that is lower than the stock MAF, the calculated load will also be lower. This means that commanded spark advance will be higher than it should be, which can potentially result in spark knock, and other concerns. While this method works quite well on less sophisticated electronics, such as the EEC-IV found in Fox body Mustangs, it is not recommended for newer vehicles which have a much higher dependency on the calculated value of load.

The second, and preferred method requires the ability to alter the calibration inside the PCM, generally through the use of one of the aftermarket tools available. When using this method, the actual flow data for the injector (available on our website for all FRPP injectors), as well as the "transfer function" for the MAF are entered into the calibration in the PCM. Generally, it is recommended to test the new calibration on a dynamometer to ensure that the engine receives the correct A/F ratio at all speeds and loads. Provided this is performed by a competent and experienced tuner using proper equipment, this is by far the best method and will result in the best part-throttle drivability and idle, and the least amount of trouble with check-engine lights, returnless fuel, electronic throttle monitors, transmission shifting, etc.

Prior to tuning on a dyno, you should be absolutely certain that the ground circuits for the EFI system are in pristine condition. Doing so will help to ensure that the calibration you and your tuner develop on the dyno will also work when you leave. It can't be overstated that prior to the vehicle being tuned in any way, all vacuum leaks, electrical issues, etc., need to be resolved. Fixing them before you go to the dyno will always be cheaper than paying for dyno time while you're wrenching on your car.

As a *general rule of thumb*, the following stock Ford MAF sensors will safely support the corresponding horsepower:

MAF Sensor	Approximate Max hp
55 mm (Stock 1988-1993 Mustang)	275 hp
70 mm (Stock 1994-1995 Mustang)	350 hp
80 mm (Stock Ford)	425 hp
90 mm (M-12579-54)	540 hp

If you have a specific question not addressed in this tutorial, please contact the Ford Racing Techline at (800) FORD788 and we will be happy to assist you.

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EFI SYSTEM TIPS

Always remember to disconnect the battery before doing any wiring on your vehicle!

ELECTRICAL GROUNDS

The single leading cause of most electrical problems is poor grounds.

Ideally, the ground for the fuel injection system should connect directly to the battery at the negative post. Using the steel chassis or engine block as a ground can create excessive resistance causing the Powertrain Control Module (PCM) to function improperly.



An example of how a high ground or connection resistance can have very serious effects is as follows. This particular case applies to a 2005 Mustang GT, but can easily be extended to any electronically controlled Ford vehicle: consider the case where a PCM is reading a MAF sensor signal of 4.1 V (due to a high ground or connection resistance) when it should really be reading 4.3 V. This equates to a difference in measured air mass of 13%. That is, the MAF will be telling the PCM that there is 13% less air entering the engine than there really is. Let's say this happens at WOT, where air/fuel ratio is critical not only to performance, but also to engine durability. The result is that the actual air/fuel ratio can go from a safe 12.5:1 to a potentially damaging 14.1:1, just from a 0.2 V change in the MAF return signal!

All PCM sensors, not just the MAF, are affected in a similar fashion, so it is absolutely critical that all electrical connections are solid and that the grounds are reliable. The potential penalty for a bad ground can range from strange drivability issues that are difficult to diagnose all the way to a damaged engine, as in the above example.

All resistance tests should be done with the ignition key in the off position. Having voltage going through the system can return a false reading of excessive resistance. Additionally, it is possible to have a ground that tests OK when the engine is cold, but not when the engine is hot. Heat increases resistance, so these tests should be performed on a warm engine when possible.

To test for an adequate ground circuit in the EFI system for a 1986 to 1993 5.0L Mustang, use a Volt/Ohm meter to check the resistance of the following circuits:

- **To verify a proper ground to the PCM**, check the resistance from pin 40 and pin 60 DIRECTLY to the negative side of the battery. Resistance should be no greater than 0.2 ohms.
- **To verify a proper ground to the main PCM harness**, check the resistance from the MAF sensor at pin 'B' DIRECTLY to the negative side of the battery. Resistance should be no greater than 0.2 ohms.
- **To verify a proper ground to the engine harness**, check the resistance from the black wire at the Throttle Position Sensor (TPS) DIRECTLY to the negative side of the battery. Resistance should be no greater than 0.3 ohms.

Note that while 0.2 ohms or less is desirable, a resistance as high as 0.5 ohms is considered acceptable. Greater than 0.5 ohms is excessive and could result in drivability concerns.

A weak ground connection can also cause the PCM's internal reference voltage regulator to function incorrectly. This can be checked at the TPS by checking voltage between the black ground wire and the orange reference voltage wire. With the key on, this voltage signal should be somewhere between 4.7 V and 5.3 V.

GENERAL TIPS

- Whenever possible, the PCM should be mounted inside the vehicle to protect it from water damage. The PCM should also be mounted with the electrical connectors at the bottom to avoid trapping water. Some PCMs on newer model cars are mounted under the hood, but they are sealed against moisture and designed to operate in such an environment. When in doubt, mount the PCM inside the vehicle.

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IGNITION, FUEL SYSTEMS AND ELECTRICAL

EFI SYSTEM TIPS (continued...)

- When setting the voltage at the TPS, you should check the voltage between the black and green wires (1986-1993 5.0L Mustang). This voltage should be somewhere between 0.96 V and 0.98 V. If the key is on while the engine is off, set the voltage at 0.96 V. If the engine is running, set it at 0.98 V. The TPS can be set by loosening the mounting screws and slightly rotating the sensor. If you are unable to achieve the proper setting, you may need to elongate the TPS mounting holes.

- If you ever need to lengthen any harness leads for your specific application, it is strongly advised that you lengthen only one wire at a time, which will help to avoid making mistakes.

- If you are using long tube headers, and need to lengthen the leads of the harness to reach the Heated Exhaust Gas Oxygen (HEGO, also known as O_2 or oxygen) sensors, NEVER lengthen the wires of the O_2 sensor itself. These wires are made up of a unique material and you will disrupt the signal coming from the O_2 sensor **even if they are soldered correctly!** If you must increase the length of the leads to the O_2 sensor, always lengthen the wires on the wiring harness side of the O_2 sensor. Many aftermarket companies offer HEGO sensor extensions that work quite well and are a quick and easy solution to this problem.

- When soldering two or more wires together, you should "tin" the bare ends to be soldered. This will prevent cold solder joints and make the process easier. "Crimp" style or "solder-less" connectors are not recommended. Over time, these have a tendency to loosen and permit corrosion. Additionally, these connectors can commonly allow short circuits to develop within the connection. Many of these problems within the harness can be difficult to locate. Always use weather-tight heat shrink over all soldered joints.

- If the factory coolant tubes are not used, the Engine Coolant Temperature (ECT) sensor should be installed directly into the threaded boss in the intake manifold near the thermostat, if applicable. This is a coolant passage.

- The ACT sensor should generally not be moved from the stock location. Some aftermarket companies offer ACT relocation kits while making false claims of increased horsepower by reading cooler air. While it is true that a cooler air can result in more power, this "trick" is not cooling the incoming air, but instead is merely reading the temperature from a different location. This can have a negative effect on overall engine performance and drivability because the PCM was calibrated under the assumption that the ACT sensor was in the stock design location. On a forced-induction engine, it is generally preferable to have the ACT sensor located after the power adder and after the intercooler, if applicable, which will simplify the calibration ("tuning") process. Some of our FRPP supercharger kits leave the ACT sensor in the stock location upstream of the supercharger, but this was accounted for in the calibration and should not be changed.

- Protect the air filter element from turbulence created by the engine cooling fan. This is commonly referred to as "fan wash." If you are using an open element air filter on the end of the MAF sensor, it is strongly advised that you use a shield to reduce the effects of the turbulence.

- It's best if the air filter gets cold air from in front of the radiator. If the filter is located in the engine compartment, as in many street rod applications, the inlet air temperature can be up to 60 degrees hotter than ambient which can result in a 5% torque loss from the air density decrease. The PCM will also retard ignition timing for the hotter air which can result in an additional 5-10% torque loss. Colder air is always better.

- An improperly functioning charging system can cause engine running problems. Under-drive pulleys spin the accessories slower meaning that they consume less power from the engine. This results in a greater net horsepower available at the flywheel, but at a cost. Normally this is not a problem, but some systems may not perform properly if you under-drive the alternator excessively, especially if you've increased the electrical load on the system through the use of bigger cooling fans, high-capacity fuel pump, stereo system, etc. If the alternator does not generate enough voltage to keep the system adequately charged, it can have an adverse effect on the EFI system and result in a variety of drivability issues.

- The inside diameter of the fuel return line should be at least 75% of the size of the inside diameter of the fuel supply line.

FUEL PUMP LOCATION

A common and often overlooked problem is the location of the fuel pump or pumps. Optimally, the fuel pump should be mounted IN THE TANK to reduce the possibility of pump cavitation. Cavitation is essentially localized boiling caused by a reduction in pressure, generally occurring on the inlet side of a pump. This localized boiling results in fuel vapor bubbles which will reduce the volume of fuel the pump is capable of delivering to the engine. Any reduction in pressure or increase in temperature at the inlet side of the pump increases the chances that cavitation will occur. For this reason, it is always best to either have the pump inside the tank immersed in fuel or (in the case of an external pump) gravity fed, which will increase the pressure on the inlet side of the pump. If the fuel pump has to "pull" the fuel, this will result in a reduction in pressure at the fuel pump inlet potentially allowing cavitation and, thus, vapor bubbles to develop. These vapor bubbles are then drawn into the fuel pump and exit the high-pressure side of the fuel pump as compressed vapor. They travel the entire length of the fuel system and are expelled through the fuel injector. This can cause issues ranging from stumbles and hesitations to engine damage due to insufficient fuel delivery and lean A/F ratios. Sometimes this problem can characterize itself by only appearing when the weather gets warmer, which can confound the diagnosis of the issue. In certain cases, it may seem to only develop when driving on certain surfaces, because pavement reflects more heat than an off-road 4x4 trail. Remember, more heat and lower pressure on the inlet side of the pump means a greater chance of cavitation, which is to be avoided whenever possible.

If you are using an external mounted fuel pump, you should run a very coarse (typically around 100 micron) filter on the inlet side of the fuel pump, and a finer (typically around 10 micron) filter on the outlet side of the pump. A paper filter is NOT recommended on the inlet of the fuel pump because it can cause a restriction in fuel flow which, as mentioned previously, can lead to cavitation.

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FORD RACING FUEL INJECTOR SETS

- 4-hole, high-impedance fuel injector with Jetronic®/Minitimer® electrical connector
- Wrong electrical connector for your application? Try our M-14464-U2J Fuel Injector Adapter Kit
- Need help determining which injector you require for your application? Refer to EFI Tech Tips

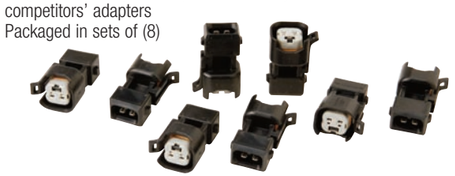
PART NUMBER (SETS OF 8)	FLOW RATE	BODY STYLE	IMPEDANCE	LENGTH	CONNECTOR
M-9593-C302*	19 lb/hr	EV1	11-18 ohms	L	Jetronic®/Minitimer®
M-9593-AA302*	24 lb/hr	EV6	11-18 ohms	L	Jetronic®/Minitimer®
M-9593-LU24* NEW	24 lb/hr	EV6	11-18 ohms	L	USCAR®
M-9593-BB302*	30 lb/hr	EV6	11-18 ohms	L	Jetronic®/Minitimer®
M-9593-MU32*	32 lb/hr	EV14	11-12 ohms	M	USCAR®
M-9593-LU34* NEW	34 lb/hr	EV6	11-12 ohms	L	USCAR®
M-9593-M39*	39 lb/hr	EV6	11-18 ohms	L	USCAR®
M-9593-G302*	47 lb/hr	EV14	11-18 ohms	M	USCAR®
M-9593-LU60*	60 lb/hr	EV6	11-12 ohms	L	USCAR®
M-9593-LU80* NEW	80 lb/hr	EV6	11-12 ohms	L	USCAR®

All injector flow rates are quoted at a delta pressure of 39.15psi. To convert to a delta pressure of 43.5psi, multiply flow rate by 1.054.

FUEL INJECTOR ADAPTER KIT (JETRONIC® TO USCAR®)

M-14464-A8*

- Adapts your Jetronic®/Minitimer® style harness to USCAR® fuel injectors
- Single-piece design for improved reliability and aesthetics over our competitors' adapters
- Packaged in sets of (8)



FUEL INJECTOR ADAPTER KIT (USCAR® TO JETRONIC®)

M-14464-U2J*

- Adapts USCAR®-style harness to Jetronic®/Minitimer®-style injector
- Single-piece design for improved reliability and aesthetics over our competitors' adapters
- Packaged in sets of (8)



BODY STYLE



EV1



EV6



EV14

CONNECTORS

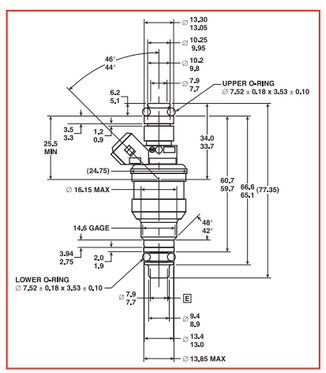


Jetronic®/ Minitimer®

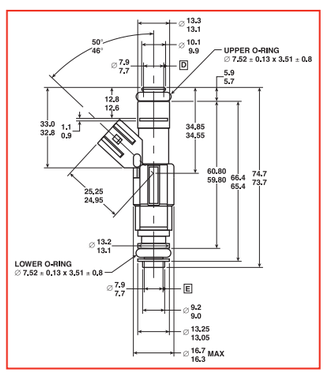


USCAR®

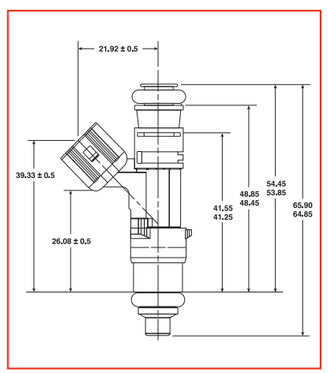
LENGTH



Long



Long



Medium

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

IGNITION, FUEL SYSTEMS AND ELECTRICAL

LIGHTNING MASS AIR METER

M-12579-L54**

- Stock replacement 90 mm 2001-2004 F-150 Lightning mass air meter
- Requires recalibration for use on other vehicles



COBRA JET 123 MM MAF TUNER KIT

M-9600-CJ*

- 123 mm mass air flow sensor housing
- Add to your underhood "bling" factor with this massive mass air housing that looks as good as it performs!
- Cobra Jet mass air meter housing—recommended for highly modified 2007-2009 Mustang SVTs
- Proven to support over 800 hp in 2007-2009 Mustang SVT applications
- Precision CNC'd billet aluminum
- Polished finish
- This kit includes the housing and mounting tab
- Perfect upgrade to existing Ford Racing Mustang SVT power upgrade, cold air and supercharger kits!
- Does not include calibration, CALIBRATON REQUIRED, sold for tuner use



2010 MUSTANG SVT RESONATOR ELIMINATOR KIT

M-9B659-MSVT*

- Fits 2010 Mustang SVT
- Air inlet resonator eliminator for improved airflow
- Standard on 2010 Mustang SVT 660 hp Supercharger Upgrade Kit M-6066-MSVTA



2010 COBRA JET AIR INLET TUBE

M-9B659-CJ*

- Service replacement for the 2010 Mustang FR500CJ race car
- Air Inlet for improved airflow



2007-2010 MUSTANG SVT THROTTLE BODY

M-9926-MSVT*

- Fits 2007-2010 Mustang SVT
- New stock replacement 60 mm throttle body



COBRA JET BILLET ALUMINUM THROTTLE BODY

M-9926-CJ*

- Service replacement for the 2008 Mustang FR500CJ race car
- Fits in factory location on 2007-2009 Mustang SVT
- Twin 63.5 mm bore (stock Mustang SVT is twin 60 mm)
- Tested to over 800 hp in 2007-2009 Mustang SVT applications
- Precision-machined from billet aluminum to ensure consistency
- Polished finish with machined Ford Racing logo
- Tested to Ford original equipment specifications for cold and hot weather
- Fully assembled, complete with throttle position sensor and actuator motor, ready to bolt on!
- Uses OE gears to prevent gear bind and wear common with other aftermarket throttle bodies
- Does not include calibration, calibration may be required in some applications



2005-2010 MUSTANG GT BILLET THROTTLE BODY

M-9926-3V*

- Similar to Throttle Body M-9926-CJ on the 2008 Mustang FR500CJ race car
- Fits in factory location on 2005-2010 Mustang GT
- Twin 62 mm bore (stock Mustang GT is twin 55 mm)
- Precision-machined from billet aluminum to ensure consistency
- Polished finish with machined Ford Racing logo
- Tested to Ford original equipment specifications for cold and hot weather
- Fully assembled, complete with throttle position sensor and actuator motor, ready to bolt on!
- Uses OE gears to prevent gear bind and wear common with other aftermarket throttle bodies
- Does not include calibration, CALIBRATION REQUIRED, sold for tuner use



FOCUS 70 MM THROTTLE BODY FOR PERFORMANCE ZETEC® INTAKE MANIFOLD

M-9926-ZX3R*

- Fits 2000-2004 2.0L Zetec®-equipped ZX3/4/5/W
- Designed to be used with Performance Manifold M-9424-ZX3R



2010 MUSTANG GT DUAL FUEL PUMP KIT

Proudly Made in the USA

NEW

M-9407-MSVTA

- Fits 2010 Mustang GT. For 2005-2009 Mustang GT, use M-9407-GT05
- Includes harness, dual fuel pumps, drop-in housing and fuel pump driver module from the 2010 Mustang SVT
- Includes all installation hardware
- Highly recommended for any application making over 400 hp

NOTE: Use of this kit in a 2005-2009 Mustang will result in an incorrect fuel gauge reading.



2005-2009 MUSTANG GT DUAL FUEL PUMP KIT

Proudly Made in the USA

M-9407-GT05

- Fits 2005-2009 Mustang GT. For 2010, use M-9407-MSVTA
- Includes harness, dual fuel pumps, drop-in housing and fuel pump driver module from the 2007-2009 Mustang SVT
- Includes all installation hardware
- Highly recommended for any application making over 400 hp

NOTE: Use of this kit in a 2010 Mustang will result in an incorrect fuel gauge reading.



1986-1997 EFI MUSTANG FUEL PUMP

Proudly Made in the USA

M-9407-C50

- Fits 1986-1997 Mustang
- High-flow, fuel tank-mounted fuel pump assembly eliminates top-end fuel starvation on modified 5.0L/4.6L engines
- Production flow rates of 88 L/hr (1988-1993; 1994 and up, 110 L/hr)
- Increases flow to a whopping 190 L/hr @ 40psi



FUEL RAIL SPACER KIT

Proudly Made in the USA

M-8510-M2L*

Use this kit when you upgrade to taller fuel injectors on your 5.4L 4-valve engine.

Features:

- Competition-proven in Mustang Cobra Jet
- The spacers are placed between the fuel rail and intake manifold to provide the extra space needed for the taller injectors

Fits:

- 2008 Mustang Cobra Jet
- 2007-2009 Mustang SVT

NEW

Recommended Use:

- Drag racing
- Road racing

Recommended Components and Accessories:

- Ford Racing M-9593-LU60 High-Flow-Rate Fuel Injector Sets
- Ford Racing M-9593-LU80 High-Flow-Rate Fuel Injector Sets

Includes These Ford Racing Parts:

- 4 aluminum spacers
- 4 fasteners

Used in These Ford Racing Parts:

- Mustang Cobra Jet M-FR500-CJ

Used by:

- Service replacement for the Mustang FR500CJ race car



2003-2004 BAFFLED MUSTANG COBRA FUEL TANK

Proudly Made in the USA

M-9002-C46*

NEW

- Production 2003-2004 Mustang Cobra fuel tank
- Fits 2000 (built after 12/27/99) -2004 Mustangs
- Includes production 2003-2004 Mustang Cobra Dual Fuel Pump M-9407-C46
- Contains internal baffle to prevent loss of fuel pressure and slosh
- Includes grommets for filler neck, purge line and rollover valve
- Includes pump fasteners
- Does not include emissions control valves or hoses
- Will fit other model years with modifications
- Easy solution for higher-hp cars

WHILE SUPPLIES LAST Limited Quantity!!





1999-2004 F-150 LIGHTNING DUAL FUEL PUMP KIT

Proudly Made in the USA

M-9407-L54*

- Fits 1996-2004 F-150 models with PN96 body
- Dual 130 L/hr fuel pumps from the 1999-2004 Lightning
- Kit includes jumper wire for non-Lightning applications



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

IGNITION, FUEL SYSTEMS AND ELECTRICAL

DISTRIBUTOR GEAR INSTALLATION

The following information covers the installation of a new distributor gear onto an existing distributor. When replacing the distributor gear, it is important that you choose the appropriate gear for your application. If you have questions regarding your gear selection, please contact the Ford Racing Techline at (800) FORD788. Failure to use the correct gear will lead to premature gear failure. Premature gear failure may also be attributed to improper meshing of the gear teeth between the camshaft and distributor. For that reason, we recommend that you install a new distributor gear when installing a new camshaft.

INSTALLATION INSTRUCTIONS:

STEP 1: Remove roll pin from distributor gear and shaft. Save pin for re-assembly.

STEP 2: Verify that the shaft endplay is .024" to .035". Modify collar if necessary. Some aftermarket distributors may be constructed in a manner that does not allow you to achieve .024" to .035" of endplay. See "Alternative method of verifying correct distributor gear installation" if your distributor does not have .024" to .035" endplay.

STEP 3: Press original distributor gear off shaft.

STEP 4: Mark location of original roll pinhole on the shaft by drawing a vertical line along the shaft that intersects the hole. Measure from the centerline of the roll pinhole to a fixed point above it. Note that dimension.

STEP 5: Press new distributor gear onto shaft.
NOTE: Replacement distributor gear does not have roll pinhole.

STEP 6: Pull distributor shaft out of distributor housing to eliminate endplay (see Figure 1).

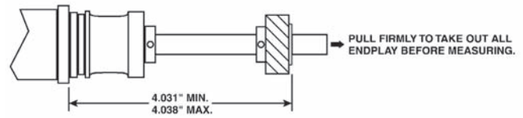
STEP 7: Check location of distributor gear on distributor shaft (see Figure 1). If it is not in the correct location, use a press to move the gear to the correct location.

STEP 8: Using the vertical line on the distributor shaft and the noted dimension (see **STEP 4**), roughly plot where the original roll pinhole is located. Drill a new .125" hole 90° from the original hole, above or below it, through the gear and the shaft.
NOTE: It is important that the dimensions called out in Figure 1 are maintained while drilling.

STEP 9: Insert roll pin and check dimensions (see Figure 1).

WARNING: If the distributor gear is installed incorrectly, it may be forced down against the support in the block or may be held up away from the support in the block. Both conditions will cause damage to the block and or the block and gears. When the gear is properly installed, the cut on the gears and the direction of rotation will pull the distributor gear down against the support (distributor gear thrust face) in the block.

FIGURE 1



ALTERNATIVE METHOD OF VERIFYING CORRECT DISTRIBUTOR GEAR INSTALLATION:

After **STEP 7**, install distributor assembly in the block you are using. Timing chain set and camshaft must be removed. With the aluminum distributor housing fully seated against the block, verify that the distributor gear can be lifted off the support in the block at least .005". Next pull the distributor gear down against the support in the block and hold it there. Pull up on the aluminum distributor housing and verify that you can lift it up at least .005" while holding the gear against the support in the block. This procedure will confirm that the gear is not being forced down against the support and not being held up off the support in the block.

Continue with **STEP 8**.

COMMON DISTRIBUTOR PROBLEMS:

Distributors with very little or no shaft endplay. This has been found with new and remanufactured distributors. Improper endplay may force the gear against the support in the block or hold it up off the support, causing damage.

Distributors that have a different material gear than advertised. It is important to run the correct distributor gear for the camshaft that you are using. Consult the manufacturer of the camshaft you are using for gear recommendation.

Some heavy-duty oil pump drive shafts may not allow an EFI distributor to slide down far enough over the oil pump drive shaft. EFI distributors have a longer shaft below the gear.

Running an HV oil pump with production bearing clearances can cause abnormally high oil pressure and possible premature distributor gear wear.

Gears on camshafts with a very poor finish. This could cause premature distributor gear wear.

New and remanufactured distributors with the gear installed at the wrong height.

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See pages 3-9 for important safety, emissions and warranty information.

DISTRIBUTOR GEARS

PART NUMBER	MATERIAL	COLOR	DIAMETER OUTSIDE	DIAMETER INSIDE	APPLICATION
M-12390-A	Cast Iron	Orange	1.249"	0.467"	289/302 hydraulic flat tappet engines with point-type or Duraspark® distributors. ① NEW
M-12390-B	Steel	None	1.249"	0.467"	302 with steel billet and production roller camshaft with point-type or Duraspark® distributors. ①
M-12390-C	Bronze	Bronze	1.249"	0.467"	All 289/302 engines with point-type or Duraspark® distributors. ① NEW
M-12390-F	Steel	Yellow	1.249"	0.531"	All 302/351W hydraulic roller tappet engines with EFI and 351W Duraspark® distributors. ①
M-12390-G	Cast Iron	Green	1.421"	0.531"	All 351C/351M/400/429/460 engines. ① NEW
M-12390-H	Bronze	Bronze with Green Stripe	1.421"	0.531"	All 351C/351M/400/429/460 engines. ①
M-12390-K	Polymer	None	1.249"	0.467"	289/302 all camshafts with point or Duraspark® distributors.
M-12390-L	Polymer	None	1.249"	0.531"	302 EFI/all 351W all camshafts.

MATERIAL SELECTION NOTES:
- Cast iron gears are compatible with cast iron camshafts (hydraulic or solid flat tappet type).
- Steel gears are compatible with billet steel camshafts (hydraulic roller tappet type).
- Bronze gears can be used with either cast iron or billet steel camshafts. They are usually recommended by manufacturers of aftermarket billet steel solid roller tappet camshafts. Since the bronze is softer than cast iron or steel, it will wear at a faster rate.
- Polymer gears are compatible with all camshafts.

IMPORTANT INSTALLATION NOTE:
① Distributor gears do not have pre-drilled holes. See instructions on page 209.

STEEL DISTRIBUTOR GEAR FOR 289/302
M-12390-B
- Fits 289/302 point and Duraspark® distributors with .467" diameter shaft
- Compatible with billet steel hydraulic roller camshafts

NOTE: Distributor gears do not have pre-drilled holes, see Distributor Gear Instruction Sheet.



STEEL DISTRIBUTOR GEAR FOR 302/351W
M-12390-F
- Fits 302 EFI, 351W EFI, point and Duraspark® distributors with .531" diameter shaft
- Compatible with billet steel hydraulic roller camshafts

NOTE: Distributor gears do not have pre-drilled holes, see Distributor Gear Instruction Sheet.



BRONZE DISTRIBUTOR GEAR FOR 351C/351M/400/429/460
M-12390-H
- Fits 351C/351M/400/429/460 point, Duraspark® and EFI distributors with .531" diameter shaft
- Recommended for billet steel mechanical roller camshafts
- Bronze is softer than cast iron or steel, it will wear at a faster rate

NOTE: Distributor gears do not have pre-drilled holes, see Distributor Gear Instruction Sheet.



POLYMER DISTRIBUTOR GEAR FOR 289/302
M-12390-K
- Fits 289/302 point and Duraspark® distributors with .467" diameter shaft
- Compatible with cast iron and billet steel camshafts
- For "extreme duty" race engines
- Excellent wear characteristics

NOTE: Distributor gears do not have pre-drilled holes, see Distributor Gear Instruction Sheet.



POLYMER DISTRIBUTOR GEAR FOR 302/351W
M-12390-L
- Fits 302 EFI, 351W EFI, point and Duraspark® distributors with .531" diameter shaft
- Compatible with cast iron and billet steel camshafts
- For "extreme duty" race engines
- Excellent wear characteristics

NOTE: Distributor gears do not have pre-drilled holes, see Distributor Gear Instruction Sheet.



IMPORTANT INSTALLATION NOTE:
① Distributor gears do not have pre-drilled holes. See instructions on page 209.

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

IGNITION, FUEL SYSTEMS AND ELECTRICAL

FRPP 3V COLD SPARK PLUG (16 MM THREAD)
M-12405-3V0*
- Fits 2005-2008 3V heads requiring the 16 mm thread
- For use in engines with higher-than-stock cylinder combustion pressures or sustained high rpm
- Unique design is proprietary to Ford 3-valve engines
- One heat range colder than the stock Mustang GT plug
- Two heat ranges colder than the stock 5.4L 3V truck engine
- Sold in engine sets of 8
- Use M-12405-3V12MM Spark Plugs for 2008 and newer 3V heads

NOTES:
- 2008 engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E.
- 2005-2008 engines with early style 16 mm "High Thread" design spark plugs can be identified by coil engineering number 3L3E part number.
- All 2009 engines use 12 mm spark plugs.



