CAR LIFE
ROAD TEST

# PONTIAC GP

CHAN BUSH PHOTOS

## *Super/Silence With Widescreen Windshields*

PONTIAC DIVISION HAS made a great deal of noise about its products: Who would have anticipated a Super/Silent Pontiac? This car was from a GM division that has fostered the strident "Wide Track Town" singing commercials on radio and, before the ban, operated thunderous NASCAR competitors. Pontiac has built for public consumption lines of GTOs and Sprints that have proven anything but quiet. Thus, a Pontiac that equates directly with a comforting absence of aural stimulation is a shattering experience and, in *CL*'s opinion, a welcome change of pace.

Perhaps other Pontiacs in the past have been quiet, but the one that broke the sound barrier for *CAR LIFE* test crewmen was a Grand Prix—large but understated, smooth, not ostentatious, a slickly done sneaker.

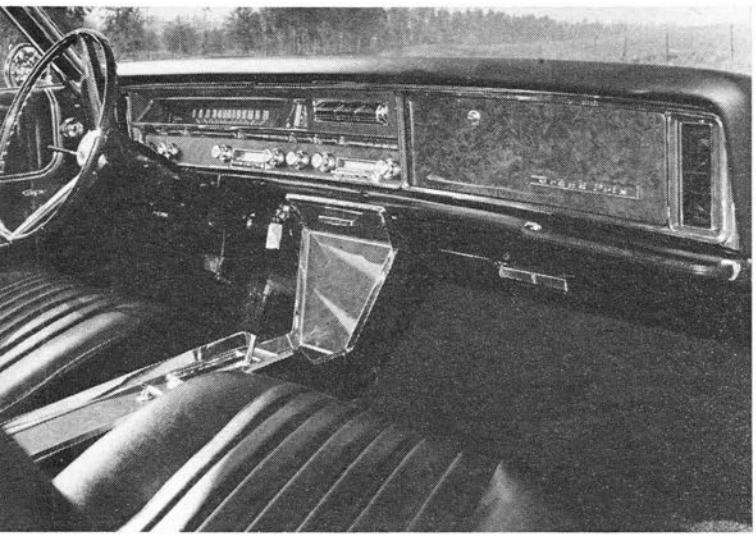
The car even appeared quiet. There is nothing blatant about a black vinyl top above deep aquamarine acrylic paint. Chromium plating and other fripperies in the name of trim were, by current standards, almost absent. There were no exterior irregularities in body panel fit to cry for attention.

The GP's interior, likewise, was not a this-and-that arrangement, a condition all too prevalent in the U.S. car manufacturing industry at present. Black vinyl upholstery was fitted to front bucket seats and the rear passenger bench. The vinyl was not embossed, fluted, tufted or otherwise treated for ornamentation. It was tucked and rolled simply for purposes of body support comfort. The seats appeared meant to be sat upon while driving. The dash panel, faced with simulated walnut veneer, was laid out in horizontal harmony under an overhang of protective padding. The broad rectangular speedometer was flanked by other gauges, and switches were arrayed below. The wide glovebox door took up almost half the dash panel.

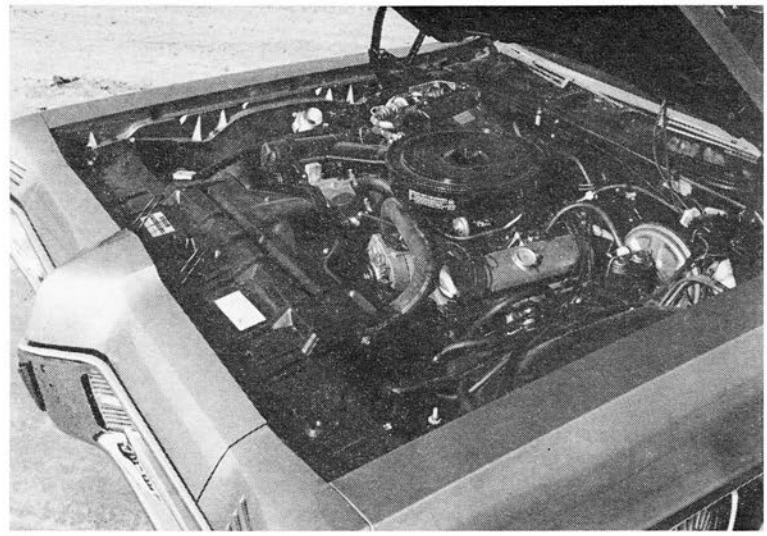
Console mounted, the Pontiac's automatic transmission shift lever also displayed the understated style. A tapered black plastic knob, with a thumb button detent atop, held the theme—no pinking shears, no T-handles, no polka dots, no scallops, just functionality.

