

CAR LIFE ROAD TEST



1964 BUICK Electra 225 Hardtop Coupe

Leather-Limned Luxury and Sweeping Lines Identify Buick's Entrant in the Quality Car Sweepstakes

OFFICIALLY, THE FACTORY calls it a Model 4847 (2-door 4-window pillarless coupe). In the showroom it's referred to as an Electra Hardtop, while out at the curb it's usually just called the "Big Buick." But call it by its full name, the Buick Electra 225 Hardtop Coupe, or what-you-will, it's a car to command respect, both for itself and its driver.

One of the largest cars coursing U.S. highways, the Electra 225 gives away only fractions of its dimensions to even the biggest vehicles. Cadillac

and Imperial exceed it in overall length and in box volume, the handiest yardsticks of a car's bulk, but it is larger than a Lincoln and by considerable margin the largest car produced by the non-Cadillac divisions of General Motors. The Electra, then, is Buick's cleverly contrived entrant in the upper strata of the luxury market, where the traditional contenders have long been Cadillac, Imperial and Lincoln.

Although \$1000-2500 lower in price than those competitors, the Electra seems fully capable of meeting their

high standards. In fact, it surpasses some of these same competitors on a few points. Noted already is the size factor, which in turn gives Electra more rear seat knee room than Cadillac (according to the official AMA specifications). In performance, the Electra need eat no one's dust; in roadability, it probably is the best of the group. In styling, appointment and finish, it at least equals all its competitors. So, why pay more for one of the others? Individual tastes in automobiles follow diverse patterns, and what may please the



RALPH POOLE PHOTOS

CRUISE-CONTROL lever operates vacuum and electric device which maintains set speed.



POWER WINDOW switches nestle on left door mount below remote mirror lever.



ARMREST atop the console compartment proved too low and unwieldy for use.

Electra 225

doctor may not impress either the lawyer or Indian chief.

On a straight price comparison, the Buick Electra hardtop coupe has a factory advertised delivered price of \$4059; the Cadillac 62 hardtop costs \$5026, the Lincoln Continental \$6270, the Imperial hardtop \$5058. What of other, similar, competitors? Chrysler has a New Yorker 4-door hardtop model which sells at \$4118, while Oldsmobile's 98 lists at \$4177 and probably comes the closest to being a threat in the pure luxury field. The Pontiac Bonneville, Mercury Park Lane, Chrysler 300 and Buick Wildcat are all \$600-800 less expensive and don't quite fit into the same market picture, either because of size or finish.

