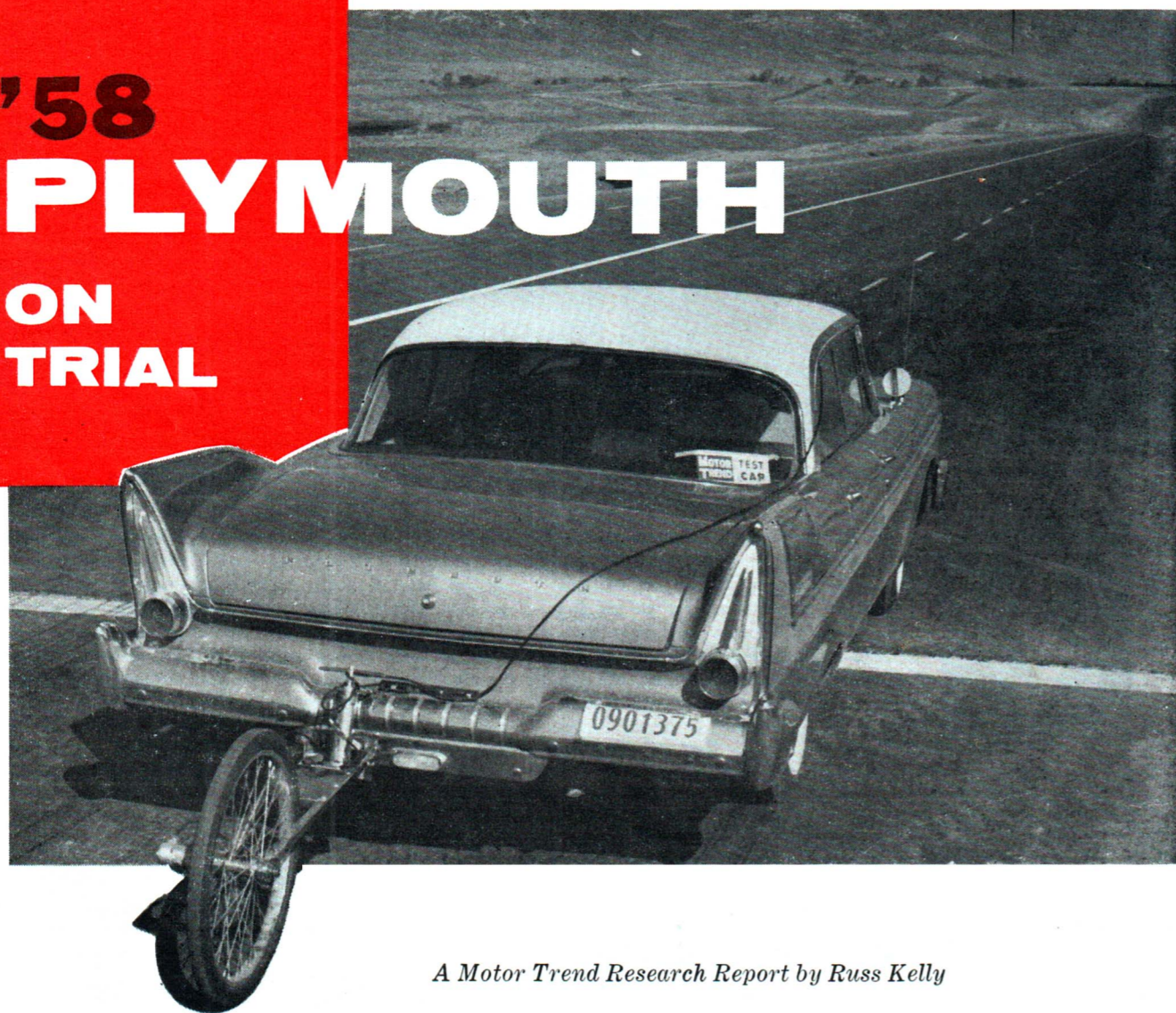


# '58 PLYMOUTH ON TRIAL



*A Motor Trend Research Report by Russ Kelly*

**THE '58 PLYMOUTH LINE**, other than station wagons, is based on the same three models as '57—the Belvedere, Savoy and Plaza. Few changes were made in either chassis or body style from last year.

This seems like a gamble but perhaps Plymouth believes its own '57 advertising. Anyway, we do have to admit that '58 is nearer 1960 than was 1957. New this year, however, is the Golden Commando powerplant, optional in all models except the limited-production Fury. This engine should make a nice talking point, especially with its name which sounds as though it should be sung to the music of Victor Herbert's "Stout-Hearted Men."

