

THEY'RE HERE: A LONG LOOK AT THE '68s

ICD

CAR LIFE

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CAR PRICING
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CORROSION
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CHUCK BARNES
Impresario at Indy

PONTIAC
Underground
Cooler, Smoother



CHARGER:
Brash, Boldly Bodied



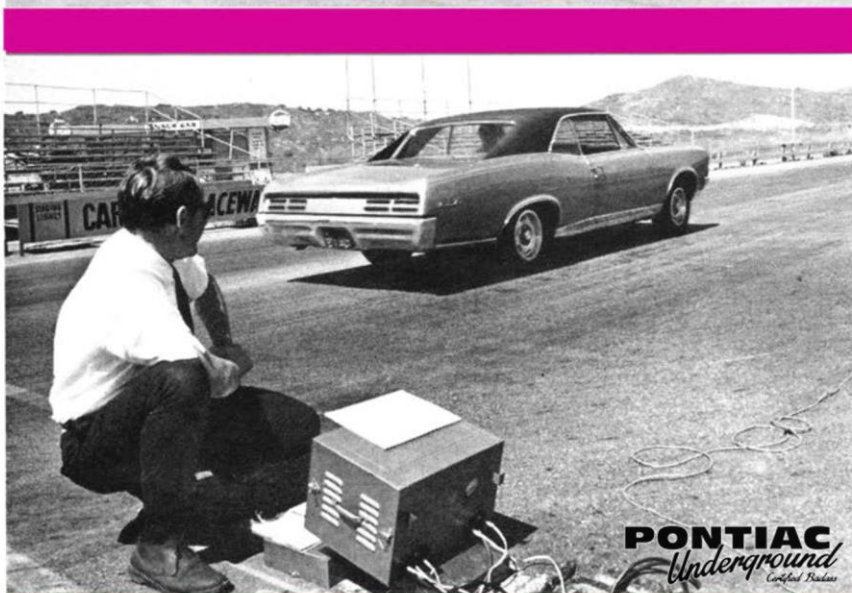
Hail to the King! The Super|Supercar

KING OF THE Supercars! Pontiac's Ram Air GTO can lay claim to this title on several counts. If this accolade infers this is the first car to be produced among currently popular Supercars, GTO qualifies. If it means the most performance per dollar, GTO it is. If it signifies the quickest through the quarter, as purchased, the GTO is certainly among the front-runners. If styling, both interior and exterior, is an important criterion, GTO is a winner. By anyone's Supercar yardstick, the GTO is the standard of the U.S.

Any automobile must be evaluated with respect to product intent. This intent may be specifically stated by the manufacturer, reinforced by advertising, or determined by vehicle testers. Fair evaluation of a vehicle must include determination of the vehicle's ability to meet intended criteria. Perhaps more than the majority of automobiles, the Ram Air GTO requires this sort of definitive inspection.

Does the Ram Air GTO accomplish intended goals toward which it is aimed? Most definitely and emphatically, YES! Lumpy idle and harsh ride, qualities that would be unsatisfactory in a family sedan, become acceptable, even desirable in a full-blooded Supercar. And dragstrip elapsed times of 14.5 sec., with speeds in the 101-103 mph range, definitely qualify an automobile as a Supercar. Such performance assumes even loftier status when it is emphasized that these numbers were achieved in normal fashion, vehicle in completely standard road trim, and nearly 400 lb. of driver, passenger and test gear aboard.

One pass through the lights with driver only produced an e.t. of 13.9 sec. at 102.8 mph. Dragstrip potential is sure to be in the bottom 13-sec. bracket with slicks, open tuned headers and all power and emission control equipment removed. Small wonder, then, that GTO was specified as the



STREET MACHINE? Hardly? This Ram Air GTO is more at home, top to bottom, off the line, through the traps, and down the return road past the time ticket booth where the driver picks up his 13-sec. e.t.s.

RAM AIR GTO



NOT FOR the faint of heart or the mildly enthusiastic is this daddy of 'em all, the 360-bhp Ram Air engined Super/GTO from Pontiac.