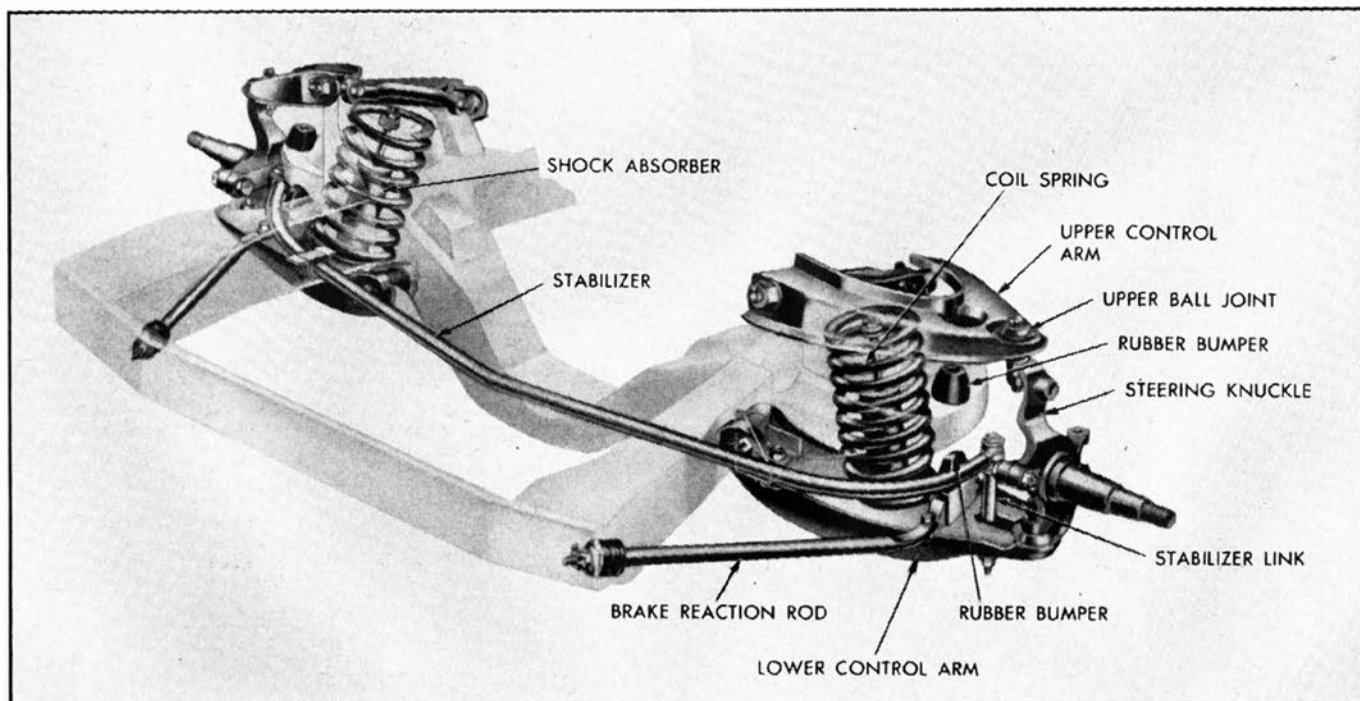
What qualifies the Buick Electra for the luxury league? For one thing, it has power brakes, power steering and an automatic transmission as standard equipment. Then, too, it has top-quality material throughout its construction and a quality of manufacture second-to-none. Combined with a well-refined mechanical format and an impressive list of options, the Electra thus becomes an excellent example of the modern, luxurious carriage.

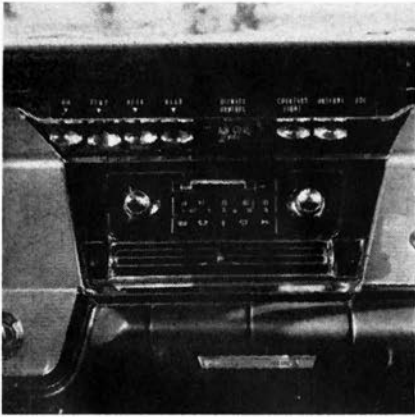
Quality, and thence luxury, spring from the basic car and Buick has provided the Electra 225 with one of the solidest foundations available, a deep-section cruciform frame, a big, strong V-8 engine and smooth, flexible automatic transmission. Atop this goes a separate body construction in the varying styles available, and the aforementioned impeccable finish. The suspension follows the usual GM system of independent at front and live axle at

the rear, with coil springs at all four wheels. Never one to stint on material quality or strength, Buick has provided these components with impressive durability along with smooth, easy operation.

The engine standard to the Electra series (also the Wildcat) is Buick's familiar 401 cu. in. V-8 cyl. unit. At its present level of development it attains 325 bhp at 4400 rpm and 445 lb.-ft. of torque at 2800 rpm on 10.25:1 compression and a single 4-barrel carburetor. Although it provides a performance level satisfactory to most customers, it is the basis of two larger, more powerful options available to Electra buyers—a 425-cu. in. V-8 with either one or two 4-barrel carburetors, which produce 340 and 360 bhp, respectively. The CL Electra was equipped with the 401; a later test will involve the 425-4V in a Wildcat chassis with 4-speed transmission.

FRONT SUSPENSION system for Buick Electra follows well-developed pattern. I-beam lower control arm is stabilized by brake reaction rod; upper arm is tilted for anti-dive.

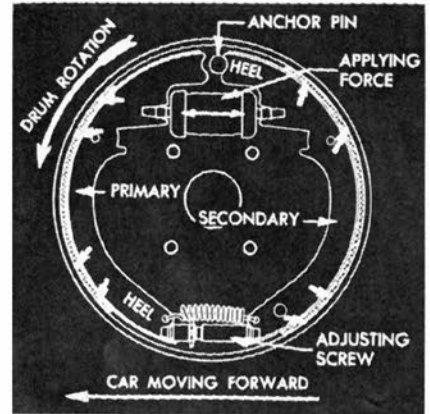




HEATER, air conditioning controls slide in slots in dash overhang.



