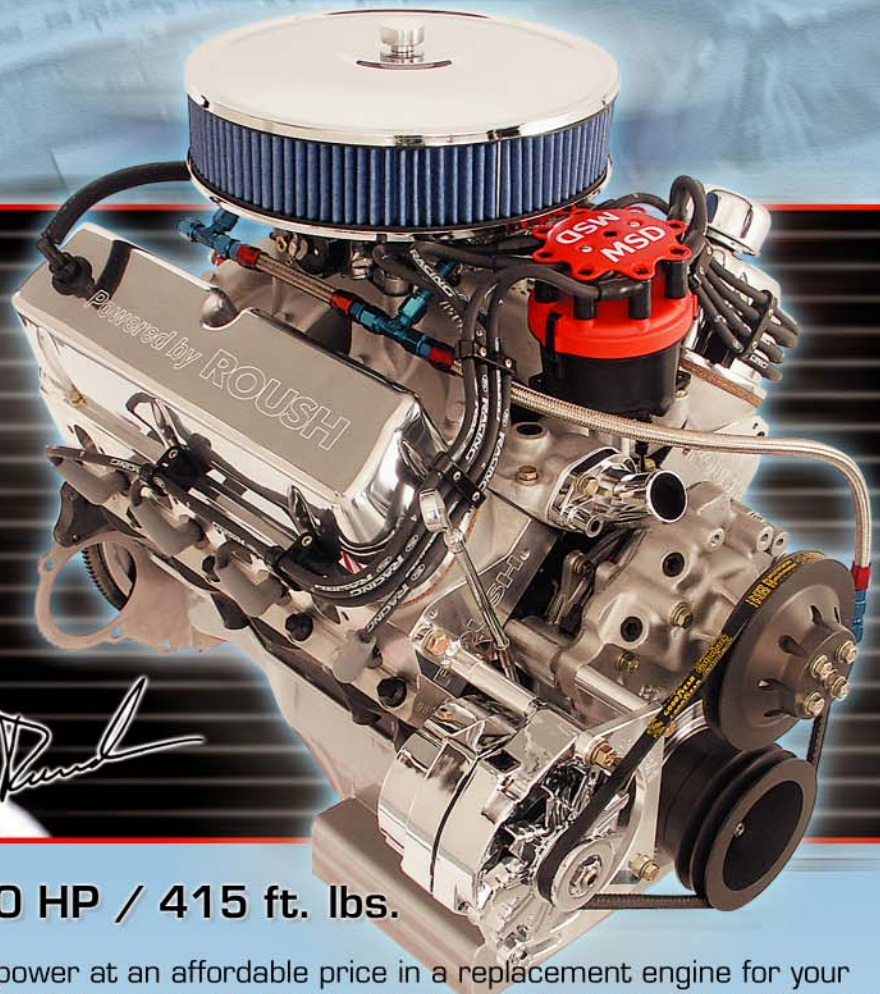


ROUSH PERFORMANCE ENGINES

# 342AL



*Paul Powell*



430 HP / 415 ft. lbs.

When you are looking for extra power at an affordable price in a replacement engine for your Mustang or project vehicle, the 342AL is a good solution. It is built with cast crank and I-beam rods, and utilizes a **main-cap girdle** to ensure bottom-end stability in the 2-bolt main block. The 342AL includes "port-matched" Roush aluminum heads and a hydraulic roller cam. It is built to deliver performance — **430 horsepower** and **415 ft. lbs. of torque**, running on premium unleaded fuel. Like the others offered, this engine is **hot-tested**, then **dyno-tested** to verify power, and it **carries a warranty**.

The engine department at Roush Performance has been assembling engines for more than 25 years. They have built thousands of engines that have competed and won in drag racing, road racing, oval-track racing and land-speed record attempts. Those same experienced engine builders inspect, assemble and test every engine offered.

Roush Performance  
28156 Plymouth Rd.  
Livonia, MI 48150

**800-59-ROUSH**

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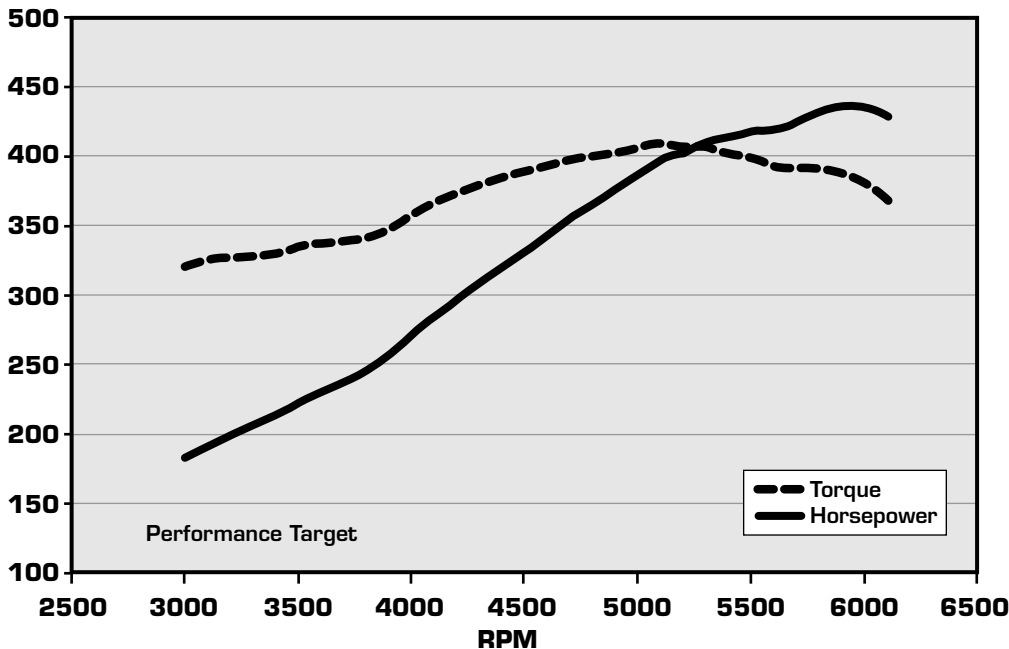
306AL 327AL 342AL 358AL 392AL

