



*an outstanding*

## THE PLYMOUTH V-8's

**F**ROM ECONOMY RUN WINNER to performance champion, Plymouth is the one automobile that can claim competition success at either end of its V-8 range. While other low-priced big cars have engine choices just as broad, only Plymouth consistently tops its class in both contests for minimum fuel consumption and trials for top acceleration.

To continue this record into '61, the make offers four different V-8 engines, plus three special police options, each tailored for its own purpose. The emphasis on specialized power trains is underscored this year by two new manual transmissions. Both are the usual three-speed type but one is light weight for use with the economy engine, while the other is engineered for extremely high torque outputs.

Automatic transmissions also come in two forms, two- or three-speed. Finally, the Plymouth V-8 buyer can choose from seven listed ratios for the rear axle.

There are some limitations on just how these components are combined. Scientific set-ups are provided for specific purposes. However, any power train that is available can be obtained in any Plymouth series — Savoy, Belvedere or Fury. It is entirely possible, for example, to order a stripped Savoy with top performance equipment or a deluxe Fury with economy options.

### *combination of power and ride*

For this report, MOTOR TREND tested a 330-hp Fury hardtop and a 305-hp Fury convertible. Powering the two-door hardtop was the big Sonoramic Commando engine with ram induction. Geared through the new heavy-duty stick shift and a 3.31 rear axle, it bolted the car from a standing start to 60 mph in 7.4 seconds.

Certainly, such performance requires no apology but it does deserve an explanation for not being even better. Another Chrysler product tested last month had a similar engine with an automatic transmission, yet it reached 60 mph in only 6.8 seconds. The reason for the difference is that the Fury did *not* have a limited-slip differential or, as Plymouth calls it, Sure-Grip, while the other car did.

During the Sonoramic Fury's acceleration runs, the rear tires would break loose, causing the wheels to spin excessively and, with too much throttle, the whole rear end to fish-tail badly. As a result, the car could not make a clean jump under full power; complete advantage simply could not be taken of its terrific engine output.

The Sonoramic Commando V-8 has been carried over from '60 with no fundamental changes. With a bore of 4.25 inches and a stroke of 3.38, it displaces 383 cubic inches. Two four-barrel carburetors feed its ram manifold, the compression ratio is 10-to-1 and dual exhausts discharge the burned gases. It produces 330 hp at 4800 rpm and 460 lbs.-ft. of torque at

2800 rpm. The high torque rating at a relatively low engine speed is accounted for by the ram intake system. Resonance within the manifold causes a strong flow of air-fuel mixture at medium speeds but tapers off as revs increase.

Obviously, such an engine is not going to be very easy on fuel. The test car averaged 13.6 mpg in an 11-to-15-mpg operating range.

In MT's Fury, the mighty ram powerplant was coupled through an 11-inch clutch to Plymouth's new heavy-duty manual gearbox. Ratios are 2.55 for first, 1.49 second and 3.34 reverse. An occasional feature of the new transmission is its "closed case" design. The entire housing is formed in one piece with a stamped access cover at the top instead of the usual, bulky cast-iron cover along one side. The result is a smaller, lighter, yet more rigid assembly.

Torqueflite automatic is optional with the Sonoramic Commando. The standard axle ratio with either transmission is 3.23.

Plymouth also bases three police engines on the 383-cubic-inch block. One of these is the same as the Sonoramic except that it is available with two special axle ratios. Another has a single four-barrel carburetor on a conventional manifold to develop 325 hp at 4600 rpm and 425 lbs.-ft. of torque at 2800 rpm, while the last features two four-barrels feeding a normal intake system for 330 hp at 5200 rpm and 425 lbs.-ft. at 3600 rpm. All three have the Sonoramic's 10-to-1 compression ratio and dual exhaust system.

Both the beefed manual and Torqueflite automatic transmissions are available with the police engines and 3.23 is again the standard axle ratio. In addition, for really tearing up the pavement, 4.10 and 4.56 are optional. Both of these ratios are supplied with Sure-Grip as standard equipment.