IN THE DRIVER'S seat, *CL*'s 6-ft.-plus tester discovered that the GP would easily accommodate, in comfort, his ample leg length. It is an unsubstantiated guess that the abundance of leg room on larger Pontiacs is a direct function of the over-6-ft. height of the division's general manager, John Z. DeLorean. Whatever the reason, the total absence of squeeze certainly was appreciated by *CL*'s big man.

Once rolling, drivers discovered another aspect of Pontiac enjoyment—wide-screen viewing of roadway through probably the greatest expanse of windshield and side windows now ▶



**VISTAVISION, CINERAMA** and Panavision have nothing on the GP's daily feature widescreen instrument panel and windshield.



**WHISPER QUIET** is achieved because the Grand Prix' 400-cu. in. engine always operates well below torque and bhp peaks.

offered among American-made cars. The vista was made even more vast by a small degree of forward slope of the GP's hood. Surrounded by glass, the driver felt well in control of the vehicle, the opposite of the sensation engendered by a car which combines poor seating position with relatively small window area. The Pontiac GP must be marked for merit in the fullness of sight, as well as in the absence of sound.

Major contributor to this campaign of silence was the Pontiac's well muffled 400-cu. in. V-8 engine. The 400/-350 powerplant from Pontiac, of course, is another in GM's family of unobtrusive, mild-mannered brutes that do the work of propelling automobiles while keeping their human occupants warmed or cooled, lighted and programmed with music. This Pontiac GP engine's silent servility stemmed from minimization of the 4-barrel car-

# 1967 PONTIAC
## GRAND PRIX 2-DOOR

### DIMENSIONS

Wheelbase, in.....121.0
Track, f/r, in.....63.0/64.0
Overall length, in.....215.6
width.....79.4
height.....54.2
Front seat hip room, in.....23.9 x 2
shoulder room.....62.4
head room.....37.7
pedal-seatback, max.....45.8
Rear seat hip room, in.....54.7
shoulder room.....61.0
leg room.....35.2
head room.....37.1
Door opening width, in.....40.6
Floor to ground height, in.....11.7
Ground clearance, in.....6.25

### PRICES

List, FOB factory.....$3549
Equipped as tested.....4848
Options included: Exhaust emission control device, air cond., power steering, brakes and windows, auto. trans., radio, cornering lights, tinted windshield, wsw tires, roof rail and reading lamps, HD air cleaner.

### CAPACITIES

No. of passengers.....5
Luggage space, cu. ft.....17.3
Fuel tank, gal.....26.5
Crankcase, qt.....6.0
Transmission/diff., pt.....19.0/4.5
Radiator coolant, qt.....18.6

### CHASSIS/SUSPENSION

Frame type.....perimeter
Front suspension type: Independent s.l.a. with ball joints and concentric coil springs and shock absorbers.
ride rate at wheel, lb./in.....79
antiroll bar dia., in.....0.75
Rear suspension type: Four-link pivoted control arms with coil springs and telescopic shock absorbers.
ride rate at wheel, lb./in.....127
Steering system: Recirculating ball bearing gear with coaxial power assist; transverse link connecting trailing Pitman & idler arms and tie rods.
gear ratio.....17.5
overall ratio.....21.7
turns, lock to lock.....4.2
turning circle, ft. curb-curb....42.8
Curb weight, lb.....4160
Test weight.....4520
Weight distribution, % f/r.55.9/44.1