FRPP 3V COLD SPARK PLUG (12 MM THREAD)
M-12405-3V12MM*
- Fits 2008 and newer 3V heads requiring the 12 mm thread
- For use in engines with higher-than-stock cylinder combustion pressures or sustained high rpm
- One heat range colder than the stock Mustang GT and 5.4L 3V truck engine spark plugs
- Sold in engine sets of 8
- Use M-12405-3V0 Spark Plugs for early style 2005-2008 3V heads

NOTES:
- 2008 engines with late style 12 mm spark plugs can be identified by coil engineering number 8L3E.
- 2005-2008 engines with early style 16 mm "High Thread" design spark plugs can be identified by coil engineering number 3L3E part number.
- All 2009 engines use 12 mm spark plugs.



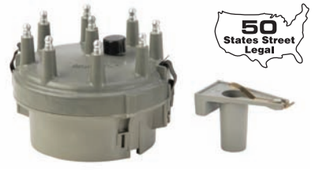
HIGH-TORQUE MINI STARTER – SMALL BLOCK
M-11000-B51 1.4 kw Super high-torque starter
- Fits most 289/302/351W/351C engines **except 164-tooth manual transmission flywheel**
- Small-diameter mini-starter—great for additional header clearance
- Weighs approximately 5 lbs less than pre-1989 production starters, yet provides more cranking power
- Comes with special battery cables and instructions. Must use fenderwell solenoid



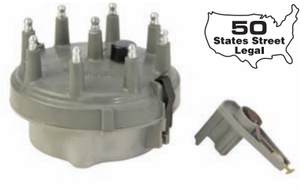
HIGH-TORQUE MINI STARTER – SMALL BLOCK
M-11000-MT164 1.4 kw High-torque starter
- Fits most 289/302/351W/351C engines **with 164-tooth manual transmission flywheel**
- Small-diameter mini-starter—great for additional header clearance
- Weighs approximately 5 lbs less than pre-1989 production starters, yet provides more cranking power
- Comes with special battery cables and instructions. Must use fenderwell solenoid



1977-1987 DURASPARK® DISTRIBUTOR CAP AND ROTOR KIT
M-12106-A302**
- Fits all 1957-1987 V8 distributors (except EEC). High-performance replacement for high-energy OEM rotor and cap on 1977-1987 V8 distributors. Installation on 1957-1976 distributor (which had smaller diameter cap) reduces possibility of crossfire between terminals at high rpm's
- Compatible with Ford Racing ignition wire sets
- Aluminum terminals



1986-1996 EFI DISTRIBUTOR CAP AND ROTOR KIT
M-12106-B302**
- Fits 1986-1996 V8 EEC/TFI distributors
- Compatible with Ford Racing ignition wire sets
- Aluminum terminals



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FORD RACING 9 MM SPARK PLUG WIRE SETS

Wire-wound custom ignition wire sets feature low resistance for minimum spark loss. Silicone insulation and boots withstand high temperatures and voltage loss for minimum cross-fire and are highly resistant to fuels, oils and solvents. Long-life, tough stainless steel terminals for "post"-type distributor caps. Includes coil wire for socket-type coil and "Ford Racing" identification. Cylinder number appears on each wire.

NEW AND IMPROVED
Spark plug wires feature high-quality 9 mm wire available in 4 colors: blue, black, yellow and red.

50 States Street Legal

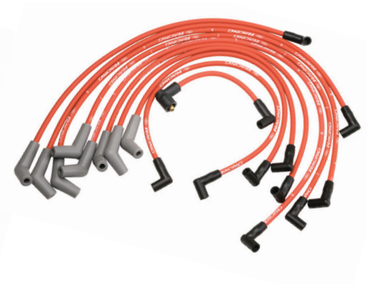
Proudly Made in the USA

PART NUMBER	APPLICATION	WIRE COLOR	END CONFIG.
M-12259-C301**	5.0L/5.8L V8 Engine	Blue	45º Boot
M-12259-R301**	5.0L/5.8L V8 Engine	Red	45º Boot
M-12259-M301**	5.0L/5.8L V8 Engine	Black	45º Boot
M-12259-Y301**	5.0L/5.8L V8 Engine	Yellow	45º Boot
M-12259-C460**	7.0L/7.5L V8 Engine	Blue	45º Boot
M-12259-R460**	7.0L/7.5L V8 Engine	Red	45º Boot
M-12259-C302**	V6 and V8 Universal	Blue	45º Boot
M-12259-M302**	V6 and V8 Universal	Black	45º Boot
M-12259-C462**	4.6L 2V Mustang	Blue	45º Long Boot
M-12259-R462**	4.6L 2V Mustang	Red	45º Long Boot
M-12259-C464**	4.6L 4V Mustang	Blue	45º Long Boot
M-12259-R464**	4.6L 4V Mustang	Red	45º Long Boot
M-12259-T462**	4.6L 2V F-150 Truck	Blue	45º Long Boot

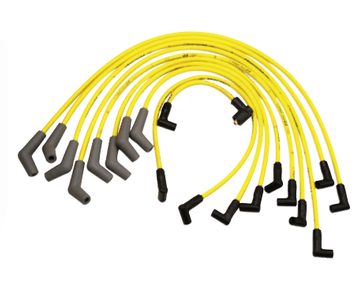
NOTES:
- Universal sets can be cut to length with a crimping tool. Includes terminals for post- and socket-type coils, plus easy-to-follow instructions.
- Wire sets M-12259-C301/R301/M301/Y301/C302/M302 do not fit distributorless ignition system (DIS) 5.0L/302 Explorer engines. The universal wire sets do not fit distributorless ignition system (DIS).



M-12259-C462/Mustang 4.6L SOHC 9 mm Wire Set



M-12259-R301/5.0L/5.8L V8 Engine SOHC 9 mm Wire Set

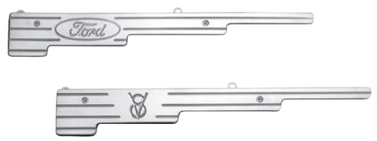


M-12259-Y301/5.0L/5.8L V8 Engine SOHC 9 mm Wire Set

CUSTOM BILLET WIRE LOOMS

M-12297-L900 With Ford Oval
M-12297-L901 With V8 logo

Billet aluminum spark plug wire looms with ball milled logos. Fits 8 mm and 9 mm wire. Keeps all wires neat and away from headers. Adjustable brackets fit all big and small block engines except FE V8. Use universal spark plug wires.





2007-2010 MUSTANG SVT 4V IGNITION COIL SET

M-12029-4V**

- Fits 2007-2010 Mustang SVT 5.4L DOHC
- One engine set of stock replacement coils

Proudly Made in the USA

NEW



IGNITION COIL BRACKET

M-12044-A2

Canister style, universal



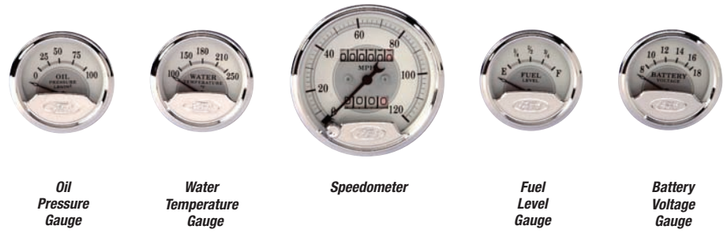
*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

MASTERPIECE GAUGE COLLECTION

CHROME BEZEL SERIES KIT ①

M-19017-B961

Proudly Made in the USA



Oil Pressure Gauge | *Water Temperature Gauge* | *Speedometer* | *Fuel Level Gauge* | *Battery Voltage Gauge*

- Bezel embossed with Ford emblem
- Luxurious chrome design with white background, gray sweep zone, black graphics and needle-style pointer
- Includes all components necessary to install
- All gauges are electric operation. Case diameter is 3-1/8" (speedometer) and 2-1/16" (water, oil, fuel and battery)
- Fuel level sender compatibility is 240 OHM empty, 33 OHM full – 12 volt
- Fuel level sender is adjustable from 6" to 23"
- Speedometer (3), oil pressure gauge and sender, water temperature gauge and sender, fuel level gauge and sender and battery voltage gauge

CHROME TACHOMETER ②③

M-17360-B961

Proudly Made in the USA



- Not included in kit at left
- Case diameter is 3-1/8"

NOTES:
① 5-gauge kit includes: speedometer, oil pressure gauge and sender, water temperature gauge and sender, fuel level gauge and sender and battery voltage gauge.
② Tachometer is not included in 5-gauge kit. Only available individually.
③ Needles do not zero.



2010 Mustang GT Ford Racing Development Car
FRPP Content:
Ford Racing "Hot Rod" 4.6L 3V Crate Engine
Ford Racing Shaker Hood Scoop
Ford Racing X-pipe
Ford Racing Performance Mufflers
Ford Racing Handling Pack
Ford Racing Short Throw Shifter

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FORD RACING COMPETITION GAUGES

Ford Racing is proud to introduce our new line of through-the-dial LED competition-style gauges. These new, high-quality, full-sweep gauges, available in 2-1/16" diameter along with our new 3-3/8" tachometer with shift light, all sport the new red and blue Ford Racing logo on a black background with white numerals.



M-9275-BFSE
2-1/16" Electric
Fuel Pressure Gauge
0-100psi



M-9278-BFSE
2-1/16" Electric
Oil Pressure Gauge
0-100psi



M-10883-BFSE
2-1/16" Electric
Water Temperature Gauge
100°-260°F



M-10885-BFSE
2-1/16" Electric
Pyrometer measures
from 0-1600° F.
Includes K-type
thermocouple



M-11622-BFSE
2-1/16" Electric
Vacuum/Boost
Pressure Gauge
30" hg/30psi



M-10898-CPIC
2-1/16" Electric
Dynamic Performance
Information Center Gauge
(7-digit LED display)



M-17360-B
3-3/8" Electric
Pedestal Mount
Shift Light Tachometer
10,000 rpm



NEW

MUSTANG COBRA JET 5" TACHOMETER W/SHIFT LIGHT
M-17360-CJ

The Cobra Jet tachometer is the newest complement to the full line of Ford Racing gauges. Featuring the Cobra Jet logo, this is the exact tach/shift light combo used in the 2008 Mustang Cobra Jet. Complement your Cobra Jet tachometer with these other through-the-dial LED competition-style gauges.

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

SMALL BLOCK 427 VALVE COVERS

NEW

M-6582-W427B Black satin
M-6582-W427P Polished

- Fits 289/302/351W (except EFI)
- Pentroof 427 style, used on Ford Racing SB 427 crate engines (see pages 77-78)
- Die-cast aluminum with baffle
- "427 Cobra" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware
- Valve covers are not compatible with Gasket M-6584-A50, Fel-Pro® VS 13264T recommended







BOSS VALVE COVER SETS

M-6582-BOSS Black wrinkle
M-6582-BOSSP Polished (shown)

- BOSS 302-style valve covers that fit 289/302/351W cylinder heads
- Used on Ford Racing BOSS 302 block-based 331 cubic inch crate engines
- Cast aluminum
- Fits most 289/302/351W cylinder heads and rocker arm combinations with PCV and breather grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware
- Does not fit EFI applications
- Valve covers are not compatible with Gasket M-6584-A50

50 States Street Legal



BOSS 302 VALVE COVER SET

M-6582-BOSS302

- BOSS 302-style valve covers that fit 289/302/351W cylinder heads
- Used on the Ford Racing BOSS 302 crate engine
- Cast aluminum with black wrinkle finish
- Fits most 289/302/351W cylinder heads and rocker arm combinations
- With PCV and breather cap grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware
- Does not fit EFI applications
- Valve covers are not compatible with Gasket M-6584-A50

50 States Street Legal









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See pages 3-9 for important safety, emissions and warranty information.

CUSTOM VALVE COVERS

BLACK SATIN VALVE COVERS
M-6582-LE302BK

NEW

- Fits 289/302/351W
- Die-cast aluminum with baffle
- Black satin finish
- "Ford Racing" logo
- Will clear stud girdle and roller rocker arms (3.75" tall)
- Includes oil fill cap and grommets



BLUE SATIN VALVE COVERS
M-6582-LE302BL

NEW

- Fits 289/302/351W
- Die-cast aluminum with baffle
- Blue satin finish
- "Ford Racing" logo
- Will clear stud girdle and roller rocker arms (3.75" tall)
- Includes oil fill cap and grommets



CHROME ALUMINUM VALVE COVERS
M-6582-LE302C

NEW

- Fits 289/302/351W
- Die-cast aluminum with baffle
- Chrome finish
- "Ford Racing" logo
- Will clear stud girdle and roller rocker arms (3.75" tall)
- Includes oil fill cap and grommets



BLACK SATIN VALVE COVERS
M-6582-A**

- Fits 289/302/351W (except EFI)
- Die-cast aluminum with baffle
- Black satin finish
- "Cobra" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



BLACK SATIN VALVE COVERS
M-6582-F302**

- Fits 289/302/351W (except EFI)
- Die-cast aluminum with baffle
- Black satin finish
- "Cobra" logo (original open-letter Cobra)
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



POLISHED ALUMINUM VALVE COVERS
M-6582-A302R**

- Fits 289/302/351W (except EFI)
- Die-cast aluminum with baffle
- Polished finish
- "Ford Racing" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



POLISHED ALUMINUM VALVE COVERS
M-6582-F303**

- Fits 289/302/351W (except EFI)
- Die-cast aluminum with baffle
- Polished finish
- "Cobra" logo (original open-letter Cobra)
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



BLACK SATIN VALVE COVERS
M-6582-B301**

- Fits 289/302/351W (except EFI)
- Die-cast aluminum with baffle
- Black satin finish
- "Mustang" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



BLACK SATIN VALVE COVERS
M-6582-A301R**

- Fits 289/302/351W (except EFI)
- Die-cast aluminum with baffle
- Black satin finish
- "Ford Racing" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



POLISHED ALUMINUM VALVE COVERS
M-6582-F301**

- Fits 289/302/351W (except EFI)
- Die-cast aluminum with baffle
- Polished finish
- "Mustang" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



EFI VALVE COVERS

BLACK SATIN VALVE COVERS
M-6000-C302**

- Fits 1986-1993 EFI Mustang
- Die-cast aluminum with baffle
- Black satin finish
- "Cobra" logo (original open-letter Cobra)
- May require modifications for roller rockers
- Includes oil fill cap
- 50-States Street Legal



POLISHED ALUMINUM VALVE COVERS
M-6000-F302**

- Fits 1986-1993 EFI Mustang
- Die-cast aluminum with baffle
- Polished finish
- "Mustang" logo
- May require modifications for roller rockers
- Includes oil fill cap
- 50-States Street Legal



BLACK SATIN TRUCK VALVE COVERS
M-6582-A351R**

- Fits 302 and 351W EFI trucks
- Die-cast aluminum with baffle
- Black satin finish
- "Ford Racing" logo
- May require modifications for roller rockers
- Includes oil fill cap
- 50-States Street Legal



POLISHED ALUMINUM VALVE COVERS
M-6000-D302**

- Fits 1986-1993 EFI Mustang
- Die-cast aluminum with baffle
- Polished finish
- "Cobra" logo (original open-letter Cobra)
- May require modifications for roller rockers
- Includes oil fill cap
- 50-States Street Legal



POLISHED ALUMINUM VALVE COVERS
M-6000-K302R**

- Fits 1986-1993 EFI Mustang
- Die-cast aluminum with baffle
- Polished finish
- "Ford Racing" logo
- May require modifications for roller rockers
- Includes oil fill cap
- 50-States Street Legal



CHROME (DIE-CAST) VALVE COVERS
M-6582-D302**

- Fits 1986-1993 EFI Mustang
- Die-cast aluminum with baffle
- Chrome finish
- May require modifications for roller rockers
- Includes oil fill cap
- 50-States Street Legal



BLACK SATIN VALVE COVERS
M-6000-E302**

- Fits 1986-1993 EFI Mustang
- Die-cast aluminum with baffle
- Black satin finish
- "Mustang" logo
- May require modifications for roller rockers
- Includes oil fill cap
- 50-States Street Legal



BLACK SATIN VALVE COVERS
M-6000-J302R**

- Fits 1986-1993 EFI Mustang
- Die-cast aluminum with baffle
- Black satin finish
- "Ford Racing" logo
- May require modifications for roller rockers
- Includes oil fill cap
- 50-States Street Legal



BLACK SATIN VALVE COVERS
M-6582-A341R**
- Fits 302 BOSS/351C/351M/400
- Die-cast aluminum with baffle
- Black satin finish
- "Ford Racing" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



CHROME ALUMINUM VALVE COVERS
M-6582-R351*
- Fits 302 BOSS/351C/351M/400
- Die-cast aluminum with baffle
- Chrome finish
- "Ford Racing" logo
- Will clear stud girdle and roller rocker arms (4" tall)
- Includes oil fill cap and grommets



POLISHED ALUMINUM VALVE COVERS
M-6582-C351PD
- Fits 302 BOSS/351C/351M/400
- Die-cast aluminum with baffle
- Polished finish
- "351 CLEVELAND" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



POLISHED ALUMINUM VALVE COVERS
M-6582-Z351*
- Fits 302 BOSS/351C/351M/400
- Die-cast aluminum with baffle
- Polished finish
- "Ford Racing" logo
- Will clear stud girdle and roller rocker arms (4" tall)
- Includes oil fill cap and grommets



POLISHED ALUMINUM VALVE COVERS
M-6582-A342R**
- Fits 302 BOSS/351C/351M/400
- Die-cast aluminum with baffle
- Polished finish
- "Ford Racing" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



BLACK SATIN VALVE COVERS
M-6582-C351BK
- Fits 302 BOSS/351C/351M/400
- Die-cast aluminum with baffle
- Black satin finish
- "351 CLEVELAND" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



POLISHED ALUMINUM VALVE COVERS
M-6582-A427**
- Fits 352/360/390/427/428
- Die-cast aluminum with baffle
- Polished finish
- "Cobra" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



CHROME STAMPED STEEL VALVE COVERS
M-6582-C351R**
- Fits 302 BOSS/351C/351M/400
- Stamped steel with baffle
- Chrome finish
- "Ford Racing" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



BLUE SATIN VALVE COVERS
M-6582-C351BL
- Fits 302 BOSS/351C/351M/400
- Die-cast aluminum with baffle
- Blue satin finish
- "351 CLEVELAND" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



BLACK SATIN VALVE COVERS
M-6582-B**
- Fits 352/360/390/427/428
- Die-cast aluminum with baffle
- Black satin finish
- "Cobra" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



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See pages 3-9 for important safety, emissions and warranty information.

APPEARANCE/DRESS-UP – VALVE COVERS

BLACK SATIN VALVE COVERS
M-6582-FE352BK
- Fits 352/360/390/427/428
- Die-cast aluminum with baffle
- Black satin finish
- "427 Cobra" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



BLUE SATIN VALVE COVERS
M-6582-FE352BL
- Fits 352/360/390/427/428
- Die-cast aluminum with baffle
- Blue satin finish
- "427 Cobra" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



POLISHED ALUMINUM VALVE COVERS
M-6582-FE352PD
- Fits 352/360/390/427/428
- Die-cast aluminum with baffle
- Polished finish
- "427 Cobra" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



BLUE DOHC CAM COVERS 4.6L/5.4L
M-6582-A54
- Fits 1997-2004 32V 4.6L/5.4L engines with coil on plug (except Ford GT and 2007-2010 Mustang SVT)
- Painted Ford GT blue
- Shown with Coil Cover M-6067-A (sold separately)
- For 2007-2010 Mustang SVT, see M-6582-C



POLISHED ALUMINUM VALVE COVERS
M-6582-C460*
- Fits 429/460
- Die-cast aluminum with baffle
- Polished finish
- "Ford Racing" logo
- Will clear stud girdle and roller rocker arms (4.5" tall)
- Includes oil fill cap and grommets



CHROME ALUMINUM VALVE COVERS 429/460
M-6582-R460*
- Die-cast aluminum with baffle
- Chrome finish
- "Ford Racing" logo
- Will clear stud girdle and roller rocker arms (4.5" tall)
- Includes oil fill cap and grommets



CHROME STAMPED STEEL VALVE COVERS
M-6582-A429R**
- Fits 429/460
- Stamped steel with baffle
- Chrome finish
- "Ford Racing" logo
- May require modifications for roller rockers
- Includes oil fill cap and grommets
- 50-States Street Legal when installed with appropriate closed PCV hardware



COATED 3-VALVE CAM COVERS 4.6L/5.4L
M-6582-C543V
M-6582-3VB
M-6582-3VBLK
- Fits 2005-2010 3-valve 4.6L/5.4L engines



M-6582-C543V
Powdercoated chrome appearance finish



M-6582-3VB
Blue powdercoated finish



M-6582-3VBLK
Black powdercoated finish

2007-2009 MUSTANG SVT COATED VALVE COVERS
M-6582-C** Blue appearance
M-6582-CC** Chrome appearance
- Fits 2007-2009 Mustang SVT
- Original equipment valve cover powdercoated same blue as Ford GT
- Contains new gaskets and grommets for easy installation
- Can be used with factory Mustang SVT coil covers or M-6067-A Coil Covers
- Also available in black chrome appearance, M-6582-CC





*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

BREATHER CAP
M-6766-G302**
Closed crankcase. Twist type.



UNIVERSAL VALVE COVER BREATHER CAP GROMMETS
M-6892-F
- Kit includes one (1) grommet for push-in breather cap and one (1) for a PCV valve
- Grommets fit all Ford Racing valve covers for push rod engines
- Converts twist-in breather valve cover to push-in style breather



BILLET PAINTED OIL FILL CAP COVER FOR 4.6L/5.4L/6.8L
M-6766-MP46
- Fits all years of Modular engine
- Installs over factory plastic oil fill cap (not included)
- Features Ford Racing logo painted in blue and red
- Clear coated

Proudly Made in the USA



FORD GT BILLET OIL FILL CAP
M-6766-GT
- Ford GT oil fill cap with billet cover
- Direct replacement for Ford GT oil fill cap, fits most 1986-2004 Mustang GTs
- GT logo machined into cap surface
- Chrome plated

Proudly Made in the USA



WASHABLE BREATHER CAPS
M-6766-K302* Shielded push-in type for 1.25" dia. hole
M-6766-H302* Non-shielded push-in type for 1.25" dia. hole

M-6766-K302 shown



PRO STOCK ROCKER COVER – MIRROR IMAGE HEAD
M-6582-JC50*
- Fits M-6049-JC50 Mirror Image Chamber Cylinder Head only
- Cast thin-wall aluminum cover with Ford logo
- "O" ring sealed to head

NEW

Proudly Made in the USA

PRO STOCK ROCKER COVER – SEQUENTIAL HEAD
M-6582-JC51*
- Fits M-6049-JC51 Sequential Chamber Cylinder Head only
- Cast thin-wall aluminum cover with Ford logo
- "O" ring sealed to head

NEW

Proudly Made in the USA

2007-2010 MUSTANG SVT COIL COVERS
M-6067-C
- Original equipment on the 2007-2010 Mustang SVT
- Fits most 4.6L/5.4L DOHC engines with coil on plug ignition

Proudly Made in the USA



FORD RACING COIL COVERS
M-6067-A
- Fits most 4.6L/5.4L DOHC engines with coil on plug ignition
- Micro polished billet aluminum
- Features two-color Ford Racing ball milled logo

Proudly Made in the USA



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

APPEARANCE/DRESS-UP – ENGINE

Show off your engine compartment with this dazzling, head-turning collection of Ford Racing accessories. Many are unique items. All give your car a personal touch.

COBRA INTAKE PLAQUES
M-1447-D46 1996-1998
M-1447-F46 1999-2001
- Design in the shape of the "Cobra" snake
- High-quality embossed Cobra snake
- Blue inlay on brushed aluminum background
- Two-way tape for easy installation

Proudly Made in the USA



OVAL AIR CLEANER ASSEMBLIES
M-9600-C302* Cobra logo
M-9600-K302* Mustang logo
- Replacement Air Filter M-9601-A302
- Assembly height is 2.5"



AIR CLEANER ASSEMBLY
M-9600-P302
- 14" diameter
- OEM design 2V and 4V carburetor
- Uses Motorcraft® Element PN FA-41

NEW



BILLET ALUMINUM FORD AIR CLEANER NUT
M-9697-E
- CNC-machined billet aluminum construction
- Features the Ford Oval in blue paint

Proudly Made in the USA



A.T. DIPSTICK/TUBES
M-6750-D303 C-4
M-6750-E303 C-6



2005-2010 MUSTANG GT INTAKE SHROUD
M-6949-3V
- Original equipment on 2007-2010 Mustang GT
- Fits 2005-2010 Mustang GT
- May require 2007 Mustang Throttle Body Studs (W712289 S437) and Nuts (W520411 S437) from Ford Dealer
- Will not fit with Ford Racing Strut Tower Brace M-20201-S197 or with Ford Racing Superchargers

Proudly Made in the USA



CARBON FIBER AIR CLEANER ASSEMBLY
M-9600-CFAC13
- Carbon fiber composite air cleaner lid, embossed with "Ford Racing" logo
- Steel dropped base, painted black
- 13" round assembly includes 2.750" tall air filter element
- Fits 2V and 4V carbs with 5-1/8" flange
- Replacement Element Motorcraft® PN FA-612

NEW

Proudly Made in the USA



BILLET ALUMINUM FORD RACING AIR CLEANER NUT
M-9697-F
- CNC-machined billet aluminum construction
- Features the "Ford Racing" logo in red and blue paint

Proudly Made in the USA



ENGINE OIL DIPSTICK/TUBE
M-6750-C303 Curved
- For 1983-1993 5.0L Mustang



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See pages 3-9 for important safety, emissions and warranty information.

GIVE YOUR ENGINE A COMPLETE MAKEOVER WITH THESE NEW FORD OFFICIAL LICENSED PRODUCTS.

Ford 289/302/351W Die-Cast Aluminum Valve Covers

NEW! Ford COBRA and Ford MUSTANG styles join the venerable Ford RACING style. These premium valve covers are "tall", and designed to clear roller rockers and polylock nuts. They have recessed emblems with inlaid paint. All valve covers include baffles and grommets. Sold in pairs.

NOTE: Not for use on engines with EFI manifolds.



Ford RACING
Polished, black emblems (was M-6582-E302P) 302-001
Chrome, black emblems (was M-6582-R302)..... 302-002
Black crinkle, red emblems (was M-6582-L302)..... 302-003

Ford COBRA
Polished, black emblems 302-055
Black crinkle, red emblems 302-056

Ford MUSTANG
Polished, black emblems 302-030
Black crinkle, red emblems 302-031

PART NUMBER CROSS-REFERENCE CHART

FORD RACING PART #	SPECIALTY PART #	DESCRIPTION
M-6582-E302P	302-001	Die-Cast Valve Covers: "Ford Racing" Polished (black emblems)
M-6582-L302	302-003	Die-Cast Valve Covers: "Ford Racing" Black (red emblems)
M-6582-R302	302-002	Die-Cast Valve Covers: "Ford Racing" Chrome (black emblems)
M-6680-A	302-315	Valve Cover Mini Nuts: Chrome "Ford"
M-6680-A302	302-325	Valve Cover Wing Nuts: Chrome "Ford" (now four per pkg.)
M-6750-A302	302-401	Dipstick Kit: Chrome
M-6750-B302	302-400	Dipstick Kit: Aluminum Anodized Handle, Embossed "Ford" Oval Emblem
M-6766-A302	302-200	Air Breather Cap: Twist Type, "Ford Racing"
M-6766-B302	302-215	Air Breather Cap: Push-in Type, "Ford Racing"
M-6766-F302	302-230	Oil Filler Cap: Screw-in Type, Embossed "Ford" Oval Emblem
M-9351-A302	302-290	"Ford Racing" Fuel Pump Blockoff Plate
M-9600-A302R	302-350	Air Cleaner Kit: "Ford" and "Racing" Chrome, Raised Emblems
M-9697-A	302-333	Air Cleaner Center Nut: "Ford"
M-9697-C	302-337	Air Cleaner Center Nut: "Mustang"
M-12297-B02	302-637	"Ford" Wire Dividers: Blue 2-, 3-, 4-wire (two each, six total)
M-12297-B03	302-637	"Ford" Wire Dividers: Blue 2-, 3-, 4-wire (two each, six total)
M-12297-B04	302-637	"Ford" Wire Dividers: Blue 2-, 3-, 4-wire (two each, six total)
M-12297-B14	302-636	"Ford Racing" Wire Loom Holder 4-wire

Manufactured by:
Specialty Auto Parts U.S.A., Inc.
P.O. Box 306, Roseville, MI 48066
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Order these Ford Official Licensed Products at www.FactorySpeedParts.com

†Except for those in categories with asterisks, these products are not legal for sale or use in pollution-controlled vehicles.

Air Cleaners

The air cleaner is one of the most visible parts on a car's engine, so now is the time to add a premium Ford RACING, MUSTANG or COBRA emblem to your ride for the perfect customized look! These 13" diameter air cleaners fit 2V and 4V carburetors, and are supplied with a 2-5/8" high filter element. Both the tops and bases have matching finishes, and each kit is supplied with necessary mounting hardware. Air cleaner kits are supplied with special die-cast Ford Oval center nuts (also offered separately).

Technical Note: After installing a new air cleaner kit, always lower the hood slowly to confirm sufficient clearance visually. Minimum clearance of 4" is required from the top of the carburetor gasket area to the underside of the hood. For replacement element order Motorcraft® FA-612A.

