CAR and DRIVER ROAD TEST

FORD THUNDERBIRD
CADILLAC ELDORADO

Thunderbird

Here it is, country-clubbers, the fourth edition of the Thunderbird, America's first mass-class, *va-va-voom*, fantasy-sports "personal" car. And here's the Eldorado too, Cadillac's razor-edged hardtop, representing the latest entry in this burgeoning field of cars aimed at the faceless splitdwellers of America's better subdivisions.

It seems appropriate to compare the Thunderbird and the Cadillac for several reasons. In the first place, the T-Bird is the vehicle that started it all, while the Eldorado is the most recent contender. Secondly, the two cars are all-new for 1967, though both utilize well-established components from their respective parent corporations. The Thunderbird's undercarriage is laden with bits and pieces from the successful and sharply-designed Ford Galaxie and LTD series, and the Eldorado is a mechanical twin sister of the much-ballyhooed, somewhat disappointing Oldsmobile Toronado.

It's a curious fact that both the Thunderbird and the Eldorado/Toronado are Ford concepts. The T-Bird obviously is, but it's an open secret that the front-wheel-drive layout GM uses in the Eldorado/Toronado is covered by a Ford patent. Ford experimented at length with a fwd Thunderbird in the late Fifties, but abandoned the idea in 1960 because of the system's high unsprung weight and staggering costs. Ford insiders imply that GM has had nothing but headaches with unconventional drive trains (front-engine front-drive, and rear-engine rear-drive), while receiving few benefits.

Before we begin to probe the in-

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PHOTOGRAPHY: MIKE BRADY

Eldorado

sides of these two automobiles, we might as well say that neither caused us any fits of rapture. To be sure, both had their appealing aspects, but as total automobiles they left us with an impression of bulk and clumsiness. This is unfortunate, because it means a further departure from the originally refreshing concept of luxury "personal" transportation. The first four-place Thunderbird was not a memorable car, but the second entrant in this field, the Buick Riviera, was one of the most interesting and stimulating vehicles produced by Detroit since World War II. Alas, The Motor City's doctrine of evolution dictates that all good things must increase in size, and now the poor Riviera has grown long and wide and lost much of its original litheness. This is the sad case of all "personal" cars, and today the basic concept of a luxurious, close-coupled, four-place automobile has all but been obscured in an overlay of bulging sheet metal. The T-Bird, in its brand new four-door version, is 209 inches long and weighs a chubby 4750 lbs. (the two-door is two inches shorter and a hundred pounds lighter). The Eldorado is heftier, being 221 inches overall and tipping the scales at 4950 lbs. Hardly what you would call agile, sporting vehicles.

Both cars are aimed at the wealthy exurbanite who fancies himself something of an automotive connoisseur, but in reality doesn't know a valve spring from a door latch. By pitching him with the idea that these cars are specially designed for high-speed highway travel, Ford and General Motors are able to woo

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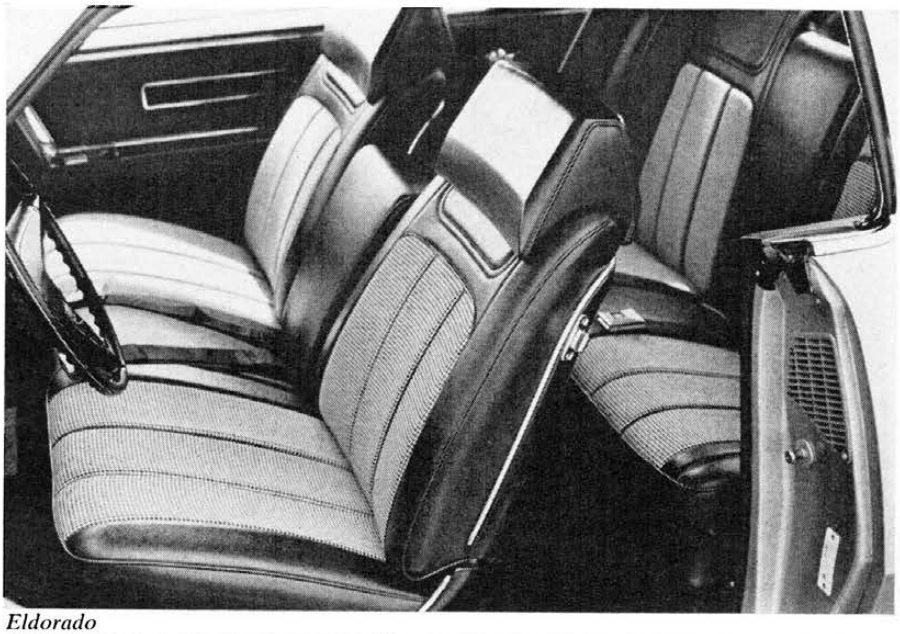


