

**427RX****Technical Information**

Horsepower (maximum): 675 hp  
 Torque (maximum): 540 lbs./ft.  
 Displacement: 427 cu. in.  
 Block: Dart Iron Eagle, 9.5" deck, 4-bolt main caps  
 Crankshaft Type: Forged 4340 Steel (Internally Balanced)  
 Connecting Rod Type: Forged 4340 Steel "H-Beam"  
 Compression Ratio: 13.5:1  
 Pistons: Forged Aluminum  
 Timing Set: Multi-Index w/ HY-VO Chain  
 Camshaft Info: ROUSH Proprietary  
 Lifter Type: Solid Roller  
 Cylinder Heads: Aluminum  
 Intake Runner Volume: 225 cc, fully CNC Ported  
 Combustion Chamber Volume: 61 cc  
 Valve Sizes: 2.08" Intake 1.600" Exhaust  
 Rocker Arm Ratio: 1.6:1  
 Spark Plugs: Autolite 3923 (or comparable)  
 Intake Manifold: Edelbrock Victor Single Plane  
 Fuel System: Holley HP 1000 CFM Carburetor w/ Mechanical Secondaries  
 Fuel Requirements: 110 Octane  
 Max. Recommended RPM: 7,500  
 Firing Order: 1-3-7-2-6-5-4-8  
 Timing: 31 to 34 degrees @ 4,000 rpm (not to exceed 35)  
 Oil Pump: High Output – Adjustable  
 Oil Pan: 8 qt. Wet Sump (several styles available)  
 Oil Filter: Motorcraft FL-1HP (or comparable)  
 Oil Weight: 10w30 Mobil1 synthetic  
 Flywheel/Flexplate: Available  
 Starter: Available

**451SRFE****Technical Information**

Horsepower (maximum): 455 hp  
 Torque (maximum): 525 lbs./ft.  
 Displacement: 451 cu. in.  
 Genesis Iron (Pending Availability) or Shelby Aluminum Block  
 Wiseco Forged Aluminum Pistons/4.250" Bore & 10.0:1 CR  
 Plasma-Moly File Fit Rings  
 SCAT Nodular Iron Crankshaft/3.980" Stroke  
 SCAT 4340 Steel "H" Beam Connecting Rods  
 ROUSH Proprietary Hydraulic Roller Camshaft & Lifters  
 Harland Sharp Shaft Style Roller Rocker Arms  
 Edelbrock Aluminum Cylinder Heads  
 MSD Billet Distributor With Wires  
 Melling High Volume Oil Pump  
 8 Qt. Canton Fully Baffled Road Race Oil Pan with Powdercoated Finish  
 ROUSH Logo Valve Covers with Billet Breather, PCV and Oil Fill  
 Billet Remote Oil Filter Adapter with #10 AN Inlet/Outlet Fittings, Oil Pressure Adjustment and Gauge Port  
 Mechanical Fuel Pump  
 Edelbrock Performer RPM Dual Plane Intake Manifold  
 Holley 770 CFM Vacuum Secondary Carburetor  
 Carburetor Fuel Log with ROUSH Billet In-line Filters  
 Edelbrock Aluminum Water Pump  
 100 Amp Single Wire Alternator, Billet Alternator Bracket and Billet Pulleys  
 ROUSH Billet Air Cleaner Assembly  
 ROUSH Billet Wire Looms  
 McLeod Steel Flywheel  
 E-Coated Inspection Plate  
 2 Year Warranty with Dyno Documentation