The standard Plymouth wheelbase is 118 inches. The chassis frame is formed of two boxed channel rails tied together by five crossmembers. Suspension in the rear is by semi-elliptic springs mounted outside the frame rails to give as wide a spring base as possible. To avoid spring distortion under braking and acceleration, the axle is mounted to the spring slightly forward

of the spring center. Oriflow shocks of controlled orifice design are used. Front suspension is independent by longitudinal torsion bars. The torsion bar lever and the upper control arm that carry the stub axle are of unequal length, an aid in keeping the wheel vertical and the steering constant under body roll conditions.

Engine options are varied. The new Golden Commando engine is of typical over-square layout (bore 4.062, stroke 3.375). Rated at 305 bhp, it displaces 350 cubic inches (.87 bhp per cubic inch). Dual four-throat carburetors are used to feed all these inches and progressive linkage helps keep them from being fed too well. The combustion chamber is the simple, inexpensive, easily-machined wedge type that doesn't fall early prey to carbon deposits and resultant detonation. The compression ratio is 10 to 1, and the cylinder block and crankshaft have been specially designed to withstand the heavier loads.

The Fury V-800, standard last year on the Fury, is standard this year on all models. Another over-square V8, its bore is 3.91 inches; the stroke, 3.31 inches. It has a displacement of

318 cubic inches that develops 225 hp at 4400 rpm with a compression ratio of 9 to 1. Carburetion is by a single dual-throat unit. This engine is also available with Super-Pak that boosts the horsepower to 250 hp at 4400 rpm and runs a four-barrel carburetor with a different camshaft, distributor and free-flow dual exhaust system. The PowerFlow six is an in-line flathead developing 132 hp at 3600 rpm from a piston displacement of 230 cubic inches. The six is available in all models.

There are two automatic transmissions as optional equipment. The PowerFlite, a two-speed unit, is available on all models except the Fury and 350-cubic-inch engines. The TorqueFlite, a three-speed automatic transmission, is available on V8s only.

No suspension options are listed, although the Fury does come with an extra leaf in the rear spring and larger diameter torsion bars.

## THE FIRST FEEL

**EXIT AND ENTRY** In a profession that calls for big mileages, an average of a thousand miles a week, the car I drive plays a large part in my life. Under these conditions critical analysis is almost automatic.

This intensive use usually turns up detail faults that the normal buyer doesn't discover until he's on about the fifth of his 36 payments. For example, it is surprising how difficult it can be just to get in and out of the driver's seat in some of the new cars. The Plymouth in this respect presents no real problem for a driver of average height. However, if you prefer a seat-forward driving position, you may find yourself painfully hooking a knee into the extended emergency brake handle on entry and exit. More dangerous than a bruised knee is the possibility of accidentally releasing the emergency brake. The twist-release lever does not lock too positively and accidental release could go unnoticed. The electrically-adjustable seat once again proved the comfort value of being able to vary the seating position effortlessly.

**INSTRUMENTS AND CONTROLS** The instrument panel is well laid out, well lighted and can be read instantly and easily. The radio controls are convenient to the driver's hand but the glove compartment is a long reach. Just why a convenience like a glove compartment should be placed so that it is almost necessary for the driver to stand on his head to see into it, is a mystery. Groping around blindly is bad business, especially if Junior has begun using that space to store old razor blades.

The steering wheel driving position is comfortable, although many buyers may debate the advantages of dash-mounted push-button transmission control. I personally prefer the quadrant on the steering column . . . it is much easier, when traffic or

fender concentration is called for, to move a lever than stab blindly for one of five buttons. The test car had the optional instrument panel clock that proved not only dependable and accurate, but extremely convenient.

**STARTING** Almost the first mechanical demand that a driver makes on an automobile is that of starting the engine. The test car would never start immediately from cold. A considerable amount of throttle pumping, with the danger of flooding, was always necessary in cold starts. However, once the engine was warm, instant starts were the rule.

## DRIVING IN TOWN

**DRIVING POSITION** In almost 1000 miles of traffic use, little fault was found with the driving position. The seats are firm, and back support is good. The steering wheel is far enough forward to prevent the arms being held at cramped angles. The brake and throttle levers are well placed but some form of rest for the throttle foot would be a help.

