



# Cadillac

## SEDAN DE VILLE

### ROAD TEST

by Jim Wright, *Technical Editor*

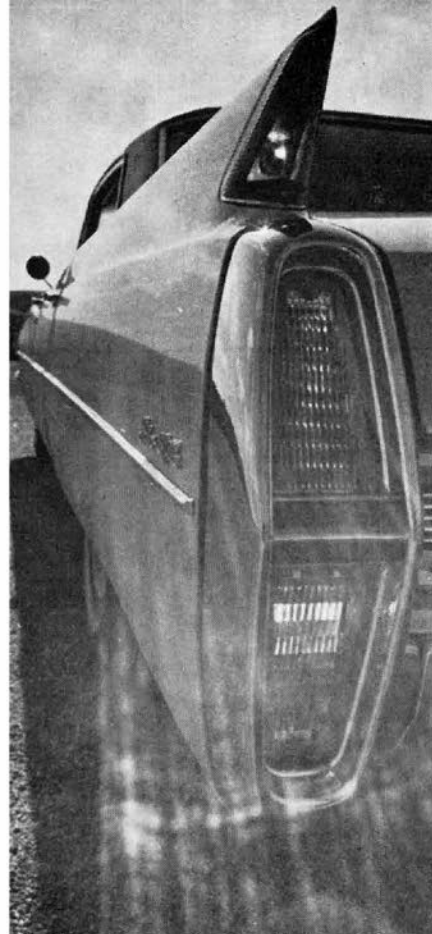
**EVERY YEAR**, Cadillac seems to turn out the standard for the luxury field—the car to beat. So far no one has beat it or even come close. Cadillac sales for 1963 will close out right at 160,000 units (probably more for '64). This means almost five times as many Cads will have been sold for the year as its two domestic competitors combined. After driving and evaluating all of them, including the choice European models, it isn't hard to understand why. On a straight dollar-value basis, none of the other luxury models offers quite what the Cadillac does in terms of quality, comfort, and overall performance. Most lack the interior roominess, too.

Some imported models have the quality by virtue of their hand fitting. But if these European manufacturers could find a way to *profitably* tool up for mass production, they'd do it. The comfort is there, too. But then, even the lowest-priced luxury imports cost at least twice as much as a Cadillac, and you'd have to beat us with a large club to convince us that they're that much better—if at all. When it comes to overall performance (including handling and roadability), the imports aren't equal, though some excel in individual aspects.

Of domestic luxury cars, the competition is in the same price range, and it's strictly a matter of opinion in judging their quality and comfort factors. When it comes to overall performance, we have to go by the results of our tests, and these tell us the Caddy is unequalled by anything at any price.

Our test car, a four-window, four-door Sedan de Ville, had a little over 800 miles on it when we picked it up. Even if the mileage had been zero, the test car would still have been ready for anything, because all Cads are run in at the factory and don't need a break-in. Our test car was loaded with every major accessory available. This is the way most of them are ordered (65 per cent with air conditioning), and in addition to checking out the car, we also wanted to check all the creature comforts. Standing at the curb with a full





*Cadillac's famous fin, still very much in evidence, was lowered an inch this year.*

*Just above headlights, in chrome decoration, stands sensor for automatic dimmer.*

*Tail lights, bumpers, and grille are massive, but otherwise trim use is minimal.*

**CADILLAC SEDAN DE VILLE** *continued*

tank of gas (26 gallons), our test car weighed in at a not-so-modest 5050 pounds. And if there's ever been anything this big that'll move as fast, we haven't heard of it.

As you can see from the acceleration tables, it's going to take a hot-option model of anything else to stay with this one from a standing start. Our '64 times are also quite a bit faster than the '63 times. This is due to the redesigned and enlarged engine and the new torque-converter transmission.

The bigger engine is the result of both bore and stroke increases. With displacement now at 429 cubic inches, the '64 Cadillac engine is one of the two biggest in the industry. Horsepower has been increased from 325 to 340 (at 4600

rpm), and the torque rating is now 480 pounds-feet at 3000 rpm. Incidentally, this torque figure is equal to what the big Super/Stock engines are putting out and does a lot to explain the rapid acceleration and pulling power of the Cadillac.