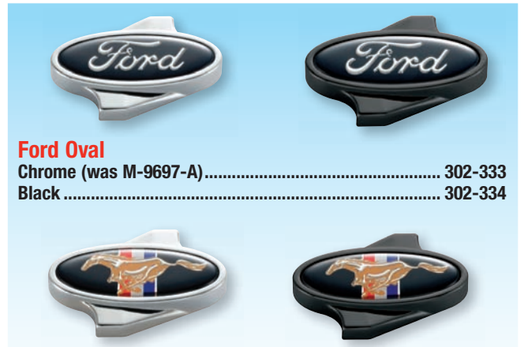
Ford RACING
Chrome, embossed emblems (was M-9600-A302R) 302-350
Chrome, black emblem 302-351
Black crinkle, red emblem 302-352

Ford MUSTANG
Chrome, black emblem (not shown) 302-361
Black crinkle, red emblem (not shown) 302-362

Ford COBRA
Chrome, black emblem (not shown) 302-371
Black crinkle, red emblem (not shown) 302-372

Air Cleaner Center Nuts†

Add some extra flair to your custom air cleaner by topping it with a distinctive Ford or Mustang center nut available in chrome or black finishes. Fits 1/4"-20 carburetor studs.



Ford Oval
Chrome (was M-9697-A)..... 302-333
Black 302-334

Mustang Pony
Chrome (was M-9697-C)..... 302-337
Black 302-338



Order these Ford Official Licensed Products at www.FactorySpeedParts.com

†Except for those in categories with asterisks, these products are not legal for sale or use in pollution-controlled vehicles.

Oil Filler Cap†



NEW! Screw-in oil filler cap prominently displays the Ford Oval. This is a direct replacement part.

Chrome (was M-6766-F302) 302-230

Air Breather Caps

The top of each air breather cap is embossed handsomely with Ford RACING, COBRA or MUSTANG emblems. The perfect complement to your valve covers. Push-in unless noted.

Ford RACING

Chrome (twist-type, not shown) (was M-6766-A302) 302-200
Chrome (was M-6766-B302) 302-215
Black crinkle 302-216

Ford MUSTANG

Chrome (not shown) 302-220
Black crinkle (not shown) 302-221

Ford COBRA

Chrome (not shown) 302-225
Black crinkle (not shown) 302-226



Fuel Pump Blockoff Plate†



Finish your engine off properly with a chrome blockoff plate that prominently features the Ford Oval stamped in. These plates are supplied with special non-asbestos gaskets.

Chrome (was M-9351-A302) 302-290

Wire Looms and Dividers†

Keep that mess of ignition wires under control with wire looms and dividers. Six wire dividers per package. Wire looms sold in pairs and fit 289/302/351W engines, 5/16" bolt hole.

Ford RACING Wire Looms

Chrome with blue (was M-12297-B14) 302-636
Chrome with black (not shown) 302-640

Ford Oval Wire Dividers

Blue: 2-, 3-, 4-wire, 2 each
(was M-12297-B02/B03/B04) 302-637
Black: 2-, 3-, 4-wire, 2 each (not shown) 302-641

Engine Oil Dipsticks†

Don't forget the dipstick! Blue anodized aluminum handle is knurled and has the Ford Oval embossed and silver script printed prominently on the top. Fits 289/302/351W engines, 1962-1978 only.

Chrome w/blue anodized aluminum handle
(was M-6750-B302) 302-400
Chrome (was M-6750-A302) 302-401



Mini Nuts†



High-quality steel mini nuts are the perfect way to finish your engine dress-up project. Small and unobtrusive with the Ford Oval cut sharply into the top. All nuts are supplied with a separate stud which permits precise gasket positioning on the head prior to mounting the valve covers. 1/4"-20 threads. Does not fit FE engines. 4 per package.

Chrome (was M-6680-A) 302-315
Black crinkle (not shown) 302-316

Wing Nuts†



The Ford Oval is cut sharply into the top of each wing nut. The lower ends of the shafts are manufactured with wide shoulders for broad load distribution. All nuts are supplied with a separate stud which permits precise gasket positioning on the head prior to mounting the valve covers. 1/4"-20 threads. Does not fit FE engines. Now 4 per package.

Chrome (was M-6680-A302) 302-325
Black crinkle 302-326



Order these Ford Official Licensed Products at www.FactorySpeedParts.com

†Except for those in categories with asterisks, these products are not legal for sale or use in pollution-controlled vehicles.

2007-2009 MUSTANG SVT STEERING WHEEL

M-3600-C



- Fits 2005-2009 Mustang
- Dark charcoal leather with red stitching
- Does not include air bag. Mustang air bag can be reused
- Uniquely contoured for performance driving
- Original equipment on 2007-2009 Mustang SVT

MUSTANG SVT BLACK STITCH WHEEL AND BOOT

M-3601-C



- Fits the 2005-2009 Mustang and 2007-2008 Mustang SVT
- Same as 2007-2009 Mustang SVT dark charcoal leather but with black stitching
- Does not include air bag. Mustang air bag can be reused
- Steering wheel uniquely contoured for performance driving

1994-2004 FORD RACING MUSTANG STEERING WHEEL

M-3601-B



- Fits 1994-2004 Mustang V6, GT and Cobra
- Features thicker, racing-style rim section covered in perforated and smooth black leather
- Uses OE airbag and cruise control switches (not included)
- Direct replacement for OE

FORD GT START BUTTON KIT FOR MUSTANG

M-11572-GT



- Fits in the existing Power Point located in the center of the dash
- Easy upgrade to enhance the appearance of your 2005-2009 Mustang
- Turn the key to the on position then press the red start button
- Includes special wire harness for easy installation

2005-2009 MUSTANG LIGHTED SVT SILL PLATES

M-13208-LSVT



- Fits 2005-2009 Mustang
- Improves appearance and protects vehicle entry area
- Black with brushed stainless steel insert with "SVT" logo
- SVT illuminates red
- Kit includes two sill plates, installation tape and instructions

1994-2010 MUSTANG FORD RACING FLOOR MATS

M-13086-B 1994-2004 Mustang
M-13086-C 2005-2009 Mustang
M-13086-MA 2010 Mustang NEW!

- Constructed with 18oz nylon with PVC backing
- Factory style anti-slide hook hole and bottom grip knobs
- Black mats with 3-color Ford Racing logo
- Kit contains 1 pair front floor mats



M-13086-B shown



M-13086-MA shown

1994-2004 ALUMINUM AND URETHANE SPECIAL EDITION MUSTANG PEDAL COVERS

M-2301-A Accelerator pedal
M-2301-B Brake or clutch pedal cover (1 per package)
M-2301-C Left foot dead pedal

- Fits 1994-2004 Mustang
- Direct replacement for stock pedals and pedal covers
- Easy to install, no drilling required
- Brushed aluminum finish with urethane knobs for better grip
- Custom styling for the muscle car enthusiasts

NOTE: For F-Series trucks and Focus, visit our website at www.fordracingparts.com.



2005-2009 MUSTANG LIGHTED FORD RACING SILL PLATES

M-13208-LFR



- Fits 2005-2009 Mustang
- Improves appearance and protects vehicle entry area
- Black with brushed stainless steel insert with "Ford Racing" logo
- Ford illuminates blue, Racing illuminates red
- Kit includes two sill plates, installation tape and instructions

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

2007-2009 MUSTANG SVT HOOD
M-16612-C

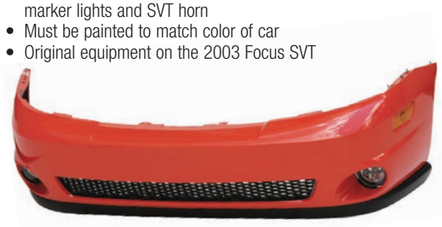
- Fits 2005-2009 Mustang GT when used with 2007-2009 Mustang SVT fascia. Front edge of SVT hood interferes with stock GT fascia
- Original equipment on 2007-2009 Mustang SVT
- Bolts to stock hood hinges and uses stock hood latch
- Includes two hood grille inserts
- Must be fitted and painted to match color of car



FOCUS SVT FRONT FASCIA
M-17831-F**

WHILE SUPPLIES LAST Limited Quantity!!

- Fits all 2000-2004 Focus ZX3 and ZX5
- Complete with driving lights, lower grille insert, lower valance, side marker lights and SVT horn
- Must be painted to match color of car
- Original equipment on the 2003 Focus SVT



FOCUS SVT REAR FASCIA
M-17835-F**

WHILE SUPPLIES LAST Limited Quantity!!

- Fits 2000-2005 Focus ZX3 and ZX5
- Complete with honeycomb insert
- Must be painted to match color of car
- Original equipment on the 2003 Focus SVT



FOCUS SVT CENTER EXHAUST DIFFUSER INSERT
M-17835-F1*

WHILE SUPPLIES LAST Limited Quantity!!

- This center insert is required when installing M-5200-ZXC or M-5200-D23C Center Exhaust
- Insert fits Focus SVT Rear Fascia M-17835-F only



FR500S GRILLE W/O BADGE
M-8200-A

- Fits 2005-2009 Mustang GT
- Service replacement for the Mustang FR500S race car
- Stainless steel mesh construction
- Does not have provisions for fog lamps
- Does not include the Mustang Challenge badge



1995 COBRA "R" HOOD
M-16612-R58

- Fits 1994-1998 Mustang
- Fiberglass, steel reinforced
- Bolt to stock hinges and hood latch
- Top quality, hand laminated
- Must be fitted and painted to match color of car



HOOD LATCH AND PIN KIT
M-16700-A

- That "competition look" you've always wanted is available from Ford Racing
- This is similar to the original hood pin kit used on early Mustangs and Fairlanes
- Can be used with most original and aftermarket hoods
- This part is not designed to fit on the 2005-2008 Mustang



MUSTANG GT SHAKER HOOD SYSTEMS
M-16612-SHK Fits 2010 Mustang GT

NEW

- System attaches directly to the engine
- Includes engine cover with Ford Racing badges and cast aluminum scoop that is reminiscent of the original 1969-1970 Shaker models
- Kit includes all mounting hardware, ductwork, template and detailed instructions
- Installation can be completed in three hours or less with basic tools
- For 2005-2009 Mustang GT, refer to M-16612-SHK95



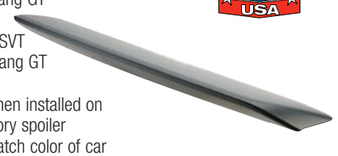
M-16612-SHK59 Fits 2005-2009 Mustang GT

NEW

- System attaches directly to the engine
- Includes engine cover with Ford Racing badges and cast aluminum scoop that is reminiscent of the original 1969-1970 Shaker models
- Kit includes all mounting hardware, ductwork, template and detailed instructions
- Installation can be completed in three hours or less with basic tools
- SHAKER TRIM RING DOES NOT COVER FACTORY HOOD SCOOP FASTENER HOLES ON 2007-2009 MUSTANG!
- For 2010 Mustang GT, refer to M-16612-SHK

2007-2009 MUSTANG SVT REAR SPOILER
M-16600-SVTC

- Fits 2005-2009 Mustang GT
- Original equipment on 2007-2009 Mustang SVT
- Fits into existing Mustang GT spoiler bolt holes
- No drilling required when installed on Mustang GT with factory spoiler
- Must be painted to match color of car



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

APPEARANCE/DRESS-UP

FR500S SPLITTER
M-16601-C Splitter kit

- Service replacement for the Mustang FR500S race car
- For race applications only; not for street use



2005-2009 "FORD RACING" MUSTANG STRIPE KITS
M-1620001-FRBK "Ford Racing" black
M-1620001-FRSL "Ford Racing" silver

- As seen on Mustang FR500C race car
- 10" stripe width for over-the-body stripes
- Vintage look, lower body side stripes
- "Ford Racing" logo in rocker moulding stripes
- Professional installation required!





2005-2010 MUSTANG QUARTER-WINDOW LOUVERS
M-1784-MS

- Fits 2005-2010 Mustang
- Urethane construction
- Primed for paint, MUST PAINT TO MATCH
- Comes with installation instructions
- Requires no drilling
- Use with M-2784-M to make your Mustang like the FR500!



FR500S PAINTED REAR WING KIT
M-16600-E

NEW

- Service replacement for the Mustang FR500S race car
- Kit includes wing, endplates, stanchions and mounting hardware
- Wing, endplates and stanchions painted white
- For race applications only; not for street use

FR500S PAINTED WING AND ENDPLATE KIT
M-16600-E1

NEW

- Service replacement for the Mustang FR500S race car
- Includes painted wing, painted endplates and mounting hardware
- Part of complete kit M-16600-E

FR500S WING STANCHION KIT
M-16600-E2

NEW

- Service replacement for the Mustang FR500S race car
- Painted stanchion kit for FR500S wing
- Includes mounting hardware
- Part of complete kit M-16600-E

COBRA JET MIRROR BLOCKOFF
M-17728-CJ

NEW

- Service replacement part for the Mustang FR500CJ race car
- Designed to fill void left when removing side mirrors for race car application
- Fits 2005-2009 Mustang
- For "OFF-ROAD USE ONLY"



FORD RACING WINDSHIELD BANNER
M-1820-M

NEW

- Windshield banner designed to fit a 2005-2010 Mustang
- Die-cut white lettering that will easily attach to a properly prepared windshield
- 50" long banner with 2" tall FORD RACING block lettering



2005-2009 MUSTANG GT STYLING PACK
M-2784-M

- Fits 2005-2009 Mustang GT
- Includes flat black front chin spoiler and rear deck lid trim panel
- Chin spoiler is texture finished, not intended for paint
- Deck lid trim panel features horizontal ribs and FR500 badge
- No drilling required
- Not compatible with faux fuel door, must be removed



2005-2009 MUSTANG ALUMINUM FUEL FILL DOOR
M-2301-5M

- Fits 2005-2009 Mustang
- Brushed aluminum finish
- Billet aircraft styling
- Easy installation



*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

6" ROUND AUXILIARY HALOGEN LIGHTS
M-15200-F15R6HAL

- Black powdercoated
- 100-watt halogen bulbs
- Matching black ABS stone guards
- Four lights per kit
- Two long-range and two driving lights
- Light Bar sold separately, see M-15266-F15RBAR
- FOR OFF-ROAD USE ONLY!

NOTE: Displayed with M-15266-F15RBAR (sold separately).



8" ROUND AUXILIARY HALOGEN LIGHTS
M-15200-F15R8HAL

- Black powdercoated
- 100-watt halogen bulbs
- Matching black ABS stone guards
- Four lights per kit
- Two long-range and two driving lights
- Light Bar sold separately, see M-15266-F15RBAR
- FOR OFF-ROAD USE ONLY!

NOTE: Displayed with M-15266-F15RBAR (sold separately).



8" ROUND AUXILIARY HIGH-INTENSITY DISCHARGE LIGHTS
M-15200-F15RBHID

- Black powdercoated
- 35-watt HID
- Matching black ABS stone guards
- Four lights per kit
- Two long-range and two driving lights
- Light Bar sold separately, see M-15266-F15RBAR
- FOR OFF-ROAD USE ONLY!

NOTE: Displayed with M-15266-F15RBAR (sold separately).



2010 F-150 SVT RAPTOR FRONT AUXILIARY LIGHT BAR
M-15266-F15RBAR

- Fits 2010 F-150 SVT Raptor
- Made from 1-3/4" OD, .120 wall steel tubing
- Comes with light tabs for mounting 4 six- or eight-inch diameter lights
- Easy installation, bolts up to existing factory holes, no drilling required
- Gray powdercoated finish
- **Lights sold separately**
- For 8" Round Auxiliary Halogen Lights, see M-15200-F15R8HAL
- For 6" Round Auxiliary Halogen Lights, see M-15200-F15R6HAL
- For 8" Round Auxiliary High-Intensity Discharge Lights, see M-15200-F15RBHID
- FOR OFF-ROAD USE ONLY!



2010 F-150 SVT RAPTOR ENHANCED FRONT SKID PLATE
M-5018-F15R

- Fits F-150 SVT Raptor
- Replaces production front skid plate
- Added side and center reinforcements
- Complete with mounting brackets and hardware
- Powdercoated "foundry finish" gray
- "Ford Racing" logo, right and left sides



INBOARD TIREGATE WHEEL AND TIRE CARRIER
M-1B120-F15

- Fits 2010 F-150 SVT Raptor and 2004-2010 standard bed F-150 trucks
- Allows you to carry a spare tire while maintaining ground clearance
- Easy to open with two quick-release pins
- Designed for inboard mounting of up to a 40" spare tire
- No cutting, welding or drilling required
- Mandrel-bent, MIG-welded tubular construction
- Powdercoated with black polyester semi-gloss and is equipped with zinc-plated hardware for long-lasting performance in extreme conditions

NOTE: Backup camera will not function with installation of tiregate.



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See pages 3-9 for important safety, emissions and warranty information.

APPEARANCE/DRESS-UP

ALUMINUM FUEL DOOR
M-2301-E

- Fits 1999-2004 Mustang
- Fits 1997-2003 F-150 with round fuel door
- Fits 2000-2005 Focus with modifications to the fuel filler neck plastic box
- Original equipment on 2001 Special Edition Mustang
- Manufactured by the OEM supplier, not a reproduction part
- 6.250" diameter



"COBRA" FAUX FUEL CAP
M-2301-S

- Fits 2005-2009 Mustang
- Features the "Cobra" snake
- Unique "Ford Racing" offering
- Two-way tape for easy installation



2004-2008 F-150 ALUMINUM FUEL DOOR
M-2301-F150

- Fits 2004-2008 F-150 (does not fit 2004 Heritage)
- Brushed aluminum finish
- Billet aircraft styling
- Easy installation



"COBRA" SNAKE FENDER EMBLEMS
M-1447-SR

- Original equipment on 1994-2004 Mustang SVT Cobra
- Includes right- and left-side emblems
- Two-way tape for easy installation



COBRA JET GRILLE EMBLEM
M-16098-CJG

- Inspired by the Ford Racing Cobra Jet Mustang
- Laser-cut metal snake with flames, painted red, white and blue
- Complete with two studs for mounting
- Can be affixed to grille or kept as a keepsake
- Approximately 3" tall x 4.5" wide



2007-2009 MUSTANG SVT "COBRA" SNAKE FENDER EMBLEMS
M-1447-C

- Original equipment on 2007-2009 Mustang SVT
- Includes right- and left-side emblems
- 4.250" tall by 2.50" wide



1996-2003 F-150 AND 2004 HERITAGE BILLET ALUMINUM GRILLE INSERTS
M-7843-A Ford Oval logo

- Fits F-150 1996-2003 and 2004 Heritage
- Can be used as a grille or tailgate insert
- 7.25" wide
- Polished aluminum with painted logo
- Includes mounting hardware



STAINLESS STEEL FORD RACING LICENSE PLATE
M-1828-SS304B

- Dress up your vehicle with his high-quality license plate frame
- Brushed 304 stainless steel with black laser etched "Ford Racing" logo



SVT DECK LID EMBLEM
M-1447-SVT

- Original equipment on Mustang SVT Cobra and Mustang SVT Contour
- Similar to Mustang SVT emblem used on Focus SVT
- Two-way tape for easy installation



CHROME V8 BADGE
M-7843-V8

- Two-way tape for easy installation
- 2.5" tall, 1.5" wide



FORD GT LICENSE PLATE FRAMES
M-1828-GT Plain
M-1828-GTC Chrome

- Billet aluminum
- 12.625" wide by 6.125" tall by .355" thick
- Milled in "Ford GT" logo



FORD OVAL LICENSE PLATES (12/PK)
M-1828-F

- This license plate has a blue Ford Oval on white background
- Sold in packs of 12
- Check with your "Ford Racing" distributor for single plates CM-1828-FCM



FORD RACING LICENSE PLATES (12/PK)
M-1828-FR

- This license plate has a blue Ford Oval with red Racing logo on white background
- Sold in packs of 12
- Check with your "Ford Racing" distributor for single plates CM-1828-FRCM



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See pages 3-9 for important safety, emissions and warranty information.

HIGHWAY SAFETY KIT
M-19515-A

- Remember, safety is always first at Ford Racing!
- Silkscreened with Ford Racing logo
- Includes flares, first aid kit and emergency triangle reflectors

WHILE SUPPLIES LAST Limited Quantity!!

Proudly Made in the USA



TRAILSIDE KIT
M-19515-GENKIT

NEW

Proudly Made in the USA

- For highway or off-road use
- Kit includes:
  - Multi-tool knife
  - Leather gloves
  - Moving blanket
  - Glow sticks
  - Jumper cables
  - Reflective vest
  - LED flashlight
  - Trash bags
  - S.O.L. Survival Pak
  - Tire pressure gauge
  - (2) 1" rachet straps
  - (3) light sticks
  - Triangle reflector
  - See M-19515-TOW for Tow Kit



TOW KIT W/STRAP
M-19515-TOW

NEW

Kit contains:

- Three galvanized 3/4" SPA shackles
- One receiver hitch block
- One hitch pin
- One 3" x 35' recovery strap. Loops feature a double-reinforced wear pad. Break strength 21,000 lbs. Web tensile strength 27,000 lbs
- One pair leather gloves
- One NATO-approved folding spade. Fully extended for normal digging or used at 90 degrees as a pick. Made of aluminum glass-filled ABS and Boron steel
- One multi-pocket gear bag

Proudly Made in the USA



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See pages 3-9 for important safety, emissions and warranty information.

ACCESSORIES AND APPAREL

"FORD RACING" FENDER COVER
M-1822-A2 Blue

Protect that beautiful paint job from scratches, chemicals and oil with this strong, sturdy and slip-resistant "Ford Racing" fender cover. Measures 27" x 36" and is acid- and grease-resistant. Features handy "ridged" area in which to place small tools and parts.



E-Z UP® INSTANT SHELTERS®

Ford Racing E-Z UP® Instant Shelter® includes: top, frame and cover bag; blue with white logo.

PART NUMBER	SIZE
M-1827-T10	10' x 10'
M-1827-T15	10' x 15'
M-1827-T20	10' x 20'



ACCESSORIES

Ford Racing E-Z UP® Instant Shelter® Sidewall with large Ford logo; blue with white logo.

PART NUMBER	SIZE
M-1827-W10	10' Sidewall
M-1827-W15	15' Sidewall
M-1827-W10	(2) 10' Sidewalls*

**Two 10' sidewalls are required to cover a 20' section.*

Proudly Made in the USA

ORDER THESE PRODUCTS FROM ANY FORD RACING DEALER. NO RETURN ON SPECIAL ORDERS.

"FORD RACING" BANNER
M-1827-A1 "Ford Racing" (68" x 28")

Proudly Made in the USA

- Multi-purpose banner ideal for races, car shows, car clubs, promotions, garage or man cave
- White with blue lettering on heavy-gauge plastic
- Has (5) brass grommets and tie straps



"FORD RACING" 50-FT PENNANT STRING
M-1827-P1

Proudly Made in the USA

- Ideal for races, car shows, car clubs, promotions, garage or den
- White with blue lettering on heavy-gauge plastic



"FORD RACING" DECALS
M-1820-A3 Pkg. of 10 9-3/8" x 5-3/8"

NEW

"Ford Racing" decals with adhesive backing that easily peels off for fast application. Available in two sizes.



Proudly Made in the USA

"FORD RACING" MINI-DECALS
M-1820-B1 Pkg. of 25

WHILE SUPPLIES LAST Limited Quantity!!

Single sheet of "peel-off" vinyl decals. Includes (4) small, (1) medium and (1) large decal. Overall size of group—approximately 6" x 1-3/4". White with blue "Ford" and red "Racing".



Proudly Made in the USA

"FORD" OVAL DECALS
Pkg. of 12

M-20000-D101 5.5"
M-20000-D102 8.5"

Proudly Made in the USA

Pressure-sensitive OEM-quality, hi-gloss, cast vinyl material. Available in five sizes. Blue background with white "Ford" script.

Ford

FORD RACING VINYL DIE-CUT 15" DECAL
M-1820-FR15

Proudly Made in the USA

- 15" Ford Racing logo decal, red and black
- Die-cut decals are cut around the letters and logos within the decal to make it appear to be printed directly onto surface after it is applied
- Sold in package of 10



Ford
RACING

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See pages 3-9 for important safety, emissions and warranty information.

CHECKERED FLAG POLO
Men's pique polo with 2-button placket, jacquard collar with checkered accent, raglan sleeves and hemmed cuffs. 60/40 cotton/polyester. Imported. Red-Molten, Red-Black-White. M-XXL.
A. S87115

COBRA JET CAMP SHIRT
Men's short-sleeve button-front shirt with two contrast stripes on right chest. Featured in techno dri 100% polyester micro mesh fabric, moisture wicking. Imported. Navy. M-XXL.
B. S97030

CLIQUE COOL DRY MEN'S POLO
51/49 Cool Dry polyester/polyester polo. Cool Dry technology provides comfort and easy care. Imported. Royal Blue. M-XXL.
C. S97021

CLIQUE COOL DRY LADIES' POLO
Sporty construction in 51/49 Cool Dry polyester/polyester blend. Cool Dry technology provides comfort and easy care. Imported. Royal Blue. S-XL.
D. S97023

CLASSIC PIQUE POLO
100% cotton pique short-sleeve shirt with 3-button placket, flat knit collar and cuffs. Shirt designed to minimize wrinkles, fading and shrinking. Imported. Black. M-XXL.
E. S97020

TOP-PERFORMANCE SPORT POLO
Men's 1/4-zip sport polo with dry wicking and antimicrobial performance capabilities. Embroidered Ford Racing logo on left sleeve. 100% polyester circle knit. Imported. White/Gray. M-XL.
F. S87153

LADIES' FORD RACING FLORAL CHROME TEE
100% combed ring-spun cotton tee with foil-accented design. Regular fit. 1x1 rib neck binding. Tapered waist. Imported. Black. S-XL.
G. S97029

DUELING MUSTANG TEE
100% cotton. Imported. Athletic Heather. M-XXL.
H. S87137

CHECKERED FLAG MUSTANG TEE
100% cotton. Imported. Black. M-XXL.
I. S87138



Order at www.FORDCOLLECTION.com or toll free 1.888.380.6901

FORD RACING APPAREL

WHITE FORD RACING TEE
100% cotton. Imported. White. M-XXL.
A. S8016P

POWERED BY FORD RACING TEE
100% cotton. Imported. Navy. M-XXL.
B. S87158

FORD RACING REMODEL TEE
100% cotton. Imported. Chocolate. M-XXL.
C. S87157

MOTOR CITY MUSCLE RACING TEE
Polyester/cotton blend tee. Imported. Red. M-XXL.
D. S97017

LADIES' WHITE FORD RACING TEE
Side-seam print tissue tee, sexy fit and longer length. 97/3 cotton/spandex. Imported. White. S-XL.
E. S77030

LADIES' FORD RACING TEE
100% cotton. Imported. Chocolate Brown. S-XL.
F. S87125

POWERED BY FORD RACING TEE
Polyester/cotton blend tee. Imported. Navy. M-XXL.
G. S97019

FORD RACING ALLOY TEE
100% cotton. Imported. Light Steel. M-XXL.
H. S87159

COBRA JET TEE
100% pre-shrunk cotton tee. Soft-ribbed collar. Imported. Black with White stitching. M-XXL.
I. S97004



Order at www.FORDCOLLECTION.com or toll free 1.888.380.6901

FORD RACING CREWNECK SWEATSHIRT
50/50 cotton/poly crewneck sweatshirt. One-piece ribbed collar, cuffs and waistband with spandex. Imported. Black. M-XXL.
A. S97006

RACING WINDSHIRT
Water-resistant coating with textured knit panels for comfort stretch front and back. Open-bottom hem detail with adjustable cord for ease of movement. Imported. Black. M-XXL.
B. S97007

LADIES' LANDSCAPE JACKET
Features water-resistant shell constructed of 65/35 polyester/cotton poplin, with contrasting nylon and mesh lining. Hidden hood, two front pockets and inner cell phone pocket. Tone-on-tone Ford Racing logo embroidered on left chest. Black/Khaki. S-XL.
C. S97022

CUSTOM 2008 FORD RACING TWILL JACKET
Men's twill jacket with Ford Racing embroidery on entire jacket. 100% cotton. Imported. Navy. M-XXL.
D. S87116

VICTORY LANE OXFORD
Men's long-sleeve shirt with horn-style buttons, extra stitching at seams, stain-release material and tone-on-tone embroidered Ford Racing logo on left chest. 55/45 cotton/polyester. Imported. French Blue. M-XXL.
E. S87156

FORD RACING TONAL BEANIE
Double-layered acrylic beanie cap with tonal Ford Racing logo. Imported. Black. One size fits most.
F. S97002



Order at www.FORDCOLLECTION.com or toll free 1.888.380.6901

FORD RACING APPAREL

BASIC RACING CAP
100% medium-weight cotton twill cap. Buckle closure. Imported. One size fits most.
A. S97001

FORD RACING CAMOUFLAGE CAP
100% cotton twill structured cap. Velcro® closure. Imported. Camo. One size fits most.
B. S57019

FORD RACING SILVER FLAME CAP
100% cotton twill structured cap. Velcro® closure. Imported. Navy. One size fits most.
C. S47010

FORD RACING REVERB CAP
100% cotton twill structured cap. Velcro® closure. Imported. Black. One size fits most.
D. S77002

