FIVE INTERMEDIATES AS FAMILY CARS

Buick Skylark

Ford Fairlane

CORNERING POWER of the five test cars ranged from the Plymouth's good, to frightening for the Buick and Pontiac. The testers set a target speed of 40 mph. The Buick, upper left, is going slower than that, at its limit. The Ford, upper right, could do it, with more power needed to push the front wheels around. The Plymouth, lower left, drove through without drama. The Pontiac, lower center, has also dropped below target speed. The Chevelle, lower right, was better than its big brothers because it had more power and a lighter engine, and the driver could change the car's attitude with the throttle. Handling packages are optional for the three General Motors cars. We recommend them.

Pontiac Le Mans

PHOTOS BY GORDON CHITTENDEN, PAUL HANSEN AND SCOTT MALCOLM

CAR LIFE
ROAD TEST

Plymouth Satellite

Chevelle Malibu

THE GOAL was an evaluation of five Intermediates, equipped for day-to-day transportation and driving.

The result was something else. The tests showed what the five cars offered, but the lasting impression was that the buyer of a family car can, and should, ask for more than what the group had to offer.

Last year, CAR LIFE tested four standard-size cars, with small V-8s and automatic transmissions. They were quiet, soft, and slow, with unfavorable power-to-weight and bulk-to-interior space ratios.

The Intermediate market keeps getting bigger and bigger, and mid-range V-8s are offered in almost every line. We took the hint, and arranged to test Intermediates, hardtops with mid-range engines, automatic transmissions and whatever other equipment the makers happened to put on the test cars.

Deliberately, the test cars were not identical. They were not all intended to be test cars: The Plymouth was borrowed from the fleet provided for the company's own use, and the Skylark was kidnapped by Buick's PR men from the wife of a GM subsidiary executive. The Chevelle had the hot version of the mid-range V-8. It and the Tempest were four-door hardtops, for comparison of body styles with the two-door Skylark.

Some of the results were predictable. Base price of an Intermediate is less than a standard from the same maker, so the buyer can get some extra equipment for the same total cost. The lighter cars with bigger engines were, as a group, faster than the standards—a plus, we think, for anybody who ever gets onto a highway or goes up a mountain.

But each of our test cars lacked in some respect, even when driven in the good old American Gothic manner. Something—whether tire adhesion, balanced brakes, adequate power, predictable controls, rear vision—was needed.

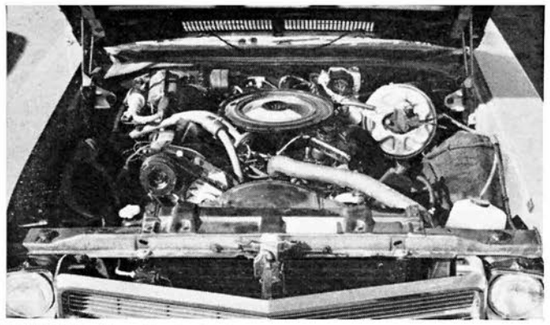
Now we do not expect a Chevelle to corner like a Corvette, a four-door Tempest to out-drag a GTO, or a Buick to stop with a Formula car. We do expect, no, demand, any car, not just enthusiast jobs, to have enough tire adhesion for evasive maneuvers, non-locking brakes to allow predictable emergency stops, and power for reasonable freeway merging.

The most common deficiency was the lack of suspension control. None of the cars had a handling or towing option. They varied in degree, but all leaned during hard cornering, and bounced and swayed more than comfort demanded. Family cars aren't expected to handle like sports cars. When compromise time comes, as it always does, the factories always pick the boulevard ride. But some handling capability must stay, so the driver can cope with, say, a sudden lane change or a corner that's sharper than it looked. Steering and ride should provide the driver with a feeling for the road, and what the car is doing on it. He'll pay attention, and maybe, even, enjoy the drive.

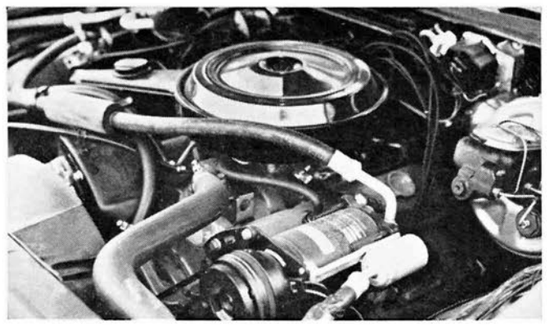
The Plymouth had the best handling again this time, as it did last year. The Satellite was closer to neutral, with front and rear tires doing the same amount of work, the result of good front suspension geometry, slightly higher roll stiffness and tighter suspension movement. All passenger cars being produced now use rubber bushings in the suspension, to isolate the body from the shocks and bangs being dealt to the wheels. What they gain in silence they lose by the addition of another place to flex. The Plymouth had the bushings, but they seemed to be made of firmer rubber than the others were.

The Fairlane was next. It was a heavier car, especially in front. Once the Fairlane was tilted as far as it would go, the car achieved a sort of stable understeer, with the front plowing ahead at a fixed rate. The steering was heavy (while the Plymouth's was lighter than it might be), but the Fairlane responded well.

The Chevelle and the Tempest both had severe understeer, mushing grumpily toward the outside of fast turns at the Orange County Raceway road course at relatively low speeds. But they both had Goodyear Polyglas tires. The Skylark has the 112-in. wheelbase shared by the two-door "A"-body ▶



MILD 350-cid engine in Skylark was tuned for economy. The mileage wasn't impressive, though, and the car was slow.



PERFORMANCE 350-cid Chevrolet had the most power, and still turned in impressive acceleration and mileage figures.

5 FAMILY CARS

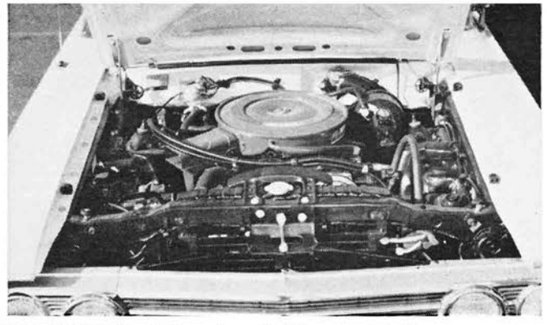
continued

GM cars and the Chevelle and Tempest had the 116-in. wheelbase of the longer A-body cars. The book says the Skylark should be nimble, and the others closer to balance. The tires never read the book. The OEM tires on the Skylark had less grip than did the belted cross-ply Polyglas tires, and the Skylark simply wouldn't respond. It had a lovely ride, and feather-light controls. We're sure the lady from whom it was borrowed likes it, and we hope she never really tries to *drive* it.

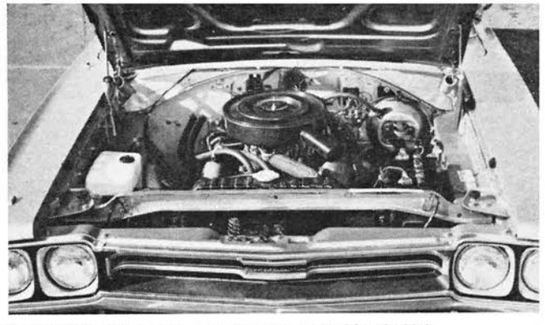
The Oldsmobile W-31 tested on page 56 was at the track at the same time. Due to reasons listed in that road test, it was an enthusiast's car, not a family car. But it was just as comfortable, and it had superior handling. We think the W-31's rear anti-sway bar made a lot of the difference. Olds is the only factory using such bars on passenger cars, although Pontiac is reported to have one in the works for its intermediates. The family man willing to go past his dealership for a better car might well investigate the possibilities of adapting an Olds bar to his A-body GM Intermediate.