The new Turbo Hydra-Matic transmission installed in the test car comes as standard equipment in the de Ville, Sixty Special sedan, and Eldorado convertible. The old Hydra-Matic is still being used in the Sixty-Two series and the Seventy-Five sedan and limousine. We covered the details of the Turbo Hydra-Matic pretty thoroughly in our December issue, so we won't go into that again here. We will add, though, that the torque multiplication makes the Cad a real bear off the line and that the shifts are extremely smooth and positive. We rate the new automatic right on a level with Chrysler's TorqueFlite, which we've always considered the best. (This isn't too surprising since GM's automatic is for all practical purposes identical to Chrysler's — they even pay royalties to the same inventor.) All air-conditioned cars are equipped with a 3.21 rear axle, while the others use a 2.94. The lower ratio helped acceleration in our case.

This isn't the whole performance story, though. Our test car not only had a boulevard ride that was the match of any, it also handled like no other big car we've ever tested. The MT crew took the test car on one extended road trip over to Phoenix, then back to Los Angeles by way of Las Vegas. During the trip, we had occasion to run on straight, smooth, high-speed freeways as well as mile after mile of up-and-



*Large, plush interior sports arm rests in both front and rear seats. Grouped controls add to convenience, are balanced and pleasing. Sturdy, padded vinyl top has become de Ville hallmark.*



Switches for doors, windows, and seat are all grouped where driver can get at them.



Simplicity of operation of new Comfort Control air conditioner is evident here.



All-leather seats, optional, feature small perforations for better air circulation.

down, roundabout mountain roads. On the straight stretches in Nevada (where there's no speed limit), we rolled along at 110 without any concern. The big Cad is extremely stable at these high speeds, and even though some moderate crosswinds were blowing, we didn't notice them.

Over the mountain stretches, we still maintained a high average speed. We got this mostly by hard acceleration between corners, hard braking for turns, and by limit-of-adhesion cornering. We wanted to wring the car out and find its faults, if any, as well as its limitations. The faults are few (even the understeer characteristics aren't so excessive as you'd expect in a car of this size and weight — this opinion is based not only on how the car felt to us but by close inspection of the front tires after the run; they were feathered from hard cornering but weren't showing excessive wear from scrubbing), and the limitations are so far up the scale that even the worst driver will be hard-pressed to get into trouble with this car. The Cadillac may be big as a tank, but it's well balanced. Its suspension has a high degree of roll stiffness, and as the photos show, it corners very level.

The brakes held up very well during the hard use they got in the mountains. There was one stretch where we came down from 7900 feet almost to sea level — they did fade noticeably then, but we just stood on them harder and they did what was asked of them. During our test stops at Riverside, they behaved well — even survived two maximum stops from 115 mph before fading completely. The cast-iron drums

are finned and cool quickly. An added feature here is the split master cylinder that Cadillac adopted several years ago. If the front brakes go out, the rears will keep right on working — and vice versa.

We put in over 2000 miles with the test car and averaged slightly better than 13 mpg. The air conditioner was never off, and this cut mileage by 1-1/2 mpg. Around town, the average was 12.5 mpg, and out on the road it was up to 14.7. This could've been better if we'd stayed around 65 mph, but we were usually up to about 75 or 85.

Much has been said about the real (and sometimes imagined) quietness of various makes of luxury cars. From past



Considering sheer size and bulk of Cadillac, handling characteristics proved outstanding. This photograph was taken on a loose, rough surface while Cad was pushing better than 70 mph.

experience, we can only say that none is quieter than our test car was. At any speed and under any condition, the air flow over and around the car was barely more than a gentle hiss. Engine and transmission noises were hardly discernible, and never did we have to turn up the radio or raise our voices because of any ambient noise.

At the risk of sounding soft, we think the most significant advance offered by Cadillac is their new air-conditioning system. This is really the unit to end all units and will no doubt be widely copied by the rest of the industry. It's called Comfort Control, and it does everything, including think for the driver. The first thing you notice is that the controls have been reduced to complete simplicity. Where there used to be as many as two or three levers *each* for both the heater and air conditioner, there are now just two. One is a control dial that incorporates temperature settings from 65° to 85° on it, and the other is a sliding lever with four settings.