**GENERAL FEEL** The ride is excellent. In today's traffic where violent acceleration and rapid stops are the rule, a car that squats and nose dives can be very tiring. The Plymouth is entirely free of this fault. The power steering makes light work of wheeling a car that has 56 per cent of its weight on its front wheels through traffic. Although turns from lock-to-lock are low with theoretically responsive steering, this is not the case. The wheel has almost a quarter of a turn of play and the steering offers dangerously poor recovery when it is necessary to straighten out after rounding a sharp corner. All-around vision is good, but for me, one of the big changes from '57 could be repeated for '59—that of finding a new—and better—position for the rear view mirror. In its present position it effectively blanks off the right front fender. Rear seat passengers render it useless. And the outside mirror gives you an excellent look at the rear fin—but little else.

**BRAKES** The power-assisted brakes seem to be designed for Los Angeles traffic. Chrysler's total-contact, self-centering brakes are probably the finest in the industry and the Plymouth has 184 inches of lining area. The pedal is firm and progressive in action and it is possible to make those near-panic freeway stops without flipping the passengers through the green tinted windshield.

In brake-fade test stops from 60 mph to 20 mph at 15 feet per second per second retardation, the Plymouth brakes lasted through five stops with reasonable efficiency but disappeared during the sixth stop. Second and first gear in the box were used to stop the car. Recovery was slow but complete, the brakes returning to normal in about 20 minutes.

The braking effect of the engine can certainly be used to advantage with this gearbox. In these days when so many people use the family sedan as a tow car for boats, house trailers and quarter midgets, this feature is a welcome one.

**TRANSMISSIONS** An unfortunate feature in traffic driving is the obtrusive quality of the automatic gear changes. The gearbox when left in DRIVE shifts noticeably up and down through all three ranges at every stop and start. Upward changes are particularly bad, especially the change from first to second which is always accompanied by a lurch—the degree of violence of the lurch depending on the degree of acceleration. I also quickly learned in parking that a precautionary foot on the brake was necessary in changing from DRIVE to REVERSE to save the fenders. One factor that doesn't help with this sensitive gearbox is the rather poorly-engineered throttle linkage that seems to ride over center coming off an idle.

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## OUR TEST CAR

**A Belvedere four-door hardtop with Golden Commando engine, Torque-Flite transmission, radio, heater, power brakes and steering, electrically operated windows. It weighed 3955 pounds, ready for the road.**



PLYMOUTH is a star performer in the corners. In very sharp turns it is possible to maintain higher than practi-

cal speeds without pushing front wheels or swapping ends. There is, however, some undesirable body lean.

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#### AT THE DRAGSTRIP

Any complaint about gearbox or throttle action disappears on the dragstrip. This car should give the Chevy a real run for the trophies. With an average E.T. of less than 17.5 seconds for the standing quarter, and top speeds in the 85-mph bracket for the same distance, Plymouth will be near the top at the dragstrips.

The stock TorqueFlite under full-throttle acceleration changes up from first to second at about 45 mph and from second to third at approximately 78 mph. During acceleration runs, some variation is noticeable both in the shifting point and the time necessary to complete the shift, but the difference is very slight. Some dragstrip artists deliberately vary the ratios in this type gearbox by drilling out the control orifices, but anyone interested should investigate the possibility of a factory-available modification. Incidentally, trial runs made by selecting each gear individually resulted in little difference in either the E.T. or top speed.

The introduction this year of a limited-slip differential on most high-horsepower Detroit cars (on an optional basis) serves a worthwhile purpose from the standpoint of both acceleration and safety. Called Sure-Grip by Plymouth, it is available this year with 3.31 and 3.73 axle ratios.

#### PERFORMANCE

'57 with 235-bhp engine		'58 with 305-bhp engine	
From Standing Start			
0-45 mph 6.7	0-60 mph 10.7	0-45 mph 5.7	0-60 mph 9.1
Quarter-mile 17.9 and 77 mph		Quarter-mile 17.4 and 84 mph	
Passing Speeds			
30-50 mph 4.2	45-60 mph 4.2	30-50 mph 3.3	45-60 mph 3.2
50-80 mph 11.5		50-80 mph 8.5	

#### ON THE DYNO

Rear-wheel horsepower—Clayton dynamometer showed:  
(Not available for '57)

32 road hp @ 2000 rpm and 32 mph
91 road hp @ 2500 rpm and 57 mph
114 road hp @ 3000 rpm and 73 mph

#### USING IT FOR TRIPS

**ON STRAIGHT ROADS** At speeds of 55 mph the test car seemed to show a definite tendency to wander. Drivers not used

to the play in Chrysler's light-touch power steering may find themselves at first fiddling slightly with the wheel to keep the car in one lane.