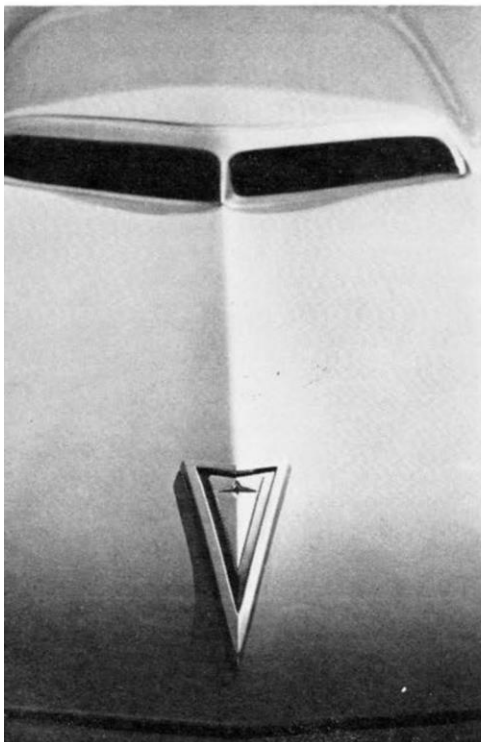
PONTIAC *Underground* Certified Roadster



GAUGES HOODED to minimize reflection are placed for information at-a-glance readability. Wood grain paneling enhances well-padded dash.

FUNCTIONAL scoop funnels air into carburetor plenum.

PONTIAC-Hurst shifter aids in making accurate gear changes.



GTO

performance goal in one major manufacturer's Supercar product description.

The Ram Air GTO test car carried a particularly appealing list of options. The test car was equipped as well as *CL* testers could have wished, with few unnecessary accessories beyond those which were considered desirable for maximum enjoyment of the automobile. Power steering makes much easier the task of driving a vehicle with the GTO's front end weight. The automatic transmission proved its worth both in city traffic operation and in striving for maximum dragstrip performance. The heating and ventilating system was adequate. Power losses inherent in air conditioning systems would have been out of place on such a car.

The best has been saved for last. The power disc brake system fitted to *CL*'s test GTO was outstanding. Fade was almost non-existent, even after several stops from 100 mph at the end of the dragstrip. Perhaps more important, front-to-rear proportioning of this system was nearly perfect. Deceleration rates of 29 ft./sec.² were obtained time after time, with rear wheel lockup easily avoided without extreme care in brake application. The small amount of lockup that was encountered caused no loss of directional control, and occurred only at low speeds. Pontiac is to be commended for an exceptionally fine braking system. Perhaps Pontiac and the remainder of Detroit manufacturers will see fit to match such performance in other models.

PONTIAC HAS equipped the GTO with one of the most sensibly attractive instrument panels in the domestic automotive field. Complete instrumentation includes oil pressure and water temperature gauges. All instruments, eminently readable, are well shielded from sun reflection, and are set into an attractive simulated wood panel. Night lighting of instruments is excellent, providing good visibility without distracting glare.

Praise is due Pontiac for including the Hurst console-mounted automatic transmission shift mechanism. This is one of the finest controls ever tested by *CL*. Manual selection of gears with this unit is positive, effortless and genu-

inely pleasant. When shifting up from first gear, a simple forward press on the selector lever, while bearing to the right, moves the selector to second. Not high, not neutral, but second. It is almost impossible to miss a shift with this unit. If automatic shifting is desired, a lockout panel is dropped into place, and the shift unit becomes similar to that on all other domestic automobiles. After struggles with conventional floor selector mechanisms fitted to competitive high-performance cars, in attempts to shift quickly but gently to avoid unintentional selection of Drive or Neutral positions, the Pontiac-Hurst unit is a pleasure to use.

