

by Bob McVay, *Assistant Technical Editor*

**PONTIAC DIVISION** of General Motors has a reputation for building cars that appeal to the younger generation interested in performance as well as luxury. Pontiac closed out 1963 holding third place in the sales race. Their popular personal car, the Grand Prix, was back-ordered most of the sales year. And now Tempest offers a new model that looks enough like the Grand Prix to pass for its little brother — it's called the Tempest G.T.O. and offers performance with a capital "P."

Last year, Tempest offered a big, 326-cubic-inch V-8 for their performance-minded customers, and it was an immediate hit — both on the street and drag strips. This year they've gone one better — the G.T.O. has the same beefy 389-inch V-8 that's used in the Grand Prix, except that the G.T.O. uses the heads from Pontiac's big "421 H.O." V-8 to give it a rating of 325 hp at 4800 rpm with one four-barrel Carter carburetor or a whopping 348 hp at 4900 rpm when set up with three two-barrel Rochester carbs. G.T.O. Tempests also use a special camshaft and valve lifters, while the 10.75-to-1 compression ratio makes premium fuel a must.

The "389" engine isn't the only thing that makes a Tempest into a G.T.O. Pontiac has wisely made this a complete performance package by including such goodies as stiffer suspension with specially valved shock absorbers, a seven-blade, 18-inch fan complete with cut-off clutch, dual exhaust system, special 14-inch wheels with six-inch-wide rims (fitted with red-stripe premium, nylon-cord, low-profile tires), and a 10.4-inch Belleville clutch with grey-iron pressure plate for gearshift cars. In addition to all this, special trim and identification medallions tell onlookers this is a "G.T.O. 6.5-liter" automobile. Twin (fake) air scoops adorn the hood of the G.T.O. and are found on no other Tempest model.

We actually drove two G.T.O. convertibles during our test. One was a pre-production model that didn't have the stiffer suspension options. It left us with the feeling that, like love and marriage, a heavy-duty suspension and a powerful engine go together — you shouldn't have one without the other. Our first and lasting impression of the Tempest was one of more-than-adequate power. Add to this the wonderfully quick, precise shifts from the all-synchromesh gearbox, fitted with a sturdy Hurst shift linkage, and we could tell that here was a real automobile.

Our performance testing at Riverside only confirmed our first impression. Weighing in at over 3700 pounds and with two MOTOR TREND staff members and our equipment on board, our first acceleration run left our photographer standing in a huge cloud of blue rubber smoke, looking at a long, black strip on the pavement. Second-gear starts weren't much different — the car just had more brute power than traction, even with the low-profile tires.

Our best run netted zero to 30, 45, and 60 mph in a wheel-spinning, rubber-burning 3.7, 5.6, and 7.7 seconds respec-

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**(LEFT)** Wheelspin, smoke, and a long black stripe on pavement were characteristic of a full-power start in the G.T.O. Driven normally, the car proved docile and tractable in traffic, but a real tiger when opened up on the track or freeway.