The Fairlane had the best brakes. It was just barely a contest. Ford's front disc/rear drum system works beautifully, every time we test it. The Pontiac recorded a higher deceleration figure on the first hard stop, but the overall Ford performance was clearly superior, because of its better balance and ease of modulation near lock-up. Consistent stops in the 25–26 ft./sec./sec. range earned a rating of excellent, even though the best domestic brakes are causing us to raise our standards all the time.

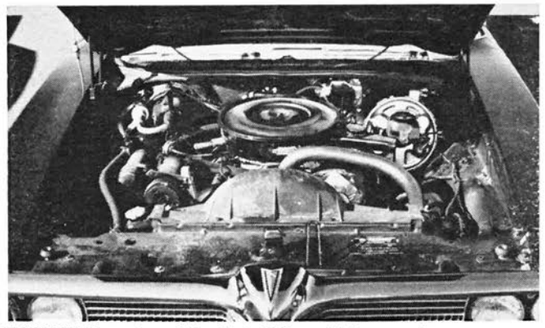
The Chevelle gave two CAR LIFE staffers a scare. It, like the Pontiac, had discs and drums, and we expected great things. On the first test stop, the ▶



MID-RANGE Ford 351 works well at low speed, but runs out of breath quickly. The 351 is an enlarged 289 V-8.



SURPRISE of the group was the Plymouth 318-cid V-8. It was the smallest, but turned the second-best times.



ECONOMY version of Pontiac's 350 wouldn't go, and worked so hard it burned as much fuel as a performance engine.

1969 SKYLARK

BUICK TWO-DOOR

DIMENSIONS

Wheelbase, in.	112
Track, f/r, in.	59/59
Overall length, in.	200.7
width	75.6
height	53.4
Front seat hip room, in.	54
shoulder room	58
head room	38
pedal-seatback, max.	42
Rear seat hip room, in.	53
shoulder room	57
leg room	32
head room	36
Door opening width, in.	42
Trunk liftover height, in.	32

PRICES

List, FOB factory	$2719
Equipped as tested	$4004

Options included: 230-bhp V-8, $111; automatic transmission, $185; power steering, $100; power brakes, $42; AM radio, $70; air conditioning, $376.

CAPACITIES

No. of passengers	5
Luggage space. cu. ft.	14
Fuel tank, gal.	20
Crankcase, qt.	4
Transmission/dif., pt.	19/3
Radiator coolant, qt.	14

CHASSIS/SUSPENSION

Frame type: Perimeter.
Front suspension type: Independent by s.l.a., coil springs, telescopic shock absorbers.
ride rate at wheel, lb./in. 112
antiroll bar dia., in. 0.895
Rear suspension type: Live axle, coil springs, two upper and two lower trailing arms, telescopic shock absorbers.
ride rate at wheel, lb./in. 101
Steering system: Integral assist recirculating ball gear, parallelogram linkage ahead of front wheels.
overall ratio 20.9:1
turns, lock to lock 4
turning circle, ft. curb-curb 38.6
Curb weight, lb. 3580
Test weight 3875
Distribution (driver), % f/r 56.1/43.9

BRAKES

Type: Drums front and rear.
Front drum, dia. x width, in. 9.5 x 2.5
Rear drum, dia. x width 9.5 x 2.0
total swept area, sq. in. 268.6
Power assist: Integral.
line psi at 100 lb. pedal 830

WHEELS/TIRES

Wheel rim size 14 x 5.0 J
optional size none
bolt no./circle dia. in. 5/4.75
Tires: Firestone Deluxe Champion.
size 7.75-14
normal inflation, psi f/r 26/28
Capacity @ psi 5440 @ 26/28

ENGINE

Type, no. of cyl.	V-8
Bore x stroke, in.	3.80 x 3.85
Displacement, cu. in.	350
Compression ratio	9.0:1
Fuel required	regular
Rated bhp @ rpm	230 @ 4400
equivalent mph	133
Rated torque @ rpm	350 @ 2400
equivalent mph	72

Carburetion: Rochester 1x2.
throttle dia., pri. 1.44
Valve train: Hydraulic lifters, push-rods and overhead rocker arms.
cam timing
deg., int./exh. 24-78/70-38
duration, int./exh. 282/288
Exhaust system: Single with cross-over, reverse-flow muffler.
pipe dia., exh./tail 2/2

Normal oil press. @ rpm	37 @ 2400
Electrical supply, V./amp.	12/37
Battery, plates/amp. hr.	66/61

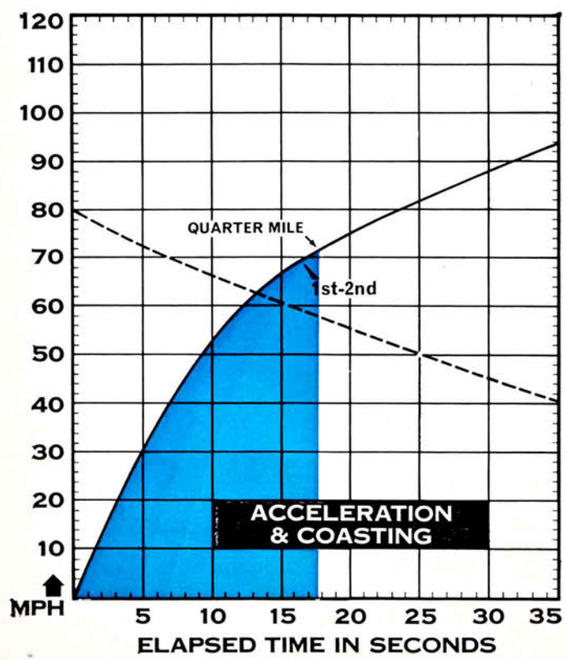
DRIVE TRAIN

Transmission type: Two-speed automatic with torque converter.

Gear ratio 2nd (1.00:1) overall	2.56:1
1st (1.77:1)	4.71:1
1st x t.c. stall (2.25:1)	10.60:1

Shift lever location: Steering column.
Differential type: Hypoid.
axle ratio 2.56:1

CAR LIFE ROAD TEST



CALCULATED DATA

Lb./bhp (test weight)	15.6
Cu. ft./ton mile	117.1
Mph/1000 rpm (high gear)	30.2
Engine revs/mile (60 mph)	2065
Piston travel, ft./mile	1328
CAR LIFE wear index	27.4
Frontal area, sq. ft.	22.4

SPEEDOMETER ERROR

Indicated	Actual
30 mph	24.6
40 mph	35.4
50 mph	46.3
60 mph	57.1
70 mph	67.8
80 mph	78.9
90 mph	89.8