COBRA JET CAP
Unstructured cotton cap. Embroidery accents on bill. Velcro® closure. Imported. One size fits most.
E. S97003

FORD RACING BARBWIRE CAP
100% cotton twill structured cap. Adjustable backstrap closure. Imported. Navy/Cool Gray. One size fits most.
F. S97005



Order at www.FORDCOLLECTION.com or toll free 1.888.380.6901

ROADSTER GIFT SET
Four-piece set includes auto case, flashlight, tire gauge and twist-action pen. Contoured design case holds all gift set components. Flashlight includes 2 AAA batteries. Tire gauge measures up to 50psi. Includes 1-piece gift box. 2-1⁄2"H x 1-1⁄4"W x 6-5⁄8"L.
A. S97012

COBRA JET WATCH
This one-of-a-kind timepiece celebrates the power and design of the Ford Mustang Cobra Jet. The Cobra Jet logo is in fantastic full color on the face, and "COBRA JET" is engraved on the bezel. This watch will only be available for a limited time, so order today!
B. S97025

OGIO® RACING LAPTOP PACK
Features large center storage area, padded laptop sleeve, weatherproof fleece-lined audio pocket, deluxe organizer panel and more. Fits most 17" laptops. Ford Racing logo centered on front pocket. Imported. Black. 19" x 15" x 10".
C. S87161

SHOULDER TOTE BAG
Zip-top tote with open front pocket and 27" straps. Imported. Black/Blue. 18" x 13-3⁄4" x 3-1⁄2".
D. S67032

FORD RACING KEY RING
Round key ring with simulated leather backing. Black. 1-3⁄16" diameter.
E. S87132

TUFF TREAD GARRITY LED LITE
9 LED lights last 10 times longer than standard flashlights. Splash and shock resistant. Black/Silver. 5"H x 1-1/4"W x 1-1/4"L.
F. S97011

MINI FAN WITH NECK ROPE
Battery-operated fan keeps you cool at any time. Includes nylon carrying cord. Batteries included.
G. S97013

FORD RACING SPORT WATCH
Plastic casing, rubber strap, 3-hand movement and large numbered face. Water resistant to 3 ATMs. Black. One size fits most.
H. S87131

CARBON FIBER ROLLER BALL PEN
Brass cap and carbon fiber barrel. Black ink.
I. S77011

RACING SPEED METAL PEN
Stylish European design, medium-point ballpoint pen made with metallic lacquer-coated aluminum, metal molded gripper and matte Silver accents. Black/Silver with Black ink.
J. S97008



Order at www.FORDCOLLECTION.com or toll free 1.888.380.6901

FORD RACING ACCESSORIES



PIT STOP BACKLESS BARSTOOL
Swivel-action one-ring barstool with Ford Racing logo printed on seat. Black. 30" height. Some assembly required.
A. S87162

RACING CHECKERED FLAG BARSTOOL
Swivel-action one-ring barstool with back rest and Ford Racing logo on back. Black. 30" height. Some assembly required.
B. S87163

SPECTATOR CAMP CHAIR
Chair features 2 can holders, zippered pocket and its own carrying case. 300-lb weight limit. Red.
C. S97010

FORD RACING VENTED UMBRELLA
Oversized 60" arc, manual-open umbrella with fiberglass shaft and ribs. Vented frame protects against wind gusts. Ergonomic rubber-coated grip. 100% nylon canopy and case. Black.
D. S97024

FORD RACING OAKLEY® SUNGLASSES
Streamlined wrap sunglasses with Black frame and Gray lenses. UV protected.
E. S97015

TUMBLER
Chrome-lined tumbler with spill-resistant "S" lid. Blue/White. 16oz Fits standard vehicle cup-holders.
F. S87133

COLLAPSIBLE CAN COOLER
Collapsible beverage holder that insulates drinks. Fabric exterior. Imported. Black.
G. S97009

COBRA JET TUMBLER
16oz Double-walled acrylic tumbler with spill-proof lid. Cobra Jet image reveals itself when you add warm liquid. Fits standard vehicle cup-holders.
H. S97027

EAGLE EYE BINOCULARS
Features binocular magnification of 12 x 32 mm, field of view of 96 m/1,000 m and Blue-coated lenses for glare reduction. Includes neck strap, lens cloth and protective polyester carrying case with belt loop. Silver/Black.
I. S97014

TAYLORMADE® TP BURNER RACING GOLF BALLS
The TaylorMade® TP Burner has low-drag performance that promotes improved distance on off-center hits. White. One dozen.
J. S97016

Order at www.FORDCOLLECTION.com or toll free 1.888.380.6901



Mustang FR500S—exclusive race car of the Ford Racing Mustang Challenge series and the only race car ever built in a Ford assembly plant



Hajek Motorsports' 2008 Mustang Cobra Jet, driven by John Calvert, on its way to winning the 2008 Cobra Jet's competition debut—the 2009 NHRA® Winternationals

Race cars. The extreme expression of performance and the pride of all auto manufacturers—especially when the race cars the manufacturer designs, engineers and builds win! Such is the case at Ford Racing, the only manufacturer to offer a diverse line of fully engineered, turn-key, winning race cars for racers from amateurs to pros—the Mustang FR500 family.

The first of this family was the FR500C, a car designed to compete in the professional Grand-Am Cup series (now the KONI Challenge). The FR500C had a remarkable first season, winning the "triple crown"—the drivers', manufacturers' and team championships! The formula was so good that the car was taken to Europe where it stormed to the 2007 FIA GT4 championship. Since then, it has carried on by winning races and multiple championships in 2008 and 2009.

With the success of the FR500C, Ford Racing embarked on an even more challenging effort—building race cars in Mustang's assembly plant. Through a collaboration involving Ford Racing, Miller Motorsports Park and the team at the plant, the FR500S was born—and with it the Ford Racing Mustang Challenge a professional road racing series featuring the FR500S exclusively. After two full seasons and 18 races, the factory-built race car has proven itself to be fun, safe and affordable.

In 2009, the story continued, moving to the drag strip. To celebrate the 40th anniversary of the original Mustang Cobra Jet, Ford Racing engineered, built and reintroduced the newest member of the FR500 family, the FR500CJ (Cobra Jet), to sportsman drag racing. Powered by the 5.4L Cobra Jet engine, this factory hot rod benefited from the same design and engineering that went into its road racing brothers. And like its road racing brothers, the Cobra Jet won its first time out! Watch for the new 2010 Cobra Jet on drag strips throughout the 2010 season.

FORD RACING RETURNED TO NHRA® SPORTSMAN RACING WITH HISTORIC MUSTANG COBRA JET WIN!

In 1968, Ford took the NHRA® Winternationals by storm with the Cobra Jet Mustang. Only 50 units were built and released to Ford dealers and Ford racers and, in its first appearance, the Cobra Jet won.

To commemorate the 40th anniversary of the original Cobra Jet, the 2008 model hit the drag strip—and like its predecessor, it won first time out! Owned by Hajek Motorsports and driven by John Calvert, the Cobra Jet stormed to victory at the 2009 NHRA® Winternationals—a fitting tribute to its heritage.

Buoyed by its stunning performance and the demand for another NHRA®-legal sportsman race car, Ford Racing is proud to announce the new 2010 Mustang Cobra Jet.

Like the highly successful 2008 model, this new entry from Ford Racing is a factory-built race car (serialized, but not street legal), ready for the drag strip with only minor additional prep required from the racer. Intentionally limited production makes this Cobra Jet both the fastest drag racing production Mustang ever and also a highly sought-after collectable.

The 2010 Mustang Cobra Jet (base number M-FR500-CJ10) is offered in five different engine/transmission combinations and joins Ford Racing's two successful road racing Mustangs, the FR500C and FR500S, as turn-key race cars available to racers of all levels. We encourage you to take advantage of this unique opportunity to help rewrite history by ordering and campaigning this new race car. Finally, while built to NHRA® specs, this package will not be restricted to NHRA® competition.

FR500CJ 2008 COBRA JET



FR500CJ FRONT WHEEL
M-1007-CJF

FR500CJ REAR WHEEL
M-1007-CJR

COBRA JET 9" AXLE
M-4001-CJ
page 169

COBRA JET DRIVESHAFT
M-4602-CJ
page 176

COBRA JET RADIATOR SUPPORT
M-5019-A

COBRA JET DRIVESHAFT LOOP
M-5478-CJ
page 176

2008 COBRA JET REAR SUSPENSION KIT
M-5649-CJ
page 192

COBRA JET SOLID MOTOR MOUNT KIT
M-6038-A
page 133

COBRA JET SFI CRANKSHAFT DAMPER
M-6316-CJ
page 136

COBRA JET TRANSMISSION
M-7003-CJ

FUEL RAIL SPACER KIT
M-8510-M2L

5.4L COBRA JET ENGINE LONG TUBE RACE HEADERS
M-9430-CJ
page 155

COBRA JET 123 MM MAF TUNER KIT
M-9600-CJ
page 207

2008 COBRA JET COLD AIR KIT
M-9603-CJ

FR500CJ GRAPHICS UPGRADE
M-162001-CJOPT

COBRA JET MIRROR BLOCKOFF
M-17728-CJ
page 227

FR500CJ EXTERIOR KIT
M-17831-CJ

2007-2009 MUSTANG SVT AND COBRA JET A/C DELETE KIT
M-19216-CJ
page 133

COBRA JET EMBROIDERED SEAT SET
M-6300034-CJ

COBRA JET EGR BLOCKOFF PLATE
M-9Y456-CJ

MUSTANG COBRA JET 5" TACHOMETER W/SHIFT LIGHT
NEW
M-17360-CJ
page 214



Proudly Made in the USA

COBRA JET BILLET ALUMINUM THROTTLE BODY
Proudly Made in the USA
M-9926-CJ
page 207



NEW

1, 2, & 3-Day Driving Schools | Mustang Experience | Hot Laps Sessions | Licensing School

STOP DREAMING. START DRIVING.

The Ford Racing High Performance Driving School at Miller Motorsports Park is the only official Ford Racing school in the world. We're unique in other respects, too. Our world-class facility and passionate, attentive instructors set us apart from other schools.

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mmpschools.com/ford

Ford RACING HIGH PERFORMANCE DRIVING SCHOOL
MILLER MOTORSPORTS PARK

CHAMPION INSTRUCTORS
INDIVIDUAL ATTENTION
DYNAMIC CLASSROOM SESSIONS
PERSONAL FEEDBACK AND TIPS

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FR500S MUSTANG CHALLENGE RACE CAR



The Mustang FR500S is a proud member of the Mustang FR500 race car family and the only car that is homologated for the Ford Racing Mustang Challenge—a professional racing series that debuted in 2008. Manufactured at AutoAlliance International in Flat Rock, MI—the same facility that builds street-legal Mustangs—the limited-edition Mustang FR500S is the first race car built by Ford Motor Company on a production line intended for sale to the public. The car features a sealed 4.6L 3-valve production Ford V8 engine and a variety of Ford Racing performance parts, including a cold air kit, high-capacity radiator and two-way adjustable dampers and springs. The car is available only through Miller Motorsports Park and is delivered to the customer in race-ready condition, complete with a roll cage, racing seat and safety harnesses, an AIM MXL data acquisition system and even a timing and scoring transponder.

The Ford Racing Mustang Challenge is an affordable, challenging platform for racers who want to compete in a V8-powered, rear-wheel-drive car on a level playing field that showcases driver ability. The series consisted of 10 races in 2009, held alongside major professional road racing events across North America.

MUSTANG FR500S RACE CAR
M-FR500-S*

Ford Racing is proud to include the Mustang FR500S in its race car line-up competing in the Ford Racing Mustang Challenge series.

The Mustang FR500S features the following:

- Factory-built and painted body shell with all sound deadening and seam sealer deleted
- Dyno-checked and sealed 4.6L 3-valve, fuel-injected V8
- Ford Racing/Brembo® 4-piston 14" front brakes with race pads front and rear; race ABS calibration

ENGINE
- 4.6L 3-valve, fuel-injected V8

STEERING
- Ford Racing rack and pinion
- Ford Hydraulic

FUEL SYSTEM
- Fuel Pumps: Ford Mustang GT stock
- Pressure Regulator: Ford Mustang GT stock

WHEELS
- 2008 Mustang SVT
- Size – Front: 18" x 9.5"
- Size – Rear: 18" x 9.5"

DRIVELINE
- 2008 Mustang SVT stock 6-speed manual transmission
- Upgraded clutch assembly
- Ford Racing short throw shifter

BRAKES
- Front: Brembo® 4-piston 14"
- Rear: Ford stock
- Master Cylinder: 2008 Mustang SVT stock
- ABS: Ford Racing

REAR SUSPENSION
- Dynamic® Suspensions – coil-over dampers
- Panhard Rod

FRONT SUSPENSION
- 2-way adjustable dampers with coil springs
- Adjustable anti-roll bar

ANCILLARIES
- Ford Racing high-capacity racing radiator
- Ford Racing Performance Parts exhaust system
- Ford Racing (2008 Bullitt-Based) 84 mm cold air intake

COCKPIT
- Ford Racing race seat
- Ford Racing 6-point safety harness
- Center-mount console switches
- AIM MXL data acquisition system

2008 DIE-CAST FR500S MUSTANG
M-77000-FR500S

- Take home your own 1:18 scale limited edition FR500S Mustang race car
- This highly detailed model will enhance any car collection
- Small parts, not intended for young children

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See pages 3-9 for important safety, emissions and warranty information.

FR500S MUSTANG CHALLENGE RACE CAR

To order the Mustang FR500S Mustang Challenge Race Car, contact the Ford Racing Mustang Challenge at (520) 245-6932.

The Mustang FR500S includes:

FR500S MAIN BODY HARNESS
M-14A005-500S

2007-2009 MUSTANG SVT WHEEL
M-1007-S1895

WHEEL NUTS (5 PACK)
M-1012-G

2005-2010 MUSTANG V6/GT/SVT FR500S HUB KIT WITH ARP® STUDS
M-1104-A

MUSTANG FR500S FRONT WHEEL STUDS
M-1107-A

FR500S REAR WHEEL STUDS
M-1107-B

8.8" AXLE BEARING AND SEAL KIT
M-1125-B1

MUSTANG FR500S ROTOR KIT 48 VANE
M-1125-D

MUSTANG FR500S FRONT ROTOR HAT KIT
M-1125-E

MUSTANG FR500C AND FR500S BRAKE ROTOR HARDWARE KIT
M-1125-F

72-VANE BRAKE ROTOR UPGRADE KIT
M-1126-G

FR500S BRAKE HOSE KIT
M-2078-A

MUSTANG FR500C REAR DISC BRAKE RACE PAD
M-2200-R

MUSTANG FR500S BRAKE KIT
M-2300-J

FR500 BREMBO® BRAKE CALIPER KIT
M-2320-D

FR500S ABS BRAKE MODULE
M-2353-A

FR500S DEAD PEDAL
M-2454-A

2005-2010 MUSTANG GT FRONT LOWER CONTROL ARM UPGRADE KIT
M-3075-E
page 192

MUSTANG FR500S HIGH-TEMP TIE ROD END
M-3130-R3

MUSTANG FR500C STEERING RACK
M-3200-R

FR500S HIGH-TEMP TIE ROD END SEALS
M-3332-A

FR500S POWER STEERING COOLER KIT
M-3746-A

2005-2010 MUSTANG GT 3.73 AXLE ASSEMBLY
M-4001-A373
page 170

2005-2010 MUSTANG GT/SVT AXLE GIRDLE
M-4033-G2
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MUSTANG FR500S DIFFERENTIAL
M-4204-T31H

8.8" RING GEAR AND PINION SETS
M-4209-F373N
page 172

2007-2010 MUSTANG SVT 8.8" RING AND PINION INSTALLATION KIT
M-4210-B1
page 173

2005-2010 MUSTANG GT COUPE FRONT LOWER A-ARM BRACE UPGRADE KIT
M-5025-A
page 192

2005-2009 MUSTANG GT/2007-2009 MUSTANG SVT FR500S MUFFLER KIT (50 STATE)
M-5230-S
page 158

FR500S FRONT SPRING
M-5310-A

2005-2010 MUSTANG GT AND 2007-2009 MUSTANG SVT DRIVESHAFT LOOP KIT
M-5478-S197B

MUSTANG ADJUSTABLE DROP LINK KIT
M-5483-A

2005-2010 MUSTANG GT COUPE ANTI-ROLL BAR KIT
M-5490-A
page 191

Proudly Made in the USA





*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.

FR500S MUSTANG CHALLENGE RACE CAR

FR500S REAR SPRING
M-5560-A

4.6L 3-VALVE FR500S MUSTANG CHALLENGE SEALED RACE ENGINE
M-6007-MC

CASE OF FORD RACING HIGH-PERFORMANCE OIL FILTERS
M-6731-FL820
page 127

2007-2009 MUSTANG SVT SHORT THROW SHIFTER
M-7210-B
page 164

2007-2009 MUSTANG SVT BLACK SHIFT KNOB AND STICK
M-7213-J
page 163

FR500S 11" 26-SPLINE CLUTCH DISC
M-7550-B

2005-2009 MUSTANG GT DE-GAS BOTTLE
M-8080-A
page 132

RADIATOR CAP WITH "FORD RACING" LOGO
M-8100-A
page 132

FR500S RADIATOR AIR DEFLECTOR KIT
M-8310-A

4.6L 3V LONG TUBE HEADERS
M-9430-MC
page 155

2005-2009 MUSTANG GT/V6 COLD AIR KIT DISPOSABLE HIGH-FLOW AIR FILTER REPLACEMENT
M-9601-B
page 142

FR500S PAINTED REAR WING KIT
M-16600-E
page 227

FR500S PAINTED WING AND ENDPLATE KIT
M-16600-E1
page 227

FR500S WING STANCHION KIT
M-16600-E2
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FR500S SPLITTER
M-16601-C
page 227

FR500S FRONT BUMPER BEAM
M-17757-A

FR500S REAR BUMPER BEAM
M-17906-A

FR500S TOW HOOK LOOP KIT
M-17954-A

FR500S FRONT AND REAR DAMPERS
M-18000-E

FR500S LEFT FRONT DAMPER
M-18000-EFL

FR500S RIGHT FRONT DAMPER
M-18000-EFR

FR500S LEFT REAR DAMPER
M-18000-ERL

FR500S RIGHT REAR DAMPER
M-18000-ERR

FR500S CASTER/CAMBER PLATE
M-18183-B

FR500S REAR UPPER SHOCK MOUNT
M-18197-A

A/C ELIMINATOR KITS
M-19216-D46
page 133

FR500S STRUT TOWER BRACE
M-20201-MC

MUSTANG FR500C 6-POINT SAFETY HARNESS
M-61108-R

MUSTANG FR500S CAGED BODY UNPAINTED
M-607100-R197A

MUSTANG REAR QUARTER-WINDOW KIT
M-6342006-MC

FR500S GRILLE W/O BADGE
M-8200-A
page 226

Proudly Made in the USA



2005-2009 MUSTANG GT COLD AIR KIT WITH PERFORMANCE CALIBRATION
M-9603-GTB
page 141

Proudly Made in the USA



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See pages 3-9 for important safety, emissions and warranty information.

FR500C GRAND-AM KONI CHALLENGE

In a testament to Ford Racing engineering and durability, the Mustang FR500C has stormed the Grand American Road Racing KONI Challenge. Right out of the box, 2005 proved to be a remarkable season for the FR500C as this factory-engineered race car won 5 races on its way to garnering the "triple crown"—the drivers', manufacturers' and team championships! In 2007, the FR500C won 5 of 12 races in the Grand American Road Racing KONI Challenge Series, and the FR500GT4 won the inaugural championship in the GT4 European Cup!

As the saying goes, "nothing breeds success like success," and 2009 is further evidence of that. Based on proven track records and their undisputed value, the field of Mustangs competing continues to grow—with 31 cars currently being campaigned across America. With a single race remaining in the 2009 KONI Challenge season, Mustang FR500C drivers are in 1st, 2nd, 3rd and 5th place, Mustang FR500C teams stand at 1st and 2nd and Ford trails BMW by a mere 2 points in the Manufacturers' Championship (313 pts v. 311 pts). The Mustang FR500C—worthy heir to Mustang's unmatched racing heritage.

MUSTANG FR500C RACE CAR
M-FR500-C*

A turn-key ready-to-run steed for Grand-Am Cup GS class!
The Mustang FR500C features the following:
- Seam-welded, pre-paint, production body, Grand-Am spec roll cage, attachment points and enclosures specifically for racing
- Ford Racing 5.0L "Cammer R50" engine—the heart of this purpose-built machine mated to our unique Tremec® T-56 racing transmission
- Ford Racing brake and suspension upgrades
- Add driver...and look for victory lane!

ENGINE
- Type: 5.0L "Cammer R50"

STEERING
- Steering Rack: Ford Racing rack and pinion
- Power Steering: Ford Hydraulic

FUEL SYSTEM
- Fuel Cell: ATL custom dual dry break – 20 gallon
- Fuel Pumps: Walbro® 255 L/hr
- Pressure Regulator: Ford – stock

WHEELS
- Manufacturer: Fikse®
- Size – Front: 18" x 10.0"
- Size – Rear: 18" x 10.0"

DIMENSIONS
- Wheelbase: 107.1"
- Front Track: 62.8"
- Rear Track: 63.0"
- Dry Weight: 3200 lbs

DRIVELINE
- T-56 6-speed transmission
- Trac-Tech C-Locker
- Supercharged Cobra Clutch Kit

BRAKES
- Front: Brembo® 4-piston
- Rear: Ford – stock
- Master Cylinder: Ford Racing
- ABS: Ford Racing

CHASSIS
- Type: Uni-body full seam welded with integrated safety cage
- Structural Performance: Over 20,000 lb-ft/degree (torsional)
- Construction: Ford – modified stock steel

REAR SUSPENSION
- Dynamic® Suspensions – coil-over dampers
- 3-way adjustable – high/low-speed compression rebound
- Ride height adjustable
- 3-link with panhard bar
- Urethane bushings



FRONT SUSPENSION
- Dynamic® Suspensions – inverted struts
- 3-way adjustable – high/low-speed compression rebound
- Ride height adjustable coil over
- Urethane bushings
- Adjustable anti-roll bar

ANCILLARIES
- C&R® aluminum radiator with integrated oil cooler
- Ford Racing Performance Parts exhaust system
- Ford Racing Performance Parts high-flow intake system
- SPARCO® cable-activated extinguisher

COCKPIT
- SPARCO® racing seat
- SPARCO® 320 mm steering wheel – quick release
- SPARCO® 6-point safety harness
- Center-mount console switches
- AIM digital dash system – data logging and display

FORD RACING PARTS FOR PRIVATEER BUILDERS
- M-6007-R50 Engine
- 5.0L "Cammer R50" race engine. This is the only engine approved for Grand-Am Cup racing in a 2005-2009 Mustang. This is the same engine used in the Ford Racing Mustang FR500C race car

M-7003-T56R TRANSMISSION
- This is the only transmission approved for Grand-Am Cup racing in a 2005-2009 Mustang. This transmission was developed by Ford Racing and Tremec® Transmission for use in the Ford Racing Mustang FR500C race car
- M-7003-T56R 6-speed transmission with low helix 4615 steel alloy gears, one-piece counter shaft, heavy-duty pads, slip yoke configuration
- Production 2005-2009 throwout bearing which maintains hydraulic clutch actuation

2005 DIE-CAST FR500C
M-77000-GA
- Take home your own 1:18-scale limited edition FR500C Mustang race car
- This highly detailed model will enhance any car collection
- Small parts, not intended for young children



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See pages 3-9 for important safety, emissions and warranty information.

FR500C GRAND-AM KONI CHALLENGE

MUSTANG FR500C RACE CAR
M-FR500-C
MUSTANG FR500C FRONT WHEEL
M-1007-F1810
MUSTANG FR500C REAR WHEEL
M-1007-F1810A
MUSTANG FR500C ROTOR HAT
M-1124-R
MUSTANG FR500C AND FR500S BRAKE ROTOR HARDWARE KIT
M-1125-F
MUSTANG FR500C AND FR500S 72-VANE BRAKE ROTOR UPGRADE KIT
M-1125-G
MUSTANG FR500C FRONT BRAKE PADS
M-2001-R
MUSTANG FR500C BRAKE DUCT KIT
M-2005-A
MUSTANG FR500C BRAKE BOOSTER
M-2005-R
MUSTANG FR500C FRONT BRAKE CALIPER BRACKET
M-2134-R
MUSTANG FR500C REAR DISC BRAKE RACE PAD
M-2200-R
MUSTANG FR500C FRONT BRAKE KIT
M-2300-A
FR500C CASTER ADJUSTER
M-3052-R1
MUSTANG FR500C FRONT LOWER CONTROL ARMS
M-3075-R
MUSTANG FR500C TIE ROD END
M-3130-R2
MUSTANG FR500C STEERING RACK
M-3200-R
FR500S HIGH-TEMP TIE ROD END SEALS
M-3332-A
MUSTANG FR500C BALL JOINT
M-3395-B
MUSTANG FR500C STEERING WHEEL
M-3601-R
2005-2010 MUSTANG GT/SVT AXLE GIRDLE
M-4033-G2
page 171
9"/8.8"/7.5" DIFFERENTIALS AND SPOOL
M-4204-C31
8.8" RING GEAR AND PINION SETS
M-4209-G355A
page 172
HD ALUMINUM DRIVESHAFT ASSEMBLY
M-4602-J
page 176
MUSTANG FR500C EXHAUST SYSTEM
M-5230-R50
FR500C BUSHING KIT, FRONT
M-5638-B
MUSTANG FR500C REAR UPPER CONTROL ARM BUSHINGS
M-5638-R
FR500C REAR LOWER CONTROL ARM KIT
M-5649-R1
FR500C RH CYLINDER HEAD
M-6049-DAC
FR500C LH CYLINDER HEAD
M-6050-DAC
4.6L MANUAL FLYWHEEL BOLTS
M-6379-B
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11" PRESSURE PLATE BOLT AND DOWEL KIT
M-6397-A46
page 167
T-56 BLACK LEATHER SHIFT KNOB
M-7213-B
page 163
10TH ANNIVERSARY MUSTANG COBRA SHIFT BOOT
M-7277-B
page 165
MUSTANG FR500C RADIATOR
M-8005-R
MUSTANG FR500C FUEL CELL
M-9002-R
HEADERS
M-9430-R50
"STAGE 8" LOCKING HEADER BOLT SYSTEM
M-9432-A54
MUSTANG FR500C ENGINE CONTROL UNIT
M-12650-BR50
FR500C DASH HARNESS
M-14290-T50C
FR500C REAR BODY HARNESS
M-14405-T50B
FR500C FRONT BODY HARNESS
M-14414-T50B
FR500C BATTERY HARNESS
M-14500-R50
MUSTANG FR500C RACE DAMPER FRONT LEFT
M-18120-RFL
MUSTANG FR500C RACE DAMPER FRONT RIGHT
M-18120-RFR
MUSTANG FR500C RACE DAMPER REAR LEFT
M-18120-RRL
MUSTANG FR500C RACE DAMPER REAR RIGHT
M-18120-RRR
MUSTANG FR500C CASTER ADJUSTER KIT
M-18183-R
MUSTANG FR500C CAGED BODY UNPAINTED
M-607100-R197
MUSTANG FR500C 6-POINT SAFETY HARNESS
M-61108-R



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See pages 3-9 for important safety, emissions and warranty information.

SPORTSMAN CIRCLE TRACK

SPORTSMAN CIRCLE TRACK RACING

Ford Racing offers factory-engineered parts for asphalt and dirt Sportsman Circle Track Racers

PARTS TO BUILD YOUR OWN

Designed and engineered to professional racing series standards













Race Blocks
- BOSS 302 and BOSS 351
- From 302 to 468 cubic inches
- Cast iron and aluminum
- Big block SCJ

See pages 96-102.



"Buzzy" Adams – N351 Sportsman Head – WISSOTA® Modified Champion

Heads and Intakes
- NASCAR Late Model Series® N351 Sportsman
- NASCAR® Modified C3
- D3 high-port for unlimited classes
- SCJ and A460 for big block modifieds

See pages 103-111, 122-124.





COMPLETE SEALED RACING ENGINES

Ford Sealed Racing Engines are built to professional racing series standards and deliver reliable lasting performance. These aren't built from repackaged production parts—but real racing parts like forged crank, rods and pistons with full-floating piston pins. Based on premium race blocks, these engines deliver reliable and consistent performance lap after lap.



Brian Campbell – D347SR – ASA Late Model Series Winner



M-6007-S347JR
- 350 hp
- 400 lb-ft torque
- BOSS 302 block
- "X" aluminum head
- Competes with GMPP "603"



M-6007-D347SR
- 415 hp
- 400 lb-ft torque
- BOSS 302 block
- "Z" aluminum head
- Competes with GMPP "604"



M-6007-347NST
- 405 hp
- 400 lb-ft torque
- BOSS 302 block
- "Z" aluminum head
- Approved in select NASCAR Late Model Series®



M-6007-Z351SR
- 400 hp
- 375 lb-ft torque
- C58 race block
- "Z" aluminum head
- Fits "no stroker" crate rules

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
See pages 3-9 for important safety, emissions and warranty information.



Cunningham Motorsports 2010 Pro Stock Mustangs – NHRA®'s 2009 Mac® Tools U.S. Nationals Best Engineered Award!