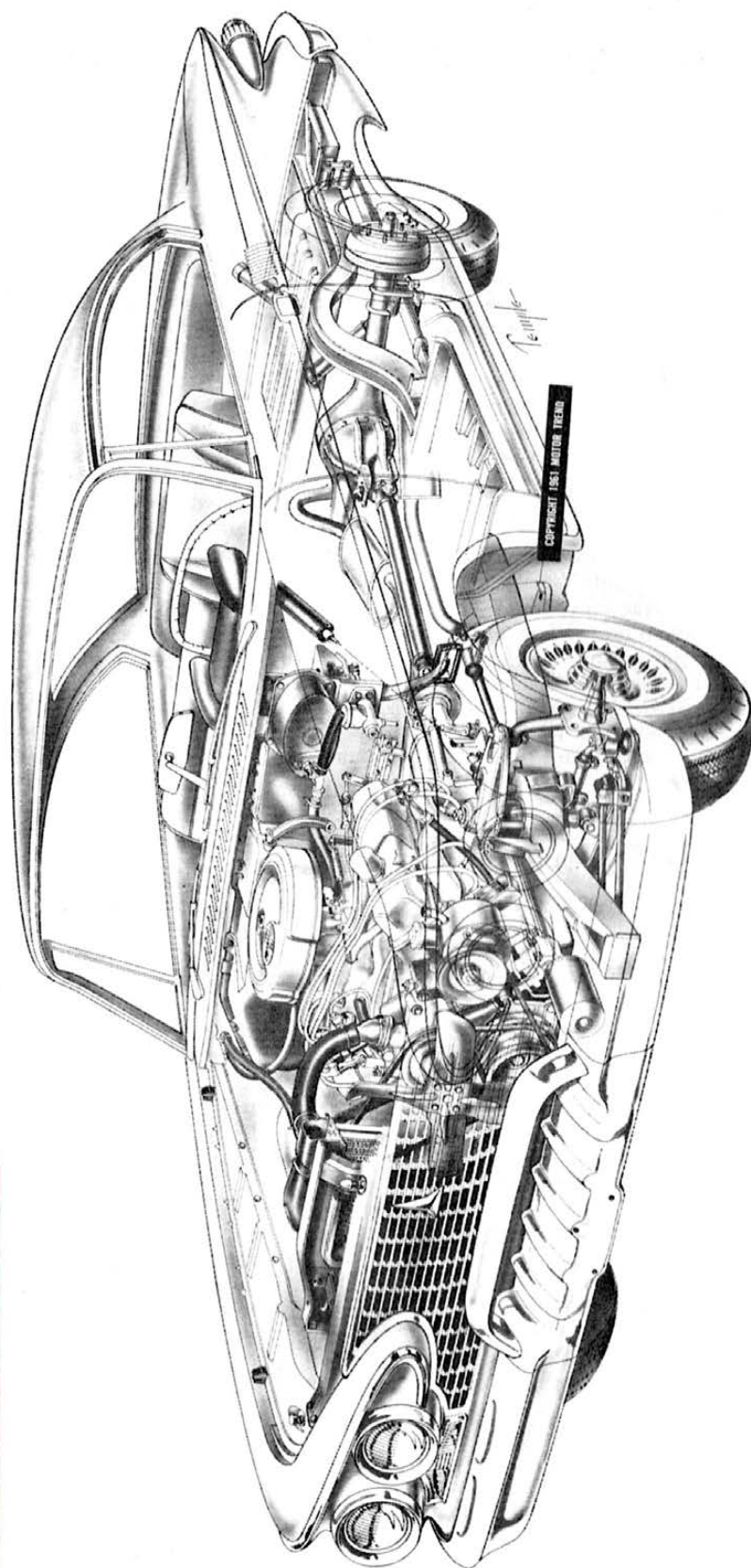
It is interesting to note the difference between the Sonoramic and the last police option. Both develop the same horsepower, 330, but the latter takes an extra 400 rpm to do it. In torque, the ram unit produces 35 lbs.-ft. more at 800 rpm less. The lawman's engine lacks the mid-range punch of the Sonoramic but performs more consistently over a broader rpm range and is especially stronger at high speeds.