MAINTENANCE

Engine oil, miles/days 6000/120
oil filter, miles/days 12,000/240
Chassis lubrication, miles 6000
Antismog servicing, type/miles. replace PCV valve/12,000, tuneup check/12,000
Air cleaner, miles. replace/24,000
Spark plugs: AC R45TS.
gap, (in.) 0.030
Basic timing, deg./rpm. TDC/550
adv., deg./rpm. max. cent. 34/4600
max. vac. adv., deg./in. Hg 19.5/25
Ignition point gap, in. 0.013-0.019
cam dwell angle, deg. 30
arm tension, oz. 19-23
Tappet clearance, int./exh. 0/0
Fuel pressure at idle, psi. 5.5-7.0
Radiator cap relief press., psi. 15

PERFORMANCE

Top speed (3600), mph	109
Test shift points (rpm) @ mph	
1st to 2nd (4000)	69

ACCELERATION

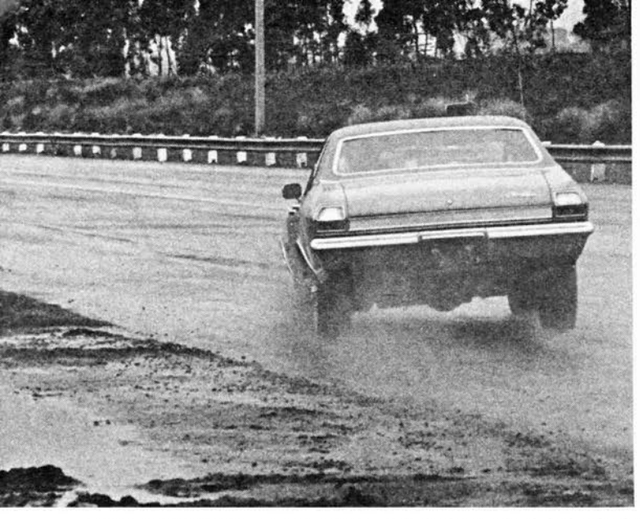
0-30 mph, sec.	5.0
0-40 mph	7.1
0-50 mph	9.5
0-60 mph	11.6
0-70 mph	17.0
0-80 mph	23.6
0-90 mph	31.9
Standing ¼-mile, sec.	17.8
speed at end, mph	71.4
Passing, 30-70 mph, sec.	12.0

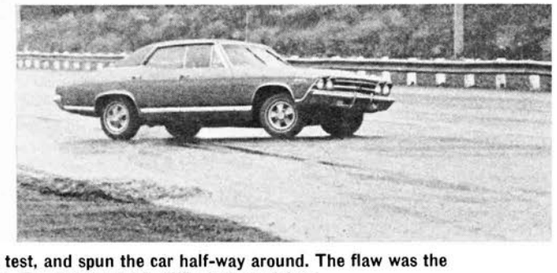
BRAKING

Max. deceleration rate from 80 mph ft./sec./sec. 18
No. of stops from 80 mph (60-sec. intervals) before 20% loss in deceleration rate 8
Control loss? Slight.
Overall brake performance fair

FUEL CONSUMPTION

Test conditions, mpg	13.4
Normal cond., mpg	14-16
Cruising range, miles	240-320





SCARY MOMENT came when Chevelle locked one wheel during brake test, and spun the car half-way around. The flaw was the fault of the one car, but Chevrolet's high-boost power brakes magnified it. The light pedal is difficult to modulate.

DRUM BRAKES on test Buick produced low deceleration rates and faded quickly. They are not up to vigorous driving.

GRIP of front wheels on the pavement has tilted the Ford forward. Ford's disc-front brakes were very good.

LEVEL Plymouth doesn't illustrate stiff springs. The rear wheels lock so quickly that the fronts can't do any work.

TIPPED Pontiac is coming to a short, straight stop. Disc brakes are rapidly becoming a delete option, and we approve.

5 FAMILY CARS

continued

right front disc grabbed. The driver kept the pressure on, thinking he could wrench the car straight. He couldn't, and it spun 180° before he could correct.

The Chevelle gets what must be the most negative plus ever awarded to a CAR LIFE test car: It spun in its own lane. Had there been an emergency, the Chevelle would have stayed in a straight line, and crashed into the immovable object backwards.

With consistency. The photographer wasn't there when it happened the first time. When the editor found out, he asked the driver if he could do it again. Sure, said the tester, who makes up with confidence what he lacks in smart. The next day, on a wet track, he stationed the photographer at the right place, reached the right speed, put his foot hard on the pedal, and did it again.

This is described in detail not to put the hurt on Chevrolet, but to illustrate a point we think is important. The locking brake was a fault in this individual car, not the system as a system. But Chevrolet builds so much boost into its power brakes that easing up by precisely the right amount in a tight spot is all but impossible. If a car has a flaw—grease on a pad, maybe, or a loose wheel bearing—the booster magnifies it. With practice, a driver can manage. The Chevelle was put through the full test, and performed acceptably. But it's the kind of practice the average driver wouldn't get.

The Plymouth and Buick both had drums front and back, and their braking suffered for it. Neither would record an acceptable deceleration rate on the first stop (the Plymouth had a rear wheel that locked too easily, we suspect because of oil on the shoe) and they faded quickly.

Interesting bit of philosophy connected with the brake tests. Chevrolet puts the front discs on all its test cars, and all the cars put to corporate use. We suspect Pontiac does the same. We haven't seen a test Pontiac with front drums for some time. So does Ford, which goes the extra mile. If a buyer ▶

1969 SPORT SATELLITE

PLYMOUTH

DIMENSIONS

Wheelbase, in.	116
Track, f/r, in.	59.5/59.2
Overall length, in.	202.7
width	76.4
height	53.0
Front seat hip room, in.	22 x 2
shoulder room	58
head room	37
pedal-seatback, max.	43
Rear seat hip room, in.	60
shoulder room	58
leg room	34
head room	37
Door opening width, in.	52
Trunk liftover height, in.	27

PRICES

List, FOB factory	$2866
Equipped as tested	$3470

Options included: Power steering group (includes AM radio), $177; power brakes, $43; TorqueFlite transmission, $206; 7.35x14 tires, $33, deluxe wheel covers, $21.

CAPACITIES

No. of passengers	5
Luggage space, cu. ft.	16
Fuel tank, gal.	19
Crankcase, qt.	4
Transmission/dif., pt.	16/4
Radiator coolant, qt.	16

CHASSIS/SUSPENSION

Frame type: Unitized.
Front suspension type: Independent by unequal length A-arms, longitudinal torsion bars, telescopic shock absorbers.
ride rate at wheel, lb./in. 102
antiroll bar dia., in. 0.94
Rear suspension type: Hotchkiss live axle, leaf springs, telescopic shock absorbers.
ride rate at wheel, lb./in. 110
Steering system: Integral assist recirculating ball gear, parallelogram linkage behind front wheels.
overall ratio 18.8:1
turns, lock to lock 3.5
turning circle, ft. curb-curb 41
Curb weight, lb. 3235
Test weight 3530
Distribution (driver), % f/r 54.8/45.2

BRAKES

Type: Drums front and rear.
Front drum, dia. x width, in. 10.0 x 2.5
Rear drum, dia. x width 10.0 x 2.5
total swept area, sq. in. 314.2
Power assist: Integral.
line psi at 100 lb. pedal 800

WHEELS/TIRES

Wheel rim size 14 x 5J
optional size 15 x 6JJ
bolt no./circle dia in. 5/4.5
Tires: Goodyear Power Cushion.
size 7.35-14
normal inflation, psi f/r 32/32
Capacity rating, total lb. @ press. 5490 @ 32