Available first quarter 2010, Ford Racing's new Pro Stock 500 cid engine components feature NASCAR®-derived development and casting technology combined with the engineering know-how and feedback of veteran NHRA® engine builders. Available in both sequential and mirror image port layout, these heads and blocks are the next generation of Pro Stock performance! Engine components can be ordered through any Ford Racing Distributor for delivery first quarter 2010!

PRO STOCK ENGINE PARTS FROM FORD RACING:

PRO STOCK ENGINE BLOCK – MIRROR IMAGE HEAD
M-6010-JC50

PRO STOCK ENGINE BLOCK – SEQUENTIAL HEAD
M-6010-JC51

PRO STOCK HEAD – MIRROR IMAGE CHAMBERS
M-6049-JC50

PRO STOCK HEAD – SEQUENTIAL CHAMBERS
M-6049-JC51

PRO STOCK ROCKER COVER – MIRROR IMAGE HEAD
M-6582-JC50

PRO STOCK ROCKER COVER – SEQUENTIAL HEAD
M-6582-JC51

PRO STOCK CYLINDER HEAD STUD KIT – MIRROR IMAGE
M-6014-JC50

PRO STOCK CYLINDER HEAD STUD KIT – SEQUENTIAL
M-6014-JC51

PRO STOCK PLUG – CAM KIT
M-6026-JC51

PRO STOCK SPOOL CAMSHAFT – MIRROR HEAD
M-6250-JC50

PRO STOCK SPOOL CAMSHAFT – SEQUENTIAL HEAD
M-6250-JC51

PRO STOCK TIMING SET – CAM DRIVE
M-6268-JC50

PRO STOCK ADAPTOR – OIL INLET TO BLOCK
M-6881-JC50

PRO STOCK RETAINER – FRONT CRANKSHAFT SEAL
M-6059-JC50

PRO STOCK RETAINER – REAR CRANKSHAFT SEAL
M-6701-JC50

Racer to Order **KBD-34700 Pro Stock Timing Set – Cam Drive** direct from Jesel Valvetrain Innovations, Phone: (732) 901-1800
Racer to Order **T13668 Seal–Crankshaft–Front** and **T13562 Seal–Crankshaft–Rear** direct from Tri-Tec Seal, Inc., Phone: (810) 655-3900

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NHRA® PRO STOCK



Cunningham Motorsports 2010 Pro Stock Mustang – Driver: Erica Enders

PRO STOCK BODY PARTS FROM FORD RACING:

2010 MUSTANG PRO STOCK BODY CARBON FIBER
M-7002010-PSA

2010 MUSTANG PRO STOCK BODY FIBERGLASS
M-7002010-PSB

2010 PRO STOCK DOOR HANDLES
2010 MUSTANG HEADLAMP KIT
2010 MUSTANG TAILLAMP KIT

Pro Stock carbon fiber and light-weight fiberglass bodies are available through the chassis builders listed below:

- **Jerry Bickel Race Cars, Inc.**
  Jerry Bickel
  141 Racewary Park Drive
  Moscow Mills, MO 63362
  (636) 356-4727
  Fax: (636) 356-4667
  http://www.jerrybickel.com
- **Jerry Haas Race Cars, Inc.**
  Jerry Haas
  350 Haas Lane
  Fenton, MO 63026
  (636) 343-8895
  http://www.jerryhaas.com
- **Don Ness Racecraft**
  Don Ness
  10590 Radisson Road NE
  Minneapolis, MN 55449
  (612) 670-6708
  donness@prodigy.net
- **RJ Race Cars/Quarter-Max**
  Rick Jones
  300 North Linwood Road
  Galesburg, IL 61401
  (309) 343-7575
  http://www.quartermax.com



Cunningham Motorsports 2010 Pro Stock Mustang – Driver: Jim Cunningham

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http://specfocus.drivenasa.com

Spec Focus (SF) continues to grow as the class enters its fifth season of competition. With more and more enthusiasts driving a Ford lately, on-track competitors are becoming accustomed to seeing the blue oval in the winner's circle. With the limited number of modifications allowed in SF, the hidden potential of the Focus platform has more than proven itself as a valid contender on track. With its superior vehicle dynamics, more than ample power and plain fun-to-drive character, SF is the best way to race on Sunday and drive to work on Monday without breaking the bank.

Nothing feels better than knowing there's power available with a push of your foot. The engine and drivetrain upgrades allowed in SF not only increase power but also help transfer it to the ground more effectively. Over the years, the Focus has been offered with multiple different engine combinations. To resolve this, SF rules allow more modifications to some motors to help equal the playing field.

More power is great, but getting that power to translate into the ultimate lap time needs a little help from the suspension and braking systems. SF has that covered as well. Our engineering staff created affordable brake and suspension packages that not only allow adjustment for aggressive track competition, but are also as well suited for you to enjoy a weekend cruise around your local getaways.

SF cars not only offer a budget-minded way to go racing, they also look good as they push the limit. The rule set also allows the use of approved SVT fascias as well as Ford's Street Appearance Package, which keeps the Focus aesthetics right on par with today's top vehicles. Mount four of the series spec tires on a set of 17" Ford Racing Wheels and you have yourself one of today's most affordable and well-balanced front wheel drive vehicles that's sure to put a grin on your face as you tear up tracks across the country.

SUSPENSION/BRAKE COMPONENTS

DESCRIPTION	YR/MODEL	PART #
Multimatic Suspension Kit	2000-2005	M-3000-ZXM
SVT Suspension Kit	2000-2005	M-3000-ZX3
Spring Kit	2006+	M-5560-ZX3B
Damper Kit	2006+	M-18000-ZX3B
Anti-Roll Bar Kit	2000-2008	M-5400-Z3R
Performance Spring Kit	2000-2005	M-5560-ZXM
Performance Spring Kit	2006-2007	M-5560-ZXM1
Dynamic® Damper Kit	2000-2005	M-18000-ZXM
Dynamic® Damper Kit	2006-2007	M-18000-ZXM1
SVT Damper Kit	2000-2005	M-18000-ZX3
SVT Front Brake Kit	2000-2004	M-2300-SVTF4
Front Rally Brake Kit	2000-2004	M-2300-ZXR
SVT Front Brake Kit	2005-2009	M-2300-SVTF5
SVT Rear Brake Kit	2000-2008	M-2300-SVTR
Rally/15" Brake Kit	2000-2005	M-2300-ZX3R
Adjustable Rear Subframe	2000-2006+	M-5035-ZX3

ENGINE/DRIVETRAIN CONTENT

DESCRIPTION	YR/MODEL	PART #
CNC Ported Cylinder Head	Zetec®	M-6049-ZX3P
CNC Ported Cylinder Head	2.0 Dura	M-6049-D23P
Performance Camshafts	Zetec®	M-6252-A203
Coated Long Tube Header	Zetec®	M-9430-ZX3LC
Torsen® Limited Slip Diff	2000-2006+	M-4204-F20
Torsen® Limited Slip Diff	SVT	M-4204-SVTF
Centerforce Clutch Kit	Zetec®	M-7563-Z3

EXTERIOR CONTENT

DESCRIPTION	YR/MODEL	PART #
SVT Front Fascia	2000-2004	M-17831-F
SVT Rear Fascia	2000-2006+	M-17835-F
SVT 17" Wheels	2000-2006+	M-1007-S177







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SPEC FOCUS

ROADRACING

HISTORY – The Ford Focus was launched in Europe in 1998 in Valencia, Spain and Saarlouis, Germany and was voted the European Car of the Year in 1999. Shortly after, the same team that launched the Focus platform in Europe came across the pond to launch the Focus in North America and again the car was named the North American Car of the Year for 2000. The European Focus has since moved to a larger and heavier platform with essentially the same chassis configuration, while the North American Focus has stayed with the relatively light-weight, responsive platform of the original European design.

OVERVIEW – Spec Focus is a roadracing class intended to provide affordable and close competition in a package that provides excellent performance with minimal setup time. Spec Focus runs nationwide and is sanctioned by the National Auto Sport Association (NASA), http://specfocus.drivenasa.com.

BODY STYLES – Various Focus body styles are allowed in Spec Focus which allows competitors to choose from 3- or 4-door hatchbacks, 4-door sedans and 2-door coupes.

SUSPENSION – The allowed suspension modifications in Spec Focus enhance the steering and handling characteristics that helped the car win both the European and North American Car of the Year awards without going to extremes with respect to either stiffness or setup complexity. The production-style spring and damper package was developed specifically for this application and provides maximum performance out of the box without requiring extensive setup or testing.

BRAKE – The Focus SVT brake package is legal for Spec Focus and provides 12" front rotors that produce excellent brake feel combined with lots of stopping power. In addition, because the brake kit is production-based, spare parts can be obtained through any Ford dealer and racing-specific brake pads can be obtained from a variety of sources. The large diameter of the brake package requires fitment of the 17" wheels offered on Focus SVT models, of which there are several different styles with the same physical dimensions.

ENGINE – The engine packages and allowances in Spec Focus were developed to allow the different engines offered in the Focus over the years to be competitive with each other without excessive penalties in terms of weight or power. All engines offered in the North American Ford Focus are legal for Spec Focus except for the 8-valve SPI engine. This includes: 2.0 Zetec® (2000-2004), 2.0 Zetec® SVT with VVT (2002-2004), 2.0 Duratec® (2005+) and 2.3 Duratec® (2003+). Engine modifications are specific for each engine variant and are designed to balance the combination of horsepower and torque to allow parity among all 4 engine variants on the track. Modifications range from minor bolt-ons allowed for the 2.3 Duratec® to relatively extensive engine work for the 2.0 Zetec® such as a ported cylinder head, more aggressive camshafts and performance intake and exhaust manifolds.



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USAC® Ford Focus Midget Series

www.usacracing.com
james@usacracing.com

So, you want to get started in racing? The USAC® Ford Focus Midget Series may be the avenue for you.

The USAC® Ford Focus Midget Series was designed to address the growing need for affordable, reliable, entry-level racing opportunities. USAC® Midget racing has long been recognized as a preferred venue for the aspiring racer, and the USAC® Ford Focus Midget Car Series is designed to give the aspiring racer a cost-effective avenue to pursue racing—and the proof is in the numbers. In 2009, more than 200 Ford Focus Midgets have competed in more than 110 USAC® Ford Focus Series Events.

The USAC® Ford Focus Midget Series cars are based on a current USAC® Midget car chassis and are powered by an internally production-stock, 2.0-liter Ford Focus Zetec® engine. USAC® competitors have enthusiastically received the Ford engine package for its power, drivability and reliability.







2.0L USAC® FOCUS MIDGET ENGINE

M-6007-USAC*

- 2.0L Zetec® race-ready engine
- Supplied with engine dress for power steering applications





For inquiries about the USAC® Ford Focus Midget Series, contact: USAC® (317) 247-5151; james@usacracing.com

To order a new USAC® Ford Focus Midget engine or Ford Focus Midget engine rebuilds, contact:
Roush-Yates® Racing Engines
Special Projects Group
Phone: (704) 658-1540
Fax: (704) 658-1474
Email: specialprojects@roushyates.com

*Not legal for sale or use on pollution-controlled motor vehicles. **Direct replacement part.
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CODES:
LS = LOCAL SALES
MO = MAIL ORDER
EB = ENGINE BUILDER
IN = INSTALLATION
WH = WHOLESALE

ARIZONA

AMP PERFORMANCE
PHOENIX, AZ 85034
602-437-2727
LS, MO, EB, IN, WH

BELL FORD
PHOENIX, AZ 85023
602-564-3123
LS, MO, IN, WH

FIVE STAR FORD
SCOTTSDALE, AZ 85257
480-946-3900
LS, MO, IN, WH

FORD OF NORTH SCOTTSDALE
SCOTTSDALE, AZ 85260
800-537-8332
LS, MO, WH

HOLMES TUTTLE FORD
TUCSON, AZ 85705
520-292-3661
LS, MO, IN, WH

JIM CLICK FORD LINCOLN MERCURY
TUCSON, AZ 85711
800-362-7002
LS, MO, IN, WH

SANDERSON FORD/ SPECIALTY PARTS
GLENDALE, AZ 85301
888-364-3673
LS, MO, WH

ARKANSAS

KEITH CRAFT RACING
ARKADELPHIA, AR 71923
870-246-7460
MO, EB

CALIFORNIA

AUTOCARS/SPEEDSHOP DIRECT
ATASCADERO, CA 93422
877-773-3328
LS, MO, WH

BROTHER'S PERFORMANCE WAREHOUSE
CORONA, CA 92880
951-735-8880
LS, MO, IN, WH

CALIFORNIA MUSTANG PARTS & ACCESSORIES
CITY OF INDUSTRY, CA 91748
800-775-0101
MO

CAL-STATE AUTO PARTS, INC.
SAN DIEGO, CA 92123
858-292-1622
WH

FAIRVIEW FORD SALES, INC.
SAN BERNARDINO, CA 92412
909-386-0220
LS, IN, WH

FAIRWAY FORD SPORT & PERFORMANCE
PLACENTIA, CA 92870
714-528-4670
LS, MO, IN, WH

FRONTIER FORD
SANTA CLARA, CA 95051
408-247-6583
LS, WH

GALPIN AUTO SPORTS
VAN NUYS, CA 91406
818-922-3800
LS, MO, EB, IN, WH

HARROLD FORD
SACRAMENTO, CA 95825
916-922-1535
LS, IN, WH

HAWAII RACING
SIMI VALLEY, CA 93065
805-583-8880
LS, MO, EB, WH

KEN GRODY FORD
BUENA PARK, CA 90621
888-288-7830

MOSS MOTORS
GOLETA, CA 93117
800-667-7872
MO

MOSSY FORD
SAN DIEGO, CA 92109
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LS, MO, IN, WH

MUSCLE MOTORS PERFORMANCE, INC.
CANOGA PARK, CA 91304
818-341-7223
LS, MO, EB, IN, WH

MUSTANGS PLUS
STOCKTON, CA 95205
800-999-4289
LS, MO

PERFORMANCE AUTOMOTIVE WAREHOUSE
CHATSWORTH, CA 91311
818-678-3000
LS, MO, EB

PERFORMANCE IMPORTS
ORANGE, CA 92867
714-633-6220

R & E RACING
LANCASTER, CA 93534
661-948-7622

RACEWAY FORD
RIVERSIDE, CA 92507
909-784-1000
LS, IN, WH

SACRAMENTO MUSTANG
SACRAMENTO, CA 95841
916-484-3434
LS, MO, IN

SANTA MARGARITA FORD
RANCHO SANTA MARGARITA, CA 92688
949-888-4344
LS, WH

SERRAMONTE FORD
COLMA, CA 94014
800-762-9664
LS, WH

SPEED WAREHOUSE, INC.
HAYWARD, CA 94541
510-786-3555
LS, WH

T.O.E. PERFORMANCE PRODUCTS
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707-425-2996
LS, MO, EB, IN, WH

TEAM C, INC.
BELLFLOWER, CA 90706
562-866-3887

WEST COAST DIFFERENTIALS
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800-642-0950
WH

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COLORADO MUSTANG SPECIALISTS
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303-343-7024
LS, MO, IN, WH

LONGMONT FORD
LONGMONT, CO 80501
303-776-3600
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NORTHGLENN, CO 80234
800-332-0401
LS, IN, WH

PHIL LONG FORD OF DENVER
DENVER, CO 80123
303-933-5664
LS, IN, WH

SPRADLEY BARICKMAN FORD LINCOLN MERCURY
PUEBLO, CO 81008
719-543-6710

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DANBURY COMPETITION ENGINE
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203-748-7356

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LS, MO, IN, WH

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813-621-7759
LS, WH

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DELRAY BEACH, FL 33483
800-433-0018
LS, WH

GARY YEOMANS FORD
DAYTONA BEACH, FL 32124
800-231-6172
LS, MO, IN, WH

GREENWAY FORD
ORLANDO, FL 32817
407-249-3270
LS, WH

MAROONE FORD
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LS, IN

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WH

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LS, MO, IN, WH

POWERED BY FORD
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407-843-3673
LS, MO, EB, IN, WH

RACER WALSH, INC.
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LS, MO, EB, WH

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239-274-2400
LS, MO, EB, IN, WH

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850-455-1341
LS, MO, EB, WH

STEEDA AUTOSPORTS
POMPANO BEACH, FL 33069
954-960-0774
LS, MO, IN

THE PARTS HOUSE
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866-874-2229
LS, IN, WH

WAYNE AKERS FORD, INC.
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561-540-9651
LS, IN, WH

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LS, MO, WH

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770-532-0211

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770-307-0241

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770-446-1965
LS, MO, WH

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808-564-9271

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HONOLULU, HI 96813
808-532-1770
LS, IN

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BILL KAY FORD
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708-388-3000
LS, MO, IN, WH

CHICAGO PARTS & SOUND
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630-350-1500
LS, IN, WH

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MIDWEST TRUCK & AUTO PARTS, INC.
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ROD BAKER FORD SALES
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MATTESON, IL 60443
708-720-8500
LS, MO, EB, IN, WH

VICTOR FORD
WAUCONDA, IL 60084
847-526-5541

WEIR FORD MERCURY
RED BUD, IL 62278
866-712-2388
LS, MO, EB, IN, WH

WINNER'S CIRCLE SPEED & CUSTOM
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LS, MO, EB, IN, WH

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317-781-9373
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SOUTH BEND, IN 46628-8422
888-541-1777

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800-424-8741
WH

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LS, MO, IN, WH

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LS, MO, WH

PLAZA FORD, INC.
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410-879-9033
LS, IN, WH

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LS, MO, WH

MASSACHUSETTS

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IMPERIALCARS.COM
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LS, MO, IN, WH

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MO, WH

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FERNDALE, MI 48220
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LS, IN

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734-721-2550
LS, WH

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LS, MO, IN, WH

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313-561-5500
LS, MO, EB, IN, WH

MOTOR STATE DISTRIBUTING
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269-463-4113
WH

ROUSH INDUSTRIES
LIVONIA, MI 48150
734-779-7000

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586-468-3673
LS, MO, EB, IN, WH

VARSITY FORD, INC.
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734-996-2300 EXT 271
LS, MO, IN, WH

VILLAGE FORD
DEARBORN, MI 48124
313-565-6799
LS

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APPLE VALLEY FORD
APPLE VALLEY, MN 55124
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LS, MO, EB, IN, WH

TOUSLEY FORD
WHITE BEAR LAKE, MN 55110
612-484-7231
LS, MO, EB, IN, WH

MISSISSIPPI

B B & T RACING
SOUTHAVEN, MS 38671
662-280-7600
LS, MO, EB, IN, WH

MISSOURI

ARONSON MOTORSPORTS
CHILLICOTHE, MO 64601
660-646-4553
LS, EB, WH

LOWE AUTOMOTIVE WHS, INC.
ST. LOUIS, MO 63126
314-752-9051

PETE & JAKE'S HOT ROD PARTS
PECULIAR, MO 64078
800-334-7240

SUNSET AUTO COMPANY
ST. LOUIS, MO 63127
314-843-4431
LS, MO, IN, WH

NEBRASKA

SPEEDWAY MOTORS
LINCOLN, NE 68528
402-323-3210

NEVADA

TEAM FORD
LAS VEGAS, NV 89130
702-395-5100
LS, MO, IN, WH

NEW JERSEY

DOWNS FORD, INC.
TOMS RIVER, NJ 08753
732-349-2240 EXT 958
LS, MO, EB, IN, WH

JDM ENGINEERING, INC.
FREEHOLD, NJ 07728
732-780-0770
LS, MO, EB, IN

JOE HECK RACING
LAKEWOOD, NJ 08701
732-370-4325
LS, MO, EB, IN, WH

PAUL MACHENRY & COMPANY
MOORESTOWN, NJ 08057
800-969-3673
LS, MO, IN, WH

NEW YORK

HASSETT FORD LINCOLN MERCURY SALES, INC.
WANTAGH, NY 11793
516-785-7200
LS, MO, EB, IN, WH

NORTHCOAST PERFORMANCE
ONTARIO, NY 14519
585-216-1210
LS, MO, WH

R V ENGINES
ALEXANDER, NY 14005
585-344-0784
LS, EB, IN

S-K SPEED RACING EQUIPMENT
ROCKVILLE CENTRE, NY 11570
516-766-2225
LS, MO, EB, WH

NORTH CAROLINA

DEACON JONES FORD LINCOLN MERCURY, INC.
GOLDSBORO, NC 27534
919-736-3387

EARL TINDOL FORD
GASTONIA, NC 28054
704-867-8341

G-FORCE SOUTH
ASHBORO, NC 27205
336-625-3844

HARRIS MUSTANG SUPPLY
CHARLOTTE, NC 28269
704-598-1412

HILBISH MOTOR CO.
KANNAPOLIS, NC 28083
800-849-0233
LS, MO, EB, IN, WH

HOLCOMB MOTORSPORTS, INC.
LUMBERTON, NC 28358
800-475-7223
LS, MO, EB, WH

ROUSH & YATES RACING ENGINES, LLC
MOORESVILLE, NC 28117
704-662-6982
LS, MO, EB

OHIO

GEORGE'S SPEED SHOP
DAYTON, OH 45404
937-233-0353
LS, EB, WH

JEG'S HIGH PERFORMANCE
DELAWARE, OH 43015
800-345-4545
LS, MO, WH

LLOYD-MANWELL FORD
AVON LAKE, OH 44012
440-933-3291
LS, MO, IN, WH

MATHEWS FORD
OREGON, OH 43616
800-225-8210
LS, MO, IN, WH

SNAKEBITE PERFORMANCE
ROSS, OH 45013
513-738-4000

SUMMIT RACING EQUIPMENT
TALLMADGE, OH 44278
800-230-3030
LS, MO, WH

WHITEY'S AUTO GROUP
MANSFIELD, OH 44906
800-248-3788
LS, MO, IN, WH

OKLAHOMA

BRAND RACING ENGINES
OKLAHOMA CITY, OK 73169
405-745-3332
EB

OREGON

ALDRIDGE MOTORSPORTS ENGINEERING
PORTLAND, OR 97213
503-284-8484
LS, MO, EB, IN, WH

BAXTER AUTO PARTS
PORTLAND, OR 97217
503-417-5300
LS, WH

LANDMARK FORD
TIGARD, OR 97223
503-639-1131
LS, MO, WH

PENNSYLVANIA

CARL BEASLEY FORD, INC.
YORK, PA 17402
717-755-2911
LS, MO, IN, WH

CJ PONY PARTS, INC.
HARRISBURG, PA 17112
800-888-6473
LS, MO, IN, WH

FRED BEANS FORD OF BOYERTOWN
BOYERTOWN, PA 19512
610-367-6981
LS, MO, EB, WH

K&G SPEED ASSOCIATES, INC.
BROOMALL, PA 19008
610-359-1616

KEYSTONE AUTOMOTIVE OPERATIONS, INC.
EXETER, PA 18643
570-655-4514

MCNEW
DILLSBURG, PA 17019
717-432-9503

SPRINGFIELD FORD LINCOLN MERCURY
SPRINGFIELD, PA 19064
610-544-3778
LS, MO, EB, IN, WH

RHODE ISLAND

RACERS EQUIPMENT WAREHOUSE
WARWICK, RI 02886
800-556-2864
LS, MO, EB, WH

TASCA AUTOMOTIVE GROUP
CRANSTON, RI 02920
401-681-1300

TENNESSEE

H.P. SALES, INC./ HOT ROD BARN
KNOXVILLE, TN 37917
865-688-6031

TENNESSEE SPEED SPORT
GOODLETTSVILLE, TN 37072
615-851-4070
LS, WH

TEXAS

AER MFG., INC.
CARROLLTON, TX 75006
972-418-6499/417-317

CASA FORD
EL PASO, TX 79925
800-394-2785

DALLAS MUSTANG PARTS
DALLAS, TX 75238
800-MUSTANG
LS, MO, EB, IN, WH

GRAND PRAIRIE FORD
GRAND PRAIRIE, TX 75050
972-859-5467
LS, MO, IN, WH

LATEMODEL RESTORATION SUPPLY, INC.
HEWITT, TX 76643
254-296-6500
LS, MO, WH

LEIF JOHNSON FORD
AUSTIN, TX 78751
800-274-3673
LS, MO, IN, WH

LONE STAR PERFORMANCE
GARLAND, TX 75042
972-205-9100
LS, MO, EB, IN, WH

MAC HAIK FORD, LTD.
HOUSTON, TX 77024
713-932-5050
LS, MO, EB, IN, WH

NORTH PARK LINCOLN MERCURY
SAN ANTONIO, TX 78216
210-341-8841
LS, MO, WH

NORTHSIDE FORD
SAN ANTONIO, TX 78216
800-542-9912
LS, IN, WH

SAMES MOTOR COMPANY
LAREDO, TX 78041
956-721-4700
LS, MO, IN, WH

SCOGGIN-DICKEY PARTS CENTER
LUBBOCK, TX 79424
800-456-0211
LS, MO, EB, WH

DEALER LIST

SOUTHWEST FORD, INC.
WEATHERFORD, TX 76086
800-256-7933
LS, MO, WH

TOMMIE VAUGHN MOTORS
HOUSTON, TX 77007
713-869-4755
LS, MO, WH

UTAH

CHAMPION FORD
SANDY, UT 84070
801-563-4060
LS, WH

WESTLAND FORD
OGDEN, UT 84401
877-629-5567
LS, MO, IN, WH

VIRGINIA

B & W MACHINE & TOOL
SALEM, VA 24153
540-387-3854
LS, MO, EB

COWLES FORD
WOODBRIDGE, VA 22193
800-730-8417
LS, IN, WH

EASTSIDE AUTO & MACHINE
WAYNESBORO, VA 22980
540-943-2583
LS, MO, EB, WH

KIMNACH FORD
NORFOLK, VA 23502
800-542-3512
LS, MO, WH

KOONS STERLING FORD
STERLING, VA 20164
800-966-7078
LS, MO, IN, WH

POMOCO LINCOLN MERCURY OF NEWPORT NEWS
NEWPORT NEWS, VA 23602
888-833-4949
LS, WH

PURVIS FORD, INC.
FREDERICKSBURG, VA 22408
540-898-3000
LS, WH

TED BRITT FORD SALES
FAIRFAX, VA 22030
703-591-8484
LS, MO, IN, WH

WASHINGTON

BICKFORD FORD
SNOHOMISH, WA 98290
800-527-1101
LS, IN, WH

FORD POWERTRAIN APPLICATIONS
PUYALLUP, WA 98371
253-848-9503
LS, MO, EB

RANDY'S RING & PINION
EVERETT, WA 98204
800-347-1188
LS, MO, IN, WH

WISCONSIN

BELL FORD
ARLINGTON, WI 53911
800-236-4384
LS, MO, WH

GORDIE BOUCHER FORD
MENOMONEE FALLS, WI 53051
262-250-9838
LS, MO, IN, WH

PERFORMANCE PLUS, INC.
MADISON, WI 53719
608-277-8161
LS, IN

PUERTO RICO

FAJARDO FORD
ROAD #3 KM 41.8, FAJARDO
00738-7005
787-355-5555
LS, IN

CANADA

Central Region

CAMPBELL FORD SALES, LTD.
OTTAWA, ON K1Z 0A3
613-725-3611
LS, MO, IN, WH

DIXIE FORD SALES
MISSISSAUGA, ON L4W 1E6
905-629-1711
LS, IN, WH

KANATA FORD SALES
KANATA, ON K2K 1X4
613-591-7775
LS, IN, WH

KARBELT SPEED & CUSTOM
AJAX, ON L1S 4N8
905-619-6660
WH

R.C.O. ENTERPRISES, INC.
AYLMER, ON N5H 2S1
519-393-6665
MO, WH

SEAN HYLAND MOTORSPORT
WOODSTOCK, ON N4V 1B7
519-421-2291
LS, MO, EB, IN

SUMMIT FORD SALES, LTD.
REXDALE, ON M9V 2C1
416-741-5581
LS, MO, IN, WH

Eastern Region

FORMULE FORD, INC.
GRANBY, QC J2G 8C8
450-777-1777
LS, MO, IN, WH

Pacific Region

BROWN BROS. FORD SALES
VANCOUVER, BC V5X 2S6
604-324-7504
LS, IN, WH

MOPAC AUTO SUPPLY, LTD.
LANGLEY, BC V2Y 3C2
604-881-4900
LS, MO, EB, IN, WH

Western Region

DIX PERFORMANCE NORTH, LTD.
EDMONTON, AB T6E 5E8
780-462-5153
WH

FREEDOM FORD SALES
EDMONTON, AB T6C 4H8
780-462-7575

METRO FORD SALES, LTD.
CALGARY, AB T2P 3K9
800-661-1210
LS, MO, EB, IN, WH

MGM FORD LINCOLN SALES, LTD.
RED DEER, AB T4R 1M5
403-346-6621
LS, MO, EB, IN, WH

AUSTRALIA

EAGLE AUTO SPARES
DANDENONG, VICT 3175
011-61-3-8710-3000
LS, MO, WH

METRO FORD PARTS DISTRIBUTION CENTRE
BRISBANE, QLD 4009
011-61-7-3000-7166
LS, MO, WH

RACEPARTS AUSTRALIA PTY, LTD.
LOGANHOLME, QLD 4129
011-61-7-3807-6870
LS, MO, WH

NEW ZEALAND

STA PARTS (SEGEDIN TRUCK & AUTO PARTS, LTD.)
AIRPORT OAKS, AUCK
011-649-256-1120
LS, MO, WH

BRAZIL

FOREST TRADE
SAO PAULO, SP, BRAZIL
55-11-3882-8000
LS, IN, WH

EUROPEAN COUNTRIES

MATECH CONCEPTS
CONTACT: VALÉRIE GUILLON
GENÈVE, SWITZERLAND CH-1208
41-22-830-16-40

POWER TORQUE ENGINEERING, LTD.
BINLEY, COVENTRY CV3 2RQ
0046-02476-635757
MO, WH

REAL STEEL
COWLEY, MIDD UB8 2JP
44-1895-440505
LS, MO, EB, WH

US-PARTS/FINN-AM OY
HELSINKI, FINLAND SF00810
358-9-251-31999

SUGGESTED RETAIL PRICE LIST

EFFECTIVE JANUARY 1, 2010 (PRICES IN U.S. DOLLARS)