While none of the 383 powerplants could be considered mild, neither is any of them very highly stressed. They all share the same moderate compression ratio and valve timing. Since the displacement is within a few cubic inches of other really hot stocks, notably Pontiac's 389 and Ford's new 390, it appears there is even greater power potential in the big Plymouth V-8 than is being realized. At 330 hp, it is developing .86 hp per cubic inch, a relatively conservative figure for a hot engine. Higher compression, a more radical cam and shorter ram pipes should make the car an absolutely sensational performer.

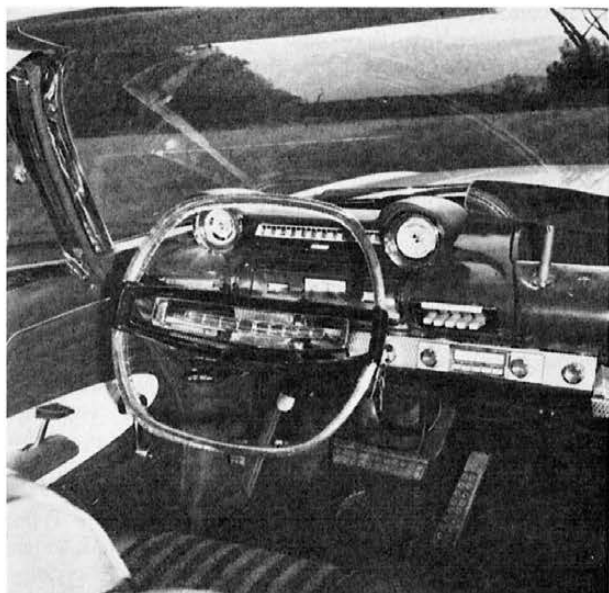
In all forms, the 383 is a special order item. The Sonoramic Commando is a regular production option but cars equipped with it are not apt to be awaiting customers at the average Plymouth agency. The police engine-gearing packages are even harder to obtain and may not be available at all from some dealers.

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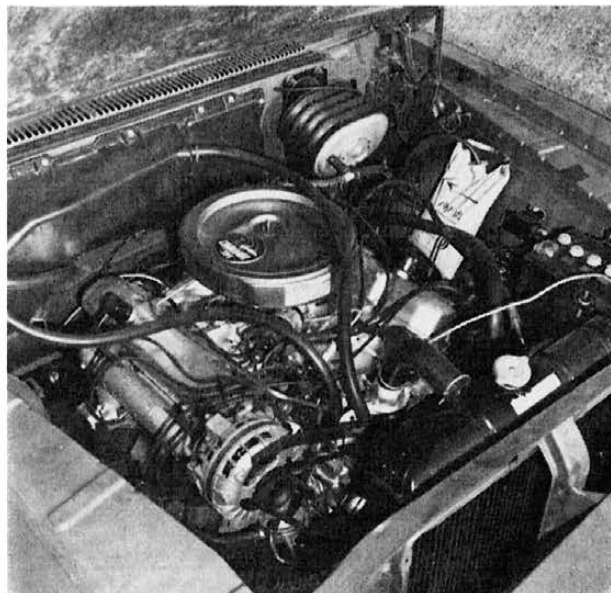




1961 PLYMOUTH



*Plymouth's square steering wheel exists for better visibility. For many, however, its benefits are cancelled by the placement of the speedometer housing.*



*The "milder" of the two engines tested was the 361-cubic-inch engine Golden Commando. It doesn't have all the ram tubing but power is very good.*

## THE PLYMOUTH V-8'S *continued*

The hottest Plymouth V-8 normally found in showroom cars is the Golden Commando, the 305-hp unit MT tried in a Fury convertible. Fitted with Torqueflite and a 3.31 axle, it recorded a 0-to-60-mph time of 9.8 seconds. Fuel consumption was a notch better than the Sonoramic's, an average of 14.3 mpg in a range from 12 to 16 mpg.