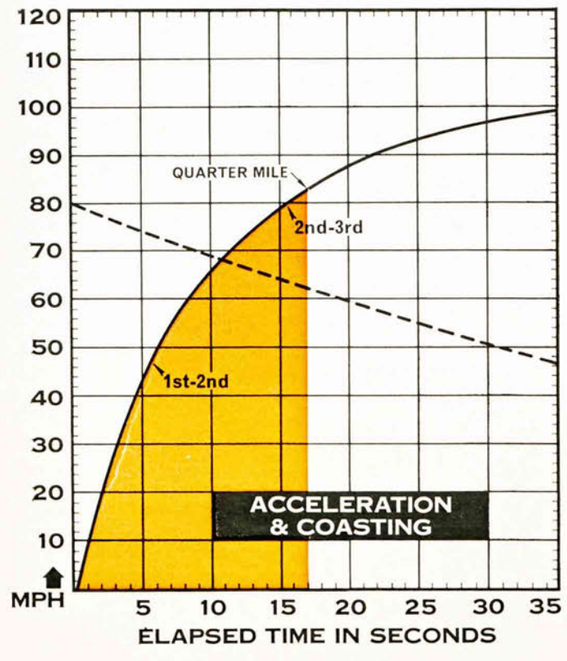
ENGINE

Type, no. of cyl. V-8
Bore x stroke, in. 3.91 x 3.31
Displacement, cu. in. 318
Compression ratio 9.2:1
Fuel required regular
Rated bhp @ rpm 230 @ 4400
equivalent mph 127
Rated torque @ rpm 340 @ 2400
equivalent mph 69
Carburetion: Carter 1x2.
throttle dia., pri./sec. 1.44
Valve train: Hydraulic lifters, pushrods and overhead rocker arms.
cam timing
deg., int./exh. 10-50/58-10
duration, int./exh. 240/248
Exhaust system: Single with crossover, reverse flow muffler.
pipe dia., exh./tail 2.0/1.88
Normal oil press. @ rpm 45-65 @ 2000
Electrical supply, V./amp. 12/37
Battery, plates/amp. hr. 54/48

DRIVE TRAIN

Transmission type: Three-speed automatic with torque converter.
Gear ratio 3rd (1.00:1) overall 2.76:1
2nd (1.45:1) 4.00:1
1st (2.45:1) 6.76:1
1st x t.c. stall (2.10:1) 14.20:1
Shift lever location: Steering column.
Differential type: Hypoid.
axle ratio 2.76:1

CAR LIFE ROAD TEST



CALCULATED DATA

Lb./bhp (test weight)	14.0
Cu. ft./ton mile	109.8
Mph/1000 rpm (high gear)	28.9
Engine revs/mile (60 mph)	2105
Piston travel, ft./mile	1162
CAR LIFE wear index	24.4
Frontal area, sq. ft.	22.5

SPEEDOMETER ERROR

Indicated	Actual
30 mph	29.8
40 mph	39.6
50 mph	49.5
60 mph	59.1
70 mph	69.0
80 mph	79.0
90 mph	89.0

MAINTENANCE

Engine oil, miles/days 4000/90
oil filter, miles/days 8000/180
Chassis lubrication, miles 36,000
Antismog servicing, type/miles..replace PCV valve/12,000, tune-up check/12,000
Air cleaner, miles replace/24,000
Spark plugs: Champion N-14Y.
gap, (in.) 0.035
Basic timing, deg./rpm TDC/850
max. cent. adv., deg./rpm. 36/4800
max. vac. adv., deg./in. Hg. 19/15
Ignition point gap, in. 0.014-0.019
cam dwell angle, deg. 30-35
arm tension, oz. 17-20
Tappet clearance, int./exh. 0/0
Fuel pressure at idle, psi. 5.0-7.0
Radiator cap relief press., psi. 16

PERFORMANCE

Top speed (3900), mph 113
Test shift points (rpm) @ mph
2nd to 3rd (4000) 80
1st to 2nd (4000) 47

ACCELERATION

0-30 mph, sec.	3.0
0-40 mph	4.4
0-50 mph	6.2
0-60 mph	8.6
0-70 mph	11.6
0-80 mph	15.5
0-90 mph	22.3
0-100 mph	38.7
Standing ¼-mile, sec.	17.2
speed at end, mph	83.2
Passing, 30-70 mph, sec	8.6

BRAKING

Max. deceleration rate from 80 mph ft./sec./sec. 21
No. of stops from 80 mph (60-sec. intervals) before 20% loss in deceleration rate 6
Control loss? Extreme.
Overall brake performance fair

FUEL CONSUMPTION

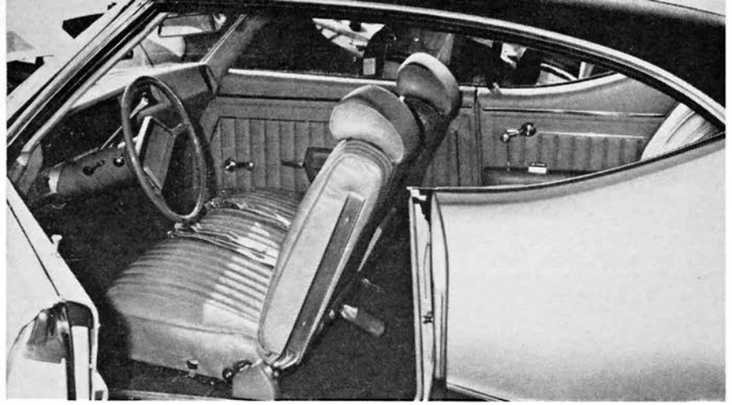
Test conditons, mpg	14.4
Normal cond., mpg	15-16
Crusing range, miles	280-300

5 FAMILY CARS

continued

orders power brakes, he gets the front discs as well, as decreed from the top. The staff doesn't believe, after some heated discussion, that disc brakes should be mandatory, but it looks as if the factories are on their way to making discs a delete option.

Power requirements in a family car are moderate. Supply sufficient power to propel the car and its maximum load in a safe manner and still maintain the best possible fuel economy. There isn't much room for sporting horsepower in this category. Key word here is "safe" which means enough power to meet *all* possible traffic situations. The econo-fire six in one of these 3800-lb. cars would not be able to accelerate the family out of danger when the need arises. Power, not necessarily as in Supercars, but with decent margin, is needed for today's driving environment. A transmission with sensible torque multiplication is needed to transmit this to the wheels with the minimum amount of fuss. And economy certainly is a factor although the cost of fuel when considered with depreciation, insurance, etc., isn't very much.



SKYLARK interior shows usual two-door drawback—adequate front seat room, cramped quarters in back. Vinyl-covered bench seats were slippery.

Acceleration runs were no test at all. The Chevelle, by car lengths every time. In its 300-bhp tune, the lightweight 350-cid V-8 is several stages short of the factory's hottest, but this is a good engine for any purpose. It was nearly as quick as the Give-It-Another-Shot-Of-Elixir-Igor engine in the W-31, but quieter. The new, small Hydra-Matic was gentle around town and sharp on the strip.