All prices and specifications are subject to change without notice.
For the most up-to-date pricing and tech info visit www.fordracingparts.com

Part Number	Description	Pg. No.	Sugg. Retail
CM-1828-FCM	LIC PLATE - FORD OVAL - SELL INFO	229	$4.50
CM-1828-FRCM	LIC PLATE - FORD RACE - SELL INFO	229	$4.95
CM-19546-A1	FRICTION MODIFIER - SELL INFO	173	$3.75
CM-6731-FL1A	OIL FILTER FL1A HIGH PERFORMANCE	127	$13.95
CM-6731-FL784	OIL FILTER FL784 HIGH PERFORMANCE	127	$19.95
CM-6731-FL820	OIL FILTER FL820 HIGH PERFORMANCE	127	$13.75
M-1007-A179	WHEEL 10TH ANNIVERSARY COBRA	179	$165.00
M-1007-C58	WHEEL 1995 COBRA "R" CHROME	179	$295.00
M-1007-CJF	WHEEL FR500CJ FRONT	240	$495.00
M-1007-CJR	WHEEL FR500CJ REAR	240	$585.00
M-1007-D178	WHEEL 1998 COBRA	180	$175.00
M-1007-F15RAA	WHEEL F-150 SVT RAPTOR CHARCOAL GREY	182	$370.95
M-1007-F15RBA	WHEEL F-150 SVT RAPTOR BLACK	182	$370.95
M-1007-F1810	WHEEL MUSTANG FR500C FRONT	246	$1,219.00
M-1007-F1810A	WHEEL MUSTANG FR500C REAR	246	$1,219.00
M-1007-F500	WHEEL FORD RACING SILVER	181	$169.95
M-1007-F500B	WHEEL FORD RACING BLACK	181	$149.95
M-1007-F500C	WHEEL FORD RACING CHROME	181	$375.00
M-1007-G178	WHEEL 1999 COBRA POLISHED	179	$220.00
M-1007-GTF	WHEEL FORD GT FRONT	183	$940.00
M-1007-GTR	WHEEL FORD GT REAR	183	$999.00
M-1007-K178	WHEEL 2001 MUSTANG BLACK	180	$169.00
M-1007-L2010P	WHEEL F-150 20" X 10" POLISHED	182	$169.95
M-1007-R189	WHEEL 2000 COBRA "R"	180	$225.00
M-1007-R189C	WHEEL 2000 COBRA "R" CHROME	180	$345.00
M-1007-R54	WHEEL 4 LUG 1995 COBRA "R"	180	$149.00
M-1007-R54C	WHEEL 4 LUG 1995 COBRA "R" CHROME	180	$295.00
M-1007-R58	WHEEL 1995 COBRA "R"	179	$175.00
M-1007-S177	WHEEL FOCUS SVT	183	$150.00
M-1007-S177A	WHEEL 2004 FOCUS SVT	183	$131.00
M-1007-S177B	WHEEL RALLY BLACK	183	$160.00
M-1007-S177E	WHEEL EUROPEAN FOCUS SVT	183	$139.00
M-1007-S179	WHEEL 2003 COBRA	179	$175.00
M-1007-S1885B	WHEEL 18" MUSTANG BLACK	178	$170.00
M-1007-S1885C	WHEEL 18" MUSTANG CHROME	178	$389.00
M-1007-S1895	WHEEL 2007 MUSTANG SVT	177	$224.00
M-1007-S1895B	WHEEL 2007-2009 MUSTANG SVT BLACK	177	$175.95
M-1007-S1895B1	WHL 2007-09 MUSTANG SVT BLK MACHINED LIP	177	$224.00
M-1007-T178B	WHEEL 17" X 8" MUSTANG GT BLACK	178	$158.00
M-1007-T178C	WHEEL 17" X 8" MUSTANG GT CHROME	178	$289.00
M-1007-T178S	WHEEL 17" X 8" MUSTANG GT SILVER	178	$140.00
M-1012-A	WHEEL NUT (5 PACK)	184	$7.95
M-1012-G	WHEEL NUT (5 PACK)	243	$4.95
M-1012-K	WHEEL NUT/LOCK KIT	181	$44.95
M-1096-A	CENTER CAP 2005 MUSTANG BAR & PONY	184	$30.00
M-1096-B	CENTER CAP 2005 MUST BAR & PONY SPINNER	184	$33.00
M-1096-CA	CENTER CAP	184	$60.00
M-1096-D	CENTER CAP	184	$70.00
M-1096-FR	CENTER CAP	184	$60.00
M-1096-FR1	CENTER CAP 2005-UP FORD RACING	184	$60.00
M-1096-H	CENTER CAP	184	$48.95
M-1096-J	CENTER CAP	184	$68.00
M-1096-K	CENTER CAP	184	$60.00
M-1096-M	CENTER CAP	184	$68.00
M-1096-N	CENTER CAP	184	$60.00
M-1104-A	HUB FR500S FRONT W/STUDS	243	$229.00
M-1107-A	WHEEL STUDS FR500S FRONT (10)	243	$99.00
M-1107-B	WHEEL STUDS FR500S REAR (10)	243	$99.00
M-1109-A	HUB COBRA IRS (1 EACH)	171	$149.00
M-1124-R	BRAKE ROTOR HAT	246	$599.00
M-1125-D	BRAKE ROTOR KIT FR500S 48 VANE (2)	195	$915.00
M-1125-E	BRAKE ROTOR HAT KIT FR500S FRONT (PAIR)	195	$599.00
M-1125-F	BRAKE ROTOR HARDWARE KIT	195	$139.00
M-1125-G	BRAKE ROTOR KIT 72 VANE (PAIR)	195	$1,109.00

Part Number	Description	Pg. No.	Sugg. Retail
M-1125-GT	BRAKE ROTORS FORD GT FRONT	195	$1,659.95
M-1126-A	BRAKE DRUM/AXLE KIT 5-LUG REAR - 28T	170	$289.00
M-1126-B	BRAKE DRUM 11" X 2.25"	196	$63.95
M-1215-A	AXLE BEARING KIT CAR IRS	171	$37.00
M-1225-B	AXLE BEARING & SEAL KIT 8.8" (PAIR)	171	$25.00
M-1225-B1	AXLE BEARING KIT 8.8" 2005-2010 MUSTANG	171	$41.95
M-1447-C	EMBLEMS 2007 SVT FENDER	229	$75.00
M-1447-D46	INTAKE PLAQUE 1996-1998 COBRA	221	$6.95
M-1447-F46	INTAKE PLAQUE 1999-2001 COBRA	221	$9.95
M-1447-SR	EMBLEMS COBRA "SNAKE" FENDER	229	$13.95
M-1447-SVT	EMBLEM "SVT" DECK LID	229	$10.95
M-1784-MS	WINDOW LOUVERS 2005-2010 MUSTANG QTR	227	$189.00
M-1820-A3	DECALS "FORD RACING" (10 PKG)	231	$21.95
M-1820-B1	DECALS "FORD RACING" COMBO MINI (25 PKG)	231	$19.95
M-1820-FR15	DECALS FORD RACING DIE CUT 15" (10 PK)	231	$149.00
M-1820-M	BANNER MUSTANG FORD RACING WINDSHIELD	227	$40.00
M-1822-A2	FENDER COVER "FORD RACING"	231	$10.95
M-1827-A1	BANNER "FORD RACING" 68" x 28"	231	$16.95
M-1827-P1	PENNANT STRING "FORD RACING" 50'	231	$30.00
M-1827-T10	TENT FORD RACING 10' X 10'	231	$695.00
M-1827-T15	TENT FORD RACING 10' X 15'	231	$920.00
M-1827-T20	TENT FORD RACING 10' X 20'	231	$1,200.00
M-1827-W10	TENT WALL RACING 10'	231	$140.00
M-1827-W15	TENT WALL RACING 15'	231	$185.00
M-1828-F	LICENSE PLATE - FORD OVAL - 12 PK	229	$28.95
M-1828-FR	LICENSE PLATE - FORD RACE - 12 PK	229	$55.00
M-1828-GT	LICENSE PLATE FRAME	229	$129.00
M-1828-GTC	LICENSE PLATE FRAME	229	$129.00
M-1828-SS304B	LICENSE PLATE FRAME BRUSHED	229	$27.00
M-2001-R	BRAKE PADS PFC FRONT	246	$355.00
M-2004-A	BRAKE COOLING KIT	196	$385.00
M-2005-A	BRAKE DUCT KIT CARBON FIBER	246	$1,199.00
M-2005-GT	POWER UPGRADE KIT 2005-2006 FORD GT	140	$999.00
M-2005-R	RACE BOOSTER	246	$1,799.00
M-2007-FR1SVT	POWER UPGRADE PACK 2007-09 MUSTANG SVT	138	$1,699.00
M-2007-FR1V6	POWER UPGRADE PACK 2005-09 MUSTANG V6	140	$1,049.00
M-2007-FR2SVT	DRAG PACK 2007-2009 MUSTANG SVT	138	$1,999.00
M-2007-FR3SVT	HANDLING PACK 2007 MUSTANG SVT	185	$1,695.95
M-2007-FR3V6	HANDLING PACK V6	186	$1,099.95
M-2026-GT	BRAKE ROTOR FORD GT REAR	195	$1,659.95
M-2078-A	BRAKE HOSE KIT FR500S	243	$225.00
M-2134-R	BRAKE CALIPER MOUNT FR500C	246	$105.95
M-2200-R	BRAKE PAD KIT REAR	243	$205.00
M-2209-B	BRAKE BACK PLATE KIT 9" DRUM	196	$299.00
M-2300-A	BRAKE KIT FR500C RACING	246	$2,995.95
M-2300-D	BRAKE KIT 2005-2010 MUSTANG V6	193	$159.00
M-2300-G	BRAKE KIT DISC 9" AXLE	194	$379.00
M-2300-J	BRAKE KIT FR500S	243	$3,100.00
M-2300-K	BRAKE KIT 1987-1993 SHD DISC	193	$2,659.00
M-2300-M	BRAKE BRACKET KIT GT REAR	193	$189.00
M-2300-Q	BRAKE KIT COBRA 1994-2004	193	$639.00
M-2300-R	BRAKE KIT COBRA 1996-2004	193	$629.00
M-2300-S	BRAKE KIT 2007 MUSTANG SVT	193	$1,489.00
M-2300-SVTF4	BRAKE KIT 2000-2004 FOCUS SVT FRONT	194	$610.00
M-2300-SVTF5	BRAKE KIT 2005-2009 FOCUS SVT FRONT	194	$400.00
M-2300-SVTR	BRAKE KIT 2000-2008 FOCUS SVT REAR	194	$550.00
M-2300-X	BRAKE KIT COBRA "R" FRONT	193	$1,495.00
M-2300-ZX3R	BRAKE KIT RALLY	194	$824.95
M-2300-ZXR	BRAKE KIT FRONT RALLY	194	$500.00
M-2301-5M	FUEL FILL DOOR MUSTANG ALUMINUM	227	$95.00
M-2301-A	PEDAL PAD ACCELERATOR	225	$19.95
M-2301-B	PEDAL PAD BRAKE OR CLUTCH (1)	225	$18.95
M-2301-C	PEDAL PAD DEAD	225	$17.95
M-2301-E	FUEL FILL DOOR ALUMINUM	229	$79.95

SUGGESTED RETAIL PRICE LIST

FOR THE MOST UP-TO-DATE PRICING AND TECH INFO VISIT www.fordracingparts.com

Part Number	Description	Pg. No.	Sugg. Retail
M-2301-F150	FUEL FILL DOOR 2004-2008 F-150 ALUM	229	$84.00
M-2301-S	FUEL CAP FAUX SNAKE	229	$21.95
M-2320-C	BRAKE CALIPER SET COBRA	195	$409.00
M-2320-CR	BRAKE CALIPERS REAR COBRA (PAIR)	195	$245.00
M-2320-D	BRAKE CALIPER KIT FRONT FR500	196	$1,260.00
M-2321-A	BRAKE CALIPER HARDWARE KIT	196	$17.00
M-2328-C	BRAKE PROPORTIONING VALVE ALUM	196	$54.00
M-2353-A	BRAKE ABS MODULE FR500S	243	$249.00
M-2400-C	BRAKE KIT SEVERE DUTY	194	$279.00
M-2450-A	BRAKE PROPORTIONING VALVE PLUG	196	$18.00
M-2454-A	DEAD PEDAL FR500S	243	$65.95
M-2784-M	STYLING PACK 2005 MUSTANG GT	227	$399.00
M-2809-A	BRAKE CABLE PARK (REAR)	196	$27.95
M-2810-A	BRAKE CABLE PARK (FRONT)	196	$30.00
M-3000-D	SUSPENSION KIT DRAG RACE	189	$289.00
M-3000-G	LOWERING KIT 2004 F-150	190	$109.00
M-3000-L	LOWERING KIT LIGHTNING	190	$179.00
M-3000-T1	LOWERING KIT F-150 2WD	190	$450.00
M-3000-T3	LOWERING KIT 2004-2008 F-150 2WD	190	$688.40
M-3000-ZX3	SUSPENSION KIT FOCUS SVT	187	$305.00
M-3000-ZX3A	SUSPENSION KIT FOCUS SVT	187	$350.00
M-3000-ZXM	HANDLING KIT FOCUS	187	$395.00
M-3052-R1	CASTER ADJUSTER	246	$139.95
M-3075-A	CONTROL ARMS LOWER PAIR	192	$339.00
M-3075-E	CONTROL ARMS 2007 SVT FRONT LOWER	192	$255.00
M-3075-R	CONTROL ARMS GRAND AM FRONT LOWER	246	$495.00
M-3130-R2	TIE ROD 2005 W/GREASE FITTING	246	$199.00
M-3130-R3	TIE ROD END FR500S HI TEMP	243	$106.00
M-3200-R	STEERING RACK GRAND AM	243	$1,054.03
M-3332-A	TIE ROD END SEALS HI TEMP (PAIR)	243	$25.00
M-3395-B	BALL JOINT GRAND AM	246	$119.00
M-3600-C	STEERING WHEEL SVT	225	$425.00
M-3601-B	STEERING WHEEL LEATHER MUSTANG	225	$245.00
M-3601-C	STEERING WHL AND BOOT SVT BLACK STITCH	225	$449.00
M-3601-R	STEERING WHEEL FR500C	246	$190.00
M-3746-A	POWER STEERING COOLER KIT FR500S	243	$99.00
M-4001-A355	AXLE ASSEMBLY MUSTANG GT 3.55	170	$1,099.00
M-4001-A373	AXLE ASSY SPECIAL EDITION 2005-10 MUSTANG	170	$1,099.00
M-4001-CJ	AXLE 9" COBRA JET	169	$2,799.00
M-4002-B	AXLE 9" T-BOLT AND NUT KIT	196	$21.00
M-4006-B373	AXLE ASSY 8.8" 1979-1998 MUSTANG	170	$875.00
M-4006-D373	AXLE 1999-2004 3.73 28 SPLINE	170	$829.95
M-4006-S197	AXLE KIT 2005-2010 MUSTANG 8.8"	170	$1,049.00
M-4010-A88	AXLE HOUSING KIT 8.8" ALUM IRS	171	$299.95
M-4033-G1	AXLE GIRDLE 8.8"	171	$209.00
M-4033-G2	DIFFERENTIAL COVER 8.8" 2005 S197	171	$199.00
M-4050-B	AXLE INSTALL KIT 8.8"	171	$35.00
M-4141-H	CARRIER NODULAR 9"	175	$259.00
M-4141-HS	CARRIER STEEL 9"	175	$640.00
M-4141-J	CARRIER NODULAR 9"	175	$299.00
M-4144-B	DIFF BEARING ADJ NUT LOCK & BOLT KIT	175	$4.95
M-4204-A28	DIFFERENTIAL AUBURN 8.8" 28T	174	$485.00
M-4204-C31	DIFFERENTIAL DETROIT C-LOCKER 8.8" 31T	246	$639.95
M-4204-C75	DIFFERENTIAL TRAC-LOK 7.5" 28T	174	$220.00
M-4204-F20	DIFFERENTIAL TORSEN MTX-75	174	$635.00
M-4204-F288	DIFFERENTIAL TRAC-LOK 8.8" 28T	174	$215.00
M-4204-F28A	DIFFERENTIAL TRAC-LOK 9" 28T AG	174	$425.00
M-4204-F318	DIFFERENTIAL TRAC-LOK 8.8" 31T	174	$299.00
M-4204-F3180	DIFFERENTIAL NON-LOCKING 8.8" 31T	174	$189.00
M-4204-F318C	DIFFERENTIAL COBRA 8.8" 31T	174	$299.00
M-4204-F31A	DIFFERENTIAL TRAC-LOK 9" 31T AG	174	$425.00
M-4204-SVTF	DIFFERENTIAL FOCUS SVT TORSEN	174	$779.00
M-4204-T28	DIFFERENTIAL TORSEN 8.8" 28T	174	$589.00
M-4204-T31	DIFFERENTIAL TORSEN 8.8" 31T	174	$589.00
M-4204-T31H	DIFFERENTIAL FR500S	243	$750.00
M-4204-TT312	DIFFERENTIAL "TRUE TRAC" LSD	174	$585.00
M-4209-F308	RING & PINION 8.8"	172	$199.00
M-4209-F327	RING & PINION 8.8"	172	$210.00
M-4209-F373N	RING & PINION 8.8"	172	$179.95
M-4209-G355A	RING & PINION 8.8" 3.55	172	$179.95
M-4209-G410A	RING & PINION 8.8" 4.10	172	$179.95
M-4209-G430M	RING & PINION 8.8"	172	$249.00
M-4209-G456	RING & PINION 8.8"	172	$245.00
M-4210-A	RING & PINION INSTALL KIT 8.8"	173	$40.00
M-4210-B	RING & PINION INSTALL KIT 8.8"	173	$90.00
M-4210-B1	RING & PINION INSTALL KIT 2007-10 SVT 8.8"	173	$162.00
M-4210-C	RING & PINION INSTALL KIT 8.8"	173	$120.00
M-4213-A	PINION NUTS (100 PACK)	173	$120.00
M-4216-A200	RING GEAR BOLTS (100 PACK)	175	$90.00
M-4216-A210	FLYWHEEL BOLT MANUAL TRANS (10 PKG)	175	$13.50
M-4216-A300	RING GEAR BOLTS 8.8" (10)	166	$8.95
M-4235-B	AXLE SHAFT 8.8" 31T 4 LUG	170	$129.95
M-4235-D	AXLE SHAFT 1994-1998 MUSTANG REAR	170	$315.00
M-4235-E	AXLE SHAFT 1999-2004 MUSTANG REAR	170	$315.00
M-4235-F	AXLE SHAFT 1979-1993 MUSTANG REAR	170	$315.00
M-4413-A	AXLE BEARING, SEAL KIT 8.8" IRS	171	$21.95
M-4602-CJ	DRIVESHAFT	176	$775.95
M-4602-G	DRIVESHAFT ASSY ALUM	176	$325.95
M-4602-J	DRIVESHAFT ASSY 1996-04 MUST 4.6L M/T ALUM	176	$355.95
M-4614-A	PINION BEARING RETAINER	173	$120.00
M-4614-B	PINION BEARING RETAINER	173	$105.00
M-4614-BR	PINION BEARING SUPPORT NASCAR	173	$74.95
M-4635-A	U-JOINT KIT	176	$22.50
M-4676-A111	PINION OIL SEAL	173	$14.95
M-4700-B	DIFFERENTIAL 8.8" TRACTION-LOK KIT	174	$82.95
M-4700-C	DIFFERENTIAL 8.8" CARBON REBUILD KIT	174	$128.95
M-4841-A	DRIVESHAFT SLIP YOKE 31 SPLINE	176	$86.00
M-4841-B	DRIVESHAFT SLIP YOKE 28 SPLINE	176	$60.95
M-4851-B	PINION FLANGE 2003-2004 COBRA	171	$25.00
M-5018-F15R	SKID PLATE F-150 RAPTOR FRONT	228	$549.95
M-5019-A	RADIATOR SUPPORT COBRA JET	240	$195.00
M-5025-A	A-ARM BRACE 2005-2010 FRONT LOWER	192	$60.00
M-5035-ZX3	SUBFRAME MOTORSPORT ZX3	190	$230.00
M-5059-A	TRANSMISSION CROSSMEMBER	162	$67.95
M-5059-B	TRANSMISSION CROSSMEMBER T-56 COBRA	162	$41.00
M-5230-5GT	MUFFLER KIT 05-09 MUST GT AXLE-BACK 49 STATE	157	$599.95
M-5230-5V6	MUFFLER 2005 MUSTANG V6 AXLE-BACK	158	$279.00
M-5230-GT	MUFFLER KIT	159	$2,700.00
M-5230-GTA	MUFFLER KIT 2005 MUST GT AXLE-BACK	157	$499.00
M-5230-GTB	MUFFLER KIT SPECIAL EDITION MUSTANG GT	157	$449.00
M-5230-HDSR	EXHAUST 2001-2003 F-150 HD SPLIT REAR	159	$399.00
M-5230-L	EXHAUST 2004 F-150 LIGHTNING STYLE	159	$339.00
M-5230-L06EC	EXHAUST 2006 LIGHTNING STYLE EXT CAB	159	$399.95
M-5230-MGTC	MUFFLER KIT 2010 MUST GT QUIET	157	$725.00
M-5230-MGTL	MUFFLER KIT 2010 MUST GT LOUD	157	$725.00
M-5230-MSVTC	MUFFLER KIT 2010 GT500 QUIET	157	$779.00
M-5230-MSVTL	MUFFLER KIT 2010 MUSTANG SVT LOUD	157	$779.00
M-5230-MV61	MUFFLER 2010 MUSTANG V6	158	$375.00
M-5230-MV62	EXHAUST KIT 2010 MUSTANG V6 DUAL	158	$995.00
M-5230-R50	EXHAUST SYSTEM	246	$980.39
M-5230-S	MUFFLER KIT FR500S MUSTANG	158	$599.00
M-5230-SA	MUFFLER FR500S 2010 MUSTANG GT/SVT	158	$679.00
M-5230-SGT	MUFFLER SET 2007 MUSTANG SVT 49 STATE	157	$779.00
M-5230-SR	EXHAUST 2004-07 F-150 4.6L/5.4L SPLIT REAR	159	$750.00
M-5230-SVT1	MUFFLER KIT 2007 MUST SVT 50 STATE	157	$779.00
M-5230-V6	EXHAUST 2005-2009 MUSTANG V6 DUAL	158	$699.00
M-5251-R	EXHAUST X-PIPE 2005-2010 MUSTANG	158	$139.00
M-5255-F15R	EXHAUST TIPS DUAL FORD RACING LOGO	159	$249.95
M-5300-B	SPRING KIT	189	$199.00
M-5300-C	SPRING KIT	189	$199.00
M-5300-F	SPRING KIT	189	$239.00
M-5300-G	SPRING KIT	189	$265.00
M-5300-K	SPRING KIT 2005-2010 MUSTANG 1.5"	189	$225.00
M-5300-L	SPRING KIT 2007 MUSTANG SVT	189	$249.95
M-5300-N	SPRINGS MUSTANG V6	189	$225.00
M-5300-P	SPRINGS MUSTANG GT 1" DROP	189	$225.00