### BRAKES

Type: 2-line hydraulic duo-servo drum with self-adjusting feature, cast iron drums.
Front drum, dia. x width, in. 11.0x2.75
Rear drum, dia. x width.....11.0x2.0
total swept area, sq. in.....326.9
Power assist.....integral-vacuum
line psi @ 100 lb. pedal.....900

### WHEELS/TIRES

Wheel size.....14 x 6JK
optional size available.14 x 6JK HD
bolt no./circle dia., in.....5/5.0
Tires: Goodyear Power Cushion
size.....8.55-14
recommended inflation, psi.....24
capacity rating, total lb.....6040

### ENGINE

Type, no. cyl.....ohv 90° V-8
Bore x stroke, in.....4.12 x 3.75
Displacement, cu. in.....400
Compression ratio.....10.5
Rated bhp @ rpm.....350 @ 5000
equivalent mph.....144
Rated torque @ rpm.....440 @ 3200
equivalent mph.....92.5
Carburetion.....Carter, 1x4
barrel dia., pri./sec.....1.44/1.69
Valve operation: Hydraulic tappets, pushrods and overhead rocker arms.
valve dia., int./exh.....2.11/1.77
lift, int./exh.....0.410/0.410
timing, deg.....30-63, 77-25
duration, int./exh.....273/282
opening overlap.....55
Exhaust system: Dual, reverse-flow mufflers.
pipe dia., exh./tail.....2.0/2.0
Lubrication pump type.....gear
normal press. @ rpm.30-40 @ 2600
Electrical supply.....alternator
ampere rating.....42 @ 12V.
Battery, plates/amp. rating....66/70

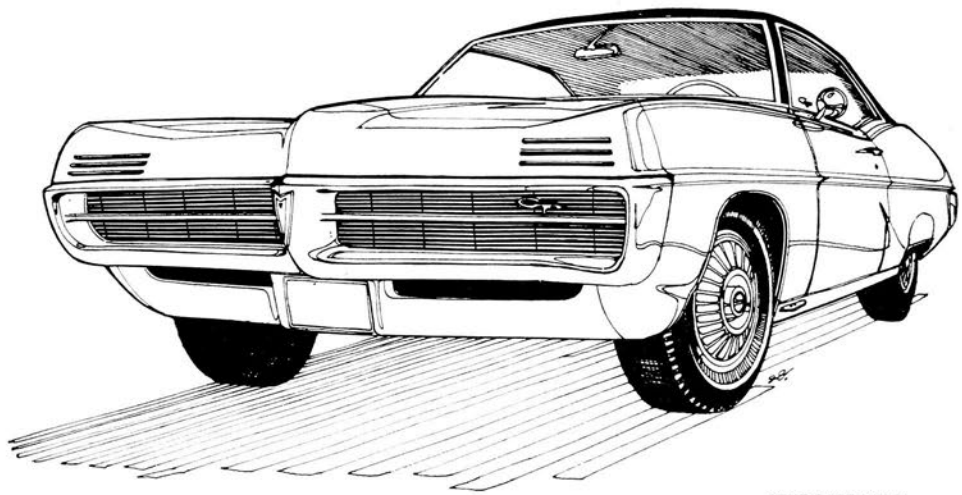
### DRIVE TRAIN

Transmission type: Torque converter with 3-speed planetary gearbox.
Gear ratio 3rd (1.00) overall....2.73
2nd (1.48).....4.04
1st (2.48).....6.77
1st x t.c. stall (5.09).....13.88
synchronous meshing?...planetary
Shift lever location.....console
Differential type: Hypoid.
axle ratio.....2.73

buretor's induction sounds by the optional heavy-duty air cleaner, the dual reverse-flow muffler system, for Pontiac mild camshaft timing, hydraulic lifters for relatively large-diameter valves and, perhaps more than all else, balance.

Gearing also helped to keep the large engine operating at a whisper. The powerplant is manufacturer rated 350 bhp at 5000 rpm, with torque delivery of 440 lb.-ft. at 3200 rpm. However, the engine in the GP was never allowed, by reason of gearing, to achieve the noisy 5000-rpm level—except during forced-shift acceleration runs.