TURNING light on front corner lights up when turn signals are engaged.



DRUM rotation forces primary shoe to wedge secondary into tighter contact.

Materially aiding the 401's responsiveness in moving more than two tons of automobile was Buick's new Super Turbine 400 automatic transmission. Replacing the old "Turbine Drive" 2-speed unit, the ST-400 has three speeds forward, plus a three-element torque converter, where the Turbine Drive had only two forward speeds but a 5-element (dual torque converters, in effect) converter. The re-designed transmission, in an aluminum case, is said to save some 56 lb.

The Super Turbine's smoothness stems from its shifting system; shifts are made from an overrunning clutch to a multiple disc clutch, rather than from an overrunning clutch to a band to a multiple disc clutch as is done by most of the opposition's 3-speed automatics. Slippage during the shift period seems to be at a minimum, although the upshift from one gear to another is slick as melted butter. The Low to

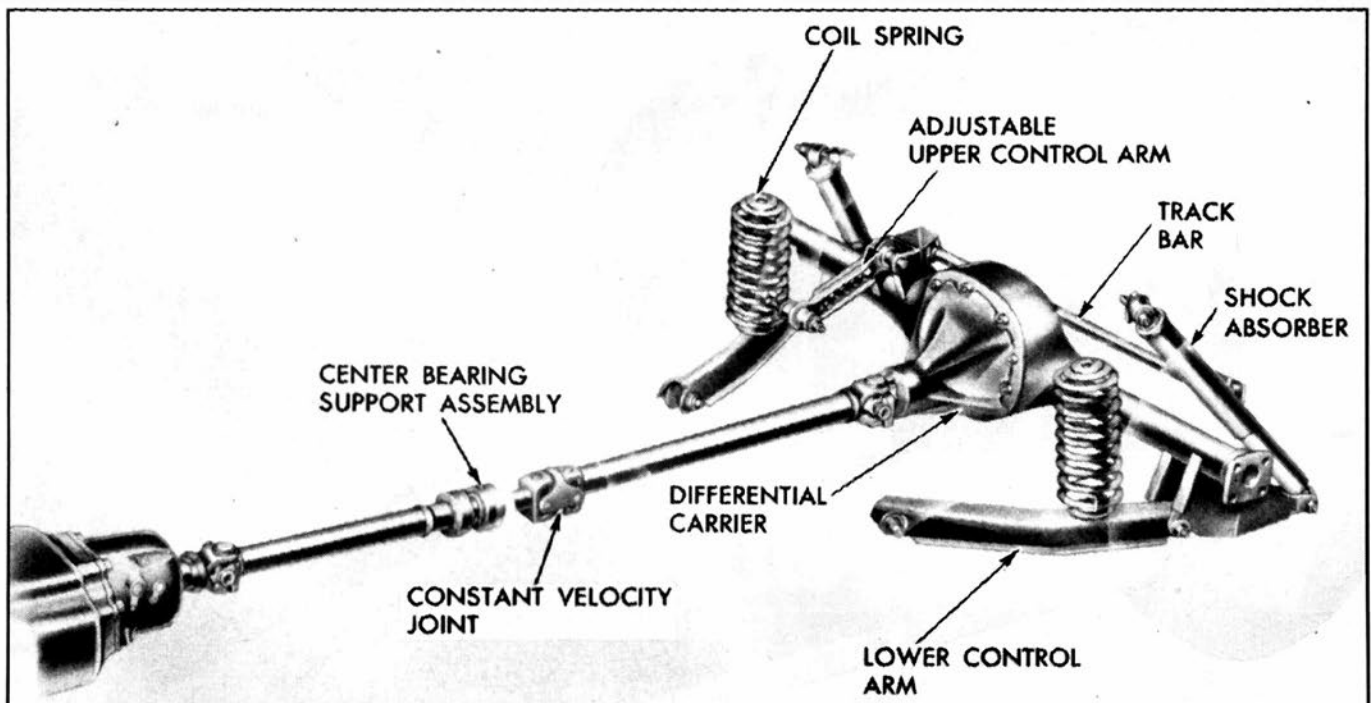
Intermediate shift occurs between 10-44 mph, the Intermediate to Drive shift between 20-75 mph, the shift point being controlled by throttle opening. Wide-open-throttle shifts take place automatically at 4200-4300 engine rpm, just about the point where maximum performance is achieved.