SUGGESTED RETAIL PRICE LIST

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Part Number	Description	Pg. No.	Sugg. Retail
M-5300-Q	SPRING KIT COBRA JET	189	$84.95
M-5310-A	SPRING SINGLE FR500S FRONT	243	$59.00
M-5400-A	HANDLING PACK PERFORMANCE	186	$545.00
M-5400-Z3R	SWAY BAR 25 MM FOCUS REAR	191	$189.00
M-5478-C2	DRIVESHAFT LOOP 3.5"	176	$49.00
M-5478-CJ	DRIVESHAFT LOOP COBRA JET	176	$139.00
M-5478-S197B	DRIVESHAFT LOOP KIT, S197	176	$115.00
M-5483-A	DROP LINK KIT ADJUSTABLE MUSTANG	243	$165.95
M-5490-A	ANTI-ROLL BARS 2005 MUSTANG	191	$460.00
M-5490-B	ANTI-ROLL BAR KIT 2007 MUSTANG SVT	191	$460.00
M-5490-C	ANTI-ROLL BAR KIT V6	191	$460.00
M-5500-A	CONTROL ARM KIT	192	$133.00
M-5538-A	CONTROL ARM REAR LOWER	192	$131.95
M-5560-A	SPRING SINGLE FR500S REAR	244	$59.00
M-5560-ZX3B	SPRING KIT 2006-UP FOCUS	190	$138.95
M-5560-ZXM	SPRINGS 2000-2005 SPEC FOCUS	190	$149.95
M-5560-ZXM1	SPRINGS 2006 SPEC FOCUS	190	$164.95
M-5638-B	BUSHING KIT FR500C FRONT	246	$43.95
M-5638-R	BUSHING UPPER REAR ARM	192	$30.00
M-5649-CJ	CONTROL ARM ANTI-ROLL KIT	192	$995.00
M-5649-R1	CONTROL ARM KIT REAR LOWER FR500C	246	$489.95
M-5970-A	KNUCKLE KIT CAR	171	$475.00
M-6000-C302	VALVE COVERS COBRA KIT	217	$165.00
M-6000-D302	VALVE COVERS COBRA EFI	217	$175.00
M-6000-E302	VALVE COVERS MUSTANG EFI	217	$165.00
M-6000-F302	VALVE COVERS	217	$175.00
M-6000-J302R	VALVE COVERS BLACK RACING EFI	217	$165.00
M-6000-K302R	VALVE COVERS POLISHED RACING EFI	217	$129.95
M-6003-A429	GASKET SET ENGINE	130	$99.00
M-6003-A50	GASKET SET ENGINE	130	$95.00
M-6004-A464	CAMSHAFT DRIVE KIT 4.6L 4V	114	$505.95
M-6007-347NST	CRATE ENGINE 347 NASCAR SHORT TRACK	75	$7,700.00
M-6007-521FT	CRATE ENGINE 460/521	79	$9,950.00
M-6007-521RT	CRATE ENGINE 460/521	79	$9,950.00
M-6007-A463NA	CRATE ENGINE 4.6L 3V CAMS & V.C.'S	65	$6,999.00
M-6007-A46NA	CRATE ENGINE 4.6L 4V N/A ALUM LONG BLK	62	$6,700.00
M-6007-A46SC	CRATE ENGINE 4.6L 4V S/C ALUM LONG BLK	63	$6,700.00
M-6007-C392FT	CRATE ENGINE 351/392 475 HP	73	$7,500.00
M-6007-C392RT	CRATE ENGINE 351/392 475 HP "Z" HEADS	73	$7,500.00
M-6007-D347SR	CRATE ENGINE SEALED CIRCLE TRACK	75	$7,700.00
M-6007-D392FFT	CRATE ENGINE 351/392 430 HP	72	$6,995.00
M-6007-D392FRT	CRATE ENGINE 351/392 430 HP	72	$6,995.00
M-6007-MC	CRATE ENGINE 4.6L 3V SEALED SPEC	244	$7,000.00
M-6007-MRGT	CRATE ENGINE FORD GT RACE	64	$55,000.00
M-6007-R50	CRATE ENGINE GRAND-AM RACE	64	$24,995.00
M-6007-S347JR	CRATE ENGINE SEALED	76	$7,100.00
M-6007-USAC	CRATE ENGINE FOCUS MIDGET 2.0L	64	$6,500.00
M-6007-X302B	CRATE ENGINE BOSS 302	66	$6,695.00
M-6007-X302E	CRATE ENGINE BOSS 302	66	$6,695.00
M-6007-XEFMS	CRATE ENGINE 302	68	$5,295.00
M-6007-Z302Z	CRATE ENGINE 302 390 HP BOSS	69	$8,790.00
M-6007-Z331P	CRATE ENGINE 302/331 500 HP	71	$10,995.00
M-6007-Z347	CRATE ENGINE BOSS 347 REAR SUMP	70	$7,999.00
M-6007-Z347FT	CRATE ENGINE BOSS 347 FRONT SUMP	70	$7,999.00
M-6007-Z351SR	CRATE ENGINE 351 SEALED RACE	76	$7,700.00
M-6007-ZX3	CRATE ENGINE 2.0L ZETEC	64	$2,595.00
M-6009-463V	SHORT BLOCK 4.6L 3V PRODUCTION	81	$1,999.00
M-6009-A463SC	SHORT BLOCK 4.6L 3V S/C ALUMINUM	80	$4,500.00
M-6009-A46NA	SHORT BLOCK 4.6L 4V N/A ALUMINATOR	80	$4,500.00
M-6009-A46SC	SHORT BLOCK 4.6L 4V S/C ALUMINATOR	80	$4,500.00
M-6009-A46SCB	SHORT BLOCK 4.6L 4V ALUMINATOR	80	$4,500.00
M-6009-C54SC2	SHORT BLOCK 5.4L S/C IRON 2V	81	$3,150.95
M-6009-C54SC4	SHORT BLOCK 5.4L S/C IRON 4V	81	$3,150.95
M-6009-Z347	SHORT BLOCK BOSS 347	81	$4,595.00
M-6010-A460	CYLINDER BLOCK 460	102	$2,095.00
M-6010-A46NA	CYLINDER BLOCK ALUMINUM 4.6L 4V N/A	96	$1,379.00
M-6010-A46SC	CYLINDER BLOCK ALUMINUM 4.6L 4V S/C	96	$1,379.00
M-6010-B302BB	CYLINDER BLOCK BOSS 302 4.115" BIG BORE	100	$1,759.00
M-6010-BOSS302	CYLINDER BLOCK BOSS 302	100	$1,759.00
M-6010-BOSS35192	CYLINDER BLOCK BOSS 351W 9.2" DECK	100	$1,999.00
M-6010-BOSS35195	CYLINDER BLOCK BOSS 351W 9.5" DECK	100	$1,999.00
M-6010-BOSS351BB	CYL BLK BOSS 351W 9.5" DECK 4.120" BIG BORE	100	$1,999.00
M-6010-BOSS50	CYLINDER BLOCK MODULAR 5.0L IRON	96	$999.00
M-6010-CG351	CYLINDER BLOCK	101	$4,495.00
M-6010-D46	CYLINDER BLOCK 4.6L SOHC ROMEO	96	$549.00
M-6010-GT	CYLINDER BLOCK 5.4L	97	$2,950.00
M-6010-GTWS	CYLINDER BLOCK 5.4L ALUM GT WET SUMP	97	$2,999.95
M-6010-JC50	PRO STOCK BLOCK - MIRROR IMAGE HEAD	248	$6,100.00
M-6010-JC51	PRO STOCK BLOCK - SEQUENTIAL HEAD	248	$6,100.00
M-6010-M54	CYLINDER BLOCK 5.4L	97	$599.00
M-6010-R452	CYLINDER BLOCK NASCAR	101	$2,750.00
M-6010-R500	CYLINDER BLOCK FR9	101	$6,050.00
M-6010-SCJ	CYLINDER BLOCK 460 HIGH PERFORMANCE	102	$2,499.00
M-6010-SST50	CYLINDER BLOCK ALUMINUM	96	$1,999.00
M-6010-T50	CYLINDER BLOCK FR500 5.0L	96	$2,995.00
M-6012-A351	CYLINDER SLEEVES SET OF 8	133	$95.00
M-6012-B351	CYLINDER SLEEVES FOR M-6010-Z351	133	$95.00
M-6012-C351	CYLINDER SLEEVES SET OF 8	133	$419.00
M-6014-BOSS	CYLINDER HEAD STUD KIT	112	$225.00
M-6014-G500	CYLINDER HEAD STUD KIT C460	112	$275.00
M-6014-JC50	CYL HEAD STUD KIT PRO STOCK - MIRROR IMAGE	248	$475.00
M-6014-JC51	CYL HEAD STUD KIT PRO STOCK - SEQUENTIAL	248	$535.00
M-6014-Z304	CYLINDER HEAD STUD KIT	112	$179.95
M-6017-463V	CONTROL PACK - 4.6L 3V ETC	197	$1,350.00
M-6017-54SC	CONTROL PACK - 5.4L 4V SC ETC	197	$1,999.00
M-6023-A460	TIMING POINTER 429/460 BILLET	137	$84.95
M-6023-B351	TIMING POINTER BILLET	137	$69.95
M-6023-C351	TIMING POINTER BILLET	137	$69.95
M-6026-A	PLUG AND DOWEL KIT ALUMINUM	134	$179.95
M-6026-A302	PLUG AND DOWEL KIT	134	$7.95
M-6026-A460	PLUG AND DOWEL KIT	134	$14.95
M-6026-B302	PLUG KIT THREAD-IN CORE	134	$9.95
M-6026-JC50	PLUG - CAM KIT	247	$45.00
M-6026-R351	PLUG AND DOWEL KIT	134	$12.95
M-6026-S351	PLUG - CAM KIT FOR RACE BLOCK (10 PK)	134	$7.00
M-6038-A	MOTOR MOUNT KIT COBRA JET SOLID	133	$315.00
M-6038-A460	MOTOR MOUNTS FOX 460	133	$174.95
M-6049-464P	CYLINDER HEAD 4.6L 4V CNC RH	105	$1,249.00
M-6049-464V	CYLINDER HEAD ASSY W/CAMS 4.6L 4V RH	106	$1,349.00
M-6049-C460	CYLINDER HEAD	111	$895.00
M-6049-D23P	CYLINDER HEAD DURATEC CNC PORTED	111	$899.00
M-6049-D3	CYLINDER HEAD HIGH PORT W/SEAT/GD.	109	$1,195.00
M-6049-D35	CYLINDER HEAD NASCAR	109	$1,195.00
M-6049-DAC	CYLINDER HEAD ASSEMBLY BR	105	$1,365.00
M-6049-DAMR	CYLINDER HEAD DP/MR RH	106	$975.00
M-6049-E1	CYLINDER HEAD	110	$1,479.00
M-6049-E460	CYLINDER HEAD	110	$599.00
M-6049-GT	CYLINDER HEAD ASSEMBLY RH	105	$1,099.95
M-6049-JC50	CYL HEAD PRO STOCK - MIRROR IMAGE CHAMBERS	111	$1,665.95
M-6049-JC51	CYL HEAD PRO STOCK - SEQUENTIAL CHAMBERS	111	$2,279.00
M-6049-MSVT	CYLINDER HEAD 4V MUSTANG SVT RH	106	$1,279.00
M-6049-N351	CYLINDER HEAD	109	$379.00
M-6049-N3V	CYLINDER HEAD PRODUCTION 4.6L 3V RH	103	$949.00
M-6049-N3VPA	CYLINDER HEAD CNC PORTED 3V RH	104	$998.95
M-6049-P46	CYLINDER HEAD 4.6L 2V PI RH	103	$450.00
M-6049-SC1	CYLINDER HEAD HIGH PORT	109	$1,195.00
M-6049-SCJ	CYLINDER HEAD	110	$630.00
M-6049-SCJA	CYLINDER HEAD SCJ	110	$845.00
M-6049-SCJB	CYLINDER HEAD	110	$845.00
M-6049-X306	CYLINDER HEAD	107	$495.00
M-6049-X307	CYLINDER HEAD	107	$495.00
M-6049-Z304A2	CYLINDER HEAD OLD STOCK Z304 KIT	108	$1,200.00
M-6049-Z304D	CYLINDER HEAD ALUM	107	$549.00
M-6049-Z304DA	CYLINDER HEAD ASSEMBLY	107	$1,049.00
M-6049-Z304DA2	CYLINDER HEADS Z304DA (PAIR)	108	$1,695.95
M-6049-Z304P	CYLINDER HEAD CNC PORTED "Z"	107	$899.00

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Part Number	Description	Pg. No.	Sugg. Retail
M-6049-ZX3P	CYLINDER HEAD 2.0L ZETEC CNC	111	$840.00
M-6050-464P	CYLINDER HEAD 4.6L 4V CNC LH	105	$1,249.00
M-6050-464V	CYLINDER HEAD ASSY W/CAMS 4.6L 4V LH	106	$1,349.00
M-6050-DAC	CYLINDER HEAD ASSEMBLY BR	105	$1,365.00
M-6050-DAMR	CYLINDER HEAD DP/MR LH	106	$975.00
M-6050-MSVT	CYLINDER HEAD 4V MUSTANG SVT LH	106	$1,279.00
M-6050-N3V	CYLINDER HEAD PRODUCTION 4.6L 3V LH	103	$949.00
M-6050-N3VPA	CYLINDER HEAD CNC PORTED 3V LH	104	$998.95
M-6050-P46	CYLINDER HEAD 4.6L 2V PI LH	103	$450.00
M-6051-A302	GASKET SET HEAD	129	$32.95
M-6051-A427	GASKET SET HEAD	129	$37.95
M-6051-A441	GASKET SET HEAD	129	$44.95
M-6051-A50	GASKET KIT HIGH PERFORMANCE 50 STATE	130	$105.00
M-6051-B341	GASKET SET HEAD	129	$44.95
M-6051-B460	GASKET SET HEAD	129	$47.95
M-6051-B51	GASKET SET HEAD FOR 5.0L	129	$48.95
M-6051-CP331	GASKET SET HEAD	129	$74.95
M-6051-R351	GASKET SET HEAD	129	$70.95
M-6051-S331	GASKET SET HEAD	129	$75.00
M-6052-B	RADIATOR HOSE KIT	132	$105.95
M-6055-B	CYLINDER SLEEVE FOR M-6010-T50	96	$49.00
M-6059-D351	FRONT COVER	131	$125.95
M-6059-JC50	CRANKSHAFT SEAL RETAINER - FRONT	248	$495.00
M-6065-BOSS	BLOCK HEAD BOLT SET BOSS X HEAD	112	$65.99
M-6065-D289	HEAD BOLT KIT	112	$95.00
M-6066-CT46	SUPERCHARGER KIT	155	$3,559.99
M-6066-CT46HP	SUPERCHARGER COBRA REPLACEMENT	155	$3,559.99
M-6066-CT46P	SUPERCHARGER KIT POLISHED	155	$4,049.00
M-6066-CT46PHP	SUPERCHARGER COBRA REPLACEMENT	155	$3,849.99
M-6066-F104	SUPERCHARGER KIT 2004 F-150 5.4L 3V	154	$4,195.95
M-6066-F104P	S/C KIT 2004 F-150 5.4L 3V POLISHED	154	$4,395.95
M-6066-F105	SUPERCHARGER KIT 2005-2008 F-150 5.4L 3V	154	$5,349.00
M-6066-F105P	S/C KIT 2005-2008 F-150 5.4L 3V POLISHED	154	$5,879.99
M-6066-L90	S/C 1999-2000 LIGHTNING REPLACEMENT	154	$4,100.99
M-6066-L90P	S/C 1999-2000 LIGHTNING REPLACEMENT POL	154	$4,529.99
M-6066-LR	S/C 2001-2004 LIGHTNING REPLACEMENT	154	$4,100.99
M-6066-LRP	S/C 2001-2004 LIGHTNING REPLACEMENT POL	154	$4,529.99
M-6066-M11	S/C KIT 2005-2006 MUSTANG GT 550 HP	153	$6,995.00
M-6066-M117	S/C KIT 2007 MUSTANG GT 550 HP	153	$6,995.00
M-6066-M118	S/C KIT 2008-2009 MUSTANG GT 550 HP	153	$7,029.00
M-6066-M11P	S/C KIT 2005-2006 MUSTANG GT 550 HP POL	153	$7,239.00
M-6066-M11P7	S/C KIT 2007 MUSTANG GT 550 HP POLISHED	153	$7,239.00
M-6066-M11P8	S/C KIT 2008-2009 MUSTANG GT 550 HP POL	153	$7,269.00
M-6066-M463P	S/C KIT 2005-2006 MUSTANG GT 400 HP POL	150	$5,930.00
M-6066-M463P7	S/C KIT 2007 MUSTANG GT 400 HP POLISHED	151	$5,930.00
M-6066-M463P8	S/C KIT 2008-2009 MUSTANG GT 400 HP POL	151	$5,979.00
M-6066-M463V	S/C KIT 2005-2006 MUSTANG GT 400 HP	150	$5,630.00
M-6066-M463V7	S/C KIT 2007 MUSTANG GT 400 HP	151	$5,630.00
M-6066-M463V8	S/C KIT 2008-2009 MUSTANG GT 400 HP	151	$5,679.00
M-6066-MGT400C	SUPERCHARGER 2010 MUSTANG GT 400 HP	151	$5,679.00
M-6066-MGT400PC	SUPERCHARGER 2010 MUSTANG 400 HP POL	151	$5,979.00
M-6066-MGT475	SUPERCHARGER KIT 2005-2006 MUSTANG	152	$6,995.00
M-6066-MGT475A	SUPERCHARGER KIT 2007 MUSTANG	152	$6,995.00
M-6066-MGT475B	SUPERCHARGER KIT 2008-2009 MUSTANG	152	$7,029.00
M-6066-MGT475C	SUPERCHARGER KIT 2010 MUSTANG	152	$7,029.00
M-6066-MGT475P	SUPERCHARGER KIT 2005-06 MUSTANG POL	152	$7,239.00
M-6066-MGT475PA	SUPERCHARGER KIT 2007 MUSTANG POLISHED	152	$7,239.00
M-6066-MGT475PB	SUPERCHARGER KIT 2008-09 MUSTANG POL	152	$7,269.00
M-6066-MGT475PC	SUPERCHARGER KIT 2010 MUSTANG POLISHED	152	$7,269.00
M-6066-MGT550C	SUPERCHARGER 2010 MUSTANG GT 550 HP BLK	153	$7,029.00
M-6066-MGT550PC	SUPERCHARGER 2010 MUST GT 550 HP POL	153	$7,269.00
M-6066-MSVT29C	SUPERCHARGER 2010 GT500 750 HP-BLK (2.9L)	149	$6,295.00
M-6066-MSVT29PC	SUPERCHARGER 2010 GT500 750 HP-POL (2.9L)	149	$6,595.00
M-6066-MSVTA	SUPERCHARGER 2010 MUSTANG SVT	149	$4,995.00
M-6066-SGT	S/C UPGRADE KIT 2007-09 MUSTANG SVT	149	$4,995.00
M-6066-TVS	SUPERCHARGER 2007-10 SVT (CAL REQUIRED)	149	$4,595.00
M-6067-3V50	GASKET KIT 5.0L 3V HEAD	112	$379.00
M-6067-A	COIL COVERS 4.6L	220	$315.95
M-6067-C	COIL COVERS 2007 SVT	220	$99.00
M-6067-D46	HEAD CHANGING KIT 2V	112	$115.95
M-6067-MSVT	HEAD CHANGING KIT 4V S/C	112	$139.95
M-6067-T46	HEAD CHANGING KIT 4V	112	$115.95
M-6099-GT	CYLINDER HEAD ASSEMBLY LH	105	$1,099.95
M-6250-B303	CAMSHAFT HYD ROLLER	115	$259.00
M-6250-E303	CAMSHAFT HYD ROLLER	115	$259.00
M-6250-F303	CAMSHAFT HYD ROLLER	115	$259.00
M-6250-JC50	CAMSHAFT SPOOL PRO STOCK - MIRROR HEAD	248	$1,549.95
M-6250-JC51	CAMSHAFT SPOOL PRO STOCK - SEQ HEAD	248	$1,549.95
M-6250-X303	CAMSHAFT HYD ROLLER	115	$189.95
M-6250-Z303	CAMSHAFT HYD ROLLER	115	$229.95
M-6252-A203	CAMSHAFT KIT 2.0L FOCUS	114	$375.00
M-6253-A50	CAMSHAFT CONVERSION KIT ROLLER	119	$49.95
M-6261-A460	CAMSHAFT BEARINGS ROLLER	115	$35.00
M-6261-C351	CAMSHAFT BEARINGS ROLLER	115	$26.95
M-6261-D351	CAMSHAFT BEARINGS ROLLER	115	$65.95
M-6261-J351	CAMSHAFT BEARINGS	115	$68.95
M-6261-R351	CAMSHAFT BEARINGS	115	$17.95
M-6268-A302	TIMING CHAIN & SPROCKET SET	121	$79.00
M-6268-A351	TIMING CHAIN & SPROCKET SET	121	$74.95
M-6268-A390	TIMING CHAIN & SPROCKET SET	121	$74.95
M-6268-A460	TIMING CHAIN & SPROCKET SET	121	$95.95
M-6268-B302	TIMING CHAIN & SPROCKET SET	121	$99.00
M-6268-B429	TIMING CHAIN & SPROCKET SET	121	$74.95
M-6268-F302	TIMING CHAIN & SPROCKET SET	121	$285.00
M-6268-G302	TIMING CHAIN REPLACEMENT	121	$165.00
M-6269-A351	THRUST PLATE	121	$39.95
M-6269-A460	THRUST PLATE	121	$74.95
M-6287-B302	ECCENTRIC	121	$20.95
M-6287-C302	ECCENTRIC	121	$29.95
M-6303-A514	CRANKSHAFT FINISHED	136	$375.95
M-6303-D46	CRANKSHAFT COBRA STEEL	136	$699.95
M-6303-M54	CRANKSHAFT 5.4L STEEL	136	$350.00
M-6312-SVT	CRANKSHAFT DAMPER 2008 SVT COBRA	136	$299.00
M-6316-A460	CRANKSHAFT DAMPER	137	$299.95
M-6316-A50	CRANKSHAFT DAMPER	137	$299.95
M-6316-A521	CRANKSHAFT DAMPER	137	$279.95
M-6316-C351	CRANKSHAFT DAMPER	137	$274.95
M-6316-CJ	CRANK DAMPER FR500CJ SFI	136	$779.95
M-6316-D302	CRANKSHAFT DAMPER SB 0 BALANCE	137	$274.95
M-6316-K351	CRANKSHAFT DAMPER KIT	136	$69.95
M-6316-M50	CRANKSHAFT DAMPER KIT 5.0L	136	$73.95
M-6345-302MS	MAIN STUDS BOSS 302	112	$139.95
M-6345-351MS	MAIN STUD KIT 351 BOSS	112	$135.00
M-6345-A46	MAIN CAP BOLT KIT 4.6L ALUM BLOCK	112	$45.95
M-6359-D460	CRANKSHAFT SPACER	135	$53.00
M-6375-A302AB	FLYWHEEL ALUM 157T 28.2	167	$389.95
M-6375-A302B	FLYWHEEL STEEL 157T 28.2	167	$255.00
M-6375-A50	FLYWHEEL C-4/AOD 164T 50	166	$38.95
M-6375-B302	FLYWHEEL M/T 157T 50	167	$104.95
M-6375-C302AB	FLYWHEEL ALUM 157T 50	167	$389.95
M-6375-C302B	FLYWHEEL STEEL 157T 50	167	$255.00
M-6375-D302AB	FLYWHEEL ALUMINUM 157T 0	167	$389.95
M-6375-D302B	FLYWHEEL STEEL 157T 0	167	$255.00
M-6375-D46	FLYWHEEL M/T 4.6L 6 BOLT NI	167	$140.00
M-6375-G302	FLYWHEEL C-4 164T 28	166	$64.95
M-6375-G46A	FLYWHEEL ALUMINUM 8 BOLT	167	$289.95
M-6375-H46	FLYWHEEL A/T 4.6L DOHC	166	$64.95
M-6375-Z460	FLYWHEEL M/T 460 1979-1997	167	$350.00
M-6379-B	FLYWHEEL BOLTS 4.6L MANUAL TRANS (8)	167	$11.95
M-6392-C	CLUTCH HOUSING UNIV STL	165	$275.95
M-6392-E	BELLHOUSING 5.0L T-5	165	$199.00
M-6392-M46	BELLHOUSING 4.6L 3550	165	$375.00
M-6392-R58	CLUTCH HOUSING ALUM, TREMEC	165	$195.00
M-6397-A302	PP BOLT AND DOWEL KIT 10.5"	167	$13.95
M-6397-A46	CLUTCH BOLT KIT 11"	167	$13.95
M-6500-B303	TAPPET SET HYD OEM (16)	121	$99.95

SUGGESTED RETAIL PRICE LIST

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Part Number	Description	Pg. No.	Sugg. Retail
M-6500-GT	VALVE LASH ADJUSTERS FORD GT AND SVT 5.4L	121	$279.00
M-6500-R302	TAPPET SET HYD ROLLER (16)	121	$135.00
M-6500-T58	VALVE LIFTERS HYDRAULIC ROLLER	121	$649.00
M-6505-A351	VALVE EXHAUST	117	$14.95
M-6505-A429	VALVE EXHAUST	117	$14.95
M-6505-B304	VALVE EXHAUST	117	$13.00
M-6505-G302	VALVE EXHAUST	117	$10.95
M-6505-ZX3	VALVE 30 MM FOCUS EXHAUST	117	$14.00
M-6507-A304	VALVE INTAKE	117	$14.95
M-6507-A351	VALVE INTAKE	117	$14.95
M-6507-B429	VALVE INTAKE	117	$14.95
M-6507-J302	VALVE INTAKE	117	$12.95
M-6507-ZX3	VALVE 33 MM FOCUS INTAKE	117	$14.00
M-6510-Y303	VALVE GUIDE KIT (4 PACK)	118	$17.95
M-6513-A351	VALVE SPRINGS (16 PACK)	118	$99.00
M-6513-A50	VALVE SPRINGS (16 PACK)	118	$85.00
M-6513-BH	VALVE SPRINGS (16 PACK)	118	$195.00
M-6513-ZX3E	VALVE SPRING SET ZETEC	118	$240.00
M-6514-A50	VALVE SPRING RETAINERS (16)	118	$48.95
M-6514-B50	VALVE SPRING RETAINERS (16)	118	$66.00
M-6514-BH	VALVE SPRING RETAINERS (16)	118	$59.00
M-6518-B351	VALVE KEEPERS (V8 SET OF 16)	118	$21.95
M-6518-BH	VALVE LOCKS (V8 SET OF 16)	118	$27.00
M-6527-C311	ROCKER ARM STUDS (16)	119	$59.00
M-6529-A302	ROCKER ARM SHIM KIT	119	$8.95
M-6536-BH	VALVE SPRING LOCATOR SET OF 16	118	$48.00
M-6536-SCJ	VALVE SPRING CUP SET SCJ	118	$42.95
M-6550-3V	CAMSHAFTS 2005-2010 MUSTANG GT 4.6L 3V	114	$850.00
M-6550-T46	CAMSHAFT KIT HIGH LIFT	114	$945.95
M-6564-A351	ROLLER ROCKER SET	120	$325.95
M-6564-A460	ROLLER ROCKER SET	120	$369.95
M-6564-A50	ROLLER ROCKER SET	120	$289.00
M-6564-B351	ROLLER ROCKER SET	120	$399.00
M-6564-C351	ROLLER ROCKER SET	120	$399.95
M-6564-D351	ROLLER ROCKER SET	120	$325.95
M-6564-F351	ROLLER ROCKER SET	120	$349.95
M-6564-K351	ROLLER ROCKER SET	120	$349.95
M-6566-D351	PUSH ROD GUIDE PLATES (8 PACK) FOR N351	119	$52.00
M-6566-SCJ	PUSH ROD GUIDE PLATES (8 PACK)	119	$34.95
M-6566-Z304D	PUSH ROD GUIDE PLATES (8 PACK)	119	$39.00
M-6571-A50	VALVE STEM SEAL (SET OF 16)	118	$30.00
M-6582-3VB	VALVE COVERS 3V BLUE TEXTURED	219	$269.00
M-6582-3VBLK	VALVE COVERS 3V BLACK TEXTURED	219	$269.00
M-6582-A	VALVE COVERS COBRA	216	$149.00
M-6582-A301R	VALVE COVERS	216	$109.95
M-6582-A302R	VALVE COVERS	216	$129.00
M-6582-A341R	VALVE COVERS	218	$109.95
M-6582-A342R	VALVE COVERS	218	$129.95
M-6582-A351R	VALVE COVERS EFI TRUCK	217	$145.95
M-6582-A427	VALVE COVERS POLISHED COBRA SET	218	$219.00
M-6582-A429R	VALVE COVERS CHROME SET	219	$59.95
M-6582-A54	VALVE COVERS 4V BLUE	219	$589.00
M-6582-B	VALVE COVERS BLACK COBRA	218	$169.95
M-6582-B301	VALVE COVERS BLACK MUSTANG	216	$129.00
M-6582-BOSS	VALVE COVERS BOSS	215	$149.00
M-6582-BOSS302	VALVE COVERS BOSS 302	215	$149.00
M-6582-BOSSP	VALVE COVERS POLISHED BOSS	215	$169.00
M-6582-C	VALVE COVERS COBRA FORD GT BLUE	219	$379.00
M-6582-C351R	VALVE COVERS CHROME	218	$54.95
M-6582-C460	VALVE COVERS POLISHED RACING	219	$154.95
M-6582-C543V	VALVE COVERS CHROME 3V	219	$399.00
M-6582-CC	VALVE COVERS SVT SMOKED CHROME	219	$679.00
M-6582-D302	VALVE COVERS CHROME	217	$244.95
M-6582-F301	VALVE COVERS POLISHED MUSTANG	216	$124.95
M-6582-F302	VALVE COVERS BLACK COBRA	216	$119.95
M-6582-F303	VALVE COVERS POLISHED COBRA SET	216	$139.95
M-6582-JC50	ROCKER CVR PRO STOCK - MIRROR IMAGE HEAD	220	$375.95
M-6582-JC51	ROCKER CVR PRO STOCK - SEQUENTIAL HEAD	220	$344.95
M-6582-R351	VALVE COVERS CHROME	218	$289.95
M-6582-R460	VALVE COVERS CHROME	219	$199.00
M-6582-W427B	VALVE COVERS	215	$139.95
M-6582-W427P	VALVE COVERS	215	$159.95
M-6582-Z351	VALVE COVERS POLISHED RACING	218	$159.95
M-6584-A452	GASKET SET ROCKER COVER	128	$76.00
M-6584-A460	GASKET SET VALVE COVER	128	$78.95
M-6584-A50	GASKET SET VALVE COVER - 5.0L	128	$27.95
M-6588-A50	ROCKER CHANNEL KIT (8 PACK)	119	$21.95
M-6600-A460	OIL PUMP HIGH VOLUME	126	$85.95
M-6600-B3	OIL PUMP HIGH VOLUME	126	$65.95
M-6600-D2	OIL PUMP HIGH VOLUME	126	$55.95
M-6600-D46	OIL PUMP HIGH VOLUME	126	$55.95
M-6600-E46	OIL PUMP HIGH PRESSURE	126	$63.95
M-6600-M50	OIL PUMP	126	$12.00
M-6605-A341	OIL PUMP SHAFT HD	126	$16.95
M-6605-A351	OIL PUMP SHAFT HD	126	$16.95
M-6605-A429	OIL PUMP SHAFT HD	126	$16.95
M-6605-B302	OIL PUMP SHAFT HD	126	$16.95
M-6622-BOSS302	OIL PUMP PICKUP TUBE BOSS BLOCK	126	$110.00
M-6642-S101	OIL COOLER	127	$136.00
M-6670-A50	OIL PAN KIT FOX CONVERSION - 5.0L	125	$289.00
M-6675-A460	OIL PAN KIT 460 FOX	125	$150.00
M-6675-A50	OIL PAN KIT 5.0L	125	$110.00
M-6675-A58	OIL PAN KIT 351 FOX	125	$149.95
M-6687-A302	OIL PAN WINDAGE TRAY 302	125	$64.95
M-6687-A390	OIL PAN WINDAGE TRAY 390	125	$39.95
M-6701-A460	REAR MAIN SEAL	128	$18.00
M-6701-B302	REAR MAIN SEAL	128	$11.95
M-6701-B351	REAR MAIN SEAL	128	$11.95
M-6701-JC50	CRANKSHAFT SEAL RETAINER - REAR	248	$495.00
M-6710-A351	GASKET ONE PIECE OIL PAN	130	$18.95
M-6710-A460	GASKET ONE PIECE OIL PAN	130	$22.95
M-6710-A50	GASKET ONE PIECE OIL PAN - 5.0L	130	$18.95
M-6731-FL1A	OIL FILTER CASE OF 12 CM-6731-FL1A	127	$165.00
M-6731-FL784	OIL FILTER CASE OF 12 CM-6731-FL784	127	$239.95
M-6731-FL820	OIL FILTER CASE OF 12 CM-6731-FL820	127	$179.00
M-6750-C303	OIL DIPSTICK & TUBE	221	$27.95
M-6750-D303	TRANSMISSION DIPSTICK & TUBE	221	$27.95
M-6750-E303	TRANSMISSION DIPSTICK & TUBE	221	$27.95
M-6766-G302	BREATHER CAP	220	$7.50
M-6766-GT	OIL FILL CAP	220	$60.00
M-6766-H302	BREATHER CAP	220	$14.95
M-6766-K302	BREATHER CAP	220	$20.95
M-6766-MP46	OIL FILL CAP PAINTED BILLET	220	$54.00
M-6799-A302	OIL RESTRICTOR KIT	127	$14.95
M-6799-R351	OIL RESTRICTOR KIT	127	$18.95
M-6880-A50	OIL FILTER ADAPTER 90 DEG	127	$75.00
M-6881-A5	WATER INLET ADAPTER 2005-UP	127	$189.00
M-6881-C	WATER INLET ADAPTER 1996-2004	127	$189.00
M-6881-C100	OIL FILTER ADAPTER KIT	127	$79.00
M-6892-F	BREATHER AND PCV GROMMETS	220	$3.50
M-6949-3V	INTAKE SHROUD MUSTANG GT	221	$99.00
M-7000-A	TRANSMISSION REBUILD KIT T-5	162	$255.00
M-7003-CJ	TRANSMISSION CJ	240	$3,795.00
M-7003-F	TRANSMISSION T-56 6-SPEED	161	$2,750.00
M-7003-G	TRANSMISSION T-56 MECH SPEEDO 1996-98	161	$2,750.00
M-7003-H	TRANSMISSION T-56 5.0L	161	$2,750.00
M-7003-R58C	TRANSMISSION TREMEC 5-SPD EXTRA HD	161	$2,310.00
M-7003-R58H	TRANSMISSION TKO 600 HDO	161	$2,310.00
M-7003-R58W	TRANSMISSION TREMEC 5-SPD HD	161	$2,210.00
M-7003-Z	TRANSMISSION SHD T-5	160	$1,369.00
M-7007-A	STARTER INDEX PLATE, MODULAR ENGINE	134	$21.00
M-7007-B	STARTER INDEX PLATE, SMALL BLOCK	134	$22.00
M-7050-A	BEARING RETAINER	162	$41.00
M-7050-B	BEARING RETAINER	162	$43.95
M-7060-A54	CLUTCH KIT 2007 COBRA	168	$999.00
M-7095-GT	TRANSAXLE COOLER KIT	162	$1,279.00