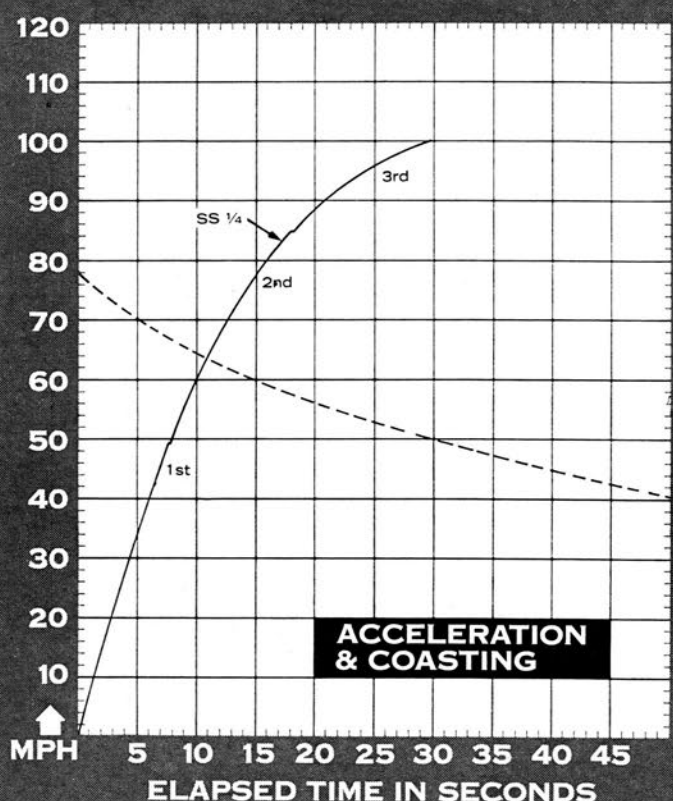
Pontiac shares the availability of the Turbo Hydra-Matic automatic transmission with other GM divisions. The one fitted to the Pontiac GP proved crisp, quiet and eminently equal to the tasks set for it. With maximum torque multiplication ratio of 5.09:1 at takeoff creating overall low gear multiplication to 13.88:1, smooth, smart, silent breakaway was possible with the GP. Transmission gearing was the GM garden variety, first to third, 2.48, 1.48 and 1.00. These ratios coupled to the 2.73 axle produce drive ratios of 6.77, 4.04 and 2.73. Under all-on acceleration, automatic shifts were almost imperceptible.



GENE GARFINKLE

The GP's "tall" 2.73:1 rear axle ratio, with Goodyear Power Cushions (8.55-14s) installed to produce a loaded wheel diameter of almost 27 in., resulted in 2075 engine revolutions per mile at 60 mph in high gear for the test GP. This was a quiet 2075 revolutions. The 5000-rpm power peak and the 3200-rpm torque delivery peak theoretically would occur at 144 mph and 92.5 mph, respectively. In all practical city street or thruway situations, the 400-cu. in. engine would never turn more than just over 2000 rpm, except ▶

# CAR LIFE ROAD TEST




## CALCULATED DATA

| | |
|---|---|
| Lb./bhp (test weight) | 12.92 |
| Cu. ft./ton mile | 106.0 |
| Mph/1000 rpm (high gear) | 28.9 |
| Engine revs/mile (60 mph) | 2075 |
| Piston travel, ft./mile | 1295 |
| Car Life wear index | 26.9 |
| Frontal area, sq. ft. | 23.6 |
| Box volume, cu. ft. | 530 |

## SPEEDOMETER ERROR

| | |
|---|---|
| 30 mph, actual | 28.9 |
| 40 mph | 38.2 |
| 50 mph | 47.1 |
| 60 mph | 55.2 |
| 70 mph | 67.2 |
| 80 mph | 76.3 |
| 90 mph | 85.7 |

## MAINTENANCE INTERVALS

| | |
|---|---|
| Oil change, engine, miles | 6000 |
| trans./dif. | 24,000/24,000 |
| Oil filter change | 6000 |
| Air cleaner service, mo. | 6 |
| Chassis lubrication | 30,000 |
| Wheelbearing re-packing | as req. |
| Universal joint service | not req. |
| Coolant change, mo. | 24 |

