



AUDI 5000

Penny-wise and pound-frugal

PHOTOS BY JOE RUSZ

Audi ANYONE WHO HAS been shopping for a new car has surely noticed that prices are not what they used to be. Imported European cars particularly are having a tough time holding their prices because of the softening position of the U.S. dollar vis-à-vis many other currencies, most notably the German mark. This brief statement on world economics is to prepare you for the new Audi 5000, which is more expensive than any previous Audi. However, value is defined as a fair return in goods, services or money and the 5000 more than meets that definition.

The base price for the newest 4-speed equipped Audi model is \$8450 (about \$1000 more than the 100LS model that it replaces in the U.S.), putting it in roughly the same price class as such other 4-door sedans as the Volvo 264 (\$9900), Peugeot 504 (\$7800) and, in the domestic market, the Buick Electra (\$7600). The point to be made, however, is that the 5000 is considerably less expensive than the cars it is most similar to: BMW 530i (\$12,600) or the Mercedes-Benz 230 (\$12,700) or even the 280E (\$16,800). This is all leading up to the fact that we think the Audi 5000 is an excellent sedan that offers many of the driving

attributes and comfort features of more expensive cars.

The Audi 5000 was introduced to the American press at the factory in Ingolstadt, West Germany and our Managing Editor returned to describe the car as "one of the most handsome and logical" she'd ever driven. And when our test car arrived, the rest of the staff agreed with her wholeheartedly. The 5000 is a more luxurious, up-market car than its predecessor, with some interesting innovations.

Obviously the most unique feature is the 5-cylinder inline single-overhead-cam engine. The 5-cylinder configuration was chosen, according to Audi, for space and weight considerations, keeping in mind the front-wheel-drive nature of the car. The available 4-cylinder engines were deemed insufficient and any possible sixes were considered either too long, too heavy or both. The result is the five which is based on the 1588-cc 4-cylinder engine used in the Audi Fox. The 5-cylinder displaces 2144 cc and has a longer stroke than the 4-cylinder (86.4 mm versus 80.0). The five develops 103 bhp at 5500 rpm (100 bhp in California) and 110 lb-ft torque at 4000, with a compression ratio of 8.0:1 and Bosch K-Jetronic fuel injection. Audi engineers spent a considerable amount of time and effort on damping the 5-cylinder engine's vibrations, eventually working out even ignition spacing to reduce inertia forces and using counterweights and small balance weights on the front and rear of the crankshaft as well as relocating the engine mounts. The result is surprisingly good. The 5-cylinder has a slightly rough note to it not unlike the 90-degree Buick V-6 engine but on a much more subdued level. The roughness is most noticeable at idle.

In driving the 5000, we found that the fuel injected powerplant

starts immediately when cold and exhibits no driveability problems whatsoever. When pushed hard, the engine takes on a decidedly sporty note and doesn't sound strained as it approaches its upper rev limit.

Our test car was equipped with the 3-speed automatic transmission and while this unit does an acceptable job, it isn't first-rate. We found it lacking in the crispness of, say, the Mercedes-Benz automatic, with upshifts being rather drawn out. As one driver noted, "It almost feels like a slipping manual clutch as it upshifts," particularly going from 1st to 2nd gears. Unfortunately, it's also short on quick, responsive downshifts and there's a perceptible lag before the lower gear engages. Part-throttle downshifts from 3rd to 2nd are possible, but it takes a definite tromp and wide open throttle to achieve a 2nd to 1st transfer. On a twisty road, the automatic can be held in 2nd gear to prevent the unwanted 2nd-3rd upshifts that occur if you don't keep the throttle pressed to the floor, as well as the 3rd-2nd downshifts that occur when you do. While this test report covers only the automatic, the Managing Editor did drive a 5000 with the 4-speed manual gearbox (it costs \$275 less than the automatic-equipped car) in Germany and reports that it is crisp and efficient.

Even with the automatic transmission, the 5000 is an impressively sporty sedan, capable of providing an abundance of driving fun. While the 5-cylinder engine/automatic transmission combination doesn't give the Audi breathtaking acceleration, producing a 0-60 mph time of 12.9 seconds and a quarter-mile run of 19.5 seconds at 73.0 mph, the subjective feeling is one of a much quicker car. The 3.90:1 final drive ratio enables it to move off from a stop quite respectably and the mid-range power is decent indeed.

