



The hot ones from Plymouth

- PLYMOUTH INTRODUCES 426 HEMI • SPECS OF THE NEW HEMI • PLYMOUTH SWEEPS USAC TITLES • '66 PLYMOUTH BELVEDERE NAMED DAYTONA PACE CAR
- PLYMOUTH: FASTEST STOCK-BODIED MACHINE • PLYMOUTH "WIN A HEMI CONTEST"

Plymouth

'66 Hemi-powered Belvedere . . .

The street Hemi, and how it grew.

The present Hemi head engine design was first introduced in the spring of 1964. Competition use soon proved the great efficiency inherent in the double-rocker, Hemi design. Because of differing racing conditions, two versions of the engine evolved . . . a closed circuit, racing stock car type and a slightly re-tuned model for sanctioned drag racing competition. In short order, the Hemi was cleaning up in almost every sort of automobile competition.

The next step was adapting the engine to normal production cars . . . building the street Hemi. And now the 426 Hemi is available as an option in the '66 Plymouth Belvedere.

**426 inches, 8 barrels,
16 really big valves and 4 rockers.
Get one from your Plymouth Dealer.**

And look what's standard on the Plymouth Belvedere Hemi package. Big brakes . . . 11" x 3" front, 11" x 2.5" rear . . . 35% more braking area than the standard brake. Complete heavy-duty suspension; torsion bars, springs,

shocks and sway bar. Wide-base, Safety-Rim wheels and high speed tires.

All Belvedere Satellites have bucket seats up front, center console (with the shift lever in the center), padded dash, left outside rear-view mirror and distinctive ornamentation that shows the world you are driving a Hemi-powered Plymouth Belvedere.

Options include rear axle ratios, with our limited-slip differential—Sure-Grip. Your choice of fully synchroed, 4-speed manual or fast-shifting TorqueFlite automatic. Console-mounted tach, front seat shoulder belts (lap belts are standard, front and rear).

And then there's the Hemi engine itself. Aside from some changes to make it operate satisfactorily on the street (like a 10.25 compression ratio so you can use pump gas instead of carrying Av-gas with you, and a choke on the rear primaries so you can start it outdoors in winter), the Belvedere Hemi is very similar to the Hemi set-up of the specially prepared Daytona stockers and the drag strip top eliminators.

Take a look at the chart and you'll see why the Hemi comes on so strong. Like the 2¼" intake valves . . . that's large enough that a pack of cigarettes will slip through the port!

ENGINE	
Type	90° V
Number of Cylinders	8
Bore	4.250"
Stroke	3.750"
Compression Ratio	10.25
Piston Displacement	426-cubic-inch
Engine Output: Horsepower	425 hp @ 5000 rpm
Torque	490 lb-ft @ 4000 rpm

COMBUSTION CHAMBER SPECIFICATIONS	
Combustion Chamber	
Volume	Min. 168 c.c.; Max. 174 c.c.
Distance from Top of	
Piston to Block Deck	.502" to .547"
Maximum Variation between	
Cylinders	.30 psi

CRANKSHAFT AND MAIN BEARINGS	
Type	Forged Counter-Balanced, Shot-Peened and Chemically Treated (Hardened Journals)
Bearings	Tri-Metal—copper-lead alloy with steel backing (MS-2355)
Diameter Main Bearing	
Journal	2.7495"-2.7505"
Diameter Crankpin	2.374"-2.375"

CONNECTING RODS AND BEARINGS	
Rods:	
Type	Drop-Forged "I" beam
Length	6.861"
Weight (less bearing shells)	1084 Grams
Bearings:	
Type	Tri-Metal—copper-lead alloy with steel backing

How the Hemi measures up

VALVES—Intake	
Material	Silicon-Chrome XB
Head Diameter	2.25"
Stem Diameter	.309"
Stem-to-Guide Clearance	.002"-.004"
Angle of Seat	45°
Lift	.460"
Lash (Cold)	.028"

VALVES—Exhaust	
Material	21-4N Chrome-Manganese with welded stellite face
Head Diameter	1.94"
Stem Diameter	.308"
Stem-to-Guide Clearance	.003"-.005"
Angle of Seat	45°
Lift	.460"
Lash (Cold)	.032"

VALVE SPRINGS	
Number	16 (inner); 16 (outer)
Free Length	2.20" (inner); 2.47" (outer)
Installed Height	Min. 1.83"; Max. 1.89"
Load when compressed:	
Valve Closed: inner	47-53 @ 1.635"
outer	102-108 @ 1.86"
Valve Open: inner	86-96 @ 1.175"
outer	179-189 @ 1.40"
Valve Spring Diameter (outer)	1.090"
Surge Damper	Spiral Type

