



# Cadillac

## CROSS-COUNTRY

Cadillac's design and engineering skills produce a beautiful blend of quiet comfort, effortless performance, and flawless workmanship



by Charles Nerpel, *Editor*

**T**AKE A CORNER of the most comfortable room in your house, add your best leather chair, float a steering wheel in your hands, imagine roadside scenery moving silently by — and you have the sensation of driving the new Cadillac.

Our 1963 Cadillac Coupe deVille test car had only 23 miles on it when we drove out of the Detroit plant, where a few days before this sporty, padded-top model had been just a series of parts numbers on a production-line chart. We did have a good chance to see MOTOR TREND's test car and others being put together on the most rigidly controlled assembly line in the United States. The pace is slower than other makers', allowing more individual attention to construction, with all major components pre-tested and adjusted before installation.

All engines, for example, have several hours of dynamometer time, running in, tuning under load, and inspection before they're put in a car. In addition, spot checks are made by grabbing engines ready for installation off the assembly line and running them again through a tear-down inspection, just to recheck previous procedures. Transmissions, brake systems, alternators — even the rear end, including differential, axles, bearings, and wheels — are also run in before assembly to the chassis.

As they leave the final production line, Cadillacs are ready to drive without a so-called break-in period. About all that's

necessary for customer delivery is removal of the protective coating from the whitewall tires.

Simulated road conditions and test-running at the factory had prepared MOTOR TREND's test car, just like every Cadillac made, for regular driving immediately. We appreciated this because we drove out of the plant right smack into the thick of Detroit's metropolitan traffic. As if this baptism weren't enough for a sparkling new car, the weather was cold, and miserable rain loosened all the summer dirt into a dulling spray thrown up by passing cars. Instant heat, instant de-fogging, and a test of wipers were in order. All controls gave immediate action, with a ready flow of controllable heat, a good volume of warm, drying air over the inside windshield surface, and a wide, clean windshield pattern from the wiper blade arcs.

GM's Harrison Radiator Division, which designed the air-cooling and heating system for the Cadillac, had incorporated this unit into a complete climate control for car interiors. The refrigerated-air system and the air-heating system can be operated together, making it possible to heat refrigerated air. Unusual as this may sound, there's a noticeable difference between warm or hot air from heater control alone and warmed cooled air. Humidity under conditions of warming refrigerated air is more comfortable when outside

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MY'S SERIES 62 COUPE DEVILLE TEST CAR BRUSHED OFF THE RIGORS OF VARIED WEATHER AND ROAD CONDITIONS DURING 2600-MILE TRIP.





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air is on the chilly (but not frigid) side. Of course, interior air outlets for cool and hot air are separate. When only the heater is on, warm air enters the car near the floor in the firewall area, but the regular air-conditioning outlets spew warmed cooled air when the two systems are blended. All controls for this combined interior temperature system, including high, low, and intermediate speeds for the nearly silent fan, are in one panel to the left of the steering column.

Much has been done to improve comfort in passenger cars generally, but Cadillac works at making the ultimate a reality. Seating and isolation of engine and road noises

*Handling ease and sure-footed stability are maintained on high-speed curves (RIGHT), without sacrificing the smooth ride and quiet comfort on the rough, gravel-covered detours (BOTTOM).*



*Optional six-position steering wheel angle adjustment allows selection of desired stance while driving, ensures ample room for the stout drivers and good visibility for the short ones.*



are only a part of this comfort engineering. Good temperature control and ventilation do much to lower wind noise. This plus general stability over bumps, dips, and around curves, coupled with the driver's ability to adjust himself in a position of complete ease behind the wheel, all contribute to the ultimate in comfort.

Cadillac doesn't believe in undercoating. Their engineers design for noise isolation instead of attempting to absorb or deaden existing noises inherent in a design. This isn't to say that there's *no* sound-deadening material in Cadillacs, but they do use a minimum compared to other luxury cars. Extra-size rubber bushings, designed for different cushioning rates at several impact angles, are used in all suspension pivot points. Freon-gas-filled shocks, introduced on Cadillac several years ago, are also great contributors to the car's quiet, stable operation. With this silent, non-swaying ride, devoid of the seasickening sensation once associated with such smoothness, the Series 62 has successfully combined living-room luxury with handling qualities compatible with the car's power and speed.