Turning to the underpinnings, we are impressed with Audi's ability to disguise the fact that this is a front-wheel-drive car. The handling is very balanced with a touch of understeer and it never pushes terribly strongly. The 5000 can be thrown about on twisty roads with a surprising amount of abandon for a car of its size and type, and corners can be negotiated quickly by cranking in steering a little early. The car provides the driver with a sense of great security because it never feels as if it will do anything nasty or spring any surprises on the unsuspecting.

The standard power-assisted steering has ample road feel and the effort suits our tastes nicely, making parking maneuvers a simple task but not damping out all input from the front wheels. The brakes, too, are efficient and while the pedal effort is a trifle sponge-like, the tests for stopping ability and fade rated very good with us. There is, however, more front-end dive during hard braking than we like.

The newest Audi's suspension system is not revolutionary but it does provide both ride and handling characteristics of superior quality. Up front there are MacPherson struts along with lower lateral links and an anti-roll bar, coil springs and tube shock absorbers. At the back, a beam axle doubles as an anti-roll bar and is mounted on trailing arms, with a Panhard rod, coil springs and tube shocks completing the design.

Our subjective, seat-of-the-pants impressions of the 5000's handling were borne out by our 700-ft slalom test where the car turned in a speed of 56.8 mph. This is more than 5 mph faster than the BMW 530i (June 1975) and nearly 4 mph better than the Peugeot 604 (July 1977). In this type of test, the Audi would have a design advantage because our experience shows fwd cars are generally quicker through the slalom. Also, the BMW and Peugeot are limited by their semi-trailing-arm rear suspension which tends to produce oversteer under these specific conditions. Nevertheless, the Audi is damned impressive on the test track and on the road and should have little trouble keeping up with or even surpassing other more expensive sedans.