Eldorado

Thunderbird

the buyer into thinking he's being just a bit more daring and discriminating by purchasing something significantly hairier than his neighbors' deVilles and Continentals.

Both the Thunderbird and the Eldorado are mass-class status symbols—let's not delude ourselves that they are intended to be anything more or less. They are in many ways good automobiles, but they are not *uniquely* different—except in a styling sense—from a dozen high-priced luxury vehicles presently being marketed in the United States.

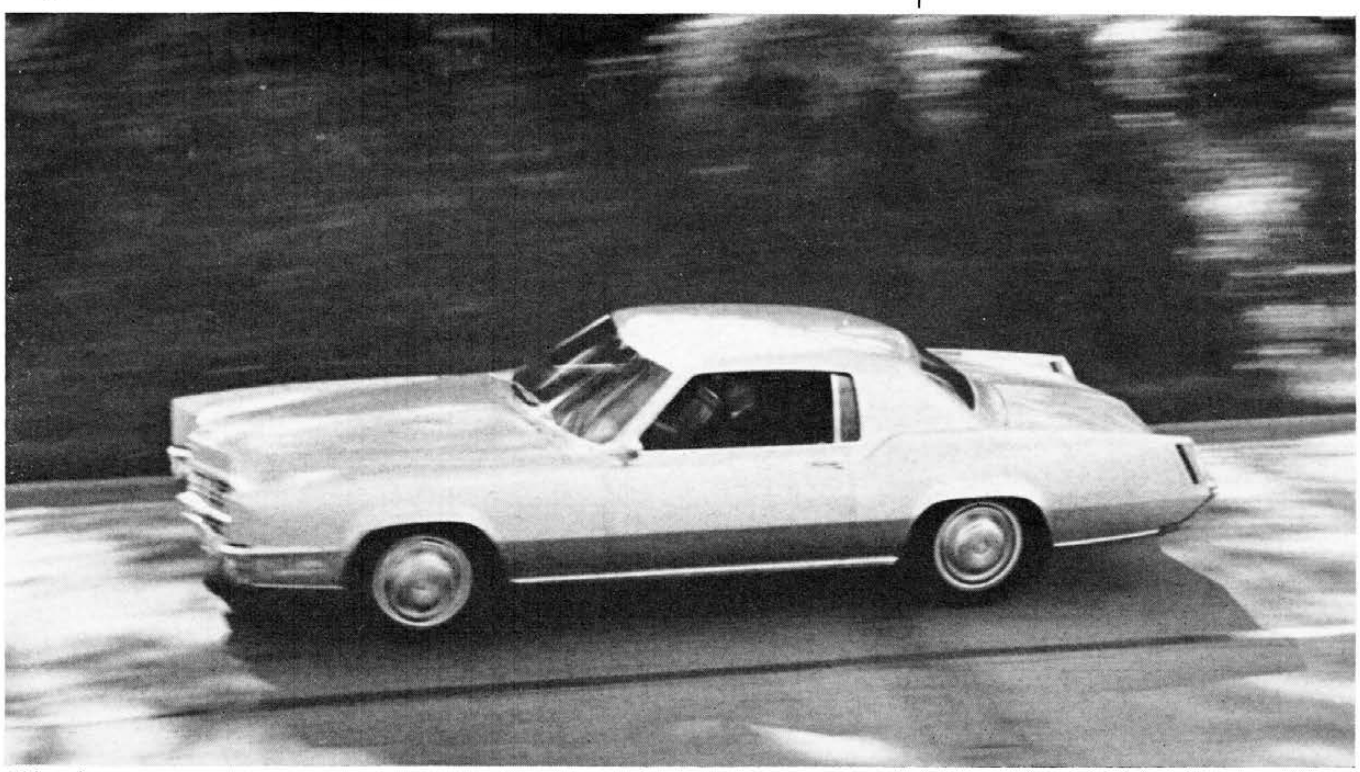
Because the Eldorado's chassis and drive-line are basically the Toronado's, the four-door Thunderbird becomes the more interesting car of the two by default. Not that it contains any sparkling engineering feats, or breakthroughs in the art of body building, but it is the first four-door "personal" car and for that it must earn a few points. The idea of adding two more doors to the T-Bird is being treated like the invention of the cotton gin by Ford, but the change is hardly worth the hoopla. The result is a sharply styled, slightly smaller Galaxie with all the trimmings (trimmings, we must allow, that seem to have been lifted intact from Chrysler's postwar K310, a Ghia-bodied dream car). Ford people will protest this analogy, citing the different physical dimensions of their sister vehicles, but the fact remains that the T-Bird and the Galaxie are *conceptually* similar and in fact share the same engines, the same three-speed automatic transmission and the same all-coil suspension systems.