**IN TURNS** Here the best foot of the Plymouth comes forward. Few cars—even imported sports types—are as confidence-inspiring in the corners as this 3955-pound sedan. At first a little doubtful that it could be as good as it felt, I took advantage of some of the corners at the Riverside International Raceway to see if perhaps it didn't have a couple of tricks up its sleeve.

Apparently this good handling doesn't degenerate without warning. In sharp corners it is possible to steer the car around at improbable speeds without pushing the front wheels or losing the rear end. In fast corners it is actually possible to slide all four wheels with a reassuring amount of control. However, this "drift," as it is sometimes erroneously called, is accompanied by a certain amount of body lean—a manifestation of the possibility of losing control on a bumpy or wavy surface.

**ON ROUGH ROADS** Rough surfaces or dirt roads are easily taken in stride. Very little road noise comes through to the occupants of the car. At normal speeds, control does not suffer, an indication that the wheels are not bouncing aimlessly.

**HEAT AND VENTILATION** First class. Heat is available almost immediately after starting on a cold morning. The control lever for ventilation and heat is difficult to hang on to when selecting the desired range; knuckle-banging on either the key-ring or in the opposite direction on the ashtray is standard.

The level of wind noise with the windows closed is very low. Even with the windows partially lowered, the noise is not objectionable. However, with the windwings open, the tendency to try to adjust out some of the noise is strong but not too successful. Perhaps it's asking too much to expect a production line car to be well sealed against air leaks or dust, but the test car was poor in this respect. Dust seems to collect almost as rapidly inside the car as outside.

**RIDE** Plymouth's boast that it has the smoothest, easiest-riding low-priced car is well founded. There is very little pitch or roll even under adverse conditions. The ride is smooth and soft without any sensation of floating. Very little vibration either from the road or the engine is evident.

#### FUEL ECONOMY

'57 Belvedere	'58 Belvedere
Stop-and-Go Driving 12.0 mpg for 80 miles	12.1 mpg for 1150 miles
Highway Average 15.0 mpg for 806 miles	17.1 mpg for 200 miles
Overall Average (Not available for '57)	13.7 mpg for 1350 miles

Fuel used: Mobilgas Special

#### SERVICING

**ENGINE** Service has been simplified this year with the relocation of the distributor, generator, fuel pump, oil filter and voltage regulator. While all the under-the-hood servicing has been well thought out, something happened at the rear. It seems impossible to fill the gas tank without it regurgitating a quart or so

of the fluid just poured in. Station attendants even though aware of this idiosyncrasy, were often caught by surprise.

#### CONCLUSIONS

**ITS BEST POINTS** The best points of the Plymouth are still its ride and its handling. The brakes are excellent within the strict limitations of normal driving. The gearbox would be outstanding if it were only a little smoother and were equipped with some sort of PARK provision.

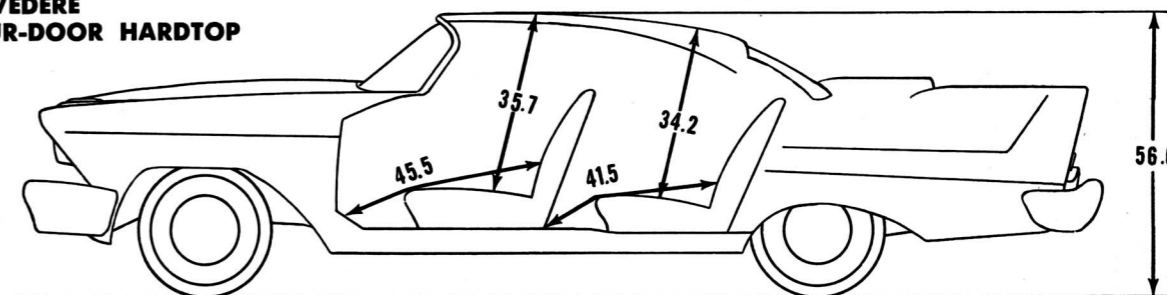
During the test two other models in the Plymouth line were driven for comparison purposes—the Savoy with the 318-cubic-inch V8, and the Plaza with similar engine.

The Savoy, in appearance and fact, differed from the Belvedere only in trim and horsepower. The Plaza, however, carried none of the options such as power steering or power brakes. The gearbox for the Plaza was a two-speed PowerFlite.

In driving these other models a couple of interesting things came to light. The two-speed PowerFlite seems smoother in traffic. The Belvedere characteristics least missed are the extra horsepower and power brakes. Missed most is power steering.