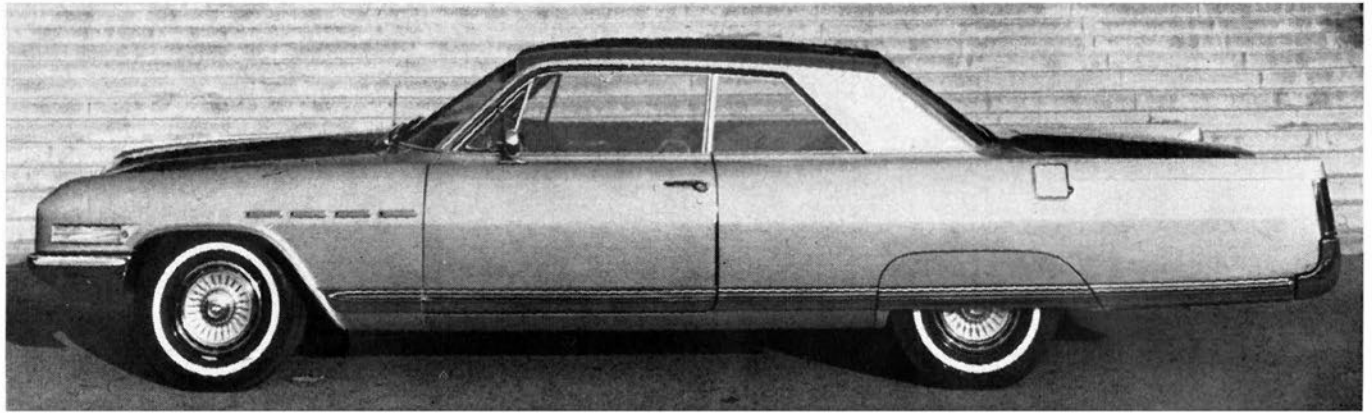
There also is provision for downhill braking within this new transmission and it works thusly: Above 25 mph, moving the gear selector from Drive to Low drops the gear system to Intermediate; below 25 mph, the same move selects Low. A word of caution to those who'll try this—as speed drops below 25 mph, the transmission, if the selector is indicating Low, will suddenly and wrenchingly select Low, which may be why they put padding on dashes. Somewhat the same system may be used for acceleration: When operating in Drive, the transmission can be locked into Intermediate by

pulling the lever to Low. This might be particularly useful for traversing twisty roads or passing a string of cars on a narrow highway. Actually, the transmission will kick-down by itself when full-throttle is applied at under 70 mph, by means of electrical switches on the carburetor and within the transmission case.

Buick's long-wheelbase chassis (126 in.) pays off in the passenger compartment. Although the large X-shaped separate frame somewhat raises the front floor level, it does provide for a deeper rear passenger floor because the footwells are outside the center of the X. This in turn gives the greater leg room we mentioned, about 10% more than in the Wildcat and LeSabre models which have a 123-in. wheelbase, and a lower "scrunch" factor (when a rear seat passenger must sit with heels-to-hams and knees-to-chest, he's scrunched-up).

REAR SUSPENSION has three longitudinal control arms and a transverse track bar to keep movement of the rear axle within acceptable limits for good traction.





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The frame mounts an i.f.s. of contemporary design; it has A-shaped upper arms and beam-type lower arms stabilized by brake reaction rods rubber-mounted to the front extensions of the frame. Coil springs, with relatively soft rates of 94 lb./in. at the wheels, are damped by 1-in. shock absorbers, and are helped in roll stiffness by an 0.828 in. front anti-roll bar. The rear end of the frame has a very large kickup to accommodate the live rear axle, this, too, being coil-spring mounted (108 lb./in. rate).

Rear axle location, an important factor in any car's handling properties, is accomplished by a 4-link system. Longitudinal control arms extend from the bottom of the axle housing to the frame, taking both driving and braking torque, while a third longitudinal arm extends from the top of the housing to the center of the frame to position the differential nose and thus prevent excessive angulation of the rear uni-

versal joint. The fourth control arm is a transverse rod running from the right axle housing to the left frame rail. This gives lateral location to the axle, eliminating all swaying tendencies of this long automobile.