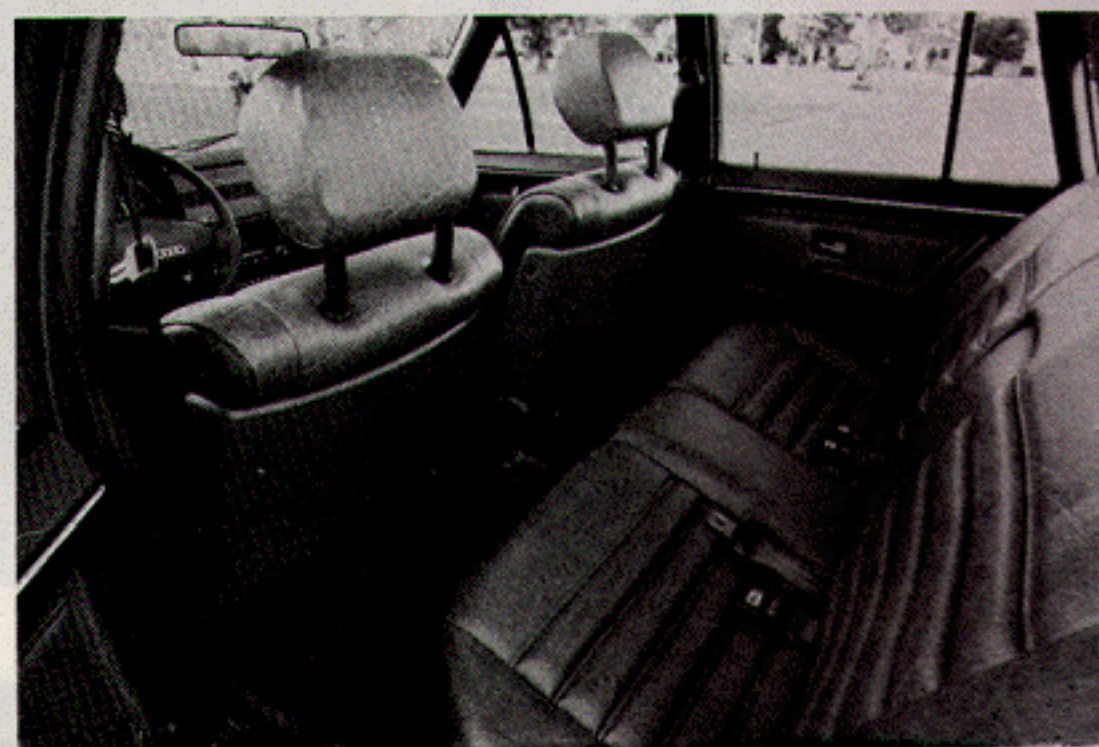
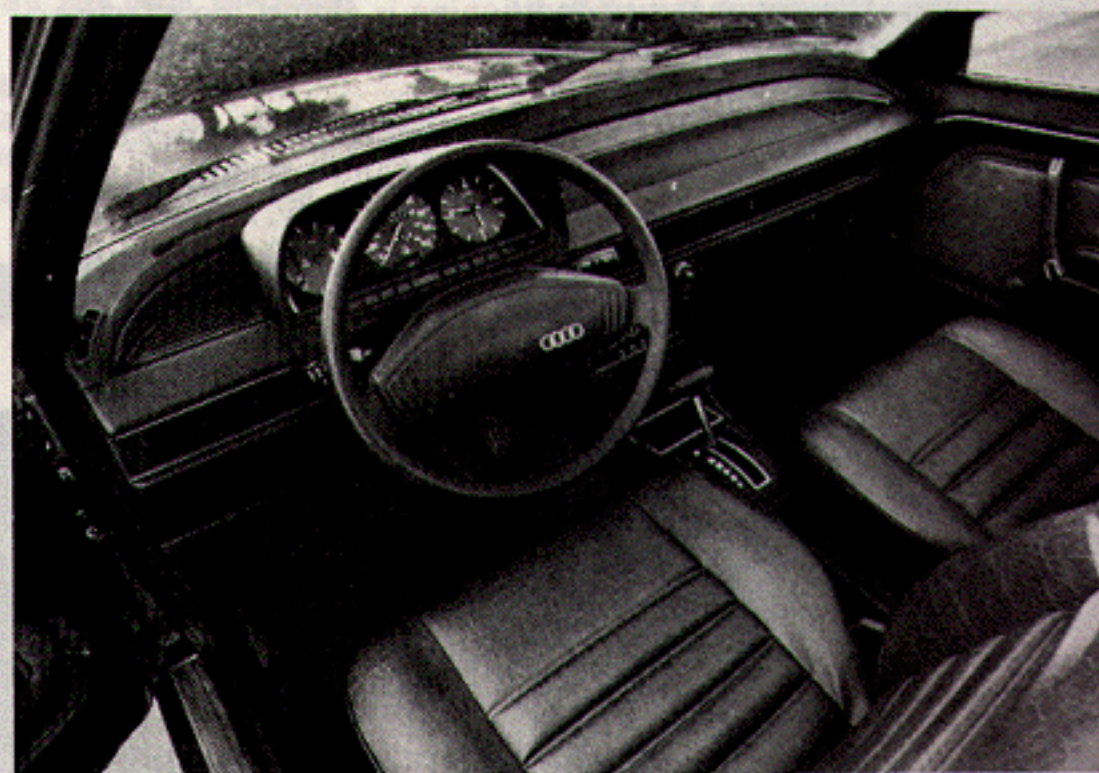
The ride is comfortable on every surface and there is plenty of wheel travel to allow dips and culverts to be taken at speed without upsetting the Audi's aplomb. Despite its light weight (2960 lb as tested), the 5000 feels very solid on rough roads and is excellent on freeways, but does suffer from some body drumming over sharp inputs such as lane-divider Botts dots. There is none