Power and speed are important, but the proper ratio of the power potential of the engine to performance demands is important for smooth and efficient motoring. Cadillac's new engine — lighter, smoother, and displacing 390 cubic inches — develops 325 hp at 4800 rpm. Like all engines for the full Cadillac line, this ohv, 90-degree V-8 has 10.5-to-1 (premium-fuel) compression ratio and a four-barrel carburetor. The torque output of 430 pounds-feet at 3100 rpm provides good acceleration at all speeds. Standard drive train includes the four-speed Hydra-Matic transmission and 2.94-to-1 rear-axle ratio.

Top gear gives 25 mph per 1000 rpm with 8.20 x 15 tires, but kick-down into third requires just a little extra throttle pressure even at 70 mph to provide that extra punch for shortened passing distances. The engine turns 4500 rpm in third (at 75 mph), and 4300 rpm produces 25 mph in first and 40 mph in second. Two settings for DRIVE allow quadrant selection to hold the Hydra-Matic in third for engine braking or to reduce automatic downshifting from fourth to third in heavy traffic.

The engine itself, all new for 1963, is one inch lower, four inches narrower, and 1¼ inches shorter than last year's powerplant. It adds up to a weight saving of nearly 52 pounds. Water pump, oil and fuel pumps, distributor, oil filter, and power steering pump are grouped together on a die-cast aluminum cover on the front of the engine — a great aid for easier servicing of these important components. Also helping performance and durability are the cast Arm-steel crankshaft and cored-out main bearings of larger diameter for lighter weight and better wear characteristics — this plus shorter, lighter pistons.

Added weight reduction and improved electrical power output are provided by the Delcotron alternator, standard for '63. The normal unit has a 45-ampere output, but cars equipped with air-conditioning systems come with a 52-ampere unit. Even the five-bladed fan is alloy on air-conditioned cars, and it has a sensing device to maintain maximum efficiency for both speed and temperature.

Drive line noise, a big concern with most designers, has been virtually eliminated by using a split driveshaft, divided by a double, constant-velocity universal joint. Utilizing a

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Rear seat has a folding center arm rest that doesn't interfere with the center seat back comfort when stowed.



Electric control console on driver's door groups all the switches for windows, windwings, seats, and door locks into one convenient location for fingertip operation.



Bench-type front seat (bucket seats are optional) has a center folding arm rest, well padded and wide enough for both driver and passenger. Both front seat backs can be tilted forward for easy rear seat access.



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HEADING SOUTH IN THE CRISP, COLD DAWN, CADILLAC'S INTERIOR COMFORT FEATURES AND CLIMATE CONTROL MAKE DRIVING A PLEASURE.

front shaft anchored near the center. the relatively short rear section of this drive line is practically insensitive to heavy passenger or luggage loads.

Body design of the Coupe DeVille is very interesting, especially the roof. Over the regular steel top is a layer of insulated padding, and covering this is cross-grain vinyl. The result is a smooth line, with the sporty look of a padded-top convertible. We believe that much of the silent ride and most of the air conditioning and heating efficiency are due to the pleasing roof material. It deadens noise and insulates against heat and cold.

Other styling changes for 1963 include a completely new front-end treatment, plus new hood sheet metal. A close look at this shape reveals a striking similarity to last year's rear deck lid, turned around of course, so that the lateral crease is forward. In addition, the ventral fins that ran along the lower rear fenders have been eliminated, smoothing the entire rear end and making the upper fins less conspicuous. Stop lights, combined with turn signals in the rear, are more noticeable when separated from the regular tail light system. Front lighting, using quad lamps, has been designed into the slight separate-fender-from-body style, and last year's curb light for illuminating the blind spot just outboard of the headlight beam has been retained and improved. This light, which comes on when the turn signal is actuated, is a valuable driving aid for maneuvering into dark, narrow areas.

On the road or in traffic, driving the Cadillac is a pleasure. Fingertip electric adjustment of the seat through a wide range of height, distance, and tilt, plus six different steering wheel settings, puts any driver in a near-perfect stance to handle this 129-inch-wheelbase car as if it were a compact.