The Golden Commando's basic block is similar to the 383's. It has the same 3.38-inch stroke though the bore is a smaller 4.12 inches for a total displacement of 361 cubic inches. The carburetor is a single four-barrel, the compression ratio 9-to-1 and the exhaust system again dual. Compression is actually a point less than it was in the equivalent engine for '60 but enlarged intake valves permit the same output, 305 hp at 4800 rpm and 395 lbs.-ft. of torque at 3000 rpm.

While not as spectacular as the Sonoramic, the Golden Commando is well suited to high performance on the road. It is a smoother, quieter engine, yet still potent enough to cope with any normal driving situation. And, because of its lower compression ratio, it can run on a good grade of regular fuel, saving a bit more in operating costs than its mpg figures might indicate.

Torqueflite's advantages show up particularly well with the Golden Commando. The engine is powerful enough that the transmission's efficiency is put to good use yet smooth enough that shift points are seldom noticed by the driver unless he pays deliberate attention.

An automatic that combines a torque converter and a three-speed gearbox, Torqueflite has ratios of 2.45 in both first and reverse and 1.45 in second. The converter has a maximum multiplication of 2.20 so, in theory, the lowest overall gear is 5.39 momentarily.

The big manual box is also available with the Golden Commando. Both transmissions have 3.31 as a standard axle ratio and 3.58 with Sure-Grip as an option. In addition, for smoother cruising and slightly better economy, the automatic can be had with 2.93.

At the bottom of the line in terms of power is Plymouth's

standard eight-cylinder engine, the 230-hp Fury V-800. Despite its name, it is not restricted to the Fury series but is supplied just as readily in the Belvedere and Savoy.

An entirely different engine from the big 383- and 361-cubic-inches, the Fury's bore and stroke are 3.91 and 3.31 inches, respectively, and its displacement 318 cubic inches. Equipped with single two-barrel carburetion, 9-to-1 compression and a single exhaust, it develops 230 hp at 4400 rpm and 340 lbs.-ft. of torque at 2400 rpm.

Though the Fury V-800 was not included in MT's Plymouth test schedule, reasonable estimates of its performance and economy can be made on the basis of previous experience. From 0-to-60 mph should take approximately 12 seconds, give or take a second depending on the gearing, and fuel consumption is between 15 and 19 mpg.

Three transmissions, another new manual and two automatics, are offered for the Fury. The three-speed stick shift has the same "closed case" design as the heavy-duty unit but is even smaller and lighter. Adapted from the box introduced last year for the Valiant and Plymouth Sixes, it has a 2.12 first, 1.43 second and 2.73 reverse.

The automatic options are Torqueflite and Powerflite. The latter dates back to the time when Plymouth first offered a true automatic. It features a torque converter and two-speed gearbox with 1.72 for both first and reverse. Though not as efficient as the newer Torqueflite, it is priced lower and has proven quite reliable in operation.

Fury V-800 axle ratios, listing the standard ones first, are 3.58 and 3.91 with manual gearing, 3.31 and 3.58 with Powerflite, 2.93 and 3.31 with Torqueflite.

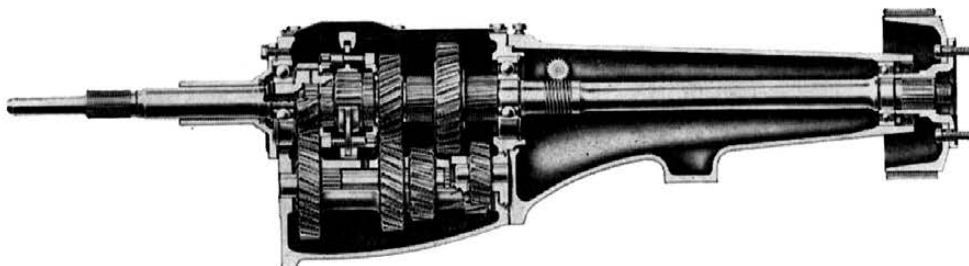
The last engine on the list is the Super Fury V-800, a modified version of the standard 318-cubic-inch V-8. Essentially, it differs only in breathing ability. It has a single four-barrel carburetor, longer valve timing and a dual exhaust system, boosting it to 260 hp at 4400 rpm and 345 lbs.-ft. at 2800 rpm.