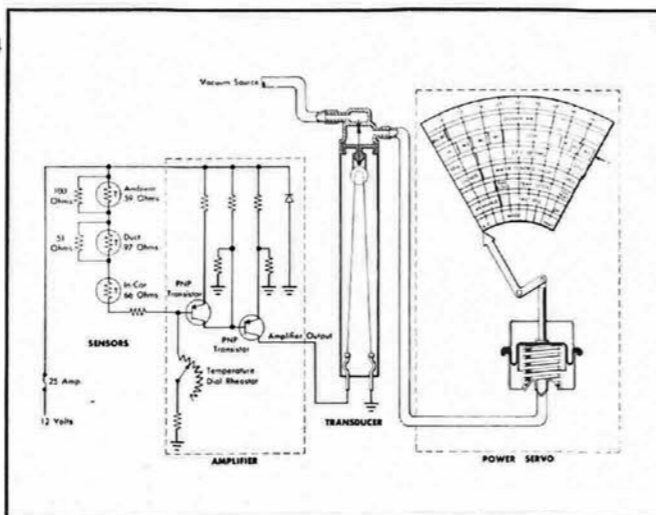
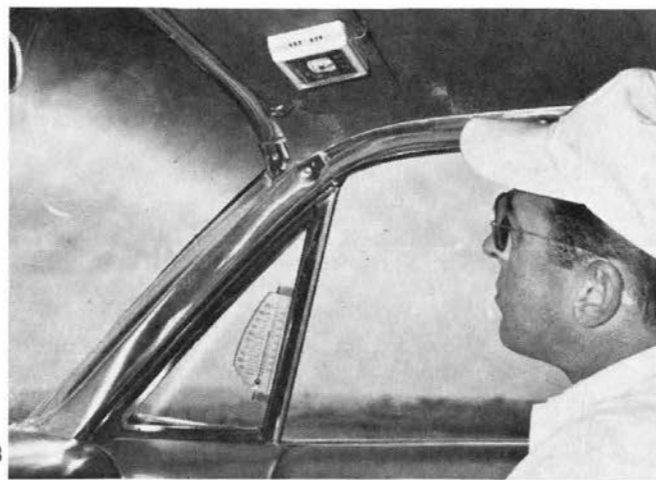
Now all the driver has to do is dial the desired temperature setting, move the lever to AUTOMATIC, and forget it. From then on the system will thermostatically keep the desired temperature inside the car, regardless of outside changes. For example, we set it at 75° one morning in Phoenix and set out through the desert, where we ran into high 90° weather. Later that afternoon and evening we were in the higher regions, where the temperature dropped to 30°. The original setting hadn't been touched, yet the interior temperature was constant and completely comfortable. No more fiddling around. Theoretically, you could set it once when you buy the car and then forget about it.

The system goes on and off automatically according to demand. To do this, it uses several electronic gadgets. These include three thermistors that sense temperature changes (from outside the car, inside the car, and at the outlet of the heater/air conditioner), a potentiometer (the control dial where the driver sets the desired temperature), an amplifier, a transducer, and a power servo. A signal from any of these four sources (three thermistors and the potentiometer) is fed into the amplifier (a two-transistor unit), where it's multiplied. The amplified voltage is then fed into the transducer, which is a 10-inch steel tube with one strand of fine wire running through it. The wire is sensitive to heat, and since the amplified voltage is giving off varying amounts of heat, the wire reacts to it by either expanding or contracting slightly. This action causes a needle valve at one end of the transducer to open or close. The needle valve controls the amount of engine vacuum that will be applied to the power servo, which in turn opens or closes the air door of the heater/air conditioner. The greater the vacuum, the wider the door opens.

The servo unit also controls blower speed and at which point in the car the incoming air will be discharged. The power servo shuts off the water flow to the heater coil when maximum coolness is needed. There's another position under AUTOMATIC that gives a higher blower speed. Also controlled by the lever is the defrost action, which has a HIGH and LOW position.

As always, the Cadillac offers plenty of room on the inside — enough to allow six full-sized adults plenty of comfort on long trips. Our test car had optional leather seats — very comfortable. They were perforated with lots of tiny holes, which makes them much cooler to sit on. The six-way power seat and the adjustable steering wheel allowed us to find just the right seating position for our particular frame.

There's no need to go into any great detail about how the test car was put together. Cadillac has always had an excellent reputation for quality, and while styling and engineering might change over the years, that hasn't.