GTO bucket seats are among the most attractive found in current domestic automobiles. Seating comfort matches the excellent appearance, though a bit more lateral support would have been appreciated during travel over winding roads at high cruising speeds. One complaint is in order here. Common practice in bucket seat automobiles is to cross seat belts over the drive shaft tunnel. The belt anchored on the right side of the tunnel goes to the left seat, and vice versa. This results in more favorable pull direction on seat belt anchors. In the test GTO, use of seat belts in this manner resulted in the belt cutting across

the corner of the console, a very poor belt routing in event of an accident.

Ride and handling of the GTO are best described as firm and stable. Low speed ride quality was harsh, particularly on broken pavement or tar strips. Handling qualities included a reasonable amount of understeer at low speeds, near-neutral steering at high speeds and high cornering forces, and sufficient power available for power-oversteer at nearly any speed. The Firestone Super Sports Wide Oval tires (fitted to all GTOs) supplied adequate traction for brisk takeoffs, and proved stable when cornering near the limit of adhesion. No axle hop on acceleration or braking was encountered. In general, the GTO demonstrated stability and handling consistent with its high performance level.

MOST SIGNIFICANT feature of *CL*'s test GTO was the Ram Air engine option. This is the ultimate in GTO high-performance engines, which retails for \$263.30 over the standard 400-cu. in. powerplant. Alterations that create the Ram Air 400-cu. in. engine include longer duration camshaft and functional fresh air intake system through a hood scoop. The Ram Air engine also is fitted with higher load valve springs. However, the

springs in *CL*'s test car must have been tired from 3000 miles of hard use. The test GTO was plagued on all acceleration runs with audible valve float before automatic 1-2 shift in Drive range. The GTO's instrument panel tachometer was approximately 200 rpm slow, indicating 5400 rpm at valve float as compared with the 5600 rpm float figure indicated on *CL*'s electric test tachometer.

With regard to float speed, it should be reported that the Ram Air GTO is somewhat unusual among domestic automobiles in that top speed in high gear must be approached with great caution. The 107-mph top speed, grossly illegal in almost every state, is not only potentially dangerous to occupants, but severe damage to the engine is likely to result. The Ram Air GTO carries a 4.33:1 axle ratio as standard equipment. This ratio enables the engine to easily exceed valve float speed in high gear—in a very brief elapsed time. Most passenger cars are geared in such a way that they cannot exceed float speed in high gear without a very long sustained speed run, if at all. Not so the Ram Air GTO. Exceeding 5600 rpm in high gear was not difficult and, with the high gear acceleration potential of this automobile, drivers were able to run

THE ORIGINAL, the Pontiac GTO's small car/big engine format has been copied throughout the U.S. automotive industry. Imitators, however, are hard put to run as quickly, with as much sheer strength as does the Super/Supercar, the Ram Air GTO.

PONTIAC
Underground
Certified Business





FOAM BOOT seals rammed air into plenum chamber. Air cleaner element can be removed to eliminate restriction for competitive dragstrip work.

up to this speed without being conscious of having reached such velocity. A close watch on the tachometer definitely was in order to prevent engine damage.

So far this report has been in praise of the Ram Air GTO. The automo-

bile went extremely well; stopped with equal efficiency, and was attractive and comfortable. Before readers decide that this must be the ideal automobile for their purposes, it would be well to emphasize what the Ram Air GTO is *NOT*.

The Ram Air GTO definitely is not pleasant for normal city traffic operation. The test car surged, loped and generally ran miserably at part throttle up to 60 mph (3000 rpm). Part of this was no doubt due to California emission control apparatus on the test car, but part must be blamed on the high state of tune of the Ram Air engine. Freeway operation was exciting. Available acceleration aided greatly in lane changing, accelerating onto freeways at merging speeds and in general maneuverability. Not so pleasant was the engine noise level. With a 4.33:1 axle ratio, 70 mph requires approximately 3500 rpm, an engine speed unpleasant to the ears and undesirable for engine wear.