The Plymouth was a surprise. Mopar doesn't have a family version of its mid-range V-8. The 340 comes only in hot Darts and Barracudas. We had a choice between the small 318, and the big 383. Last year, Plymouth had the biggest engine in the test group, so we picked the 318. It didn't matter. Even pulling a 2.76:1 final drive, the Plymouth had enough power to handle any freeway. So did the Fairlane, but it wasn't quite as quick as its power rating should make it. The new Ford 351 comes only as an economy engine presently, putting it opposite from ▶

FAIRLANE dimensions suggest roominess, but back seat folds adults into knees-up, shoulders-forward position.

PLYMOUTH seats rated highest with testers—semi-buckets moved independently; center folded down for third person.

FOUR-DOOR GM A-body has more passenger room, but entry room for driver is decreased. This is Chevelle hardtop.

FAMILIES with big children, more than two adults would fit better into four-door intermediate, like this LeMans.

1969 TEMPEST

PONTIAC FOUR-DOOR

DIMENSIONS

Wheelbase, in.	116
Track, f/r, in.	61/60
Overall length, in.	205.5
width	75.8
height	52.7
Front seat hip room, in.	54
shoulder room	58
head room	39
pedal-seatback, max.	41
Rear seat hip room, in.	58
shoulder room	57
leg room	35
head room	37
Door opening width, in.	32
Trunk liftover height, in.	31

PRICES

List, FOB factory	$2948
Equipped as tested	$4249

Options included: 265 bhp V-8, $110; Turbo Hydra-Matic, $227; power steering, $100; air conditioning, $376; power disc brakes, $106, AM radio, $61.

CAPACITIES

No. of passengers	6
Luggage space, cu. ft.	15
Fuel tank, gal.	22
Crankcase, qt.	5
Transmission/dif., pt.	19/3
Radiator coolant, qt.	12

CHASSIS/SUSPENSION

Frame type: Perimeter.
Front suspension type: Independent by s.l.a., coil springs, telescopic shock absorbers.
ride rate at wheel, lb./in. 74
antiroll bar dia., in. 0.937
Rear suspension type: Link coil live axle, two upper and two lower trailing arms, telescopic shock absorbers.
ride rate at wheel, lb./in. 96
Steering system: Integral assist, recirculating ball gear, parallelogram linkage ahead of front wheels.
overall ratio 20.5
turns, lock to lock 4.2
turning circle, ft. curb-curb 38.6
Curb weight, lb. 3890
Test weight 4190
Distribution (driver), % f/r 57.7/42.3

BRAKES

Type: Disc front, drum rear.
Front rotor, dia. x width, in. 10.94 x 1.93
Rear drum, dia. x width 9.5 x 2.5
total swept area, sq. in. 350.9
Power assist: Integral.
line psi at 100 lb. pedal 800

WHEELS/TIRES

Wheel rim size 14 x 5JJ
optional size 14 x 6JK
bolt no./circle dia. in. 5/4.75
Tires: Firestone Deluxe Champion. size 8.25-14
normal inflation, psi f/r 24/28
Capacity @ psi 5760 @ 24/28

ENGINE

Type, no. of cyl.	V-8
Bore x stroke, in.	3.88 x 3.75
Displacement, cu. in.	350
Compression ratio	9.2:1
Fuel required	regular
Rated bhp @ rpm	265 @ 4600
equivalent mph	114
Rated torque @ rpm	355 @ 2800
equivalent mph	70

Carburetion: Rochester 1x2.
throttle dia., pri. 1.69
Valve train: Hydraulic lifters, pushrods and overhead rocker arms.
cam timing deg., int./exh. 22-67/72-25
duration, int./exh. 269/277
Exhaust system: Single, reverse-flow muffler.
pipe dia., exh./tail 2/2

Normal oil press. @ rpm	55-60 @ 2600
Electrical supply, V./amp.	12/37
Battery, plates/amp. hr.	54/53

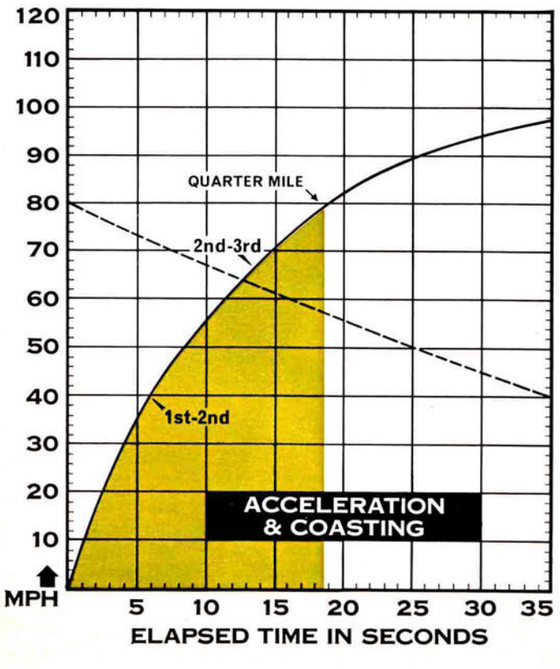
DRIVE TRAIN

Transmission type: Three-speed automatic with torque converter.

Gear ratio 3rd (1.00:1) overall	3.23:1
2nd (1.48:1)	4.78:1
1st (2.48:1)	8.02:1
1st x t.c. stall (2.05:1)	16.44:1

Shift lever location: Steering column.
Differential type: Hypoid.
axle ratio 3.23:1

CAR LIFE ROAD TEST



CALCULATED DATA

Lb./bhp (test weight)	15.8
Cu. ft./ton mile	121.5
Mph/1000 rpm (high gear)	24.9
Engine revs/mile (60 mph)	2513
Piston travel, ft./mile	1570
CAR LIFE wear index	39.5
Frontal area, sq. ft.	22.2

SPEEDOMETER ERROR

Indicated	Actual
30 mph	30.3
40 mph	41.0
50 mph	51.4
60 mph	61.9
70 mph	72.4
80 mph	83.0
90 mph	93.7

MAINTENANCE

Engine oil, miles/days	6000/120
oil filter, miles/days	12,000/240
Chassis lubrication, miles	6000

Antismog servicing, type/miles. replace PCV valve/12,000, tune-up check/12,000

Air cleaner, miles	replace/12,000
Spark plugs: AC R45S. gap, (in.)	0.033-0.038
Basic timing, deg./rpm.	9 BTDC
max. cent. adv., deg./rpm.	22-26/4800
max. vac. adv., deg./in. Hg	20/13-15
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.	5.0-6.5
Radiator cap relief press., psi.	14-17

PERFORMANCE

Top speed (4200), mph	105
Test shift points (rpm) @ mph	
2nd to 3rd (4000)	66
1st to 2nd (4000)	40

ACCELERATION

0-30 mph, sec.	4.0
0-40 mph	5.9
0-50 mph	8.5
0-60 mph	11.4
0-70 mph	14.8
0-80 mph	19.0
0-90 mph	25.7
Standing ¼-mile, sec.	18.6
speed at end, mph	79.6
Passing, 30-70 mph, sec.	10.8

BRAKING

Max. deceleration rate from 80 mph ft./sec./sec. 28
No. of stops from 80 mph (60-sec. intervals) before 20% loss in deceleration rate 4
Control loss? Slight.
Overall brake performance good

FUEL CONSUMPTION

Test conditions, mpg	11.1
Normal cond., mpg	12-14
Cruising range, miles	250-300

5 FAMILY CARS

continued

Plymouth. (Chevrolet is everywhere.) It's a good thing we run these tests. Otherwise we would have given the Ford's times to the Plymouth, and vice versa.