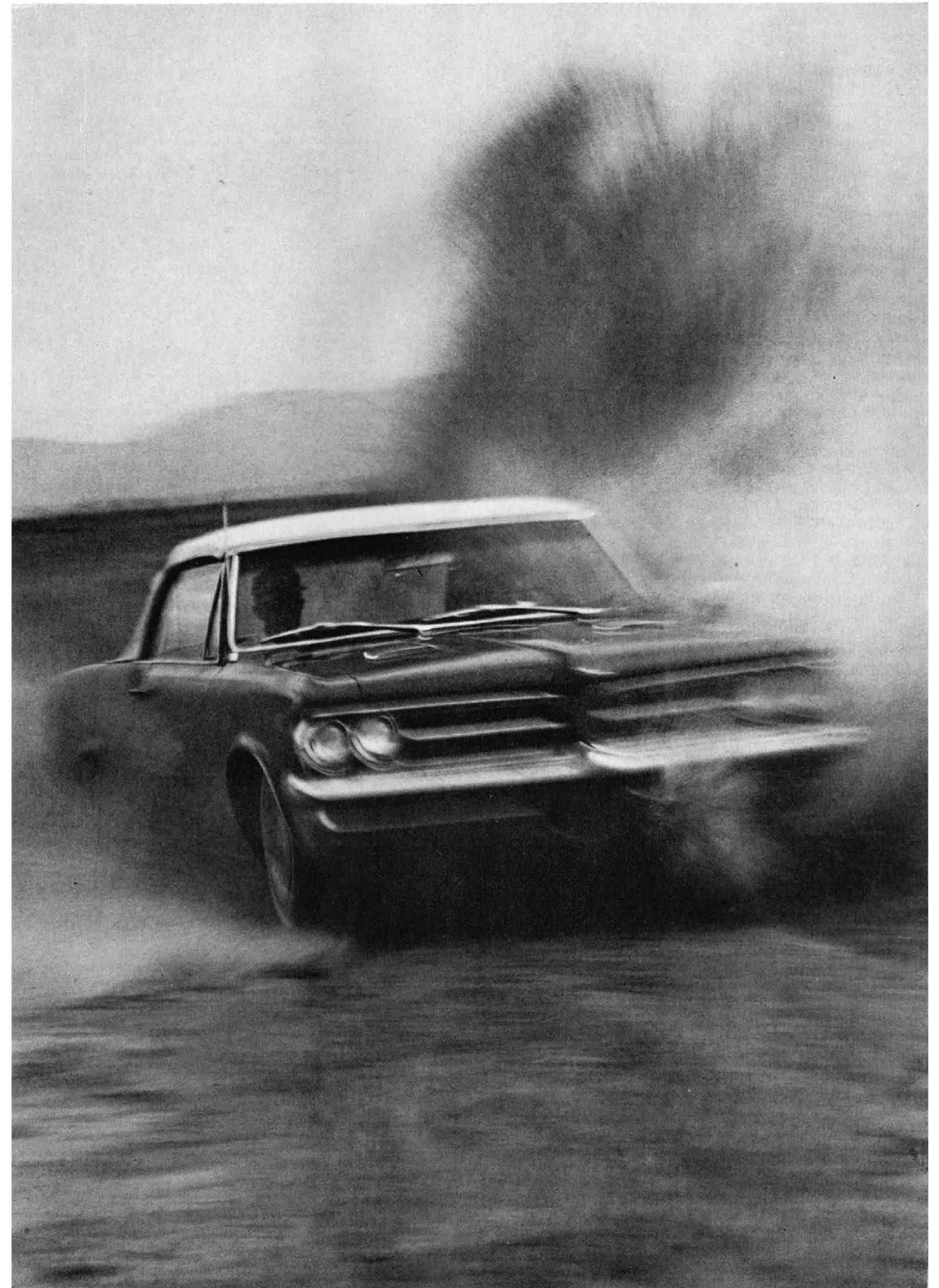
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**(RIGHT)** Blasting through a deep water puddle on one of Riverside's back roads showed the Tempest was watertight and controllable, even under these extreme conditions. Curved glass side windows and fake air scoops on the hood are new for 1964.

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# TEMPEST G.T.O. ROAD TEST

In racing terms, G.T.O. means "Gran Turismo Omologato." In Pontiac language, these three letters designate a special, white-hot Tempest



tively, while the hot Tempest turned the quarter-mile in 15.8 seconds, hitting a high 93 mph as it crossed the marker. Keeping our foot on the floorboard sent the optimistic speedometer past the 120-mph mark into the never-never area on the round, easy-to-read dial. Our fifth-wheel Weston electric speedometer gave us a more realistic reading of an honest 115 mph. We feel it would've gone even higher if we'd had more room. We used 5500 rpm as our red line, since the engine flattened out considerably at 5800.

Our test car had the standard 3.23 rear axle without Posi-traction. Some mild mental gyrations suggest that a similar car, equipped with butyl rubber tires (for the street) or racing slicks would lower our acceleration times quite a bit.

Royal Pontiac, a dealer in Michigan, has one of the few Tri-Powered G.T.O. coupes in the country set up for the drags. With a new Goodyear Super/Stock tire (soon to be released) on the rear wheels, the Tri-Power G.T.O. turned 107 mph in the quarter with an ET of 13.29. Zero to 60 mph averaged 5.7 seconds on this car, so it does have lots of potential for the performance-minded Tempest fan.

There's more to performance than just brute horsepower. Our test car, the one with the stiffer suspension, had a just-about-right feeling under most driving conditions. Cornering felt stable without excessive body lean or understeer; the G.T.O.'s power steering gave us a good road feel, yet was fairly quick and light in action; and the car didn't nose-dive or squat to any great extent during hard acceleration or braking. Really hard cornering caused the carburetor to flood, with a subsequent loss of power, but this happened only during extremely fast cornering. The car had good balance and that tremendous amount of reserve power that would blast it out of any turn in good order. Cautious cornering was necessary, however, because a quick punch at the accelerator in any gear except fourth would break the rear wheels loose and send the back end of the car into a drift.