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Part Number	Description	Pg. No.	Sugg. Retail
M-7095-SR	TRANSMISSION OIL COOLER KIT	162	$99.00
M-7210-B	SHIFTER 2007-2009 SVT SHORT THROW	164	$205.00
M-7210-GT	SHIFT LEVER	164	$449.00
M-7210-M	SHIFTER T-5/T-45 HURST	164	$185.00
M-7210-MGT	SHIFTER 2005-2009 MUSTANG GT	164	$315.00
M-7210-MGTA	SHIFTER 2010 MUSTANG	164	$325.00
M-7210-MV6	SHIFTER 2005-2009 MUSTANG V6	164	$315.00
M-7210-MV6A	SHIFTER 2010 MUSTANG V6	164	$325.00
M-7210-T56	SHIFTER T-56	164	$189.00
M-7211-A	SHIFTER SERVICE KIT	165	$78.95
M-7213-B	SHIFT KNOB T-56	163	$45.00
M-7213-D	SHIFT KNOB 5-SPEED CARBON	163	$65.00
M-7213-E	SHIFT KNOB CARBON LEATHER	163	$29.00
M-7213-G	SHIFT KNOB 5-SPEED COBRA	163	$45.00
M-7213-H	SHIFT KNOB MACH 1	163	$39.95
M-7213-J	SHIFT KNOB AND STICK 2007-09 SVT BLACK	163	$149.95
M-7213-K	SHIFT KNOB AND STICK 2007-09 SVT WHITE	163	$195.00
M-7213-N	SHIFT KNOB FORD RACING WHITE 5-SPEED	163	$45.00
M-7213-P	SHIFT KNOB FORD RACING BLACK 5-SPEED	163	$45.00
M-7277-A	SHIFT BOOT	165	$81.00
M-7277-B	SHIFT BOOT CARBON	165	$27.95
M-7512-A	CLUTCH HOSE HYD 2005-2010 MUSTANG	168	$219.95
M-7515-A	CLUTCH LEVER SN95	169	$20.00
M-7548-A	CLUTCH RELEASE BEARING	168	$55.95
M-7550-B	CLUTCH DISC 26 SPLINE	168	$119.00
M-7550-C	CLUTCH DISC CERI-METALLIC 1-1/8" 26T	169	$329.00
M-7550-T302	CLUTCH DISC 26 SPLINE 10.5"	168	$159.00
M-7550-X302	CLUTCH DISC	168	$145.00
M-7553-A302	CLUTCH LINKAGE KIT	169	$50.00
M-7553-B302	CLUTCH CABLE KIT ADJ	169	$98.00
M-7553-C302	CLUTCH SERVICE CABLE	169	$46.00
M-7553-D302	CLUTCH CABLE AND QUADRANT KIT	169	$98.00
M-7553-E302	CLUTCH SERVICE CABLE 1996-2004	169	$46.00
M-7554-A	BULKHEAD ADJUSTER	169	$55.95
M-7560-A302N	CLUTCH KIT 10.5"	168	$269.00
M-7560-D46	CLUTCH KIT 2002-2004 COBRA	168	$269.00
M-7560-T46	CLUTCH ASSEMBLY 26 SPLINE 11.0"	168	$369.00
M-7563-A302N	CLUTCH 10.5" PRESSURE PLATE	168	$108.00
M-7563-B302	CLUTCH 10.5" PRESSURE PLATE	168	$209.00
M-7563-Z3	CLUTCH KIT FOCUS 2.0L ZETEC	169	$225.00
M-7583-A	CLUTCH DOUBLE-HOOK QUADRANT	169	$41.00
M-7600-A	PILOT BEARING SB ROLLER	168	$10.95
M-7600-B	PILOT BEARING 4.6L ROLLER	168	$10.95
M-7771-A	TRANSMISSION HARDWARE KIT MOD	165	$29.00
M-7843-A	EMBLEM BILLET FORD OVAL 7-1/4"	229	$29.00
M-7843-V8	EMBLEM STICK-ON CHROME V8	229	$9.95
M-8005-C	RADIATOR ALUM 1979-1993	132	$310.00
M-8005-C03	RADIATOR HIGH PERFORMANCE	132	$325.00
M-8005-P221	RADIATOR HIGH PERFORMANCE	132	$199.95
M-8005-R	RADIATOR KIT C&R	246	$1,350.00
M-8006-GT	COOLANT OVERFLOW CAP BILLET	132	$71.95
M-8080-A	DE-GAS BOTTLE	132	$160.00
M-8200-A	GRILLE FR500S W/O BADGE	226	$559.00
M-8310-A	RADIATOR AIR DEFLECTOR KIT	244	$145.00
M-8501-A50	WATER PUMP KIT	131	$205.00
M-8501-C460	WATER PUMP	131	$215.00
M-8501-C50	WATER PUMP	131	$48.95
M-8501-D50	WATER PUMP SHORT SERPENTINE	131	$55.00
M-8501-E351S	WATER PUMP	131	$140.00
M-8501-F351	WATER PUMP	131	$185.00
M-8501-FR9	WATER PUMP	130	$565.95
M-8501-G351	WATER PUMP	131	$61.95
M-8501-L54	WATER PUMP ELECTRIC	132	$149.00
M-8509-A50	PULLEY SET UNDERDRIVE	135	$79.95
M-8509-CM	PULLEYS (V-BELT) BILLET 1 GROOVE	135	$184.95
M-8509-DM	PULLEYS (V-BELT) BILLET 1 GROOVE	135	$184.95
M-8509-EM	PULLEYS (V-BELT) BILLET 2 GROOVE	135	$184.95
M-8510-A351	CRANKSHAFT PULLEY SPACER	135	$29.95
M-8510-B351	CRANKSHAFT PULLEY SPACER	135	$29.95
M-8510-C351	CRANKSHAFT PULLEY SPACER	135	$29.95
M-8510-D351	CRANKSHAFT PULLEY SPACER	135	$34.95
M-8510-M2L	FUEL RAIL SPACER KIT	208	$21.99
M-8511-A351	ACCESSORY DRIVE KIT P.S.	133	$70.00
M-8511-A50	A/C ELIMINATOR KIT	133	$39.95
M-8511-B351	ACCESSORY DRIVE KIT A/C	133	$105.00
M-8600-A46NA	ACCESSORY DRIVE KIT ALUMINATOR NA	134	$529.00
M-8600-A46SC	ACCESSORY DRIVE KIT ALUMINATOR	134	$1,600.00
M-8604-A50	COMP A/P IDLER	133	$89.95
M-9002-C46	FUEL TANK MUSTANG COBRA 2003-2004	208	$750.00
M-9066-M11	S/C UPGRADE KIT 05-06 MUSTANG GT 550 HP	150	$2,549.99
M-9066-M117	S/C UPGRADE KIT 2007 MUSTANG GT 550 HP	151	$2,549.99
M-9275-BFSE	GAUGE FUEL PRES (0-100PSI) FSE	214	$345.95
M-9278-BFSE	GAUGE OIL PRESSURE (0-100PSI) FSE	214	$346.01
M-9407-C50	FUEL PUMP HIGH FLOW	208	$259.00
M-9407-GT05	FUEL PUMP KIT COBRA DUAL	208	$780.00
M-9407-L54	FUEL PUMP LIGHTNING	208	$210.00
M-9407-MSVTA	FUEL PUMP KIT 2010 DUAL	208	$780.00
M-9424-BT58	INTAKE MANIFOLD NASCAR	123	$745.00
M-9424-C460	INTAKE MANIFOLD	122	$450.00
M-9424-C58	INTAKE MANIFOLD NASCAR V8	123	$1,389.00
M-9424-D302	INTAKE MANIFOLD	122	$275.00
M-9424-D452	INTAKE MANIFOLD 4V	123	$545.00
M-9424-E551	INTAKE MANIFOLD SINGLE PLANE	124	$500.00
M-9424-E552	INTAKE MANIFOLD 4V NASCAR	124	$560.00
M-9424-F302	INTAKE MANIFOLD	122	$199.00
M-9424-G429	INTAKE MANIFOLD	122	$219.95
M-9424-GTK	INTAKE MANIFOLD KIT FORD GT	124	$300.00
M-9424-H429	INTAKE MANIFOLD	122	$350.00
M-9424-J429	INTAKE MANIFOLD	123	$265.00
M-9424-P46	INTAKE MANIFOLD 4.6L PI	123	$209.00
M-9424-V351	INTAKE MANIFOLD	122	$310.00
M-9424-Z351	INTAKE MANIFOLD	122	$285.00
M-9424-Z51P	INTAKE MANIFOLD KIT POLISHED	123	$579.00
M-9424-ZX3R	INTAKE MANIFOLD BOLT ON FR200	124	$799.00
M-9430-C54	HEADERS 2007 SVT SHORTY	156	$649.00
M-9430-C54C	HEADERS 2007 SVT SHORTY COATED	156	$799.00
M-9430-CJ	HEADERS COBRA JET	155	$1,500.00
M-9430-E462	HEADERS 4.6L 2V	156	$299.95
M-9430-E465	HEADERS 4.6L 4V COATED	156	$445.95
M-9430-GTX	HEADERS/COLLECTOR MUFFLER	155	$4,395.00
M-9430-MC	HEADERS 4.6L 3V LONG TUBE	155	$1,324.99
M-9430-P50	HEADERS 1986-1993 GT-40P	156	$299.00
M-9430-P51	HEADERS 1986-1993 GT-40P COATED	156	$369.00
M-9430-R50	EXHAUST MANIFOLD	246	$2,999.00
M-9430-S197	HEADERS 2005 MUSTANG	156	$359.00
M-9430-S197C	HEADERS 2005 MUSTANG COATED	156	$559.00
M-9430-SR302	HEADERS SS STREET ROD	156	$579.95
M-9430-T50	HEADERS F-SERIES 5.0L	156	$350.00
M-9430-T58	HEADERS F-SERIES 5.8L	156	$369.95
M-9430-ZM7993	HEADERS FOX “Z” HEAD	156	$334.95
M-9430-ZM7993C	HEADERS FOX “Z” HEAD COATED	156	$459.95
M-9430-ZX3L	HEADERS 2.0L FOCUS LONG TUBE	156	$340.00
M-9430-ZX3LC	HEADERS COATED LONG TUBE	156	$379.00
M-9432-A50	HEADER BOLT LOCK 3/4" SET	156	$63.00
M-9432-A51	HEADER BOLT LOCK 1" SET	156	$63.00
M-9432-A54	HEADER BOLT LOCK 8 MM - 1.25 SET	156	$57.95
M-9439-A50	GASKET SET INTAKE MANIFOLD	128	$44.95
M-9439-G460	GASKET SET INTAKE MANIFOLD	128	$34.00
M-9439-G50	GSK INTAKE MANIFOLD GRAPHITE STD PORT 5.0L	128	$9.95
M-9439-H460	GASKET SET INTAKE MANIFOLD	128	$34.00
M-9448-3V	GASKETS HEADER R/B	128	$319.00
M-9448-A351	GASKETS HEADER N351 (PR)	128	$13.95
M-9448-A462	GASKETS HEADER REPLACEMENT 4.6L 2V (PR)	128	$19.95
M-9448-A463V	GASKETS HEADER REPLACEMENT 4.6L 3V (PR)	128	$24.95
M-9448-A464	GASKETS HEADER REPLACEMENT 4.6L 4V (PR)	128	$20.95
M-9448-B302	GASKETS HEADER 5.0L (PR)	128	$8.95
M-9448-C54	GASKETS HEADER REPLACEMENT 5.4L 4V (PR)	128	$21.95
M-9464-A50	GASKET EGR SPACER (5 PACK)	128	$27.95
M-9486-A50	GASKET UPPER TO LOWER (5 PACK)	124	$20.00
M-9486-A51	INTAKE SPACER	124	$55.95
M-9486-A52	INTAKE SPACER	124	$55.95
M-9486-A53	INTAKE SPACER	124	$79.95
M-9593-AA302	FUEL INJECTOR 24# 8 PACK	206	$189.00
M-9593-BB302	FUEL INJECTOR 30# 8 PACK	206	$220.00
M-9593-C302	FUEL INJECTOR 19# 8 PACK	206	$265.00
M-9593-G302	FUEL INJECTOR 47# 8 PACK	206	$319.00
M-9593-LU24	FUEL INJECTOR 24# 8 PACK	206	$189.00
M-9593-LU34	FUEL INJECTOR 34# 8 PACK	206	$299.00
M-9593-LU60	FUEL INJECTOR 60# 8 PACK	206	$430.00
M-9593-LU80	FUEL INJECTOR 80# 8 PACK	206	$460.00
M-9593-M39	FUEL INJECTOR 39# 8 PACK	206	$395.00
M-9593-MU32	FUEL INJECTOR 32# 8 PACK	206	$350.00
M-9600-C302	AIR CLEANER OVAL	221	$94.95
M-9600-CFAC13	AIR CLEANER CARBON FIBER	221	$110.95
M-9600-CJ	MAF COBRA JET 123 MM (CAL REQUIRED)	207	$665.95
M-9600-K302	AIR CLEANER OVAL	221	$94.95
M-9600-P302	AIR CLEANER OEM 14 IN	221	$31.95
M-9601-B	AIR FILTER ELEMENT	142	$32.95
M-9601-C	AIR FILTER ELEMENT	142	$69.95
M-9601-D	AIR FILTER ELEMENT 2007-09 MUSTANG SVT CAK	142	$77.00
M-9601-MGT	AIR FILTER 2010 MUSTANG GT	142	$74.00
M-9601-MV6	AIR FILTER 2010 MUSTANG V6	142	$75.00
M-9603-CJ	COLD AIR KIT COBRA JET	240	$889.00
M-9603-GTB	COLD AIR KIT 2005-2009 MUSTANG GT	141	$669.00
M-9603-M40	TUNER KIT MUSTANG V6 4.0L (CAL REQUIRED)	142	$240.00
M-9603-M463	TUNER KIT MUSTANG GT 4.6L (CAL REQUIRED)	142	$295.00
M-9603-M54SC	TUNER KIT MUSTANG SVT 5.4L (CAL REQUIRED)	141	$350.00
M-9603-MGT	AIR FILTER W/CAL 2010 MGT	141	$410.00
M-9603-MV6	AIR FILTER W/CAL 2010 MV6	141	$380.00
M-9603-SVT07	COLD AIR KIT 2007-2009 MUSTANG SVT	141	$929.00
M-9603-V605	COLD AIR KIT 2005-2009 MUSTANG V6	142	$499.00
M-9697-E	AIR CLEANER NUT BILLET FORD	221	$20.00
M-9697-F	AIR CLEANER NUT BILLET FR	221	$20.00
M-9926-3V	THROTTLE BODY 3V MUSTANG	207	$559.95
M-9926-CJ	THROTTLE BODY COBRA JET	207	$679.95
M-9926-MSVT	THROTTLE BODY SVT 60 MM DUAL BORE	207	$149.95
M-9926-ZX3R	THROTTLE BODY 70 MM FOCUS	207	$419.00
M-10883-BFSE	GAUGE WATER TEMP (100-260F) FSE	214	$226.14
M-10885-BFSE	GAUGE PYROMETER (0-1600F) FSE	214	$278.18
M-10898-CPIC	GAUGE PERF INFO CTR (FLOODLIT)	214	$345.08
M-11000-B51	STARTER - MINI 1.4 KW	211	$279.00
M-11000-MT164	STARTER - MINI HIGH TORQUE	211	$279.00
M-11572-GT	START BUTTON KIT FORD GT FOR MUSTANG GT	225	$122.00
M-11622-BFSE	GAUGE 2-1/16" VACUUM/BOOST FSE	214	$345.27
M-12029-4V	IGNITION COIL SET 4V	212	$295.95
M-12044-A2	COIL BRACKET CHROME	212	$7.95
M-12071-A50	WIRE HARNESS EFI	198	$575.00
M-12071-C302	MAIN HARNESS	198	$139.95
M-12071-K302	RELAY PACKAGE	197	$109.95
M-12071-L302	ENGINE HARNESS 5.0L	198	$224.95
M-12106-A302	DISTRIBUTOR CAP KIT DURASPARK	211	$59.95
M-12106-B302	DISTRIBUTOR CAP KIT EFI	211	$49.95
M-12259-C301	IGNITION WIRE SET 9 MM BLUE	212	$48.95
M-12259-C302	IGNITION WIRE SET 9 MM BLUE	212	$48.95
M-12259-C460	IGNITION WIRE SET 9 MM BLUE	212	$48.95
M-12259-C462	IGNITION WIRE SET 4.6L 2V BLUE	212	$82.95
M-12259-C464	IGNITION WIRE SET 4.6L 4V BLUE	212	$119.95
M-12259-M301	IGNITION WIRE SET 9 MM BLACK	212	$48.95
M-12259-M302	IGNITION WIRE SET 9 MM BLACK	212	$48.95
M-12259-R301	IGNITION WIRE SET 9 MM RED	212	$48.95
M-12259-R460	IGNITION WIRE SET 9 MM RED	212	$48.95
M-12259-R462	IGNITION WIRE SET 4.6L 2V RED	212	$82.95
M-12259-R464	IGNITION WIRE SET 4.6L 4V RED	212	$119.95
M-12259-T462	IGNITION WIRE SET 4.6L 2V F-150 BLUE	212	$75.95
M-12259-Y301	IGNITION WIRE SET 9 MM YELLOW	212	$48.95
M-12297-L900	IGNITION WIRE LOOM SET STREET ROD W/FORD	212	$99.95
M-12297-L901	IGNITION WIRE LOOM SET STREET ROD W/V8	212	$79.95
M-12390-A	DISTRIBUTOR DRIVEN GEAR	210	$27.00
M-12390-B	DISTRIBUTOR DRIVEN GEAR	210	$45.00
M-12390-C	DISTRIBUTOR DRIVEN GEAR	210	$55.00
M-12390-F	DISTRIBUTOR DRIVEN GEAR	210	$27.00
M-12390-G	DISTRIBUTOR DRIVEN GEAR	210	$27.00
M-12390-H	DISTRIBUTOR DRIVEN GEAR BRONZE 460/521	210	$52.00
M-12390-K	DISTRIBUTOR DRIVEN GEAR POLYMER 302	210	$135.00
M-12390-L	DISTRIBUTOR DRIVEN GEAR POLYMER 302/351W	210	$99.95
M-12405-3V0	SPARK PLUG 3V 0 DEG (8 PACK)	211	$99.95
M-12405-3V12MM	SPARK PLUG 3V 12 MM THREAD	211	$92.95
M-12579-L54	AIR METER 90 MM LIGHTNING	207	$199.95
M-12650-BR50	CONTROL MODULE ENGINE	246	$499.00
M-13086-B	FLOOR MAT 1996-2004 MUSTANG (PAIR)	225	$34.00
M-13086-C	FLOOR MAT 2005-2009 MUSTANG (PAIR)	225	$34.00
M-13086-MA	FLOOR MAT 2010 MUSTANG (PAIR)	225	$46.95
M-13208-LFR	SILL PLATES 2005-UP MUSTANG LIGHTED FR	225	$275.00
M-13208-LSVT	SILL PLATES 2005-UP MUST LIGHTED SVT	225	$275.00
M-14290-T50C	DASH HARNESS FR500C	246	$1,075.00
M-14405-T50B	BODY HARNESS FR500C REAR	246	$275.00
M-14414-T50B	BODY HARNESS FR500C FRONT	246	$435.00
M-14464-A8	FUEL INJECTOR ADAPTER (8)	206	$38.00
M-14464-U2J	FUEL INJECTOR ADAPTER (8) U2J	206	$64.00
M-14500-R50	BATTERY HARNESS FR500C	246	$499.00
M-15200-F15R6HAL	LIGHTS 6" AUXILIARY HALOGEN (4)	228	$393.95
M-15200-F15R8HAL	LIGHTS 8" AUXILIARY HALOGEN (4)	228	$653.95
M-15200-F15RBHID	LIGHTS 8" AUXILIARY HID (4)	228	$2,519.95
M-15266-F15RBAR	LIGHT BAR FRONT AUXILIARY	228	$321.95
M-16098-CJG	EMBLEM GRILLE COBRA JET	229	$84.95
M-16600-E	REAR WING FR500S PAINTED	227	$1,799.00
M-16600-E1	REAR WING AND END PLATE PAINTED	227	$979.00
M-16600-E2	REAR WING STANCHION KIT, PAINTED	227	$869.00
M-16600-SVTC	REAR WING 2005-08 MUSTANG SVT	226	$229.00
M-16601-C	SPLITTER FR500S	227	$1,385.00
M-16612-C	HOOD SVT	226	$889.00
M-16612-R58	HOOD 1995 COBRA “R”	226	$525.00
M-16612-SHK	SHAKER HOOD AIR INT KIT 2010 MUSTANG	226	$899.00
M-16612-SHK59	SHAKER HOOD AIR INT KIT 2005-09 MUSTANG	226	$899.00
M-16700-A	HOOD LATCH KIT	226	$34.95
M-17360-B	TACHOMETER PEDESTAL 3-3/8" FORD RACING	214	$343.73
M-17360-B961	TACHOMETER CHROME/WHITE	213	$99.95
M-17360-CJ	TACHOMETER 5" PEDESTAL	214	$371.99
M-17728-CJ	MIRROR BLOCKOFF SET COBRA JET	227	$155.00
M-17757-A	BUMPER BEAM FR500S FRONT	244	$249.00
M-17831-CJ	EXTERIOR COBRA JET KIT	240	$1,500.00
M-17831-F	FASCIA FOCUS SVT FRONT	226	$399.00
M-17835-F	FASCIA FOCUS SVT REAR	226	$325.00
M-17835-F1	EXHAUST CENTER INSERT FOCUS SVT	226	$99.95
M-17906-A	BUMPER C/S REAR	244	$189.00
M-17954-A	TOW HOOK LOOP KIT	244	$55.00
M-18000-A	DAMPER KIT 2005 MUSTANG	188	$465.00
M-18000-C	DAMPER KIT 2007 SVT	188	$889.00
M-18000-E	DAMPER KIT FR500S F/R	244	$5,450.00
M-18000-EFL	DAMPER LEFT FRONT FR500S	244	$1,450.00
M-18000-EFR	DAMPER RIGHT FRONT FR500S	244	$1,450.00
M-18000-ERL	DAMPER LEFT REAR FR500S	244	$1,400.00
M-18000-ERR	DAMPER RIGHT REAR FR500S	244	$1,400.00
M-18000-Z2	STRUT ZX2-R SET OF 4	188	$215.00
M-18000-ZX3	DAMPER KIT FOCUS	188	$199.00
M-18000-ZX3B	DAMPER KIT 2006 FOCUS	188	$195.00
M-18000-ZXM	DAMPERS 2000-2005 SPEC FOCUS	188	$549.00
M-18000-ZXM1	DAMPER KIT 2006 SPEC FOCUS	188	$549.00
M-18120-RFL	DAMPER FRONT LEFT SIDE	246	$1,595.95
M-18120-RFR	DAMPER FRONT RIGHT SIDE	246	$1,595.95
M-18120-RRL	DAMPER REAR LEFT SIDE	246	$1,295.95
M-18120-RRR	DAMPER REAR RIGHT SIDE	246	$1,295.95

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Part Number	Description	Pg. No.	Sugg. Retail
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M-18183-B	CAMBER PLATE FR500S	192	$389.00
M-18183-R	CAMBER PLATES GRAND AM	246	$385.95
M-18197-A	SHOCK MOUNT KIT REAR	244	$83.00
M-19017-B961	GAUGE KIT CHROME/WHITE (5)	213	$610.47
M-19216-A50	A/C DELETE KIT 1994-1995 5.0L	133	$60.00
M-19216-CJ	A/C DELETE KIT SVT 5.4L MUSTANG 10 RIB	133	$162.95
M-19216-D46	A/C DELETE KIT 1996-2009 4.6L	133	$48.95
M-19515-A	HIGHWAY SAFETY KIT	230	$69.95
M-19515-GENKIT	TRAILSIDE KIT	230	$264.95
M-19515-TOW	RECOVERY KIT	230	$396.00
M-19546-A12	FRICTION MODIFIER - CASE OF 12	173	$42.00
M-19579-A12	CAM LUBE - CASE OF 12	115	$60.00
M-20000-D101	DECAL “FORD” OVAL 5.5" (12 PKG)	231	$11.50
M-20000-D102	DECAL “FORD” OVAL 8.5" (12 PKG)	231	$13.50
M-20201-A50	STRUT TOWER BRACE 1979-1993	191	$144.95
M-20201-C	STRUT BRACE 2007 SVT	191	$255.00
M-20201-F	STRUT TOWER BRACE 2005-2010 V6	191	$195.00
M-20201-MC	STRUT TOWER BRACE FR500S	244	$299.00
M-20201-S197	STRUT TOWER BRACE 2005-2010 V8	191	$195.00
M-61108-R	SAFETY HARNESS 6 PT	244	$365.00
M-77000-GA	DIE-CAST 2005 MUSTANG GRD-AM CHP FR500C	245	$49.95
M-162001-CJOPT	GRAPHICS UPGRADE, FR500CJ	240	$1,999.00
M-607100-R197	CAGED BODY UNPAINTED FR500C	246	$11,999.00
M-607100-R197A	CAGED BODY UNPAINTED FR500S	244	$9,250.00
M-1620001-FRBK	STRIPES FR MUSTANG BLACK	227	$269.95
M-1620001-FRSL	STRIPES FR MUSTANG SILVER	227	$269.95
M-6300034-CJ	SEAT SET EMBROIDERED	240	$475.00
M-6342006-MC	WINDOW KIT MUSTANG REAR/QTR	244	$1,200.00
M-7002010-PSA	BODY 2010 CARBON PRO STOCK	249	$11,000.00
M-7002010-PSB	BODY 2010 FIBERGLASS PRO STOCK	249	$6,125.00
M-1B120-F15	TIREGATE ACCESSORY	228	$1,029.60
M-6C521-MSVT	VALVE KIT FOR MUSTANG SVT 5.4L HEAD	117	$675.95
M-8C368-FR9	WATER MANIFOLD	130	$664.95
M-9B659-CJ	AIR INLET TUBE 2010 COBRA JET	207	$64.99
M-9B659-MSVT	AIR INLET TUBE 2010 SVT	207	$61.95
M-9Y456-CJ	EGR BLOCKOFF PLATE	240	$34.95
M-14A005-500S	BODY HARNESS FR500S MAIN	243	$695.95
M-FR1-MGT	POWER UPGRADE PACK 2005-09 MUSTANG GT	139	$989.00
M-FR1-MGTA	POWER UPGRADE PACK 2010 MUSTANG GT	139	$1,025.00
M-FR1-MV6	POWER UPGRADE PACK 2010 MUSTANG V6	140	$1,295.00
M-FR3-MCGT	HANDLING PACK MUSTANG GT CONV	185	$1,275.95
M-FR3-MGT	HANDLING PACK 1" MUSTANG GT	185	$1,275.95
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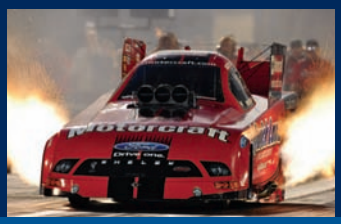
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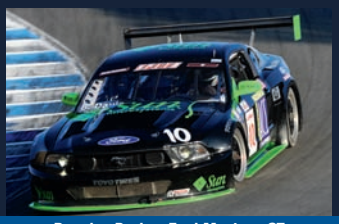
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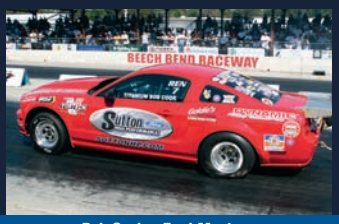
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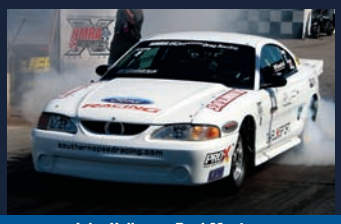
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