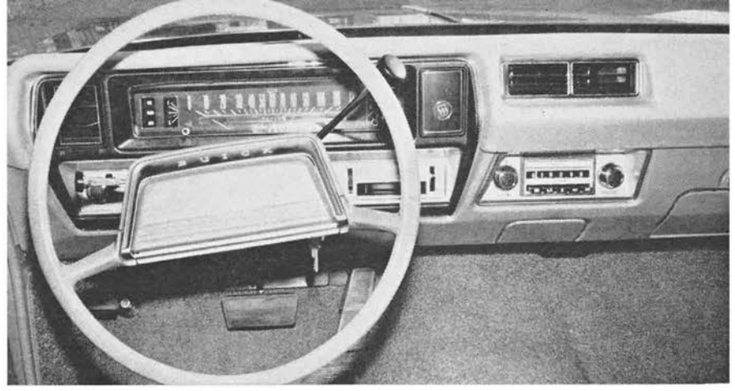
The Tempest and Skylark would . . . not . . . go. By pressing firmly on the pedal, the driver could receive a sensation telling him that the car was picking up speed. If he was alert. In fairness, the Buick had never been subjected to this unladylike treatment, and it (she?) glazed a plug. But even on all eight, it wouldn't go.

Complain about the seats in a family car? Yes, if only because of a better idea by Plymouth. The Satellite had individual seats, with a cushion between and an armrest that folded up to join the seat backs. It was two separate seats, that could be made into a bench if need arose. The others had bench seats, with armrests that folded down, so the neighbors think the car has buckets. The occupants will know better.

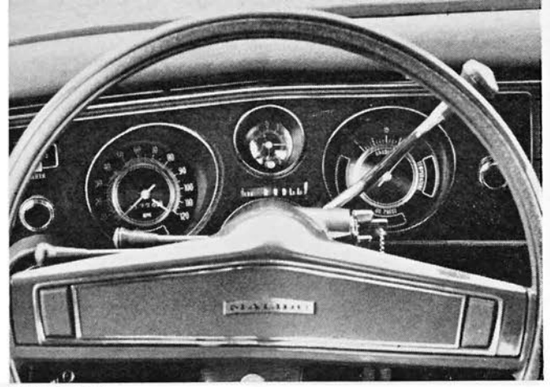
All three GM cars had benches narrower than the cars, and the seats were shorter than the drivers' legs. They were perched on, not sat in. The Fairlane seats were comfortable, except that the lower edge of the dashboard in front of the passenger catches a tall man in the kneecaps when a short driver moves the seat forward.

The two- versus four-door question wasn't settled. The occupants don't seem to benefit from the extra body length. Access to the back seat varies inversely with access to the front seat. Adding rear doors subtracts from the entrance room to the front seat. For a large family making frequent stops, at school, music lesson, Cub Scouts, etc., the four doors might be the thing. If the back seat is seldom used, they aren't.

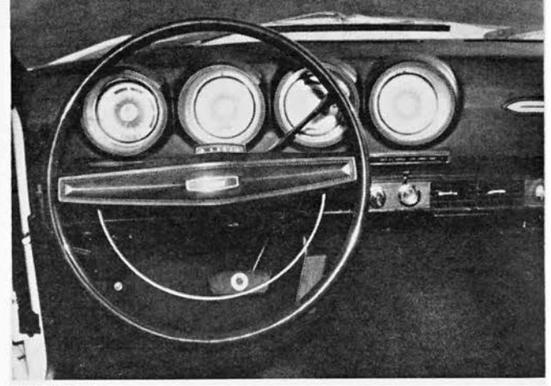
Chevrolet wins some points for its controls, which were logically located, and the fiber-optics light monitor system. There are small pods on each front fender, and on the shelf behind the rear seat. When the lights are on, tiny lights in the pods glow, white, yellow, red, whatever is appropriate. They don't distract the driver, but if a tail- ▶



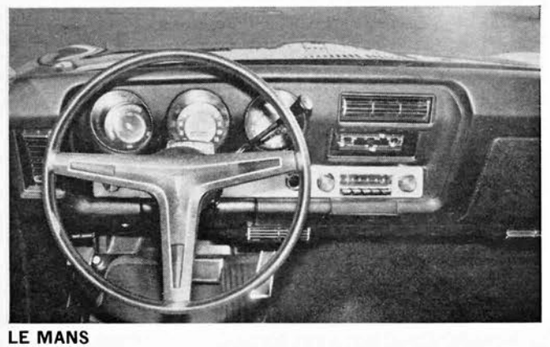
SKYLARK



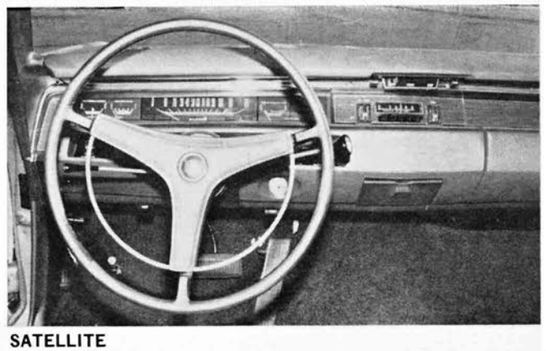
CHEVELLE



FAIRLANE



LE MANS



SATELLITE

1969 FAIRLANE 351

FORD

DIMENSIONS

Wheelbase, In.	116
Track. f/r, in.	58.8/58.5
Overall length, in.	203
width	74.6
height	52.4
Front seat hip room, in.	56
shoulder room	58
head room	38
pedal-seatback, max.	40
Rear seat hip room, in.	59
shoulder room	57
leg room	34
head room	37
Door opening width, in.	45
Trunk liftover height, in.	26

PRICES

List, FOB factory	$2674
Equipped as tested	$3785

Options included: Vinyl roof, $90; Cruise-O-Matic, $200; power steering, $100; power disc brakes, $65; air conditioning, $380; AM radio, $61.

CAPACITIES

No. of passengers	6
Luggage space, cu. ft.	16
Fuel tank, gal.	20
Crankcase, qt.	4
Transmission/dif., pt.	22/5
Radiator coolant, qt.	15

CHASSIS/SUSPENSION

Frame type: Unitized.
Front suspension type: Independent by s.l.a., coil springs, telescopic shock absorbers.
ride rate at wheel, lb./in. 91
antiroll bar dia., in. 0.72
Rear suspension type: Hotchkiss live axle, semi-elliptic leaf rear springs, telescopic shock absorbers.
ride rate at wheel, lb./in. 93.5
Steering system: Integral assist recirculating ball gear; parallelogram linkage behind front wheels.
overall ratio 21.6:1
turns, lock to lock 4
turning circle, ft. curb-curb 41.5
Curb weight, lb. 3460
Test weight 3755
distribution (driver), % f/r 58.2/41.8

BRAKES

Type: Disc front; drum rear.
Front rotor, dia. x width, in. 11.3 x 2.20
Rear drum, dia. x width 10 x 2
total swept area, sq. in. 232
Power assist: Integral.
line psi at 100 lb. pedal 700

WHEELS/TIRES

Wheel rim size 14 x 5JJ
optional size 14 x 6JJ
bolt no./circle dia. in. 5/4.5
Tires: Firestone Deluxe Champion.
size 7.75 x 14
normal inflation, psi f/r 22/36
Capacity @ psi 6000 @ 32