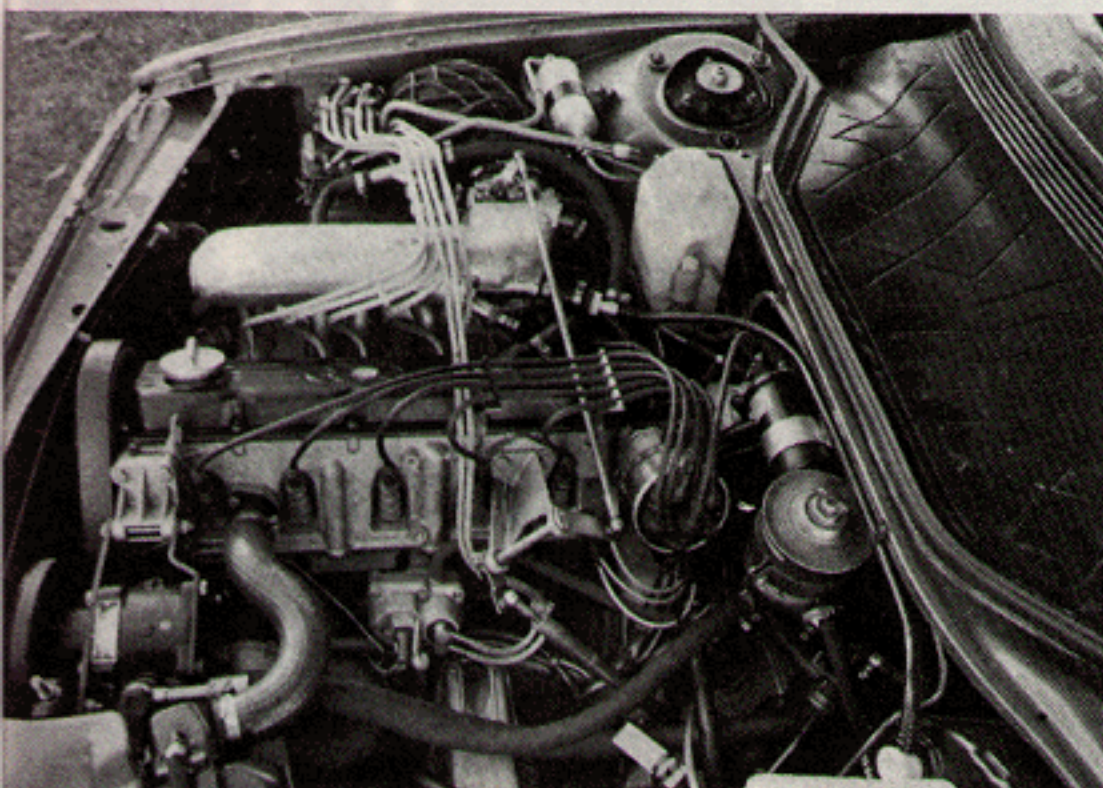
of the bobbing front-end motion associated with many fwd cars when traversing uneven surfaces or dips but some drivers felt the front end is slightly underdamped. This produces a gentle front-end bounce at high speeds if you hit long, low-amplitude bumps but there is no sensation of nose-end lightness which many cars exhibit when driven fast.

The Audi 5000 will accommodate five people in comfort with two contoured bucket seats in front and a roomy, comfortable rear bench with a fold-down center armrest. The prospective buyer has a choice of leatherette (vinyl) or cloth upholstery and, frankly, we found the simulated leather rather lacking in richness. It may prove to be durable over the long run, but it looks a bit cheap to us and we would opt for the fabric interior. The front bucket seats feel somewhat hard at first but do provide ample support during long-distance travel. Unfortunately, there is insufficient lateral support for spirited cornering (one of our favorite pastimes) which means the driver will be expending a certain amount of effort holding himself or herself erect.

The driving position is quite friendly with a good relationship among pedals, seat and steering wheel (the last is slightly offset) and an unobstructed view of the instrument panel. There are fewer instruments than we like (speedometer/odometer with resettable trip odometer, coolant temperature, fuel level and clock) and with the 4-speed manual gearbox it will cost an extra \$65 if you want a tachometer. Surely in a car of this caliber a rev counter should be standard equipment. Conversely, there is no shortage of steering column-mounted stalks: two to the left of the wheel control headlights, high beam, flashing, cruise control and turn indicator lights, while the pair on the right activate the 4-way hazard flasher and windshield wiper/washer functions. The nozzles for the washer, incidentally, have four openings which spray liquid to cover nearly the entire windshield area; a nice feature, as is the inclusion of an intermittent speed on the wiper control.

Stowing things away is a breeze with the Audi, from large






suitcases or parcels that fit easily in the 19.2-cu-ft trunk to small bits of paraphernalia which can be tucked into the lockable glovebox, map pockets on the doors or the parcel shelf below the steering wheel. Our test car was equipped with a number of extra-cost options such as the central vacuum door lock system, electric window lifts and sunroof (this last has a rather confusing symbol-filled instruction plaque near the electric switch), AM/FM stereo radio with rear speakers and power antenna.

The vent system is excellent, with six fully adjustable outlets along the face of the dash and another below the steering wheel. There is a variable-speed fan to boost either heating or cooling but moving the temperature control lever to full cold or hot overrides the fan control so that you get either low or full blast action. Backing off the temperature-control lever from either the maximum hot or cold settings returns the fan to variable-speed operation. The optional air conditioning is almost too effective and will blow gobs of truly cold air almost immediately. The heater, too, is quite efficient.