Our test T-Bird was a sinister-looking black Landau with the ever-faithful Ford 390 engine (standard) and a representative collection of extras like air conditioning, stereo tape unit, et cetera. Upon climbing into the lush, black vinyl interior, we were pleased to see that Ford has finally cooled it with the airplane-pilot syndrome that has turned previous Thunderbirds into bogus jet-liners. The Twenty-First Century instruments are gone, replaced by a set of four straightforward—if mildly illegible—dials across the dash panel. The optional warning lights are still in their old hangout on the moulding under the roof but they are more subdued.

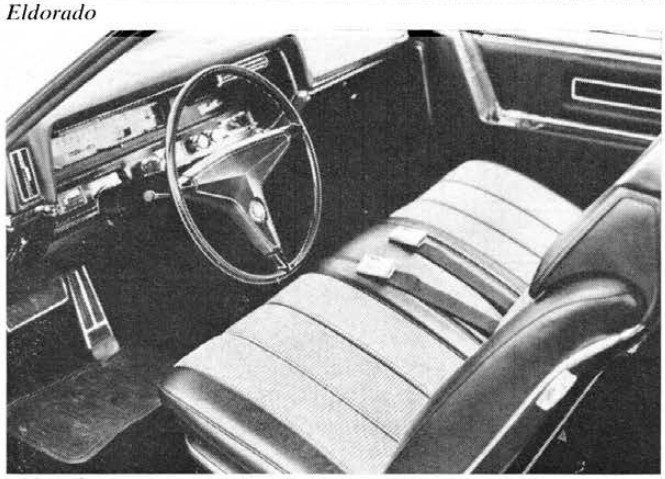
The front bucket seats are plenty comfortable but lack any suggestion of lateral support. Because the body is mounted very low on the frame rails (the car has been switched from a unit body to a perimeter frame for 1967), there is no room for a compartment in the console between the front seats, and interior storage space is limited to a meager glove box. A dual set of stereo speakers are ingeniously mounted in the front doors.

The doors also contain handles that might serve as grab rails for panicked passengers in an emergency, but Ford is quick to point out that the latches won't work if the doors are locked. Actually, the Thunderbird is amply equipped with safety gear, including neat shoulder harnesses for the front seats that are stowed conveniently by Velcro fasteners above the doors. They are quick and simple to latch into place and are the first harnesses that can

Ford and General Motors are able to woo the buyer into thinking he's being just a bit more daring and discriminating by purchasing what he thinks is a significantly hairier machine than his neighbors' deVilles and Continentals



Eldorado



Eldorado

Thunderbird

truly be described as suitable for the impatient, ham-fisted public. Ford has obviously responded to the safety furor and the T-Bird has several components that should make Senator Ribicoff dance with joy. The sun visors are recessed into the headliner, precluding any chance for them to cause head injuries during a crash. The grab bars on the doors are made of pliable rubber, as are a pair of tiny dorsal fins mounted on the front fenders—made soft presumably to reduce the possibility of eviscerating hapless pedestrians.