“AL” SERIES

# 342AL Engine Features

- 1. Base Engine:** *New* Ford Production, 2-bolt main iron block with a **Main Cap Girdle**, cast crank, **"I-beam"** connecting rods with 3/8" high-strength bolts and **forged** pistons.
- 2. Cylinder Heads:** Roush Aluminum "port-matched" with premium stainless steel valves and springs.
- 3. Camshaft:** Hydraulic roller camshaft with double-roller timing chain.
- 4. Valve Train:** 1.6:1 roller rocker arms with dual valve springs.
- 5. Intake Manifold:** Victor Jr., single-plane aluminum (dual-plane available upon request).
- 6. Carburetor:** Roush "tuned", Holley 770 CFM with vacuum secondaries and electric choke.
- 7. Air Cleaner:** 14" Chrome (standard, others available).
- 8. Valve Covers:** Polished, tall aluminum covers engraved with the **POWERED BY ROUSH** logo (others are available).
- 9. Oil Pan and Oil Pump:** 7-quart production (type) oil pan is standard (front-sump is available). Adjustable Melling oil pump and heavy-duty shaft is standard.
- 10. Water Pump:** Reverse rotation is standard on the dual-sump oil pan engine (Mustang application). Standard rotation is standard on front-sump applications.
- 11. Accessory Drive (Optional):** Aluminum under-drive V-belt pulley system, billet aluminum mounting bracket and spacers with 90-amp, single-wire alternator.
- 12. Fuel Pump:** Not included.
- 13. Flywheel:** SFI-approved 157-tooth billet steel flywheel installed (balanced to 28.2 in.-oz. factor). Aluminum flywheel available as an option.
- 14. Ignition:** MSD "billet aluminum", vacuum advance distributor with Ford Racing 10 mm plug wires and wire looms (8-piece set).
- 15. Starter:** Not included.
- 16. Testing and Documentation:** Each engine is "hot-tested" and then subjected to several "dyno pulls" to confirm power. Each engine is shipped with "fender" and "Firewall" badges for vehicle identification.

**Other Options:** McLeod clutch (and installation), "Polished-Package" and others are available.



## Technical Information

**Engine Model:** 342AL

**Horsepower (maximum):** 430 hp est.

**Torque (maximum):** 415 ft. lbs.

**Displacement:** 342 cu. in.

**Block:** 8.2" deck, Ford Production, 2-bolt main with Main Cap Girdle

**Crankshaft Type:** Nodular Iron

**Crankshaft Stroke:** 3.40"

**Connecting Rod Type:** Cast "I-Beam"

**Compression Ratio:** 10 : 1

**Pistons:** Forged

**Timing Chain:** Double Roller

**Camshaft Info:** Roush Proprietary

**Lifter Type:** Hydraulic Roller

**Cylinder Heads:** Aluminum

**Intake Runner Volume:** 215 cc, Partial Porting

**Combustion Chamber Volume:** 60 cc

**Valve Sizes:** 2.05" Intake 1.60" Exhaust

**Rocker Arm Ratio:** 1.6:1

**Spark Plugs:** Autolite 3923 (or comparable)

**Intake Manifold:** Edelbrock Victor Jr.

**Water Pump:** Reverse rotation is standard, standard rotation is available

**Fuel System:** Holley 770 CFM Carburetor w/vacuum secondaries and electric choke

**Fuel Requirements:** Premium Unleaded (minimum)

**Max. Recommended RPM:** 6,000

**Firing Order:** 1-3-7-2-6-5-4-8

**Oil Pump:** High Output — Adjustable

**Timing:** 31 to 34 degrees @ 4,000 rpm (not to exceed 35)

**Oil Pan:** 7-quart Production is standard, others are available

\* Horsepower output can be reduced when engine is equipped with the Dual-sump pan.

**Oil Filter:** Motorcraft FL1 (or comparable)

**Oil Weight:** 10w30 — non synthetic for first 3,000 miles

**Flywheel:** Steel, 157 tooth, (Balanced to 28.2 oz.)

**Starter:** Ford Motorsports Super High Torque (1.6kw) (or equivalent)

\* Size specifications may vary. Stated horsepowers are averaged and can vary  $\pm$  5%. Details available.

Specifications and content subject to change.

**ROUSH**  
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