ONE GLARING deficiency in the Ram Air GTO package was the inadequate cooling system. Freeway operation invariably resulted in temperatures near the 200° F mark. Slowing for low speed traffic or complete shut-off resulted in a significant amount of coolant boiling off and gushing out the radiator overflow tube. This may not be a major complaint to the drag racer who frequently refills the cooling system with fresh water between runs, but it is a point worthy of emphasis for

1967 PONTIAC GTO 2-DOOR HARDTOP (RA)



DIMENSIONS

Wheelbase, in.....	115.0
Track, f/r, in.....	58.0/59.2
Overall length, in.....	206.6
width.....	74.7
height.....	53.7
Front seat hip room, in.....	23.5 x 2
shoulder room.....	58.8
head room.....	37.5
pedal-seatback, max.....	43.3
Rear seat hip room, in.....	51.9
shoulder room.....	57.0
leg room.....	32.3
head room.....	36.1
Door opening width, in.....	41.6
Ground clearance, in.....	6.1
Trunk liftover height, in.....	30.1

PRICES

List, FOB factory.....	\$2935
Equipped as tested.....	4422
Options included: Ram Air engine, Turbo Hydra-Matic, power disc brakes, steering, windows, antenna; AM-FM radio, vinyl top, tachom- eter and instrument cluster, styled steel wheels, air injector, emission controls, limited-slip differential.	

CAPACITIES

No. of passengers.....	5
Luggage space, cu. ft.....	21.1
Fuel tank, gal.....	21.5
Crankcase, qt.....	6.0
Transmission/dif., pt.....	19.0/3.0
Radiator coolant, qt.....	17.8

CHASSIS/SUSPENSION

Frame type: Perimeter.	
Front suspension type: Independent by s.l.a., ball joints, coil springs and telescopic shock absorbers.	
ride rate at wheel, lb./in.....	89.5
antiroll bar dia., in.....	0.938
Rear suspension type: Live axle, coil springs, 2 lower and 2 upper trailing arms.	
ride rate at wheel, lb./in.....	110
Steering system: Coaxial assist recir- culating ball gear, parallelogram linkage behind front wheels.	
overall ratio.....	22.0:1
turns, lock to lock.....	4.2
turning circle, ft. curb-curb.....	40.9
Curb weight, lb.....	3780
Test weight.....	4180
distribution (driver), % f/r.....	55.1/44.9

BRAKES

Type: Two-line hydraulic, disc front, cast iron drum rear, proportioning valve.	
Front rotor, dia. x width, in. 11.12 x 1.75	
Rear drum, dia. x width.....	9.5 x 2.0
total swept area, sq. in.....	323.6
Power assist: Integral vacuum.	
line psi at 100 lb. pedal.....	800

WHEELS/TIRES

Wheel rim size.....	14 x 6JK
optional size.....	14 x 5J
bolt no./circle dia. in.....	5/4.75
Tires: Firestone Wide Oval.	
size.....	F70-14
normal inflation, psi f/r.....	24/24
Capacity @ psi.....	n.a.

ENGINE

Type, no. of cyl.....	ohv 90° V-8
Bore x stroke, in.....	4.12 x 3.75
Displacement, cu. in.....	400.002
Compression ratio.....	10.75:1
Fuel required.....	premium
Rated bhp @ rpm.....	360 @ 5400
equivalent mph.....	103
Rated torque @ rpm.....	438 @ 3800
equivalent mph.....	73
Carburation: Rochester 1x4.	
throttle dia., pri./sec.....	1.38/2.25
Valve train: Hydraulic lifters, push- rods and overhead rocker arms.	
cam timing	
deg., int./exh.....	38-83/95-38
duration, int. exh.....	301/313
Exhaust system: Dual exhaust, re- verse-flow mufflers and resonators.	
pipe dia., exh./tail.....	2.00/2.25
Normal oil press. @ rpm.....	.55 @ 2600
Electrical supply, V./amp.....	12/37
Battery, plates/amp. hr.....	66/61