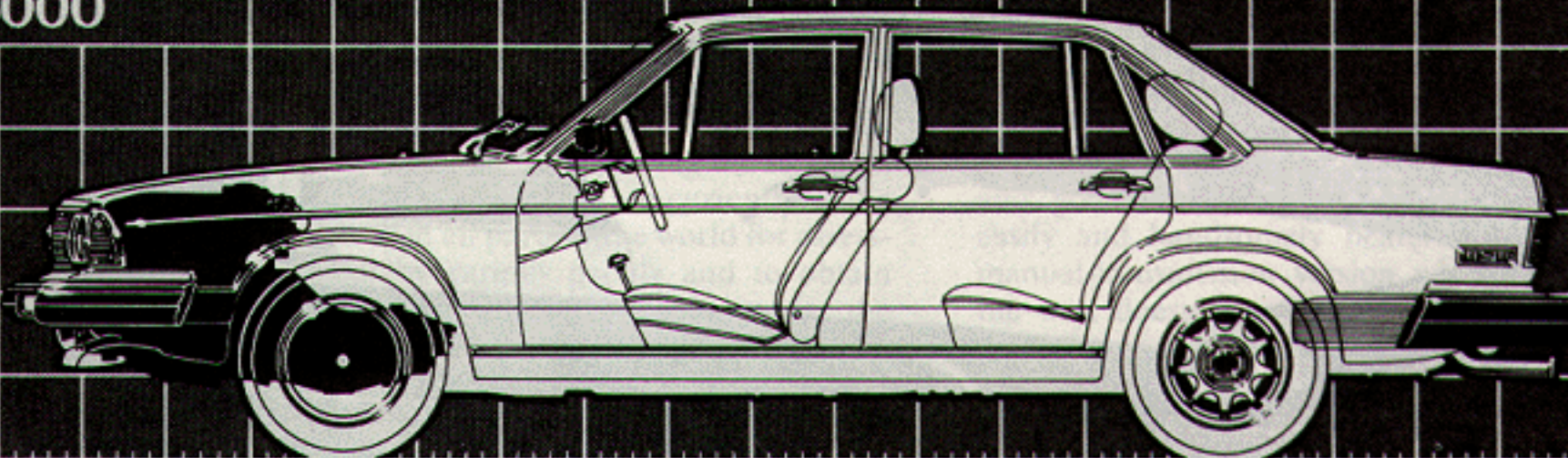
One of the attributes of this new Audi that is a carryover from previous models is the sensation of a light and airy interior. The windows are large and the beltline relatively low, so occupants don't feel confined or trapped in a dark interior. Outward vision is excellent in almost every regard except that the rear head

restraints do interfere with the driver's rear-quarter vision, calling for careful attention when making lane changes on a busy freeway.

In summing up the interior aspect of the Audi 5000, we found a few minor annoyances such as the high effort needed to adjust the remote-control outside mirror, a tacky rubber boot around the ignition switch, unusually noisy high-speed fan setting and a rattle in the driver's window, but the newest Audi is comfortable, quiet and spacious. The optional cruise control on our test car was unobtrusive and effective, without the hunting syndrome so noticeable with Mercedes' system which seems unable to find the correct speed and hold it.

All in all, we are very impressed with this new Audi. The crisp, aerodynamic styling is pleasing to the eye and the pocketbook as it helped the car achieve an average fuel consumption figure of 20.0 mpg combined city/highway driving during our test. The 5-cylinder engine is technically interesting and innovative, besides providing adequate performance and the handling and ride are first-rate. The 5000 can double as a comfortable and luxurious family sedan capable of hauling five people for long distances and as a sports sedan that will provide a great deal of driving entertainment. And for the money, we don't see anything that can touch it. 





SCALE: 10" DIVISIONS

PRICE

List price, all POE.....\$8725
 Price as tested.....\$11,130
 Price as tested includes standard equipment, AM/FM stereo (\$225), air conditioning (\$595), pwr antenna (\$85), rear spkrs (\$70), alloy wheels (\$215), central locking (\$130), electric sunroof (\$550), pwr windows (\$245), metallic paint (\$220), dlr prep (\$70)

IMPORTER

Porsche-Audi Div, VW of America
 818 Sylvan Ave
 Englewood Cliffs, N.J. 07632

GENERAL

Curb weight, lb.....2860
 Test weight.....2960
 Weight distribution (with driver), front/rear, %.....62/38
 Wheelbase, in.....105.7
 Track, front/rear.....57.9/56.9
 Length.....189.4
 Width.....69.4
 Height.....54.8
 Ground clearance.....4.4
 Overhang, front/rear.....41.4/42.3
 Usable trunk space, cu ft.....19.2
 Fuel capacity, U.S. gal.....15.8