Buick, of course, has been a leader among manufacturers in retaining finned aluminum brake drums for the front wheels, which it combines with 12-in.-dia. Bendix self-adjusting, duo-servo brakes. A long-wearing rubbing surface in the aluminum drums is provided by a cast-iron insert bonded to the aluminum. Rear drums are ribbed (but not finned) cast iron. Front brakes provide 56% of the stopping power, the rear brakes 44%. Each wheel assembly has a primary (leading) shoe and a secondary (trailing) shoe with a wheel cylinder between them at the top and an adjusting screw at the heel. This system, originated by Bendix and now used on all but two lines of U.S. automobiles, utilizes the rotational energy of the brake drums to increase the effective brake pressure, thus giving the driver a more sensitive, but easier, brake pedal.

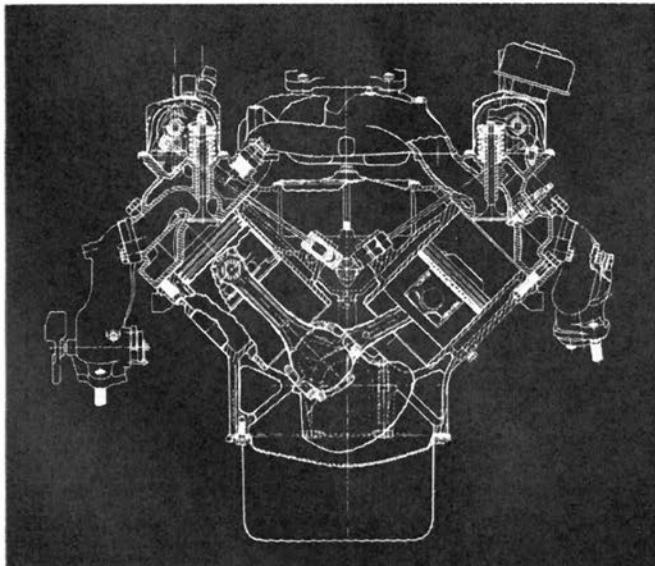
Subjecting the Electra 225 to the

usual series of all-on stops from 80 mph, the CL testers discovered a slight locking tendency at the right rear. The stopping power on our decelerometer measured 24 ft./sec./sec., a better than average rate, while fade was negligible.

Power assisting these brakes is a Delco-Moraine vacuum booster which gives 400 psi brake line pressure for 30 lb. pedal pressure; the non-power brakes of other Buicks develop about 180 psi for the same pedal push.

Power steering, another standard fixture on the Electra, uses the Saginaw Division (of GM) system of recirculating ball nut and worm coupled to a rotary valve and an engine-driven hydraulic pump. Highly developed to give a driver some wheel "feel" along with minimum turning effort, the system requires 3.25 lb. of pull to move the steering wheel rim 4° before the full assist comes into effect. Only 1 lb. pull and 0.3° movement are needed for the initial boost. This also allows the front wheels to re-center themselves without resistance from the system, thereby overcoming a good many objections from seat-of-the-pants types of drivers who have to know just

BUICK 401-cu. in. V-8 has an excellent record of longevity, produces an impressive amount of horsepower. Note pent-roof piston/chamber design.



TRUNK SPACE is positively cavernous. Gas tank is located under spare tire, leaving deep well. Optional trunk release works from glove box.



what's going on up front. Saginaw seems to have tightened up its power assist systems in the past few years, taking out that "glare ice" feeling, or rather lack of feeling, which once characterized virtually all power steering options.

The Electra comes equipped with 2-ply U.S. Royal Safety 800 Low Profile tires, which give it a carrying capacity of more than 1000 lb. above the curb weight of the car. Good-riding and with excellent directional control, they worked even better with a few pounds inflation over the recommended 24 psi. Driving "con brio" over our favorite mountain pass (sea level up to 2600 ft. and down to 1200 ft. in 30 miles), we found the extra pressure gave surer, more precise steering response, and better cornering characteristics.

In general, the handling abilities of the Electra 225 are surprisingly good for such a large, long car. Reasonably

well-balanced, it will go over a mountain road quick enough to satisfy most everyone, and with good power and good brakes, it does it in a most reassuring manner. Note to small car enthusiasts: If you haven't tried one of these big bruisers lately, don't knock them until you have—you may get your eyes opened.