**451RFE****Technical Information**

Horsepower (maximum): 500 hp  
 Torque (maximum): 575 lbs./ft.  
 Displacement: 451 cu. in.  
 Genesis Iron (Pending Availability) or Shelby Aluminum Block  
 Wiseco Forged Aluminum Pistons/4.250" Bore & 10.0:1 CR  
 SCAT Nodular Iron Crankshaft/3.980" Stroke  
 SCAT 4340 Steel "H" Beam Connecting Rods  
 ROUSH Proprietary Hydraulic Roller Camshaft & Lifters  
 Harland Sharp Shaft Style Roller Rocker Arms  
 Edelbrock Aluminum Cylinder Heads  
 MSD Billet Distributor With Wires  
 Melling High Volume Oil Pump  
 8 Qt. Canton Fully Baffled Road Race Oil Pan with Powdercoated Finish  
 ROUSH Logo Valve Covers with Billet Breather, PCV and Oil Fill  
 Billet Remote Oil Filter Adapter with #10 AN Inlet/Outlet Fittings, Oil Pressure Adjustment and Gauge Port  
 Mechanical Fuel Pump  
 Edelbrock Performer RPM Dual Plane Intake Manifold  
 Holley 870 CFM Vacuum Secondary Carburetor  
 Carburetor Fuel Log with ROUSH Billet In-line Filters  
 Edelbrock Aluminum Water Pump  
 100 Amp Single Wire Alternator, Billet Alternator Bracket and Billet Pulleys  
 ROUSH Billet Air Cleaner Assembly  
 ROUSH Billet Wire Looms  
 McLeod Steel Flywheel  
 E-Coated Inspection Plate  
 2 Year Warranty with Dyno Documentation

**511SRFE****Technical Information**

Horsepower (maximum): 540 hp est.  
 Torque (maximum): 600 lbs./ft.  
 Displacement: 511 cu. in.  
 Shelby Aluminum Block w/ Bushed Lifter Bores  
 SCAT Nodular Iron Crankshaft/4.250" Stroke  
 SCAT H-Beam Connecting Rods  
 Wiseco Forged Pistons/4.375" Bore & 10.0:1 CR  
 Plasma-Moly File Fit Rings  
 Edelbrock Medium-Riser CNC Ported Aluminum Cylinder Heads w/ Big Valves  
 ROUSH Proprietary Hydraulic Roller Camshaft & Lifters  
 Harland Sharp Shaft Style Roller Rocker Arms  
 Edelbrock Victor Single Plane Intake Manifold  
 850 CFM Holley Carburetor  
 MSD Billet Distributor With Wires  
 Melling High Volume Oil Pump  
 8 Qt. Canton Fully Baffled Road Race Oil Pan w/ Powdercoat Finish  
 ROUSH Logo Valve Covers with Billet Breather, PCV & Oil Fill Cap  
 Billet Remote Oil Filter Adapter with # 10 AN Fittings, Oil Pressure Adjustment & Gauge Hook-Up  
 Mechanical Fuel Pump  
 Carburetor Fuel Log w/ ROUSH In-Line Filters  
 Complete FEAD w/ Alternator, Billet Alternator Bracket, Billet Pulleys & Edelbrock Water Pump  
 ROUSH Billet Air Cleaner Assembly  
 ROUSH Billet Wire Looms  
 McLeod Steel Flywheel  
 E-Coated Inspection Plate  
 2 Year/24K Mile Limited Warranty w/ Dyno Documentation

• Engines shown in catalog may contain optional accessories



**511RFE**

**Technical Information**

Horsepower (maximum): 600 hp est.  
 Torque (maximum): 625 lbs./ft.  
 Displacement: 511 cu. in.  
 Shelby Aluminum Block w/ Bushed Lifter Bores  
 SCAT Nodular Iron Crankshaft/4.250" Stroke  
 SCAT H-Beam Connecting Rods  
 Wiseco Forged Pistons/4.375" Bore & 10.0:1 CR  
 Plasma-Moly File Fit Rings  
 Edelbrock Medium-Riser CNC Ported Aluminum Cylinder Heads w/ Big Valves  
 ROUSH Proprietary Hydraulic Roller Camshaft & Lifters  
 Harland Sharp Shaft Style Roller Rocker Arms  
 Edelbrock Victor Single Plane Intake Manifold  
 850 CFM Holley Carburetor  
 MSD Billet Distributor With Wires  
 Melling High Volume Oil Pump  
 8 Qt. Canton Fully Baffled Road Race Oil Pan w/ Powdercoat Finish  
 ROUSH Logo Valve Covers with Billet Breather, PCV & Oil Fill Cap  
 Billet Remote Oil Filter Adapter with # 10 AN Fittings, Oil Pressure Adjustment & Gauge Hook-Up  
 Mechanical Fuel Pump  
 Carburetor Fuel Log w/ ROUSH In-Line Filters  
 Complete FEAD w/ Alternator, Billet Alternator Bracket, Billet Pulleys & Edelbrock Water Pump  
 ROUSH Billet Air Cleaner Assembly  
 ROUSH Billet Wire Looms  
 McLeod Steel Flywheel  
 E-Coated Inspection Plate  
 2 Year/24K Mile Limited Warranty w/ Dyno Documentation