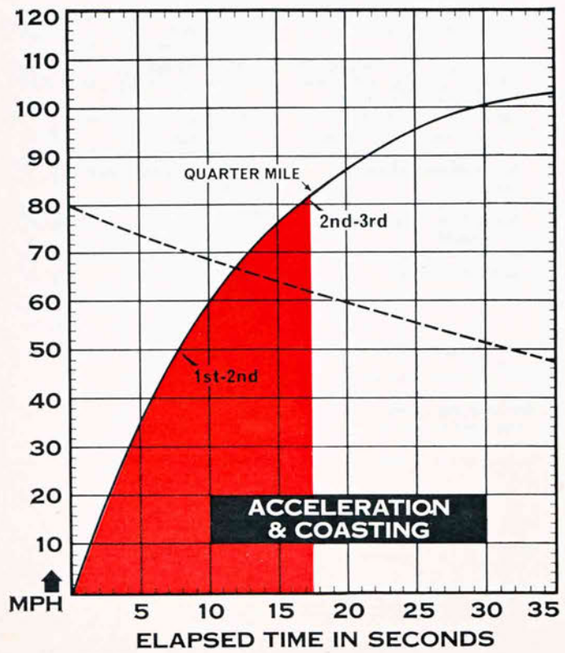
ENGINE

Type, no. of cyl. V-8
Bore x stroke, in. 4.00 x 3.50
Displacement, cu. in. 351
Compression ratio 9.5:1
Fuel required regular
Rated bhp @ rpm 250 @ 4600
equivalent mph 119
Rated torque @ rpm 355 @ 2600
equivalent mph 67
Carburetion: Autolite 1x2.
throttle dia., pri. 1.689
Valve train: Hydraulic lifters, pushrods and overhead rocker arms.
cam timing
deg., int./exh. 11-65/68-22
duration, int./exh. 256/270
Exhaust system: Single, reverse-flow mufflers.
pipe dia., exh./tail 2.50/2.25
Normal oil press. @ rpm 35-55
Electrical supply, V./amp 12/42
Battery, plates/amp. hr. 54/45

DRIVE TRAIN

Transmission type: Three-speed automatic with torque converter.
Gear ratio 3rd (1.00:1) overall 3.00:1
2nd (1.47:1) 4.41:1
1st (2.40:1) 7.20:1
1st x t.c. stall (2.10:1) 15.12:1
Shift lever location: Steering column.
Differential type: Hypoid.
axle ratio 3.00:1

CAR LIFE ROAD TEST



CALCULATED DATA

Lb./bhp (test weight)	15.0
Cu. ft./ton mile	126.2
Mph/1000 rpm (high gear)	25.8
Engine revs/mile (60 mph)	2328
Piston travel, ft./mile	1358
CAR LIFE wear index	31.6
Frontal area, sq. ft.	21.7

SPEEDOMETER ERROR

Indicated	Actual
30 mph	20.1
40 mph	40.0
50 mph	50.0
60 mph	60.0
70 mph	70.0
80 mph	80.0
90 mph	89.4

MAINTENANCE

Engine oil, miles/days 6000/180
oil filter, miles/days 6000/180
Chassis lubrication, miles 36,000
Antismog servicing, type/miles
tuneup check/12,000; replace PCV valve/12,000
Air cleaner, miles replace/36,000
Spark plugs: Autolite C6AF-A.
gap, (in.) 0.032-0.036
Basic timing, deg./rpm 6 BTC at idle
max cent. adv.,
deg./rpm 24.5/4000
deg./in. Hg 16/10
Ignition point gap, in. 0.014-0.020
cam dwell angle, deg. 26-31
arm tension, oz. 17-21
Tappet clearance, int./exh. 0/0
Fuel pressure at idle, psi 4.5-5.5
Radiator cap relief press., psi 12-15

PERFORMANCE

Top speed (4600), mph	119

Test shift points (rpm) @ mph
2nd to 3rd (4600) 81
1st to 2nd (4600) 50

ACCELERATION

0-30 mph, sec.	4.1
0-40 mph	5.7
0-50 mph	7.6
0-60 mph	10.1
0-70 mph	13.5
0-80 mph	16.7
0-90 mph	21.4
0-100 mph	29.9
Standing ¼-mile, sec.	17.4
speed at end, mph	81.4
Passing, 30-70 mph, sec.	9.4

BRAKING

Max. deceleration rate from 80 mph ft./sec./sec. 26
No. of stops from 80 mph (60-sec. intervals) before 20% loss in deceleration rate 8
Control loss? None.
Overall brake performance. excellent

FUEL CONSUMPTION

Test conditions, mpg	14.1
Normal cond., mpg	14-18
Cruising range, miles	280-360

MATCHED engine and body sizes didn't make for thrilling match races. The Plymouth, right, easily trailered the Tempest.

USEFULNESS of trunks varied with size and shape. Two-door Skylark has room, but the spare tire gets in the way.

5 FAMILY CARS

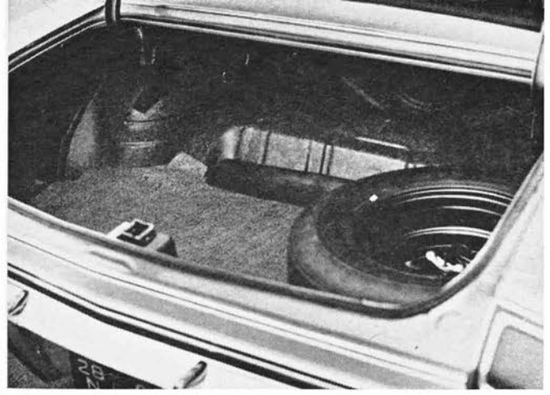
continued

light or brake light goes out, he'll know. Very handy, especially for the huge majority of us who always mean to walk around the car every week and make sure all the lights are working, but who somehow never seem to get around to it.

So much for the test. Now, the conclusions. Every car in the group lacked something. More important, all the lacks are easily cured. Plymouth and Buick make excellent disc brakes. Cobra suspension would make the Fairlane twice the car. Pontiac, Chevrolet and Buick all offer optional handling packages, for as little as $9. Both Pontiac and Buick have the same basic engine in more powerful form.

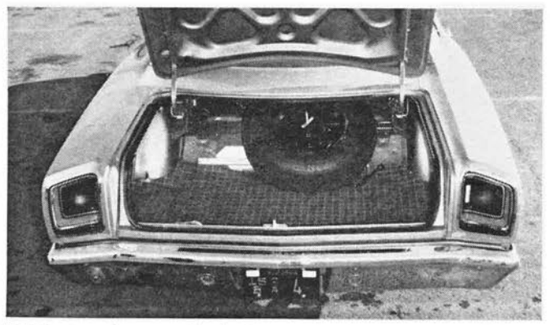
Check the price lists for the test cars. Chevrolet's optional engine, the best in the group, isn't expensive. Nor did it use much more gas. It did better cruising than did the Pontiac, hauling the same body. For any of the test cars, the difference between a tolerable car and a good car is as close as the option list. All the options we'd recommend cost less than one of those faddish, and incongruous, vinyl roofs.