## TUNE-UP DATA

| | |
|---|---|
| Spark plugs | AC 45S |
| gap, in. | 0.035 |
| Spark setting, deg./idle rpm | 6/600 |
| cent. max. adv. deg./rpm | 26-30 @ 6000 |
| vac. max. adv., deg./in. Hg | 20/15-17 |
| Breaker gap, in. | 0.016 |
| cam dwell angle | 28-32 |
| arm tension, oz. | 19-23 |
| Tappet clearance, int./exh. | 0/0 |
| Fuel pump pressure, psi. | 5.0-6.5 |
| Radiator cap relief press., psi | 14-17 |

## PERFORMANCE

| | |
|---|---|
| Top speed (3800), mph | 110 |
| Shifts (rpm) @ mph, manual | |
| 3rd to 4th ( ) | |
| 2nd to 3rd (4350) | 85 |
| 1st to 2nd (4000) | 49 |

## ACCELERATION

| | |
|---|---|
| 0-30 mph, sec. | 3.9 |
| 0-40 mph | 5.5 |
| 0-50 mph | 7.2 |
| 0-60 mph | 9.4 |
| 0-70 mph | 12.0 |
| 0-80 mph | 15.6 |
| 0-90 mph | 20 5 |
| 0-100 mph | 29.2 |
| Standing ¼-mile, sec. | 17.1 |
| speed at end, mph | 83.5 |
| Passing, 30-70 mph, sec. | 8.3 |

## BRAKING

(Maximum deceleration rate achieved from 80 mph)

| | |
|---|---|
| 1st stop, ft./sec./sec. | 24 |
| fade evident? | no |
| 2nd stop, ft./sec./sec. | 23 |
| fade evident? | no |

## FUEL CONSUMPTION

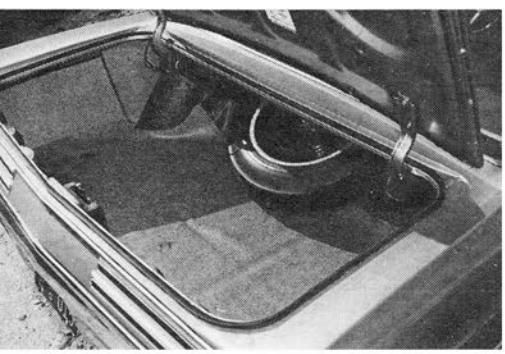
| | |
|---|---|
| Test conditions, mpg. | 12.9 |
| Normal range, cond. | 12-14 |
| Cruising range, miles | 310-360 |

## GRADABILITY

| | |
|---|---|
| 4th, % grade @ mph | |
| 3rd | 14 @ 65 |
| 2nd | 20 @ 48 |
| 1st | 49 @ 34 |

## DRAG FACTOR

| | |
|---|---|
| Total drag @ 60 mph, lb. | 157 |



# GP

when accelerating briskly through the gears. The test GP's engine was operating mainly on the up slopes of the power and torque curves—a relationship between rpm, power and torque that could result only in continued quietude.

The technique of mounting a tight unit body upon a perimeter frame—with substantial isolation between the two components—is used in construction of a great many GM cars. The benefits of this form of chassis/body combination are two-fold and were very apparent in the Pontiac GP. First, little road or suspension action sound is transmitted through the isolating materials between frame and body. Second, the rigid perimeter frame to a great degree prevents flexing of the unit body and thus obviates the grinding, groaning sounds so often associated with full unit body or unit body/-stub frame construction techniques.

THE GP's suspension system is, as are the suspension systems of other of GM's larger cars, rather orthodox in design. The layout is s.l.a., with coil springs, telescopic shock absorbers and an 0.75-in. antiroll bar at the front; and a live axle located by four control arms, with coil springs and telescopic shock absorbers at the rear. Ride rates at the wheel, front and rear, were 79 lb./in. and 127 lb./in., respectively. Though the combination of suspension elements appeared quite ordinary, and the ride rates did not appear significantly different from other similar cars, the GP's ride was delivered—in silence—in a manner something more than mundane.