**511RFE**

**Technical Information**

Horsepower (maximum): 600 hp est.  
 Torque (maximum): 625 lbs./ft.  
 Displacement: 511 cu. in.  
 Shelby Aluminum Block w/ Bushed Lifter Bores  
 SCAT Nodular Iron Crankshaft/4.250" Stroke  
 SCAT H-Beam Connecting Rods  
 Wiseco Forged Pistons/4.375" Bore & 10.0:1 CR  
 Plasma-Moly File Fit Rings  
 Edelbrock Medium-Riser CNC Ported Aluminum Cylinder Heads w/ Big Valves  
 ROUSH Proprietary Hydraulic Roller Camshaft & Lifters  
 Harland Sharp Shaft Style Roller Rocker Arms  
 ROUSH 8-Stack Electronic Fuel Injection System w/ ROUSH Proprietary Calibration  
 Mallory Billet Distributor With Wires  
 Melling High Volume Oil Pump  
 8 Qt. Canton Fully Baffled Road Race Oil Pan w/ Powdercoat Finish  
 ROUSH Logo Valve Covers with Billet Breather, PCV & Oil Fill Cap  
 Billet Remote Oil Filter Adapter with # 10 AN Fittings, Oil Pressure Adjustment & Gauge Hook-Up  
 High Pressure Electric Fuel Pump  
 Complete FEAD w/ Alternator, Billet Alternator Bracket, Billet Pulleys & Edelbrock Water Pump  
 ROUSH Individual "Snap-On" Air Cleaner Assemblies  
 ROUSH Billet Wire Looms  
 McLeod Steel Flywheel  
 E-Coated Inspection Plate  
 2 Year/24K Mile Limited Warranty w/ Dyno Documentation



**588R**

**Technical Information**

Horsepower (maximum): 630 hp est.  
 Torque (maximum): 690 lbs./ft.  
 Displacement: 588 cu. in.  
 Block: Ford Racing A-460/Eliminator Sportsman  
 Crankshaft Type: Nodular Iron (Externally Balanced)  
 Crankshaft Stroke: 4.500"  
 Connecting Rod Type: Forged 4340 Steel "H-Beam"  
 Compression Ratio: 10.25:1  
 Pistons: Forged  
 Timing Chain: Double Roller  
 Camshaft Info: ROUSH Proprietary  
 Lifter Type: Hydraulic Roller  
 Cylinder Heads: Aluminum  
 Intake Runner Volume: 290 cc Super cobra Jet  
 Combustion Chamber Volume: 61 cc  
 Valve Sizes: 2.200" Intake 1.760" Exhaust  
 Rocker Arm Ratio: 1.7:1  
 Spark Plugs: Autolite 3923 (or comparable)  
 Intake Manifold: Single Plane  
 Fuel System: Holley HP 1000 CFM Carburetor w/ Mechanical Secondaries  
 Fuel Requirements: Premium Unleaded (minimum)  
 Max. Recommended RPM: 6,500  
 Firing Order: 1-5-4-2-6-3-7-8  
 Timing: 31 to 34 degrees @ 4,000 rpm (not to exceed 35)  
 Oil Pump: High Output – Adjustable  
 Oil Pan: Dual Sump (FOX Mustang)/Other Configurations Available  
 Oil Filter: Motorcraft FL1-HP (or comparable)  
 Oil Weight: 10w30  
 Flywheel: Steel, 157 Tooth (Aluminum Available) Externally Balanced  
 Starter: Ford Motorsports Super High Torque (1.6kw) (or equivalent)



**588RX COMP.**

**Call For Information**



**4.6/4V/5.3L**

**Available Late 2006**

• Engines shown in catalog may contain optional accessories



**ROUSH 9MM SPARK PLUG WIRE SET**

ROUSH Custom Ignition 9MM Wire Sets feature low resistance for minimum spark loss. Distributed Resistance Core 1500 ohm and resistant to fuels, oils and solvents. "ROUSH" identification and cylinder number appears on each wire. 45 Degree Boots.