CAMSHAFT—Valve Timing	
Intake: Opens (°BTC)	30
Closes (°ABC)	66
Duration-deg	276
Exhaust: Opens (°BBC)	74
Closes (°ATC)	22
Duration-deg	276
Valve opening overlap	.52

PISTONS	
Type	Domed Forged Aluminum
Material	Extruded Aluminum Alloy, Tin-Coated
Clearance at Top of Skirt	.0025" to .0035"
Weight	.843 Grams

CARBURETOR	
Type	Two, 4-bbl Downdraft
Model	AFB-4139S front AFB-4140S rear
Throttle Bore	
Primary	1½"
Secondary	1½"
Main Venturi	
Primary	1¾"
Secondary	1¾"
Idle Speed (engine hot)	750 rpm
Idle Mixture (both screws only)	1-2 turns

IGNITION SYSTEM	
Distributor Type	Double Breaker, Automatic Advance
Basic Timing	12° B. T. C.
Advance—Centrifugal (Crankshaft)	
Degree (°) Engine rpm	0° @ 1000 rpm
	9° @ 1400 rpm
	17° @ 2800 rpm

Advance Automatic—Vacuum (Distributor Degrees @ Inches of Mercury)	
	0° @ 6" to 9"
	4.5° to 7.5° @ 12"
	8.25° to 11° @ 15"
Spark Plugs—Type	N-9Y
—Size	14MM ¾" Reach
—Gap	.035"







Plymouth takes USAC crown, starts on NASCAR.

If we wanted to say a word about our specially prepared Hemi-powered Plymouth Belvedere in NASCAR and USAC competition, the only word would be 'fast'. So fast that Plymouth Belvedere has been selected the pace car for the Daytona 500.

Petty's back and Plymouth's got him.

Richard Petty started running his Hemi-powered Belvedere in mid-season in the NASCAR circuit. And only on the short tracks (one-mile or less). But out of 14 races, he qualified on the pole eight times. Six of those times with a new qualifying lap record. (In fact he set an unofficial world's record for a one-mile closed course, 116.260 mph, in the process.) Out of the 14 races, Petty took five 1sts, four 2nds and two 3rds. The Daytona '500' kicks off the '66 NASCAR Grand National Circuit and now Petty and his Hemi-powered Plymouth Belvedere are back on the big tracks. And the Hemi-powered Plymouth Belvedere with Petty is bound to be something to watch this year.



Plymouth Belvederes chalk up perfect score with all four USAC titles for 1965.

Plymouth, and Norm Nelson, finished the 1965 USAC Stock Car racing season with a perfect score, taking all four titles of the year.

Belvederes totaled more than twice as many points as any other car make, taking both the Manufacturers Championship and the Index of Performance Championship. Nelson took 1st place in the driver's point standing with his Belvedere as well as 1st in the owner's point race, Paul Goldsmith ran his into 2nd place and Jim Hurtubise piloted his to a solid 4th place season's finish.

Considering this 1st, 2nd and 4th Plymouth Belvedere finish, the '66 USAC season should be an even tighter race. Not only Nelson, Goldsmith and Hurtubise are driving '66 Hemi-powered Belvederes, but some new drivers have switched over to the big valve machines. Plymouth seems to have a way of making friends. Fast.



Plymouth is consistent winner on IMCA circuit

Ramo Stott, with another hemi-powered Plymouth, has been making his presence felt in IMCA circles. Of 35 races entered this season on this circuit, Stott has failed in only five to finish among the first three. This makes him one of the most consistent of all stock car winners.



Hemi-powered Goldenrod.

And, although you couldn't possibly call it a stock machine, the Summers brothers Goldenrod certainly deserves a mention as one of the fastest pieces of machinery in the world. Driven by Bob Summers, and powered by four injected Hemi engines, the Goldenrod set a new world's land speed record of 409.277 mph. The Goldenrod's mark not only beat the existing F.I.A. record of 403.1 mph, but it also brought the land speed record back to America for the first time since 1929.







11 cars . . . all Plymouths . . . qualify for Top Stock Eliminator at NHRA Winternationals.

And speaking of fast, the Hemi (and some of its smaller-inch cousins) manages to get specially modified Plymouths from one end of a ¼ mile to the other ahead of its competition in some really hot elapsed times.

Like the last NHRA Winternationals. The only cars to qualify for Top Stock Eliminator were Plymouths. Eleven of them. And Plymouth took nine class wins at the meet.