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PHOTOS BY BOB D'OLIVO



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- 1) Side view shows off Tempest's new, longer lines and lack of unnecessary side trim. The optional wheel covers had to be removed before tire pressures could be checked or changed.
  - 2) Car had good traction, lots of power for controlled drifting on dirt roads. Rear-end treatment includes hidden tail- and brake lights similar to those on Pontiac's popular, full-sized Grand Prix models. Rear window unzips easily for breezy top-up driving. Unlike most, it was easy to re-zip with top up.
  - 3) Front end carries special G.T.O. identification on left side of split grille. Overall styling met with favorable comments from friends, passers-by, and filling station attendants.



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Dirt roads could be drifted at 50 mph with good control, but lots of wheel-spinning was required when coming out of a turn. (Pontiac offers even quicker steering as an option and fast drivers will find it an interesting addition to their G.T.O.) The car offered good traction when the power was fed in with a light foot, but in first or 2nd, it'd break loose quickly regardless of the surface when provoked, even with four passengers aboard on dry pavement.

Everything about the G.T.O. had that just-right feeling. The steering wheel was low enough to see over, yet high enough to slip in under easily. Its relationship to the comfortable bucket seat was good, and even long drives didn't find us squirming around for a more comfortable position. The buckets gave reasonably good support to legs, hips, and back. The optional power seat allows an infinite number of positions that should suit everyone. Even the rear bench seat had adequate leg room for two people. Pontiac isn't trying to fool anyone — they honestly call their convertible a four-passenger automobile. That it is, and a comfortable one, too.

Out on the highway, our Tempest was a quiet, relaxing car to drive, except for one very annoying point. The small piece of plastic that covers the gearshift lever opening in the console is spring loaded. Ours made a terrible squeaking noise in tune with the gearshift lever's vibrations. We used heavy grease to quiet it down during our test, but only as a stopgap to retain our sanity. A simple rubber piece would solve this annoying problem on an otherwise quiet car.

The firm suspension gave our Tempest a feeling of honest control. It didn't oscillate up and down when passing over highway irregularities, and even harsh dips didn't bottom the front end. For really fast driving, it could be even stiffer (and there's that option, too), but as it was, the G.T.O. always felt safe and controllable.

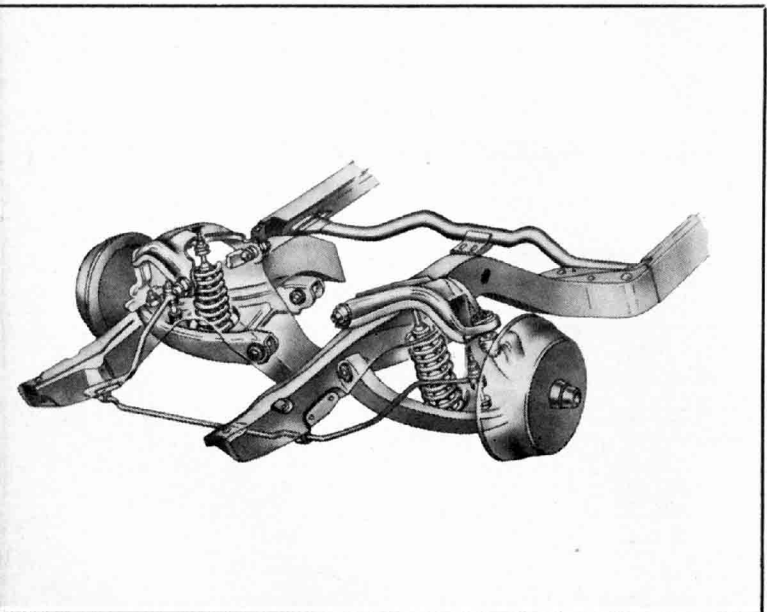
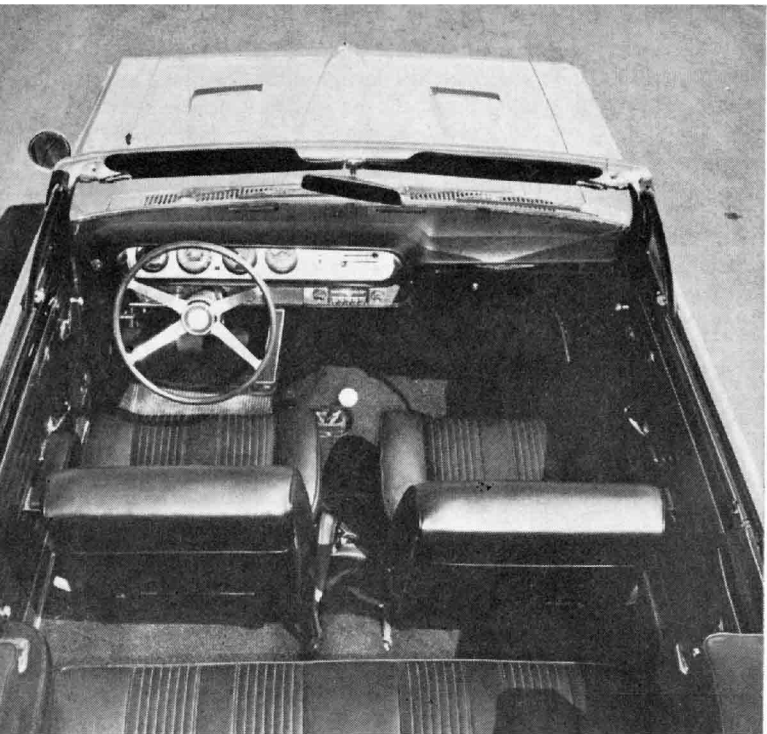
Last year, our 1963 Tempest's brakes came in for quite a bit of criticism by requiring more distance for a stop from 60 mph than any other car tested. Tempest has corrected this with bigger, 9.5-inch drums, with finned drums on the rear wheels. They felt adequate during normal driving, yet heated up and showed considerable fade after half a dozen high-speed stops, but recovered fairly quickly. Our braking