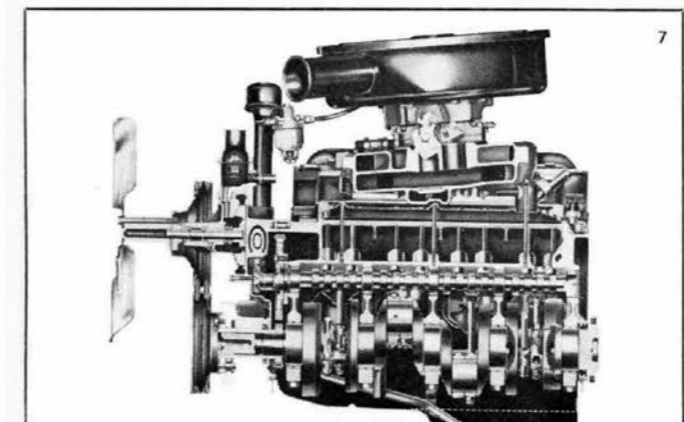
**(1 THROUGH 4)** New Comfort Control heater/air conditioner is probably the most important single development that this field will ever see. Theoretically, buyer can dial desired temperature when he first gets his car, then never touch it again. The unit actually has automatic controls to keep temperature constant, even though the car may be going through hot, arid deserts or low-temperature, high-altitude mountain passes. We kept constant check on both outside and inside air temperature during our extensive road test. Regardless of outside conditions, the inside was always right where we wanted it — all without touching the simple dial after its initial setting. Also shown, for you technically inclined readers, is the schematic diagram of the entire system. Complete explanation is found in text.

**5)** Extra inches of this year's engine plus the more efficient torque converter transmission have added quite a bit to the Cadillac's performance, combine for outstanding acceleration.

**6)** Stopping power proved equal to all situations. Brake fade, always present with drums, turned out to be below average — a fact attributable to the cooling fins in constant air stream.

**7)** Cadillac engine's basic design dates back to 1949, when it was introduced as one of the first modern, high-compression V-8s. Since then, it's been refined and enlarged somewhat.

**8)** No scarcity of room here. Spare location is out of the way but also a bit awkward should it have to be used. Best way to remove tire is to climb in trunk, as shown in photograph.



**CADILLAC DE VILLE**

4-door, 6-passenger sedan

**OPTIONS ON CAR TESTED:** Air conditioning, vinyl roof, leather seats, adjustable steering wheel, electric seat and vent windows, AM-FM radio, remote-control trunk, automatic dimmer, twilight sentinel, Cruise Control, controlled differential, rear defrost, seat belts

**BASIC PRICE:** \$5633

**PRICE AS TESTED:** \$7527 (plus tax and license)

**ODOMETER READING AT START OF TEST:** 837 miles

**RECOMMENDED ENGINE RED LINE:** 5200 rpm

**PERFORMANCE**

**ACCELERATION (2 aboard)**

0-30 mph	3.4 secs.
0-45 mph	5.7
0-60 mph	8.5

Standing start 1/4-mile 16.8 secs. and 85 mph

Speeds in gears @ 4400 rpm (shift point)

1st	45 mph	3rd	115 mph (actual top speed)
2nd	80 mph		

Speedometer Error on Test Car

Car's speedometer reading	30	46	52	63	73	84
Weston electric speedometer	30	45	50	60	70	80

Observed miles per hour per 1000 rpm in top gear 25.5 mph

Stopping Distances — from 30 mph, 38 ft.; from 60 mph, 153 ft.

**SPECIFICATIONS FROM MANUFACTURER**

**Engine**

Ohv V-8  
Bore: 4.13 ins.  
Stroke: 4.0 ins.  
Displacement: 429.0 cu. ins.  
Compression ratio: 10.5:1  
Horsepower: 340 @ 4600 rpm  
Torque: 480 lbs.-ft. @ 3000 rpm  
Horsepower per cubic inch: 0.79  
Carburetion: 1 4-bbl.  
Ignition: 12-volt coil

**Steering**

Ball nut sector, with integral power  
Turning diameter: 43.0 ft.  
Turns lock to lock: 3.7

**Wheels and Tires**

5-lug, steel disc wheels  
8.20 x 15 4-ply nylon tubeless tires

**Gearbox**

Turbo Hydra-Matic (3-speed automatic with torque converter)

**Brakes**

Hydraulic, duo-servo, self-adjusting, with split master cylinder  
Front and rear: 12-in. composite cast-iron finned drums  
Effective lining area: 221.8 sq. ins.

**Driveshaft**

2-piece, open tube, with 2 constant-velocity U-joints

**Differential**

Hypoid, semi-floating  
Standard ratio: 3.21:1

**Suspension**

Front: Independent, with coil springs, upper A-arm, single lower arm with strut, direct-acting tubular shocks, anti-roll bar  
Rear: Rigid axle, with coil springs, 4-link stabilizer, and direct-acting tubular shocks

**Body and Frame**

Separate steel body on X-member frame  
Wheelbase: 129.5 ins.  
Track: front and rear, 61.0 ins.  
Overall length: 223.5 ins.  
Overall width: 79.7 ins.  
Curb weight: 5050 lbs.



PHOTOS BY BOB D'OLIVO