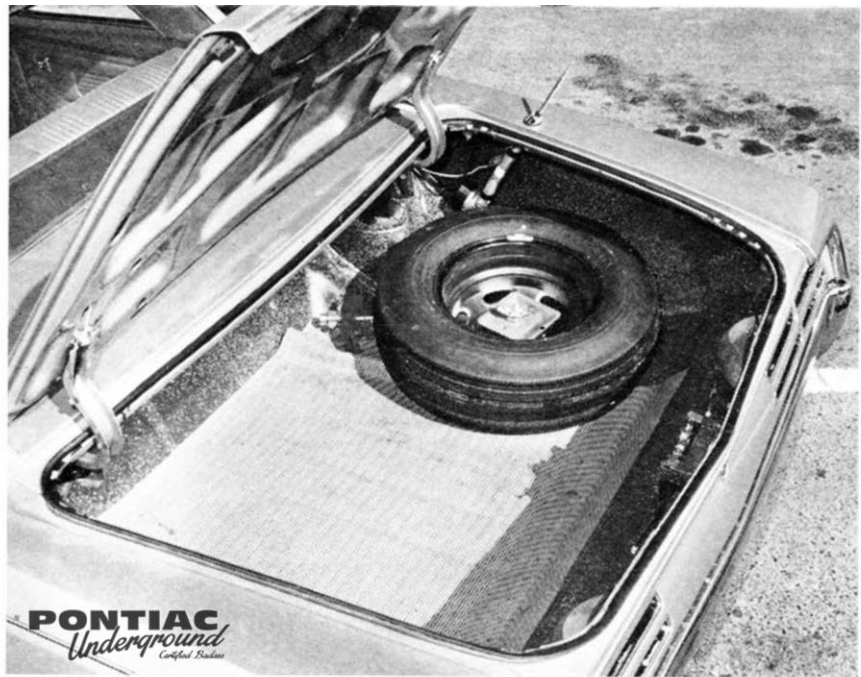
DRIVE TRAIN

Clutch type:	
dia., in.....	
Transmission type: Three-speed auto- matic with torque converter.	
Gear ratio 4th () overall.....	
3rd (1.00:1).....	4.33:1
2nd (1.48:1).....	6.40:1
1st (2.48:1).....	10.72:1
1st x t.c. stall (2.30:1).....	24.70:1
Shift lever location: Console.	
Differential type: Hypoid, limited slip.	
axle ratio.....	4.33:1

the prospective buyer who intends to use this automobile for daily transportation between its appearances in weekend competitive events.

The Ram Air GTO, then, is a limited-purpose vehicle. It is not a pleasant family transportation vehicle, designed for economical, comfortable errand-running and Sunday driving. The test GTO was, however, truly fun, simply a big kick to drive. The Ram Air GTO provided a level of acceleration beyond belief to anyone not accustomed to Supercars. An owner can be assured of a competitive car in its class at most dragstrips. Performance on the street requires careful handling to avoid dangerous situations or legal entanglements. A driver who is willing to accept the operational compromises inherent in such a high-performance vehicle, and who is capable of treating the potential of the Ram Air GTO with due respect will find this automobile an exciting, willing performer.

At a base price of \$3000, the GTO is a real bargain in the high-performance field. With Ram Air engine, 3-speed automatic transmission and limited-slip differential, the price is approximately \$3500 plus destination charges, taxes and license fees. For this price the buyer receives a vehicle su-