Though the safety gang seldom concerns itself with such things, the Thunderbird's visibility appears to be a rather important drawback to its overall capability for preventing accidents. Built with a high beltline and low roof, the windows, front, side and rear, are small enough to make some passengers feel a touch of the old claustrophobia. Forward vision is reduced by a padded cowling that looms above the instrument panel, and a hood bulge that accommodates the engine air cleaner. Additional blockage comes from the large rear-view mirror that has been epoxy-mounted dead center and quite low in the glass, making the forward-viewing arc as narrow as we have found on any recent test car. Visibility to the side and rear is also inadequate, due simply to the skimpy glass area.

Once underway, the Thunderbird is just another big domestic car, *(Specifications overleaf;*

continued on page 100)

FORD THUNDERBIRD

Manufacturer: Ford Motor Company, 20000 Rotunda Drive, Dearborn, Michigan.

Vehicle type: Front-engine, rear-wheel-drive, 4-passenger luxury/personal sedan, all-steel body with separate chassis.

Number of dealers in U.S.: 6200

Price as tested: $N.A. (Prices for the 1967 models had not been released by the manufacturers at press time. Our unofficial estimate would be ca. $5200.00, as our test car was equipped.)

Options on test car: Air conditioning, automatic speed control, power seats

ENGINE

Type: Water-cooled V-8, cast iron block and heads, 5 main bearings
Bore and stroke 4.05 x 3.78 in, 103 x 96.2 mm
Displacement 390 cu in, 6340 cc
Compression ratio 10.5-to-one
Carburetion 1 x 4-bbl Autolite
Valve gear Pushrod-operated overhead valves, hydraulic lifters
Power (SAE) 315 bhp @ 4600 rpm
Torque (SAE) 427 lbs/ft @ 2800 rpm
Specific power output 0.80 bhp/cu in, 49.5 bhp/liter
Maximum recommended engine speed 4600 rpm

DRIVE TRAIN

Transmission 3-speed automatic plus torque converter
Gearshift position Console-mounted ($PRND_1D_2L$)

Gear	Ratio	Mph/1000 rpm	Max. test speed
I	2.46	10.8	45 mph (4200 rpm)
II	1.46	18.3	82 mph (4500 rpm)
III	1.00	27.7	111 mph (4000 rpm)
R	2.18	—12.2	N.A.

Max. torque converter ratio 2.10 to one
Final drive ratio 3.00 to one

DIMENSIONS AND CAPACITIES

Wheelbase 115.0 in
Track F: 62.0 in, R: 62.0 in
Length 206.9 in
Width 77.2 in
Height 52.8 in
Ground clearance 5.6 in
Curb weight 4755 lbs
Test weight 5239 lbs
Weight distribution, F/R 55.0/45.0%
Lbs/bhp (test weight) 16.6
Battery capacity 12 volts, 70 amp/hr
Alternator capacity 660 watts
Fuel capacity 24.1 gal
Oil capacity 5.0 qts
Water capacity 20.5 qts

SUSPENSION

F: Ind., upper wishbone with lower transverse link, drag strut, coil springs, anti-sway bar
R: Rigid axle, two trailing arms, track bar, coil springs

STEERING

Type Recirculating ball
Turns lock-to-lock 3.6
Turning circle 42 ft

BRAKES

F: Kelsey-Hayes 11.87-in. vented discs
R: 11.0 x 2.25-in. drums
Swept area 335.6 sq in