- 402238 302/351 Wire Set Red
- 402239 302/351 Wire Set Blue
- 402240 302/351 Wire Set Black
- 402241 429/460 Wire Set Red
- 402242 429/460 Wire Set Blue
- 402243 429/460 Wire Set Black



**402R POLISHED VALVE COVER**

R2112001 302/351 Polished Aluminum



**351 BILLET THERMOSTAT HOUSING**

351 billet thermostat housing with double o-ring, includes hardware

- 401910 351 Billet Thermostat Housing
- 401911 351 Polished Billet Thermostat Housing



**427/428FE BILLET THERMOSTAT HOUSING**

427/428FE billet thermostat housing with double o-ring, includes hardware

- 401912 427/428FE Billet Thermostat Housing
- 401913 427/428FE Polished Billet Thermostat Housing



**451 VALVE COVER**

Includes accessories

- 402088 302/351 Pent Roof Style Black Powder Coated
- 402089 390/427/428 Pent Roof Style Black Powder Coated
- 402090 429/460 Black Powder Coated



**302/351 VALVE COVER**

302/351 2 Piece Billet black powder coated with integrated wire looms, accessories included

- 401827 302/351 2 Piece Billet Black Powder Coated Valve Cover



**302/351 TIMING POINTER**

302/351 laser cut stainless steel, must use ROUSH damper PN 872034

- 402461 302/351 Laser Cut Stainless Steel



**427FE TIMING POINTER**

427/428 laser cut stainless steel, must use ROUSH damper PN 872057

- 402462 427/428 Laser Cut Stainless Steel



**402R RED VALVE COVER**

- 401391 302/351 Polished Billet Finned, Inc. 1 Breather



**402R BLACK VALVE COVER**

- 401392 302/351 Polished Billet Black Finned, Inc. 1 Breather



**302/351 BILLET WIRE LOOM**

- 400094 Black Anodized
- 401409 Red Anodized
- 401410 Clear Anodized



**402R BLACK COVER**

- 401387 302/351W/427/428FE/429/460 Billet Oval Air Cleaner With K&N 2.5" Element, Black Powder Coat
- 401915 302/351W/427/428FE/429/460 Billet Oval Air Cleaner With K&N 2.5" Element
- 401386 302/351W/427/428FE/429 Billet Oval Air Cleaner With K&N 2.5" Element, Black Powder Coat for Cobra Replica Application



**INDIVIDUAL AIR CLEANERS**

Individual air cleaners for TWM 3.380 OD throttle bodies with K&N filter  
401390 Individual Air Cleaner



**302/351 2 STACK AIR CLEANER**

401919 302/351 Polished Billet 2 Stack Air Cleaners for TWM 3.380 OD Throttle Bodies, Optional Finishes Available



**OIL PAN**

8 qt. oil pan with silver and clear powdercoat finish

- 401400 302W Front Sump Road Race
- 401402 351W Front Sump Road Race
- 401399 302W Dual Sump Road Race
- 401401 351W Dual Sump Road Race
- 402465 390/427FE Front Sump Road Race



**390/427FE REMOTE OIL FILTER ADAPTER**

401922 Remote Oil Filter Adapter with Oil Pressure Gauge Port



**302/351 4 STACK AIR CLEANER**

401917 302/351 Polished Billet 4 Stack Air Cleaners for TWM 3.380 OD Throttle Bodies, Optional Finishes Available



**LASER CUT STAINLESS SCREEN**

401921 Laser Cut Stainless Screen for 3.380 TWM Throttle Bodies



**PCV VALVE**

- 402463 PCV Valve with Billet Base and Cover
- 402464 K&N Breather Assembly with Billet Base (Not Shown)



**302/351 CYLINDER HEADS**

These cylinder heads are ROUSH engineered and branded, fully CNC Ported with Ferrera valves and stainless steel retainers.