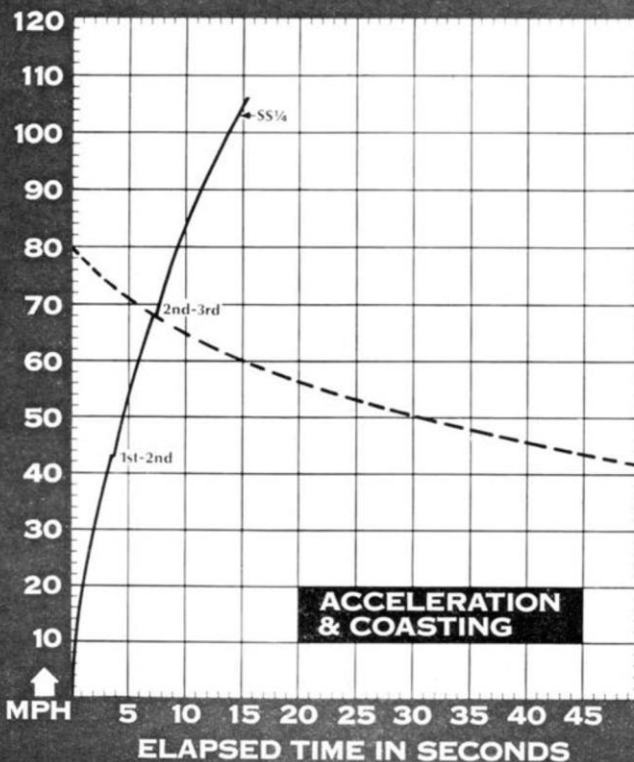
GTO TRUNK displays plenty of room for luggage, but perhaps would be more useful for toolbox, dragslicks and a change or two of spark plugs.

perior to almost any other production automobile in the world in its level of acceleration. In addition, the car is attractively styled, luxuriously appointed and delivers adequate handling. The addition of power disc brakes, for \$104.79, completes the package for

outstanding general road and strip use.

The GTO may be the eldest of the current Supercars, but it remains a worthy target for would-be competitors. Performance, brakes and styling continue to set the pace for other manufacturers. ■

CAR LIFE ROAD TEST



CALCULATED DATA

Lb/hhp (test weight)	11.6
Cu. ft./ton mile	164.3
Mph/1000 rpm (high gear)	19.1
Engine revs/mile (60 mph)	2965
Piston travel, ft./mile	1855
CAR LIFE wear index	55.0
Frontal area, sq. ft.	22.3
Drag class, NHRA-AHRA	B/SA-D/SA

SPEEDOMETER ERROR

30 mph, actual	29.2
40 mph	39.0
50 mph	48.8
60 mph	58.3
70 mph	67.8
80 mph	77.4
90 mph	87.2

MAINTENANCE

Engine oil, miles/days	6000/n.s.
oil filter, miles/days	6000/n.s.
Chassis lubrication, miles	24,000
Antismog servicing, type/miles	replace PCV valve/12,000; tighten belts/12,000; tuneup check/12,000
Air cleaner	clean, 6 mo.
Spark plugs: AC44S	
gap, (in.)	0.035
Basic timing, deg./rpm	6/800
max. cent. adv., deg./rpm	28/6000
max. vac. adv., deg./in. Hg.	20/16
Ignition point gap, in.	0.016
cam dwell angle, deg.	28-32
arm tension, oz.	19-23
Tappet clearance, int./exh.	0/0
Fuel pressure at idle, psi	5.0
Radiator cap relief press., psi	14-17

PERFORMANCE

Top speed (5600), mph	107
Test shift points (rpm) @ mph	
3rd to 4th ()	
2nd to 3rd (5400)	70
1st to 2nd (5600)	43

ACCELERATION

0-30 mph, sec.	2.5
0-40 mph	3.6
0-50 mph	4.8
0-60 mph	6.1
0-70 mph	7.7
0-80 mph	9.5
0-90 mph	11.5
0-100 mph	14.0
Standing 1/4-mile, sec.	14.5
speed at end, mph	102.0
Passing, 30-70 mph, sec.	5.2

BRAKING

Max. deceleration rate from 80 mph	ft./sec. ² 29
No. of stops from 80 mph (60-sec. intervals) before 20% loss in deceleration rate	8-no loss
Control loss? No.	
Overall brake performance	excellent

FUEL CONSUMPTION

Test conditions, mpg	8.9
Normal cond., mpg	8-12
Cruising range, miles	170-250

GRADABILITY

4th % grade @ mph	
3rd	21 @ 81
2nd	31 @ 54
1st	41 @ 36

DRAG FACTOR

Total drag @ 60 mph, lb.	120
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