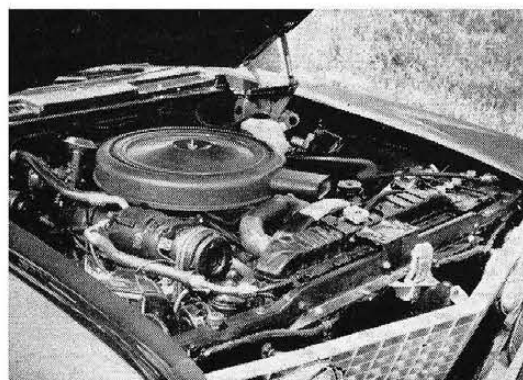
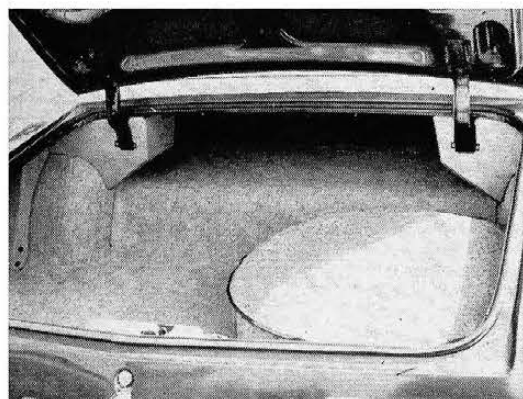


Buick's newcomer begins a new breed of American auto

Road Test: BUICK RIVIERA



Accessories such as an air-conditioning unit (left) crowd the engine compartment.



The trunk is very low and wide but relatively shallow as a concession to styling.



The Buick Riviera has a Cadillac-inspired frontal treatment with quad headlights.



Turn signals are behind fender grilles.



The abundance of space in the plush interior makes for comfortable long trips.

Never in Buick's history has the old-established Flint company brought out a car such as the Riviera. It is a big and fast touring car with restrained styling and luxurious equipment.

After some initial disappointment at its massive size, we were still so intrigued with the car that nothing less than a road test could satisfy us. Our sports-car-conscious testers warmed to the car on closer acquaintance. Clearly a completely new design and not just another body style on the big Buick chassis, it is much closer in concept and execution to the Bentley S-2 Continental than to the Ford Thunderbird, to which it will be a direct price competitor.

The 340-bhp cast-iron V-8 engine gives the car tremendous acceleration. Its performance puts it above many sports cars, and it is noteworthy that this large and very smooth-running power plant has a compression ratio as high as 10.25 to one.

The engine is a 425-cubic-inch

V-8 based on the 401-cube unit used in the Le Sabre, Invicta and Electra series. It is coupled to the latest Dual Path Turbine Drive transmission. No transmission options are offered or possibly even contemplated—but with current Detroit interest in floor-mounted stick shifts and four-speed gearboxes, such components would be readily available if the decision should be taken to add a manual-control option.

The chassis is based on a true cruciform structure, with two cross-members at the front and rear ends. Both front and rear springing is by coil springs, and the front wishbones are designed and anchored to give the lowest possible camber variations. The spring rates are fairly low, giving a soft ride over bumps at low speeds, and naturally, permit wheel deflections at speed also, but vertical wheel travel seems to be limited more strictly than in the regular Buick lines.

Much has been done to reduce body roll in the Riviera, with the result that the car offers little re-



The instruments are large and legible, and the steering wheel of simple design. The wide seats are softly padded and give a reasonable amount of lateral support.

sistance to initial lean, but soon reaches its limit. In other words, the car will go through the whole corner at an almost constant roll angle, which is not excessive by any standards that can be set for a car of the size and weight of the Riviera.

The car is very well balanced, with increasing understeer as speeds rise. The power steering is geared for 3½ turns lock to lock, and steering response would be immediate but for a slight delay in overcoming basic understeer.

On winding roads, the car can be placed very accurately into the turns, and S-bends cause no undesirable reactions either in the suspension or the steering.

The brakes are in keeping with the performance. Buick power brakes have been working well for all the recent large Buicks, and seem to be able to cope effectively with the added speed potential of the Riviera. With low pressures and high potency, this brake system closely rivals existing disc-brake applications for all-round suitability.

BUICK RIVIERA *CONTINUED*

The Riviera comes as a two-door sedan and no other body styles are envisaged. Wind noise was found to be low and the effect of lateral wind gusts was negligible. This has of course not been achieved accidentally, but is a result of both laboratory tests with the body shape and high-speed tests with the actual car at the GM proving grounds near Phoenix, Arizona.

The driving position deserves the highest praise. The wide separate front seats are comfortable and give some sideways support, and the test car was fitted with seat belts. The backrest angle is not adjustable, but is set to provide an acceptable position for a majority of drivers, and we found it just right. Fore-and-aft seat adjustment is ample. The robustly hinged accelerator pedal is large enough for a truck, and the brake pedal is wide enough for either foot to be used with a minimum of sideways movement. The space between the brake pedal and the parking brake pedal (with a lift-up release under the dash) is wide enough to provide the driver with floor space to brace himself.