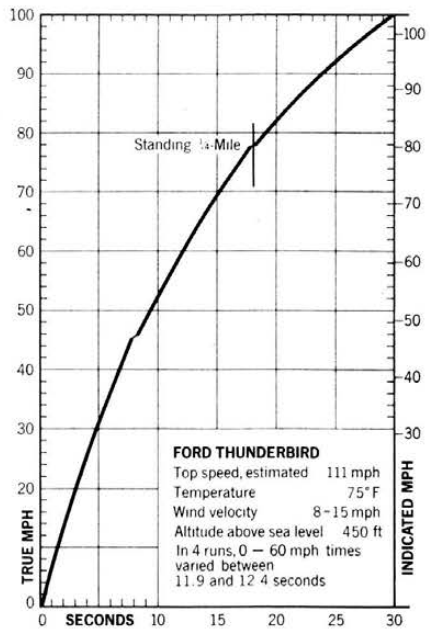
WHEELS AND TIRES

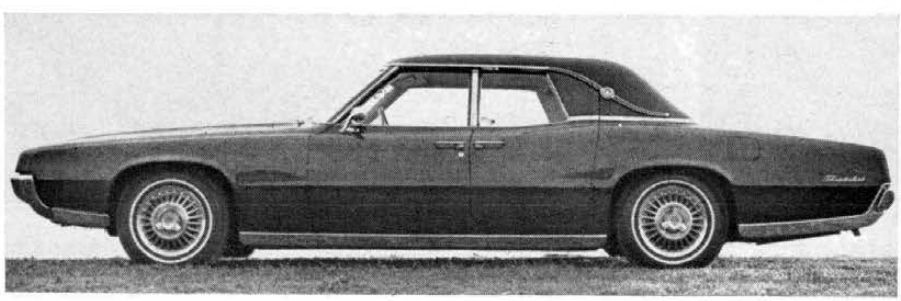
Wheel size and type 5.5J x 15-in, pressed steel disc, 5-bolt
Tire make, size and type Firestone 8.15-15
Test inflation pressures F: 24 psi, R: 24 psi
Design load capacity 1370 lbs per tire @ 24 psi

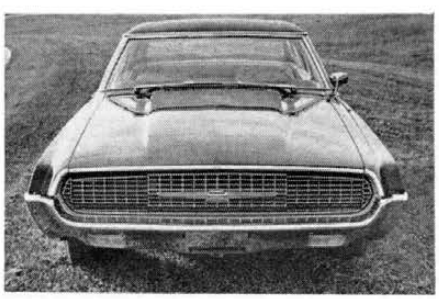
PERFORMANCE

	Seconds
Zero to 30 mph	4.6
Zero to 40 mph	6.6
Zero to 50 mph	9.3
Zero to 60 mph	12.0
Zero to 70 mph	15.1
Zero to 80 mph	19.2
Zero to 90 mph	23.9
Zero to 100 mph	29.9
Standing ¼-mile	17.8 sec @ 78 mph
80–0 mph	330 ft (.65 G)

Fuel mileage 12–15 mpg on premium fuel
Cruising range 288–361 mi







CHECK LIST

ENGINE
Starting Very Good
Response Good
Vibration Excellent
Noise Very Good

DRIVE TRAIN
Shift linkage Good
Shift smoothness Very Good
Transmission noise Excellent

STEERING
Effort Excellent
Response Fair
Road feel Fair
Kickback Very Good

SUSPENSION
Ride comfort Good
Roll resistance Fair
Pitch control Good
Harshness control Very Good

HANDLING
Directional control Good
Predictability Good
Evasive maneuverability Fair
Resistance to sidewinds Very Good

BRAKES
Pedal pressure Good
Response Very Good
Fade resistance Good
Directional control Good

CONTROLS
Wheel position Very Good
Pedal position Very Good
Gearshift position Good
Relationship Fair
Small controls Poor

INTERIOR
Ease of entry/exit Good
Noise level (cruising) Very Good
Front seating comfort Good
Front leg room Very Good
Front head room Fair
Front hip/shoulder room Good
Rear seating comfort Good
Rear leg room Good
Rear head room Fair
Rear hip/shoulder room Fair
Instrument comprehensiveness Fair
Instrument legibility Fair

VISION
Forward Fair
Front quarter Poor
Side Good
Rear quarter Poor
Rear Fair

WEATHER PROTECTION
Heater/defroster Very Good
Ventilation Good
Air conditioner Very Good
Weather sealing Very Good

CONSTRUCTION QUALITY
Sheet metal Very Good
Paint Excellent
Chrome Excellent
Upholstery Good
Padding Very Good
Hardware Very Good

GENERAL
Headlight illumination Excellent
Parking and signal lights Good
Wiper effectiveness Fair
Service accessibility Fair
Trunk space Fair
Interior storage space Poor
Bumper protection Good