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4) G.T.O. 389-inch V-8 came with chromed valve covers and big air cleaner for a sparkling underhood appearance. Aluminum alloy pistons and special H.O. cylinder heads with 10.75 compression ratio demand premium gasoline. Powerful V-8 was a real lugger in fourth or a charger in intermediate ratios. Tempest offers rear axle range from 2.56 through 3.55 ratios.

5) Wheel was well placed for optimum driving control, comfort.

6) Trunk is wide and flat, offering 32.1 cubic feet of luggage space. The lid uses counterbalanced torsion bar springs, and the lid is low enough for easy loading of heavy items. Dirt and dust didn't get into the trunk; it's tightly sealed.



tests measured stops from 30 and 60 mph at 42 and 183 feet. Distances weren't outstanding, but a reduction of 31 feet is a big improvement in anyone's book. We're always for better brakes.

Now let's take a look at economy. Economy can't be measured in gas mileage alone. The car uses a big, powerful engine that loafs under all but the hardest driving conditions. It's rarely strained, even during high-speed cruising. Our test car gave reasonable mileage, with a low of 10 mpg around town in heavy traffic and a high of 16.6 on a short trip, giving us an overall average of 12.9 mpg for 600 miles of driving.

We realize the G.T.O. is a special breed of car, for the individual who wants and is willing to pay for that something extra. But there are other Tempest models. They come in three series: Tempest, Tempest Custom, and Tempest Le Mans. A two-door coupe, four-door sedan, and station wagon (two-seat model) are offered in the lower two series, with a convertible in the middle series. The Le Mans offers three two-door models, a coupe and convertible, plus the recently announced hardtop. The G.T.O. is simply a Le Mans with special option package at \$295 extra.

A new-for-Tempest, six-cylinder, in-line engine is standard equipment. It's a 215-cubic-inch unit that puts out 140 horses and is similar to other GM designs. It has ball-mounted rocker arms, wedge-shaped combustion chambers, and a valve train similar to the big Pontiac V-8's. The optional 326-inch V-8 comes in a 250-hp version, with a two-barrel carb and an appetite for regular gas, or a 280-hp, four-barrel-carb option that demands premium. Both the 250-hp V-8 and the Six have 8.6-to-1 compression, while the "280" V-8 has 10.5 to 1.

Gone are the Tempest's rear-mounted transaxle and curved driveshaft. In its place is a more conventional layout of engine and transmission up front on a 115-inch-wheelbase perimeter frame and welded steel body construction, just like other GM intermediates. It completely changes the handling of the car — for the better, we feel.

Front suspension uses phenolic Teflon-lined housing for the upper ball joints and metal-to-metal, pre-lubed housing for lower joints. Lube periods are 12,000 miles or one year. The Tempest shares the 24-month/24,000-mile GM warranty that requires minimum 60-day/6000-mile service routine and oil change.