Driving position probably has more to do with the feeling of the size of a car than anything else. Small cars with high steering wheels, low seats, and great seat-to-pedal distance can and do give smaller drivers the feeling they're driving a truck. Cadillac adjustments, on the other hand, provide

*All-new engine is smaller, lighter, smoother, and more rugged, with major serviceable components more accessible for repair or adjustment. New feature is the lightweight Delcotron alternator.*

even the short driver with a position of visibility and ease not ordinarily associated with cars nearly 19 feet long.

This same lightness and sure-footed control are best noted on expressways and turnpikes, some of which now have legal speeds up to 75 or 80 mph. Route 66, under its present conditions of divided super-highway, stretches under construction, and about-to-be-abandoned parts of the "old" highway, gives just about every type of touring anyone's likely to find on a cross-country trip. Handling on curves and in the wet is firm, and the optional limited-slip differential shows its advantages in the loose gravel of detours.

Braking is superb, with a double system that still assures either forward or rear wheel braking, should one or the other half fail through line fracture or other mishap. All in all, cross-country touring in a Cadillac is like a conducted tour in your own private floating compartment. /MT



More usable luggage space is available through location of spare in seldom-used area over the rear axle body hump.



Cast iron drums with cooling fins house self-adjusting shoes. Hydraulic cylinders operated by dual master unit have new long-wearing, sintered-iron pistons.



The optional cruise control mounted on cowl can maintain constant speed on either level or hills. A touch of the brake pedal unlocks the system.



**1963 CADILLAC SERIES 62 COUPE DE VILLE**

2-door, 6-passenger sedan

**OPTIONS ON CAR TESTED:** Air conditioning, AM-FM radio, controlled differential, adjustable steering wheel, power headlight control, cruise control, power seat control

**BASIC PRICE:** \$5386

**ODOMETER READING AT START OF TEST:** 23 miles

**RECOMMENDED ENGINE RED LINE:** 5000 rpm

**PERFORMANCE**

**ACCELERATION (2 aboard)**

0-30 mph.....	3.6 secs.
0-45 mph.....	6.4
0-60 mph.....	10.4

Standing start 1/4-mile 19 secs. and 81 mph

Speeds in gears @ shift points

1st .....	25 mph @ 4300 rpm
2nd .....	40 mph @ 4300 rpm
3rd .....	75 mph @ 4500 rpm

Speedometer Error on Test Car

Car's speedometer reading .....	30	45	50	60	71	81
Weston electric speedometer .....	30	45	50	60	70	80

Observed miles per hour per 1000 rpm in top gear .....

Stopping Distances — from 30 mph, 40 ft.; from 60 mph, 156 ft.

**SPECIFICATIONS FROM MANUFACTURER**

<b>Engine</b> 90-degree ohv V-8 Bore: 4.0 ins. Stroke: 3.875 ins. Displacement: 390 cubic inches Compression ratio: 10.5:1 Horsepower: 325 @ 4800 rpm Torque: 430 lbs.-ft. @ 3100 rpm Horsepower per cubic inch: 0.83 Ignition: 12-volt coil	<b>Steering</b> Ball nut sector, with in-line hydraulic power Turning diameter: 43 ft. Turns: 3.7 lock to lock
<b>Gearbox</b> Hydra-Matic 4-speed automatic; quadrant selector	<b>Wheels and Tires</b> 15-inch slotted steel disc wheels 8.20 x 15 tires
<b>Driveshaft</b> Two-piece, open tube, with double constant-velocity joint	<b>Brakes</b> Hydraulic drum; servo, self-adjusting Front: 12-in. composite cast iron — finned Rear: 12-in. composite cast iron — finned Effective lining area: 221.8 sq. ins.
<b>Differential</b> Ring and pinion — limited-slip Standard ratio: 2.94:1	<b>Body and Frame</b> Separate steel body on X-member frame Wheelbase: 129.5 ins. Track: front, 61 ins.; rear, 61 ins. Overall length: 223.0 ins. Shipping weight: 4750 lbs.
<b>Suspension</b> Front: independent, with coil springs, tubular shocks, stabilizer bar Rear: Solid axle; 4-link stabilizer, coil springs, tubular shocks	