The test GP's braking system was forced to fight a 4520-lb. test weight. The system, self-adjusting duo-servo shoes, 2.75-in. width at the front and 2.00-in. width at the rear, in 11-in. cast iron drums, proved superior to the majority of all-drum systems encountered by *CL*, but less efficient than some all-disc and disc/drum combinations tested recently. On the first panic stop from 80 mph, the GP decelerated at a maximum rate of 24 ft./sec./sec. with good control and with no wheel lockup. On the second try, approximately 70 sec. later, the GP achieved a deceleration rate of 23 ft./sec./sec., but with a sudden jolting 4-wheel lockup at 21 ft./sec./sec. which required momentary release of pedal pressure. A "good measure" third stop from 80 mph again produced deceleration at 23 ft./sec./sec., but with increasing fade as heat buildup took its toll of brake effectiveness. GM supplies good disc brakes; the prospective GP purchaser would do well to consider investing in such, though they might prove more noisy on occasion than do drums.

As the 4520-lb. test weight was a battle for the brakes, it also proved a major undertaking for the 400-cu. in. engine. Gross weight was boosted by some 410 lb. of test crewmen, approximately 150 lb. of fuel, test equipment, the plumbing for air conditioning, exhaust emission control, and power assistance for brakes, steering and windows. Obviously, options placed an anchor on the Pontiac GP's quarter-mile capability. Best e.t. for the quarter was recorded at 17.1 sec. with a trap speed of 83.5 mph. *CL* testers have logged much quicker times and much faster speeds with equivalent engines in similarly sized cars—but cars not hampered by great whacking cargos of accessory gear. Weight of air conditioning equipment alone in all probability accounts for 1 sec. added to acceleration times. Dragstrip chores are better left to the GP's loudmouthed brethren, those of "GEE-TOE TIGER" ilk.

If accessory equipment increased the weight of the Pontiac GP, so did the options increase the total price of the car by almost $1300. Some of the "options" can hardly be classed as such. These are the emission controls, required in California; power steering assistance, necessary with a heavyweight engine; vacuum brake booster, to aid in retarding all that aforementioned gross weight; and the Turbo Hydra-Matic transmission. List prices of some of the major extras were: Air conditioning, $421; vinyl top, $105; power windows, $104; and automatic transmission, $226. The silence seeking buyer may well choose a Pontiac GP, but decide to delete, in the interest of economy, such things as a vanity mirror, cornering lamps, rear seat reading lamps, special seat belts, underhood lamp, tinted glass and white sidewall tires. Added or subtracted, such items in no way affect the basic performance of the Grand Prix. Each individual buyer must make his own peace with the temptations of an abundant options catalog.

THE ACCESSORIES did, indeed, add to the comfort and convenience of the GP, but the car's major attractions lay in ride and handling. The GP made a trip across town, through congested streets, something to be anticipated, not eschewed. The GP slid through traffic effortlessly, maintaining the driver's patience and aplomb with cool conditioned air.

Out on the open road, the rural two-laner beyond the periphery of the city, the GP's suspension evened out pavement irregularities, and permitted enthusiastic cornering with only a modest amount of body roll. Shock absorber control was, however, barely adequate, permitting some "wallow."

But, the freeway—jammed at rush hours or open to high speed traffic at other times of day—proved to be the Grand Prix' forte. The 400-cu. in. engine and the Turbo Hydra-Matic combined to catapault the GP onto the turnpike from the access road at 30-70 mph elapsed time of just over 8 sec. Matching traffic speed proved not in the least difficult. Once this speed was established, and a lane chosen, the GP could be guided along with the driver in a pleasant state of relaxation.

After road testing was complete on the Pontiac Grand Prix, two *CL* staffers were called upon to make a freeway trip of some 100 miles. They chose the GP and, for that 100 miles, the car forgotten, chatted in normal tones about the things magazine people talk about. At the end of the journey, realizing he had ridden for almost two hours in drawing room quiet, one staff man said to the other, "That car is so quiet it really sneaks up on you!"

One recommendation is for Pontiac's advertising agency to start making a little noise about all that silence. ■