Our G.T.O. Tempest was quite a car. Not only did it have gobs of brute horsepower, but it looked well built and had a luxurious, comfortable, all-vinyl interior. In addition, it rode and handled as a high-performance car should. It was controllable and gave us a feeling of safety under most conditions, although it would require special care and handling when the road's wet or icy.

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1) G.T.O.'s power-operated top fastened easily with a twist of the wrist; two handles clamped the top down tightly and quickly.

2) All controls are within easy driver reach. Gearshift lever is right where it should be, requires no stretching. Car uses large, round, easy-to-read instruments with gauges for fuel and water temperature and warning lights for others. Power-brake pedal is located lower than clutch, making fast footwork possible, and the step-on parking brake proves handy.

3) Tempests share independent front, solid rear axle suspension with other GM intermediates. Handling was greatly improved over last year's all-independent suspension system.



4) Tempest, with more rubber on the ground, should prove a hot performer for the street or strip for 1964. A host of options for performance, economy, and even trailer-pulling are offered.

5) This little plastic piece was our only real complaint with an otherwise quiet, comfortable car. Gearshift lever vibrations kept the spring-loaded plastic constantly squeaking against the center console. A lockable storage compartment and rear-seat courtesy light make long chrome console useful.

## TEMPEST G.T.O.

2-door, 4-passenger convertible

**OPTIONS ON CAR TESTED:** 4-speed transmission with Hurst shift linkage, power steering-brakes-windows, console, radio, heater, padded dash, whitewalls, retractable seat belt, rally clock, misc. items.

**BASIC PRICE:** \$3080.90

**PRICE AS TESTED:** \$3963.58 (plus tax and license)

**ODOMETER READING AT START OF TEST:** 575 miles

**RECOMMENDED ENGINE RED LINE:** 5500 rpm

## PERFORMANCE

### ACCELERATION (2 aboard)

|               |           |
|---------------|-----------|
| 0-30 mph..... | 3.7 secs. |
| 0-45 mph..... | 5.6       |
| 0-60 mph..... | 7.7       |

Standing start 1/4-mile 15.8 secs. and 93 mph

Speeds in gears @ 5500 rpm

|           |        |           |                        |
|-----------|--------|-----------|------------------------|
| 1st ..... | 50 mph | 3rd ..... | 85 mph                 |
| 2nd ..... | 68 mph | 4th ..... | 115 (actual top speed) |

Speedometer Error on Test Car

|                                   |    |    |    |    |    |    |
|-----------------------------------|----|----|----|----|----|----|
| Car's speedometer reading .....   | 33 | 50 | 55 | 67 | 78 | 91 |
| Weston electric speedometer ..... | 30 | 45 | 50 | 60 | 70 | 80 |

Observed miles per hour per 1000 rpm in top gear .....

|        |
|--------|
| 21 mph |
|--------|

Stopping Distances — from 30 mph, 42 ft.; from 60 mph, 183 ft.

## SPECIFICATIONS FROM MANUFACTURER

### Engine

Ohv V-8  
Bore: 4.06 ins.  
Stroke: 3.75 ins.  
Displacement: 389 cu. ins.  
Compression ratio: 10.75:1  
Horsepower: 325 @ 4800 rpm  
Torque: 428 lbs.-ft. @ 3200 rpm  
Horsepower per cubic inch: 0.84  
Carburetion: 1 4-bbl.  
Ignition: 12-volt coil

### Steering

Recirculating ball, with power assist  
Turning diameter: 43.4 ft.  
Turns lock to lock: 4.2

### Wheels and Tires

14-in., 5-lug, steel disc wheels with 6-in.-wide rims  
7.50 x 14 nylon blackwall or rayon whitewall tires

### Gearbox

4-speed manual, all-synchro, with Hurst linkage; floor-mounted lever

### Brakes

Hydraulic, 2-shoe, single anchor; self-adjusting  
Front: 9.5-in. dia. x 2.5 ins. wide cast-iron drum  
Rear: 9.5 x 2 ins. wide finned composite drum  
Effective lining area: 150.2 sq. ins.

### Driveshaft

1-piece, open tube

### Differential

Hypoid, semi-floating  
Standard ratio: 3.23:1

### Suspension

Front: Independent ball joint, with upper and lower control arms, coil springs, direct-acting tubular shocks, and link-type stabilizer bar  
Rear: 4-link pivoted control arm, with coil springs and direct-acting tubular shocks

### Body and Frame

Welded steel body, with perimeter-type frame (boxed on convertible)  
Wheelbase: 115.0 ins.  
Track: front and rear, 58.0 ins.  
Overall length: 203.0 ins.  
Curb weight: 3360 lbs.