CADILLAC ELDORADO

Manufacturer: Cadillac Motor Division
General Motors Corporation
2860 Clark Ave.
Detroit, Michigan

Vehicle type: Front-engine, front-wheel-drive, 5-passenger luxury personal sedan, all-steel integral body/chassis, with stub frames

Number of dealers in U.S.: 1700

Price as tested: $ N.A. (Prices for the 1967 models had not been released by the manufacturers at press time. Our unofficial estimate would be ca. $8250.00, as our test car was equipped)

Options on test car: Climate Control air conditioning, cruise control, automatic head-light dimmer, twilight sentinel, headrests, reclining seats, AM radio, electric seat heater, rear window defogger

ENGINE

Type: Water-cooled V-8, cast iron block and heads, 5 main bearings
Bore x stroke....4.13 x 4.00 in, 104.8 x 101.5 mm
Displacement.....429 cu in, 6975 cc
Compression ratio.....10.5-to-one
Carburetion.....1 x 4-bbl Carter
Valve gear. Pushrod-operated overhead valves, hydraulic lifters
Power (SAE).....340 bhp @ 4600 rpm
Torque (SAE).....480 lbs/ft @ 3000 rpm
Specific power output.....0.79 bhp/cu in, 48 bhp/liter
Maximum recommended engine speed..5200 rpm

DRIVE TRAIN

Transmission: .....3-speed automatic, plus torque converter
Gearshift position.....Steering column (PRND$_1$D$_2$L)

Gear	Ratio	Mph/1000 rpm	Max. test speed
I	2.48	10.5	41 mph (3900 rpm)
II	1.48	17.5	68 mph (3900 rpm)
III	1.00	26.0	109 mph (4200 rpm)
R	2.09	−12.5	N.A.

Max. torque converter ratio ..... 2.20 to one
Final drive ratio..... 3.21 to one

DIMENSIONS AND CAPACITIES

Wheelbase.....120.0 in
Track.....F:63.5 in, R:63.0 in
Length.....221.0 in
Width.....80.0 in
Height.....53.3 in
Ground clearance.....5.4 in
Curb weight.....4950 lbs
Test weight.....5200 lbs
Weight distribution, F/R.....58.0/42.0%
Lbs/bhp (test weight).....15.3
Battery capacity.....12 volts, 71 amp/hr
Alternator capacity.....852 watts
Fuel capacity.....24.0 gal
Oil capacity.....4.0 qts
Water capacity.....18.6 qts

SUSPENSION

F: Ind., unequal-length wishbones, coil springs, anti-sway bar
R: Rigid axle, single-leaf springs, traction dampers, air-leveling

STEERING

Type.....Recirculating ball
Turns lock-to-lock.....2.75
Turning circle.....41 ft

BRAKES

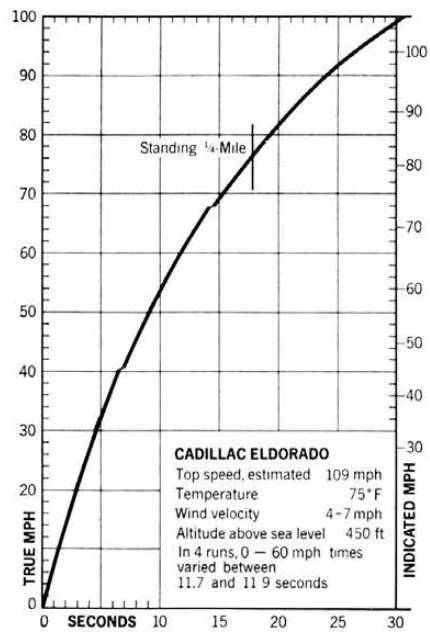
F: 12.0 x 2.75-in cast iron drums
R: 12.0 x 2.0-in cast iron drums
Swept area.....179.5 sq in

WHEELS AND TIRES

Wheel size and type.....6.0JK x 15-in, pressed steel disc. 5 bolt
Tire make, size and type...U.S. Royal Laredo, 9.00-15
Test inflation pressures...F: 24 psi, R: 22 psi
Design load capacity. 1620 lbs per tire @ 24 psi