Our personal choice? Run get the torch, Igor. We'll take a Satellite, with Ford brakes, a Chevrolet engine and Hydra-Matic. ■



FOUR-DOOR Chevelle has less room yet. The A-bodies all provide more luggage space for two-doors than four-doors.

MOVING spare tire up against the back of the seat gives the Ford more useful space within reach. Low sill helps, too.



REAR mount for spare tire is also used by Plymouth, but Satellite lacked Ford's floor recess. Trunk lid was bigger.

COLLAPSED spare in Pontiac turned the smallest trunk into car with most usable trunk space. Wheel tucks under fender.

1969 MALIBU

CHEVELLE 4-DOOR HT

DIMENSIONS

Wheelbase, in.	116
Track, f/r, in.	59/59
Overall length, in.	200.9
width	76
height	53.5
Front seat hip room, in.	52
shoulder room	58
head room	39
pedal-seatback, max.	41
Rear seat hip room, in.	57
shoulder room	58
leg room	35
head room	37
Door opening width, in.	28
Trunk liftover height, in.	31

PRICES

List, FOB factory: $2745
Equipped as tested: $4539
Options included: Power windows, $105; air conditioning, $376; power disc brakes, $64; 300-bhp V-8, $69; Turbo Hydra-Matic, $200; power steering, $100; F70-14 tires, $84; AM/FM stereo radio, $239.

CAPACITIES

No. of passengers	6
Luggage space, cu. ft.	13
Fuel tank, gal.	20
Crankcase, qt.	4
Transmission/dif., pt.	8/4
Radiator coolant, qt.	16

CHASSIS/SUSPENSION

Frame type: Perimeter.
Front suspension type: Independent by s.l.a., coil springs and concentric shock absorbers.
ride rate at wheel, lb./in. 117
antiroll bar dia., in. 0.812
Rear suspension type: Live axle, two lower and one upper trailing arms and telescopic shock absorbers.
ride rate at wheel, lb./in. 126
Steering system: Semi-reversible, recirculating ball gear, parallelogram linkage behind front wheels.
overall ratio 20.4:1
turns, lock to lock 4.0
turning circle, ft. curb-curb 39.4
Curb weight, lb. 3735
Test weight 4030
Distribution (driver), % f/r 55.6/44.4

BRAKES

Type: Disc front; drum rear.
Front rotor, dia. x width, in. 11.0 x 2.21
Rear drum, dia. x width 9.5 x 2
total swept area, sq. in. 332.4
Power assist: Integral.
line psi at 100 lb. pedal n.a.

WHEELS/TIRES

Wheel rim size 14 x 5J
optional size 14 x 6JK
bolt no./circle dia. in. 5/4.75
Tires: Goodyear Polyglas.
size F70-14
normal inflation, psi f/r 26/28
Capacity @ psi 5480 @ 26/28

ENGINE

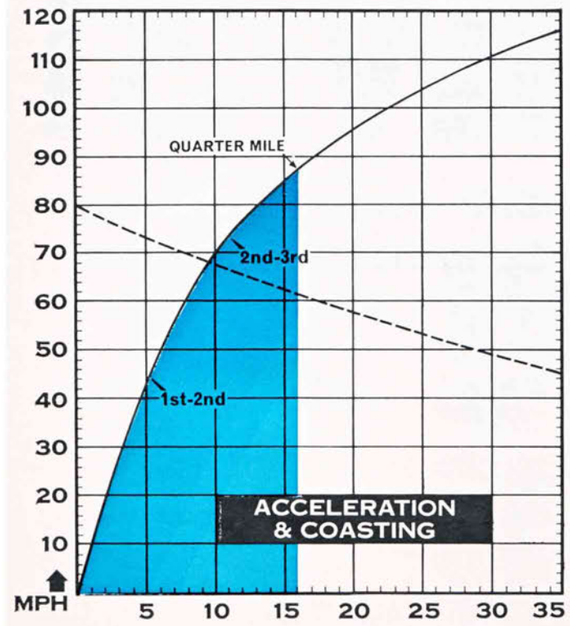
Type, no. of cyl.	V-8
Bore x stroke, in.	4.00 x 3.48
Displacement, cu. in.	350
Compression ratio	10.25:1
Fuel required	premium
Rated bhp @ rpm	300 @ 4800
equivalent mph	106
Rated torque @ rpm	380 @ 3200
equivalent mph	71

Carburetion: Rochester 1x4.
throttle dia., pri./sec. 1.38/2.25
Valve train: Hydraulic lifters, pushrods and overhead rocker arms.
cam timing deg., int./exh. 28-72/78-30
duration, int./exh. 280/288
Exhaust system: Single with crossover, one reverse-flow muffler.
pipe dia., exh./tail 2.0/1.88
Normal oil press. @ rpm 50-65 @ 2000
Electrical supply, V./amp. 12/37
Battery, plates/amp. hr. 66/61

DRIVE TRAIN

Transmission type: Three-speed automatic with torque converter.
Gear ratio 3rd (1.00:1) overall 3.36:1
2nd (1.52:1) 5.11:1
1st (2.52:1) 8.47:1
1st x t.c. stall (2.10:1) 17.78:1
Shift lever location: Steering column.
Differential type: Hypoid, limited slip.
axle ratio 3.36:1

CAR LIFE ROAD TEST



CALCULATED DATA

Lb./bhp (test weight)	12.5
Cu. ft./ton mile	144.5
Mph/1000 rpm (high gear)	22.1
Engine revs/mile (60 mph)	2712
Piston travel, ft./mile	1573
CAR LIFE wear index	42.7
Frontal area, sq. ft.	22.6

SPEEDOMETER ERROR

Indicated	Actual
30 mph	30.4
40 mph	40.3
50 mph	49.7
60 mph	59.4
70 mph	69.6
80 mph	79.4
90 mph	89.6

MAINTENANCE

Engine oil, miles/days 6000/120
oil filter, miles/days 6000/120
Chassis lubrication, miles 36,000
Antismog servicing, type/miles
..tuneup check/12,000; replace PCV valve/12,000
Air cleaner, miles replace/24,000
Spark plugs: ACR44S.
gap, (in.) 0.033-0.038
Basic timing, deg./rpm 4BTC/600
max.cent. adv., deg./rpm 26/4700
max. vac. adv., deg./in. Hg. 20/17
Ignition point gap, in. 0.019
cam dwell angle, deg. 29-31
arm tension, oz. 19-23
Tappet clearance, int./exh. 0/0
Fuel pressure at idle, psi 7.5-9.0
Radiator cap relief press., psi 15

PERFORMANCE

Top speed (5200), mph 115
Test shift points (rpm) @ mph
2nd to 3rd (5000) 73
1st to 2nd (5000) 44

ACCELERATION

0-30 mph, sec.	3.3
0-40 mph	4.5
0-50 mph	6.0
0-60 mph	7.8
0-70 mph	10.2
0-80 mph	13.2
0-90 mph	17.3
0-100 mph	22.6
Standing ¼-mile, sec.	16.1
speed at end, mph	87.6
Passing, 30-70 mph, sec.	6.9

BRAKING

Max. deceleration rate from 80 mph ft./sec./sec. 26
No. of stops from 80 mph (60-sec. intervals) before 20% loss in deceleration rate 7
Control loss? Severe.
Overall brake performance poor, see text

FUEL CONSUMPTION

Test conditions, mpg 10.1
Normal cond., mpg 10-15
Cruising range, miles 200-300