The steering wheel in its normal position is at the right height and

a convenient angle. The Riviera offers a seven-position adjustment as an option, a nice idea which has not, in this instance, been carried to its logical conclusion. The column remains fixed while the boss can be tilted, with the result that when the wheel is nearest a horizontal position, it is also at the maximum height from the seat, while it ought to be at the minimum. Conversely, when nearest to vertical, it is at minimum height, when space is essential for the wheel to go clear of the driver's thighs.

The controls are, on the whole, conveniently laid out. The transmission selector lever is floor-mounted in the wide console which separates the front seats, and moves in the familiar P-N-D-L-R pattern. Side-ways pressure on the lever is necessary to enter reverse and park; the other positions are in line.

Top speed in low range is about 65 mph, and above 85 mph the car stays in direct drive with the torque converter acting as a plain hydraulic coupling. Below 85 mph, kickdown will actuate the converter and, if the speed is low enough, will engage low ratio. Thanks to the continuous variation in the angle of the stator blades, the shift from low to drive is undetectable, even on full-throttle

acceleration, regardless of gradient.

The air-conditioning unit is completely separate from the heater and defroster, which offers improved temperature control by elimination of the water-control valve. Now the water circulates through the heater core at all times, regardless of heater-control settings.

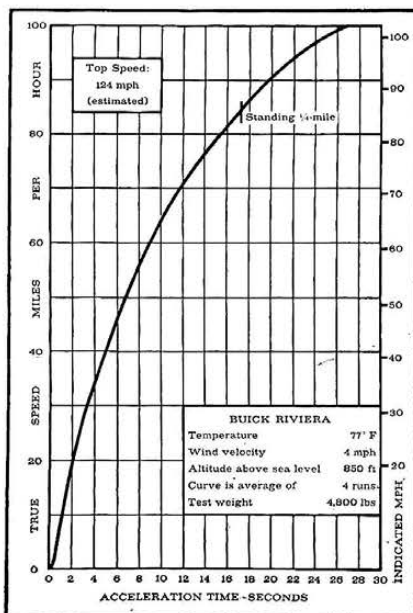
The air conditioner is mounted in the dash with its accessories as near as possible. The compressor is mounted over the right cylinder head, and the condenser is located in front of the radiator. A fan clutch is used, engaging the fan when required by the air conditioning.

Following the current trend, the Riviera has a Delcotron alternator in place of a generator. It is rated at 42 amperes, turning at 2.51 times crankshaft speed.

Summing up, the Buick Riviera is an unusual car. It is rapid and safe, heavy yet nimble, comfortable and elegant. The engine works in such silence and freedom from vibration that one is almost unaware of its presence, yet its performance is almost taken for granted. The Riviera proved perfectly at home under all conditions encountered during the test, and we feel that this is a car which will not look out of place on any road or street in the world.

BUICK RIVIERA

Price as tested: To be announced
 Manufacturer:
 Buick Motor Division,
 General Motors Corporation,
 Flint, Michigan



ENGINE:

Displacement..... 425 cu in., 6,966 cc
 Dimensions: V-8 cyl., 4.31-in bore, 3.64 in stroke
 Valve gear: Pushrod-operated overhead valves with hydraulic lifters
 Compression ratio..... 10.25 to one
 Power (SAE)..... 340 bhp @ 4,400 rpm
 Torque..... 465 lb-ft @ 2,800 rpm
 Usable range of engine speeds..... 750-4,600 rpm
 Carburetion: Single four-barrel Carter AFB carburetor
 Fuel recommended..... Premium
 Mileage..... 8-18 mpg
 Range on 20-gallon tank..... 160-360 miles

CHASSIS:

Wheelbase..... 117 in
 Track..... F 60 in, R 59 in
 Length..... 208 in
 Ground clearance..... 8.8 in
 Suspension: F: Ind., wishbones and coil springs, telescopic shock absorbers, anti-roll bar.
 R: Rigid axle, radius arms and one upper torque arm and vertical coil springs, telescopic shock absorbers.
 Steering..... Recirculating ball
 Turns, lock to lock..... 3 1/2
 Turning circle diameter between curbs..... 41 ft
 Tire size..... 7.10 x 15
 Pressures recommended..... F 24, R 24 psi
 Brakes; type, swept area: 12-inch drums, 320 1/2 sq in
 Curb weight (full tank)..... 4,200 lbs
 Percentage on the driving wheels..... 47

DRIVE TRAIN:

Clutch: Dual Path Turbine Drive five-element torque converter.

Gear	Ratio	Overall	Mph per 1,000 rpm
Rev	1.82-6.19	5.90-19.90	Max 16.8
Low	1.82-6.19	5.90-19.90	Max 16.8
Drive	1.00-3.40	3.23-10.96	Max 32.8
Final drive ratio: 3.23 to one			