PERFORMANCE

	Seconds
Zero to 30 mph	4.4
Zero to 40	6.3
Zero to 50	8.9
Zero to 60	11.7
Zero to 70	15.3
Zero to 80	18.2
Zero to 90	24.0
Zero to 100	30.4
Standing ¼-mile	17.9 sec @ 76 mph
80-0 mph	386 ft (.55 G)
Fuel mileage	10-14 mpg on premium fuel
Cruising range	240-336 mi



CHECK LIST

ENGINE

Starting.....Excellent
Response.....Very Good
Vibration.....Excellent
Noise.....Excellent

DRIVE TRAIN

Shift linkage.....Good
Shift smoothness.....Very Good
Transmission noise.....Excellent

STEERING

Effort.....Excellent
Response.....Excellent
Road feel.....Very Good
Kickback.....Excellent

SUSPENSION

Ride comfort .....Very Good
Roll resistance.....Good
Pitch control.....Fair
Harshness control.....Very Good

HANDLING

Directional control.....Very Good
Predictability.....Very Good
Evasive maneuverability .....Poor
Resistance to sidewinds.....Good

BRAKES

Pedal pressure.....Good
Response.....Fair
Fade resistance.....Fair
Directional control.....Good

CONTROLS

Wheel position.....Excellent
Pedal position.....Very Good
Gearshift position.....Good
Relationship.....Good
Small controls.....Good

INTERIOR

Ease of entry/exit.....Good
Noise level (cruising).....Excellent
Front seating comfort.....Excellent
Front leg room.....Very Good
Front head room.....Very Good
Front hip/shoulder room.....Good
Rear seating comfort.....Good
Rear leg room.....Fair
Rear head room.....Fair
Rear hip/shoulder room.....Good
Instrument comprehensiveness.....Fair
Instrument legibility.....Very Good

VISION

Forward.....Very Good
Front quarter.....Excellent
Side.....Excellent
Rear quarter.....Poor
Rear.....Fair

WEATHER PROTECTION

Heater/defroster.....Excellent
Ventilation.....Excellent
Air conditioner.....Excellent
Weather sealing.....Excellent

CONSTRUCTION QUALITY

Sheet metal.....Excellent
Paint.....Excellent
Chrome.....Excellent
Upholstery.....Excellent
Padding.....Excellent
Hardware.....Excellent

GENERAL

Headlight illumination.....Very Good
Parking and signal lights.....Fair
Wiper effectiveness.....Very Good
Service accessibility.....Good
Trunk space.....Very Good
Interior storage space .....Fair
Bumper protection .....Good

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with a wonderful penchant for silent 70-mph cruising speeds and handling with a heavy dose of understeer. With its recommended tire pressures, the tires distort palpably, adding to the sensation that the car answers sluggishly to her helm. More tire pressure—enough to make the ride harsh for the average Thunderbird customer—helped with our test car, but not enough. We suspect that a set of wide-base wheels, low profile tires and stiff shock absorbers would markedly improve handling.

We were relatively pleased with the car's stopping potential, thanks to the standard front disc brakes and 11-inch rear brakes. Though we encountered some fade during 80-mph panic stops, the car maintained acceptable directional stability under heavy braking and came to a halt within reasonable limits. A proportioning valve that limits rear braking effort prevented us from locking the system and doubtlessly added to stopping efficiency. On the whole, the Thunderbird's brakes are as good as any American car of this bulk, but fall short of the optimum, as we have seen demonstrated on even heavier cars like the Rolls-Royce and the Mercedes-Benz 600.

While the T-Bird's brakes can be termed acceptable, the standard brakes on Cadillac's spiffy new Eldorado are a treacherous, unsafe Achilles heel on an otherwise pleasant luxury vehicle. Even though the Eldorado is nearly identical to the Toronado in technical detail, we had expected that some corrective measures would have been taken after all the car magazines and a few of the customers had griped about the Oldsmobile's poor stopping power. But the Cadillac engineering department has such a fetish for smoothness and silence that it appears willing to subordinate all other automotive functions to placing the passengers in a silky, acoustically dead environment.