And two of these class wins were scored by Plymouth Barracudas, relative newcomers to big-time drag racing. The Barracudas also made a big dent in the NHRA Springnationals, where Richard Petty won the B/Altered class with his Hemi-powered Barracuda. This was where the season's most unusual exhibition car made its debut. The rear-engined wheel-standing Hurst "Hemi Under Glass," a Plymouth Barracuda powered by the Plymouth 426-cubic-inch Hemi engine and driven by Bill Shrewsberry.

"Drag-on-Lady" hits 129.30.

Among the records set by Plymouths in drag races is the S/SA top speed mark of 129.30 set at Palmdale, California in August by Shirley Shahan with her Hemi-powered Plymouth "Drag-on-Lady."

Plymouth won two classes and tied another at the premier running of the SUPER STOCK Magazine Nationals at York, Pennsylvania in August.

At the CARS Magazine meet at Cecil County, Maryland, August 21, Hemi-powered Plymouths won in three classes.

Hemi-Cuda: 171.85 in 8.88.

And, before we forget the quick-quarter machines, remember that the "Hemi-Cuda" campaigned by the Southern California Plymouth Dealers has been eating up the competition. Last November it became the quickest and fastest stock-bodied, stock-wheelbase drag machine going. At Carlsbad (Calif.) it cranked off a 171.85 in 8.88!

So, any way you count it . . . drag strip, super stock track, or the Salt Flats, you're going to find Hemi-powered Plymouths out in front. You may not need quite as much as the Hemi turns out, but whatever you're looking for in a car, Plymouth probably has more of it than anyone else.

Any time you're in doubt, remember things like torsion bars, the Hemi, the TorqueFlite transmission . . . every one of them available in Plymouths. And the standard safety equipment: padded instrument panel and sun visors, inside and outside rear-view mirrors, back-up lights, anti-windlift windshield wipers and electric washers, safety inside door-release handles. All of these safety features, combined with proving-ground safety research and the actual on-the-race-track testing are what make the '66 Plymouth synonymous with safe, dependable performance. And make the Plymouth the great road machine it is.

In addition to "the hot ones," we do make a variety of luxury cars . . . and some surprising economy models too. You can check them out at your nearest Plymouth Dealer along with the hot machines. But if your real dream is a Hemi-powered Plymouth Belvedere, check the next page.



Win a '66 Hemi-powered Plymouth Belvedere

And all you have to do to win is really know racing. The entrant that comes closest to predicting the winning speed, fastest lap and number of laps the winner leads in the Atlanta '500' will end up driving a 1966 Plymouth Belvedere with the Hemi powerplant.

The prize car is a Satellite 2-door hard-top with radio, TorqueFlite automatic transmission, power steering, power brakes and white sidewall tires.

Check the rules on the official entry blank,

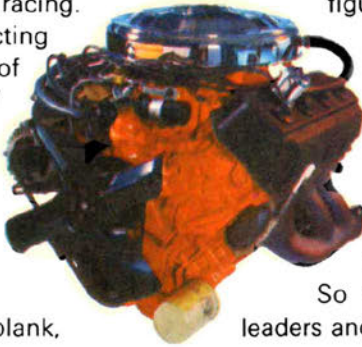


figure out what you think the winner will do in the Atlanta '500' and go to your Plymouth Dealer with your entry. And while you're there, take the time to check the '66 Plymouth line. There's a machine there for every taste (and they're all available with big engine options, heavy-duty suspension, high-speed tires and even disc brakes in most cases).

So what are you waiting for? Follow the leaders and let yourself go Plymouth.

Plymouth "Win a Hemi Contest" entry form

Enter the Plymouth "Win a Hemi Contest." Estimate the results of the Atlanta 500, March 27, 1966. You must answer all questions to make your entry eligible.

Total Elapsed Time _____ Hrs. _____ Min. _____ Sec.

Average Winning Speed _____ mph

The following question is a tie-breaker. It will be considered only in the case where more than one entry has the above questions correct. Decisions of the judges will be final.

Number of Laps Winning Driver Led Race _____ laps

To help you with your estimate, here are the winning times and speeds in previous years.

	1963	1964	1965
Elapsed Time	3:50:12	3:46:50	3:52:17
Average Speed	130.582	134.146	129.410

DEADLINE: March 21st: Give your completed entry form to any Plymouth Dealer on or before March 21st.

Name _____

City _____ State _____ Zip _____

Make of car owned _____ Year _____ Model _____

Dealership name and code number _____

RULES: This prize offer ends March 21, 1966. It is restricted to licensed drivers, 18 years or older, living in the U.S.A. Personnel of Chrysler-Plymouth Division, its Advertising Agencies, Plymouth Dealerships, Petersen Publishing Company, Visual Services, Inc. and their families are not eligible. Offer not available where prohibited by federal, state or local laws.

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