The Super Fury is ideal for the driver who wants reasonable economy but likes a little more responsiveness for passing, hill-climbing and so forth. Torqueflite is the only transmission that





*The new manual transmission (right) is adapted from the unit introduced last year for the Valiant and Plymouth Sixes. Trunk room (above) is huge.*



## THE PLYMOUTH V-8'S

comes with it and the axle ratios are again 2.93 standard and 3.31 optional.

With the exception of the Golden Commando's altered compression and valving, the Plymouth V-8's are all basically the same as they were last year. However, there are important refinements in engine accessories throughout the line.

Most important is the alternator, replacing the conventional generator. Producing alternating rather than direct current, it charges even at idling speeds. Battery life should be longer and more reliable, since drain is reduced considerably. Elsewhere in the electrical system, the distributor has a nylon rubbing block at the breaker points to lessen the need for adjustments and the starter incorporates a solenoid shift for quieter, longer-lasting service.

Carburetor flooding has been minimized by a synthetic rubber tip on the fuel inlet needle that affords a better seal.

With the 361- and 383-cubic-inch engines, the power steering pump is mounted on a pivoting bracket that automatically adjusts the drive belt to meet various load requirements. When the pump is not in use, tension is relaxed.

The actual feel of the power steering is not affected. It still has the light, quick touch characteristic of Chrysler products. Handling qualities are generally much as they have been since the first low-slung Plymouths of '57; in a word, excellent. This point is being made for the fifth year in a row, but it is still as valid as ever.

Except for the Dart, which has the same type of suspension, no other car in Plymouth's class can match its combination of

riding comfort and handling control. The car is extremely stable at all road speeds, corners beautifully and maneuvers precisely, all an added safety factor when as much as 330 hp is under the hood. Though the torsion bars attached to the front wheels usually get the credit, the fine handling is due to well-planned geometry throughout the entire springing system.

In appearance, the new Plymouth is drastically changed, but the basic unit structure remains the same. Inside the car, the owner of a '60 model would feel right at home. He might miss the tail fins the first time he tried backing into a parking place but, otherwise, everything would seem familiar.

Chrysler Corporation in general and Plymouth in particular have been noted for experimenting with new interior features. Two successful items introduced last year have been continued, the squared steering wheel which provides a handy, compact feel, as well as greater leg clearance and better visibility, and the high-backed driver's seat, offering better support for the back and shoulders. One idea that did not work out too well, swivel front seats, has been dropped.

Though seating is comfortable, it is marred by a peculiar Plymouth characteristic. At the base of the front seat backs is a rigid frame that is very thinly padded and can cause a sore spot in a tender part of the anatomy during an all-day drive.

Oddly, such a problem has not been noticed on other Chrysler products.

The instrument layout continues to feature a horizontal, thermometer-like speedometer in a special housing above the main part of the dash. In a car otherwise distinguished for fine engineering, this arrangement is difficult to understand. For some drivers, the housing blocks the view over the hood while others cannot see the instrument itself because it is hidden behind the rim of the steering wheel. Even if it were clearly in sight, it would still be hard to read at a glance. A red bar registers five mph increments, requiring a good, close look for an accurate idea of the car's speed.

In fairness, one improvement in the speedometer should be pointed out. To eliminate noise, a magnetic right-angle drive has replaced the previous bevel gear system.

Other instruments, temperature and fuel gauges, have been rejoined this year by an ammeter. Apparently, this is to reassure the new Plymouth owner that the alternator really is charging at idling speeds. Oil pressure is still indicated by a warning light.