- 401403 185cc - Aluminum
- 401404 185cc - CNC Ported
- 401405 205cc - CNC Ported
- 401406 225cc - CNC Ported



**FUEL INJECTION AIR CLEANERS**

- 401390 Individual for Each Stack (Snap On)
- 401389 One Piece Aluminum Air Box (Not Shown)



**FUEL DELIVERY**

These components keep your fuel system leak-proof and attractive. Two fuel filters included.

- R21100001 Fuel Log w/ Braided Steel Hose and AN Fittings
- 401411 Billet NASCAR Style 2 Piece Fuel Filters (Only)



**BILLET ALTERNATOR BRACKET KIT**

Billet alternator bracket kit. Must use Weind Water Pump PN 8210WIN and Powermaster Alternator PN 8002RR

- R21020013 302W & 351W Unpolished
- 401924 302W & 351W Polished



**BILLET V-BELT PULLEY KIT**

3 Pc. Billet V-Belt Pulley Kit. Must use Weind Water Pump PN 8210WIN and Powermaster Alternator PN 8002RR

- R21020001 302/351W Unpolished
- 402466 302/351W Polished



**302/351W BILLET POLY-V BELT PULLEY KIT**

3 Pc. Billet Poly-V belt pulley kit, pulleys only

402467	302/351W Unpolished
402468	302/351W Polished



**COMPLETE V-BELT FEAD KIT**

Must use Weind Water Pump PN 8210WIN and Powermaster Alternator PN 8002RR

R21020015	302W Unpolished
402469	302W Polished
R21020002	351W Unpolished
402470	351W Polished



**COMPLETE POLY-V BELT FEAD KIT**

Must use Weind Water Pump PN 8210WIN and Powermaster Alternator PN 8002RR

402471	302W Unpolished
402472	302W Polished
402473	351W Unpolished
402474	351W Polished



**427FE BILLET POLY-V BELT PULLEY KIT**

402475	3 Pc. 390/427FE Unpolished, Pulleys Only
402476	3 Pc. 390/427FE Polished, Pulleys Only
402477	Billet Alternator Bracket, 390/427FE Unpolished
402478	Billet Alternator Bracket, 390/427FE Polished
402479*	Billet Alternator Bracket, 390/427FE Unpolished
402480*	Billet Alternator Bracket, 390/427FE Polished

\*High Mount for Shelby Cobras



**302/351 GT40 POLY-V BELT FEAD**

Complete Poly-V Belt FEAD including alternator and A/C. For GT-40 replica vehicles.

402481	Unpolished
402482	Polished



**TRU-TRAC SYSTEM**

Billet specialties tru-trac system.

401407	302/351W Polished
401925	390/427FE Polished
402483	429/460

**RETAIL PARTS WARRANTY**

All retail parts carry a 90-day warranty from the date of purchase. This warranty covers defects in materials or workmanship, and does not include (i) normal wear and tear, environmental conditions, improper installation; (ii) road hazards, misuse, abuse, neglect, accidents, collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking the vehicle; (iii) misusing the vehicle, such as driving over curbs, overloading, racing, or using the vehicle as a stationary power source; (iv) altering, disassembling or modifying the parts; (v) defects caused or induced by failures, breakdowns, or damage by other parts, components or the vehicle; (vi) subjecting the parts to excessive moisture or water or any motor vehicle fluids (e.g.: oil, anti-freeze, battery acid, brake fluid, etc.); (vii) acts of God, natural disasters and other similar causes beyond the reasonable control of ROUSH; or (viii) application of chemicals that affect the parts. This Limited Warranty does not cover surface deterioration of paint, trim, and appearance items that result from use and/or exposure to the elements, such as stone chips, scratches, bird droppings, lightning, hail, windstorm, dings, dents, earthquake, road salt, tree sap, water or flood.

ROUSH shall not be liable to reimburse Customer/Dealer for incidental or consequential damages resulting from the installation or use of any product sold through this catalog or arising out of any breach of warranty. Except as may be stated in this catalog, ROUSH disclaims all express and implied warranties, including the warranties of merchantability and fitness for a particular purpose. In no event shall ROUSH's liability exceed the price paid by Customer/Dealer for products sold regardless if ROUSH has been advised in advance of any potential problem or if a claim is based on contract, tort, strict liability, product liability, or otherwise. Some states do not allow the exclusion or limitation of implied warranties or their duration or liability for incidental or consequential damages, so the above exclusions or limitations may not apply.