/MT

#### BELVEDERE FOUR-DOOR HARDTOP



#### SPECIFICATIONS OF TEST CAR

**ENGINE:** Ohv V8. Bore 4.06 in. Stroke 3.38 in. Stroke/bore ratio 0.83:1. Compression ratio 10.0:1. Displacement 350 cu. in. Two 4-bbl carburetors. Dual-breaker distributor. Dual exhaust. Advertised bhp 305 @ 5000 rpm. Bhp per cu. in. 0.87. Piston speed @ max. bhp 2813 ft. per min. Max bmep 159.4 psi. Max. torque 370 lbs.-ft. @ 3600 rpm.

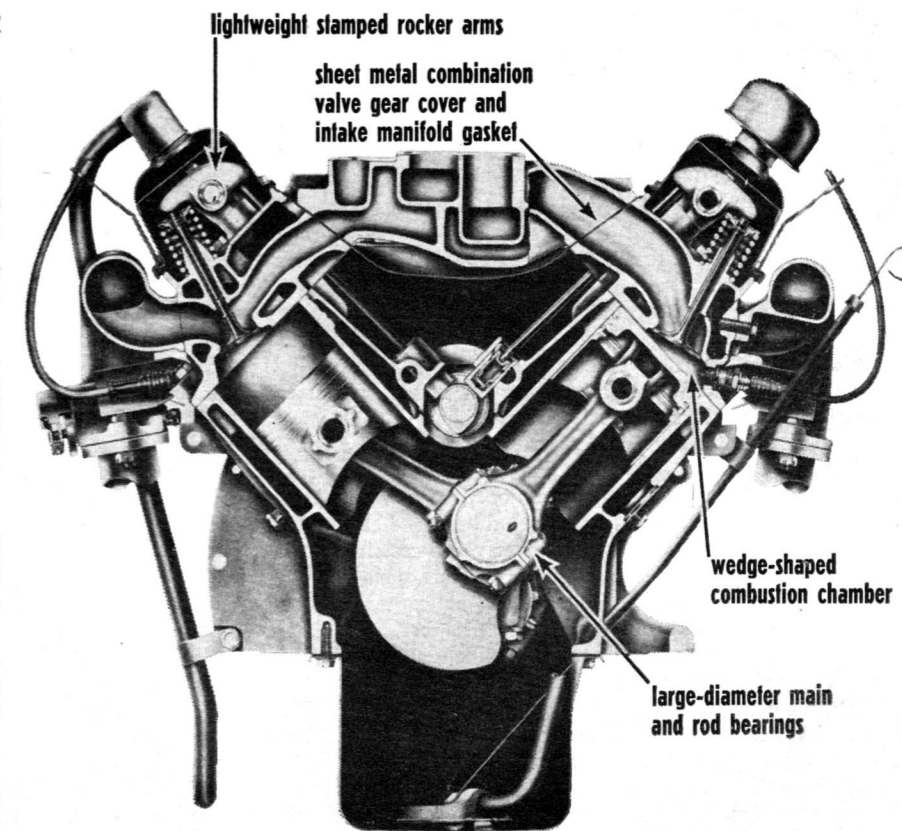
**TRANSMISSION:** TorqueFlite, automatic three-element torque converter with planetary gears; ratios 2.45:1, 1.45:1, 1.00:1.

**CHASSIS:** Front suspension—-independent, lateral, non-parallel control arms with torsion bars. Rear—unsymmetrical, semi-elliptical leaf springs. 7.50 x 14 tubeless tires. Power steering, rack and sector, 3.5 turns lock-to-lock, overall ratio 19.1:1, turning diameter 42.3 ft. Rear axle—Sure-Grip limited-slip differential, ratio 3.31:1.

**DIMENSIONS:** Wheelbase 118 in., overall length 206, overall height 56.6, overall width 79.3, front tread 60.9, rear tread 59.7, rear overhang 55.2. Weight with gas, oil and water 3955 lbs. (56% front, 44% rear), weight/bhp ratio 13:1.

**PRICE:** Factory-suggested retail price of test car equipped as described including federal tax but not state and local taxes, delivery and handling charges or freight \$3432.

**ACCESSORIES:** TorqueFlite \$220, PowerFlite \$180, power steering \$77, power brakes \$38, two-way power seat \$48, power windows \$102, radios \$73 and \$106, heater and defroster \$69, padded dash and visors \$24, tinted glass \$32, air conditioner and heater \$446.



TEST CAR had Golden Commando engine with wedge-shaped chambers.