ENGINE

Type.....sohc inline 5
 Bore x stroke, mm.....79.5 x 86.4
 Equivalent in.....3.12 x 3.40
 Displacement, cc/cu in.....2144/131
 Compression ratio.....8.0:1
 Bhp @ rpm, net.....103 @ 5500
 Equivalent mph.....94
 Torque @ rpm, lb-ft.....110 @ 4000
 Equivalent mph.....69
 Fuel injection.....Bosch K-Jetronic
 Fuel requirement.....regular, 91-oct
 Exhaust-emission control equipment: exhaust-gas recirculation

DRIVETRAIN

Transmission.....automatic; torque converter with 3-sp planetary gearbox
 Gear ratios: 3rd (1.00).....3.90:1
 2nd (1.44).....5.62:1
 1st (2.55).....9.95:1
 1st (2.55 x 2.0).....19.89:1
 Final drive ratio.....3.90:1

CHASSIS & BODY

Layout.....front engine/front drive
 Body/frame.....unit steel
 Brake system.....10.2-in. vented discs front, 9.1 x 1.58-in. drums rear
 Swept area, sq in.....303

Wheels.....cast alloy, 14 x 5½J
 Tires.....Fulda Rasant Steel, 185/70HR-14
 Steering type.....rack & pinion, power assisted
 Overall ratio.....19.7:1
 Turns, lock-to-lock.....3.6
 Turning circle, ft.....33.8
 Front suspension: MacPherson struts, lower lateral links & anti-roll bar; coil springs, tube shocks
 Rear suspension: beam axle (doubling as anti-roll bar) on trailing arms & Panhard rod; coil springs, tube shocks

INSTRUMENTATION

Instruments: 100-mph speedo, 999,999 odometer, 999.9 trip odo, coolant temp, fuel level, clock
 Warning lights: oil press., brake system, alternator, worn brake pads, rear-window heat, cruise control, exhaust-gas recirc, seatbelts, hazard, high beam, directionals

ACCOMMODATION

Seating capacity, persons.....5
 Seat width, f/r, in.....2 x 22.5/53.0
 Head room, f/r.....36.5/35.5
 Seat back adjustment, deg.....60

MAINTENANCE

Service intervals, mi:
 Oil change.....7500
 Filter change.....15,000
 Chassis lube.....none
 Tuneup.....15,000
 Warranty, mo/mi.....12/unlimited

CALCULATED DATA

Lb/bhp (test weight).....28.7
 Mph/1000 rpm (3rd gear).....17.2
 Engine revs/mi (60 mph).....3480
 Piston travel, ft/mi.....1970
 R&T steering index.....1.22
 Brake swept area, sq in./ton.....205

RELIABILITY

From R&T Owner Surveys the average number of problem areas for all models surveyed is 12. An average of 7 of these problem areas is considered serious enough to constitute reliability areas that could keep the car off the road. As owners of earlier-model Audis reported 11 problem areas and 4 reliability areas we expect the overall reliability of the Audi 5000 to be slightly better than average.

ROAD TEST RESULTS**ACCELERATION**

Time to distance, sec:
 0-100 ft.....3.9
 0-500 ft.....10.5
 0-1320 ft (¼ mi).....19.5
 Speed at end of ¼ mi, mph.....73.0
 Time to speed, sec:
 0-30 mph.....4.1
 0-40 mph.....6.3
 0-50 mph.....9.4
 0-60 mph.....12.9
 0-70 mph.....17.7
 0-80 mph.....25.1

SPEEDS IN GEARS

3rd gear (5850 rpm).....100
 2nd (5600).....68
 1st (5600).....40

FUEL ECONOMY

Normal driving, mpg.....20.0
 Cruising range, mi (1-gal. res).....296

HANDLING

Speed on 100-ft radius, mph.....33.6
 Lateral acceleration, g.....0.754
 Speed thru 700-ft slalom, mph.....56.8

BRAKES

Minimum stopping distances, ft:
 From 60 mph.....148
 From 80 mph.....271
 Control in panic stop.....good
 Pedal effort for 0.5g stop, lb.....20
 Fade: percent increase in pedal effort to maintain 0.5g deceleration in 6 stops from 60 mph.....nil
 Parking: hold 30% grade?.....yes
 Overall brake rating.....very good

INTERIOR NOISE

All noise readings in dBA:
 Idle in neutral.....57
 Maximum, 1st gear.....73
 Constant 30 mph.....60
 50 mph.....67
 70 mph.....77

SPEEDOMETER ERROR

30 mph indicated is actually.....27.5
 50 mph.....46.5
 60 mph.....56.0
 70 mph.....63.0
 80 mph.....71.0
 Odometer, 10.0 mi.....9.8

ACCELERATION