**ROUSH PERFORMANCE COMPETITION PARTS ARE SOLD WITH NO WARRANTY**

Each roush performance competition part is sold "as is", "where is", "with all faults", and without any express guarantees or warranties whatsoever. To the greatest extent permitted by state and federal law, roush performance disclaims all express and implied warranties including, without limitation, the warranties of merchantability and fitness for a particular purpose; regardless if a particular purpose is identified in association with the roush competition part including, without limitation, any sales literature or as a result of representations made by roush or any party selling or providing roush competition parts. Roush expressly disclaims all liability for direct, indirect, special incidental, or consequential damages (regardless if roush has been notified of the possibility of such damage), including, without limitation, injury to persons including death; damage to or loss of property or equipment; cost of labor; loss of profits, winnings or revenue; cost of purchase, cost of substitute products or replacement of goods; the cost of roush competition parts or any vehicle components or parts affected by the roush competition parts; down time costs; claims of buyer's end users for such damages that were in any way derived or resulted from the recommendation, installation or use of roush competition parts.

Because race vehicle manufacturing, preparation and testing, and racing vehicles in general, are inherently dangerous activities that may cause serious bodily injury and/or death to those who use such products and/or participate in such activities, in no event shall roush performance's liability, whether if arising in tort (including negligence or strict liability), contract or otherwise exceed the cost of the roush competition part.

If a roush competition part proves defective following its purchase, the buyer and not roush performance, the manufacturer, distributor, or retailer shall be solely responsible for all costs incurred to service or repair the defective roush competition part. The end-user is solely responsible and assumes all risk associated with the performance of the roush competition part.

No roush competition part is street legal or certified under federal motor vehicle safety standards or regulations. Therefore, roush competition parts are not intended or certified for use on public roads.

**ROUSH WHEEL WARRANTY**

Forged wheels	3 years
Cast/Liquid forged wheels	2 years
Painted wheels	1 year

**FOR ALL DEALER PARTS ORDERS, A PURCHASE ORDER IS REQUIRED.**

**Shipping**

Shipping and handling charges are the responsibility of the Customer/Dealer. These charges vary widely depending on part size and weight, and will be quoted to you separately as part of your order.

ROUSH Performance routinely ships by FedEx ground, or for oversized packages, common carrier. For an additional charge, priority shipping is available. Please inspect any package for damage before accepting it. When shipping damage has occurred, make a claim with the carrier.

**Backorders**

When backorders occur, we will hold that portion of the order. Customer's/ Dealer's account will not be billed for any item until it is shipped.

**Returns/Exchanges**

When returning retail parts, call 1-800-59ROUSH to obtain a Return Authorization (RA). Once obtained, this RA number must be clearly marked on the returned package. The cost of shipping and handling is the Customer's/Dealer's responsibility. In addition, the parts MUST be in their original packaging in order to receive credit. For your protection, insure the package for its full value.

All returns must be sent to: ROUSH Performance Products  
28156 Plymouth Rd., Livonia, MI 48150.

Upon receipt of your package, a ROUSH representative will inspect the returned item(s), verify items and quantities, and the condition of the part(s). Once this is done, a credit will be issued, less a 15% restocking fee. NO RETURNS will be allowed for orders more than 30 days old. Keep your shipping receipts until you have received credit for your return. ROUSH Performance reserves the right to require proof of return shipment, in the form of a receipt, in order to process your credit.

**Disclaimer**

Product specifications and availability are subject to change without notice. Compliance with all National, State, Provincial or local laws is the responsibility of the Customer/Dealer. All claims are based on controlled tests and actual results may vary based on individual applications. Due to availability and upgrades, the products you receive could be different from photographs in the catalog. ROUSH shall not be liable for any ticketed violations incurred by the Customer/Dealer and arising from the installation of any part or system sold from this catalog.

PERFORMANCE



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