Overall criticisms of the Plymouth must be directed at details like seat frames and speedometers. The basic design is exceptionally good.

Each of the V-8 engines serves its purpose well, the transmissions include one of the best three-speed automatics in the business and the first really new stick shifts for a big car in several years, the suspension system is one of the best in any U.S.-made car and the unit body is roomy and rugged. Any one of these features would make the car a good one. Added together, they make it outstanding.

/MT



## MOTOR TREND



### Test Car

TEST CAR: Plymouth Fury  
BODY TYPE: Convertible  
BASE PRICE: \$2967

TEST CAR: Plymouth Fury  
BODY TYPE: 2-door hardtop  
BASE PRICE: \$2798

### Maneuverability Factors

OVERALL LENGTH: 209.5 inches  
OVERALL WIDTH: 80 inches  
OVERALL HEIGHT: 54.9 inches  
WHEELBASE: 118 inches  
TREAD, FRONT/REAR: 60.9 and 59.7 inches  
SHIPPING WEIGHT: 3935 lbs.  
STEERING: 3.5 turns lock-to-lock  
TURNING CIRCLE: 45.7 feet curb-to-curb  
GROUND CLEARANCE: 5 inches

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WHEELBASE: 118 inches  
TREAD, FRONT/REAR: 60.9 and 59.7 inches  
SHIPPING WEIGHT: 3840 lbs.  
STEERING: 3.5 turns lock-to-lock  
TURNING CIRCLE: 45.7 feet curb-to-curb  
GROUND CLEARANCE: 5 inches

### Interior Room

SEATING CAPACITY: Six  
FRONT SEAT  
HEADROOM: 34.6 inches  
WIDTH: 63.8 inches  
LEGROOM: 45.1 inches  
TRUNK CAPACITY: 14.1 cubic feet

SEATING CAPACITY: Six  
FRONT SEAT  
HEADROOM: 33.5 inches  
WIDTH: 63.8 inches  
LEGROOM: 45.1 inches  
TRUNK CAPACITY: 16.8 cubic feet

### Engine and Drive Train

TYPE: Ohv V-8  
DISPLACEMENT: 361 cubic inches  
BORE AND STROKE: 4.12 x 3.28  
COMPRESSION RATIO: 9-to-1  
CARBURETION: Single 4-barrel  
HORSEPOWER: 305 @ 4800 rpm  
TORQUE: 395 @ 3000 rpm  
TRANSMISSION: 3-speed automatic  
REAR AXLE RATIO: 3.31

TYPE: Ohv V-8  
DISPLACEMENT: 383 cubic inches  
BORE AND STROKE: 4.25 x 3.38  
COMPRESSION RATIO: 10-to-1  
CARBURETION: Dual 4-barrel with ram manifold  
HORSEPOWER: 330 @ 4800 rpm  
TORQUE: 460 @ 2800 rpm  
TRANSMISSION: 3-speed manual  
REAR AXLE RATIO: 3.31

### Performance

GAS MILEAGE: 12 to 16 miles per gallon  
ACCELERATION: 0-30 mph in 4.0 seconds, 0-45 mph in 5.9 seconds and 0-60 mph in 9.8 seconds  
SPEEDOMETER ERROR: indicated 30, 45 and 60 mph are actual 28.5, 42 and 53 mph respectively  
ODOMETER ERROR: Indicated 100 miles is actual 106 miles  
WEIGHT-POWER RATIO: 12.9 lbs. per horsepower  
HORSEPOWER PER CUBIC INCH: .84

GAS MILEAGE: 11 to 15 miles per gallon  
ACCELERATION: 0-30 mph in 3.0 seconds, 0-45 mph in 4.2 seconds and 0-60 mph in 7.4 seconds  
SPEEDOMETER ERROR: indicated 30, 45, and 60 mph are actual 29, 43 and 54 mph respectively  
ODOMETER ERROR: indicated 100 miles is actual 104.5 miles  
WEIGHT-POWER RATIO: 11.7 lbs. per horsepower  
HORSEPOWER PER CUBIC INCH: .84