Unfortunately, this preoccupation with "ride" and interior noise levels has distracted Cadillac's engineers from other pertinent matters—like how to get a vehicle weighing 2½ tons stopped from 80 mph. Our test car carried drum brakes all around and managed to smoke and slew to a halt—sideways in the road—in a pitiful 386 feet. The Cadillac people attempted to rationalize the difficulties of developing workable drum brakes for a vehicle of this size, which forced one observer to ask where they found the moral justification for marketing a car that they *knew* was too heavy for its brakes. The question prompted a certain amount of hand-wringing and eye-rolling, whereupon they produced a heretofore unseen Eldorado equipped with optional disc brakes. This car was much better—stopping in 312 feet with vastly improved directional stability—and was intended, according to Cadillac spokesmen, for the "performance-minded customer." This evidently means that the poor dolt who is not interested in "performance" is also apparently not interested in being able to stop effectively, and would prefer a silent, smooth crash into some unyielding object rather than pay extra for a "sporty" option like adequate brakes. This position is as obtuse as any that we have encountered, and the absence of disc brakes on *all* Eldorados is simply bad news, especially when the extra $100 added to the base price is relatively unimportant on an $8000 car.

Aside from the lackluster brakes, the Eldorado is an effective evolution of the front-wheel-drive Toronado concept. The basic body and driveline components are the same as its predecessor, though nine inches have been added to the stern section in order to make more trunk space available. The car also has one inch more wheelbase (120 in.), making it a total of 10 inches longer than the Toronado.

In order to obtain a softer ride the Eldorado utilizes the same air-leveling system that is employed on the regular Fleetwood line. Otherwise the suspension is the same as that of the Toronado. The Eldorado does not use radial tires (which can be purchased on the Toronado). It is delivered with 9.00-15 rubber that promotes road silence and smoothness but does little for the car's handling.

Cadillac's lightweight, low-revving 429 cubic inch engine is the only powerplant available in the entire line, including the Eldorado, and it is completely satisfactory. It is quiet and trouble-free and pumps out gobs of torque and enough horsepower to tow a 4950-lb. mammoth around with surprising alacrity.

The interior compartment, which is intended for five passengers (not six, as claimed by the Toronado makers), is as sumptuous as any automobile's. As we have said, passenger comfort is the big bag at Cadillac and every component from the uncanny Climate Control air conditioning to the optional all-leather upholstery is designed without compromise. The Eldorado interior is tasteful and efficient beyond reproach and we can only wish that half as much creative energy had been exerted on braking ability.

Details like the Saginaw variable-ratio power steering and the fiendishly complicated but effective interior ventilation system are what help justify the high price of the Eldorado, but the clincher comes with an examination of the general workmanship of the automobile. We found our test car to be impeccably assembled, with the kind of panel-fit and paint work that stands up against the best that Stuttgart-Untertürkheim and Crewe can produce. If there is any single outstanding feature of the Eldorado, it is this attention to detail that probably surpasses that given to any other American automobile, with the possible exception of Cadillac's own Fleetwood sedans.

Handling is about what you would expect for a front-wheel drive car with 58 per cent of its weight on the front wheels. Yes, folks, it understeers, though it must be said that it does it predictably and without any trick transitions to oversteer before the limit of adhesion is reached. Unlike Oldsmobile's approach to the Toronado, Cadillac intends to de-emphasize the fact that the Eldorado is powered through the front wheels and will underplay any references to the drive train in its sales literature. This is rather in keeping with the "play safe" philosophy of the entire car, which carefully avoids anything that might be misconstrued as unique or revolutionary.

We had hoped that Cadillac would use its considerable engineering talent to create a truly unique "personal" car when the Eldorado project was first rumored. Thinking about them starting with a clean sheet of paper, we fantasized about a completely original American luxury grand touring vehicle being produced by America's most prestigious automaker and were rather let down when we found nothing more than a warmed-over Toronado.

The Thunderbird and Eldorado are not unpleasant automobiles. They are civilized machines, keyed to a market that should expand significantly within the next decade, provided the economy doesn't take any nasty nosedives. They are basically unoriginal cars aimed at a segment of the market where imagination and non-conformity are taboo, and in this sense Ford and Cadillac have exhibited their traditional commercial acumen. New or old, bright or dull, safe or unsafe, they're bound to be a big hit with the Metrecal-for-lunch bunch. **C/D**