Straight-line styling has given the '64 Electras an unbroken fender peak sweeping fore to aft, plus a complementary roof line. Rear wheel skirts add to the illusion of length. There are, however, certain touches out of place in this sweeping format, such as Buick's quasi-traditional portholes (four for the Electra, just like the old Roadmaster), and the big cornering lights on the front panel. The cornering lights are wonderful adjuncts to night driving (at \$34.40 additional) but it would seem that their design could have been better integrated into the overall styling. The use of bright metal

trim, we might add, is quite tasteful elsewhere. Even the rub strip, near the bottom of the doors, adds its length to the overall massiveness, while protecting the lower panels from wear and tear.

Quality exudes from the interior. However, the test car had the Electra's real leather-covered bucket seat option, which would add immensely to any car's plush factor. The only real discordant note was the ironing board-shaped armrest on the console compartment cover. This construction proved too low to use as a true armrest and yet was heavy enough to turn the console lid into a finger guillotine.

In all, the Electra 225 radiates a tasteful luxury, with a remarkable lack of ostentation. It tells, but doesn't shout, to those people inside and out, that here is an elegant car, durable in design and operation, able to hold up its proud head in even the most lofty society. ■

CAR LIFE ROAD TEST



1964 BUICK Electra 225 Hardtop Coupe

SPECIFICATIONS

List price.....	\$4059
Price, as tested.....	5512
Curb weight, lb.....	4265
Test weight.....	4605
distribution, %.....	52.5/47.5
Tire size.....	8.00-15
Tire capacity, lb @ 24 psi.....	5340
Brake swept area.....	320.5
Engine type.....	V-8, ohv
Bore & stroke.....	4.1875 x 3.64
Displacement, cu in.....	401
Compression ratio.....	10.25
Carburetion.....	1 x 4
Bhp @ rpm.....	325 @ 4400
equivalent mph.....	115
Torque, lb-ft.....	445 @ 2800
equivalent mph.....	72

EXTRA-COST OPTIONS
AM/FM radio, elec. antenna, cruise control, corner lights, tinted glass, power seat, tilt wheel, air cond., 4-note horn, power windows, wsw tires, leather bucket seats.

DIMENSIONS

Wheelbase, in.....	126.0
Tread, f and r.....	62/61
Over-all length, in.....	222.8
width.....	78.0
height.....	57.0
equivalent vol, cu ft.....	573
Frontal area, sq ft.....	24.7
Ground clearance, in.....	6.1
Steering ratio, o/a.....	20.7
turns, lock to lock.....	3.5
turning circle, ft.....	45.6
Hip room, front.....	2 x 25
Hip room, rear.....	63.0
Pedal to seat back, max.....	41.0
Floor to ground.....	11.0
Luggage vol, cu ft.....	n.a.
Fuel tank capacity, gal.....	20.0

GEAR RATIOS

3rd (1.00) overall.....	3.23
2nd (1.48).....	4.78
1st (2.48).....	8.02
1st (2.48 x 2.15).....	17.23

PERFORMANCE

Top speed (4700), mph.....	120
Shifts, @ mph (auto.).....	
3rd ().....	
2nd (4300).....	75
1st (4200).....	44

ACCELERATION

0-30 mph, sec.....	2.8
0-40.....	4.2
0-50.....	6.6
0-60.....	9.2
0-70.....	11.9
0-80.....	17.0
0-100.....	35.4
Standing 1/4 mile, sec.....	17.0
speed at end, mph.....	80

FUEL CONSUMPTION

Normal range, mpg.....	12-15
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SPEEDOMETER ERROR

30 mph, actual.....	30.4
60 mph.....	56.2
90 mph.....	81.8

CALCULATED DATA

Lb/hp (test wt).....	14.2
Cu ft/ton mile.....	118
Mph/1000 rpm.....	25.6
Engine revs/mile.....	2345
Piston travel, ft/mile.....	1423
Car Life wear index.....	33.4

PULLING POWER

70 mph, (2nd) max. gradient, %.....	15.8
50..... (2nd).....	25.8
30..... (1st).....	30.2
Total drag at 60 mph, lb.....	180

