

by Jim Wright, *Technical Editor*

WHEN ANY CAR THAT'S NEW and different in concept is offered for the first time, it's met with a barrage of questions from the public. What about its purpose and practicability, degree of class or quality, construction details, cost and economy, comfort and roadability — how does it stack up against its competition?

Here at MOTOR TREND, we're no different from our readers. A new car like the Riviera creates just as much interest and raises just as many questions with us. After logging over 2500 miles in a Riviera, we've managed to answer just about every question but one — just how big a slice of the personalized luxury car market is the Riviera going to be able to carve off in its first year?

We think the Riviera has a lot going for it from a sales standpoint. First of all, the 80-some-odd-thousand sales that Thunderbird racked up last year show there's a large market for a car of this type. Second, the Riviera's all new, while its only competitor offers a body style that's in its third (and probably last) year without any definite styling changes... meaning that if Buick had waited until next year when the T-Bird will be greatly changed, they wouldn't have nearly so good a chance to cut into Ford's market. This is probably the best single point in the Riviera's favor. Also to be considered is that the Riviera comes from a

maker who has an excellent image for building quality vehicles, and the price of the Riviera compares very favorably with the Thunderbird's.

A big 425-cubic-inch engine was originally scheduled as standard equipment for the Riviera, but at the last minute it was decided to drop this idea in favor of the 401-cubic-inch V-8 that's standard in all other Buicks. The "425" is offered as an option, but the average owner will probably be more than satisfied with the performance of his Riviera with the standard 325-hp engine.

Our test car was equipped with the standard engine driving through the standard Turbine Drive automatic transmission and 3.23 rear axle. As extras go, this one was rather sparsely equipped: power seat and windows, adjustable steering wheel, plus the usual radio, wheel covers, remote-control side-view mirror, and other small items. Both power steering and power brakes are standard on the Riviera. This kept down both weight (4192 pounds curb) and price (\$5158.61).

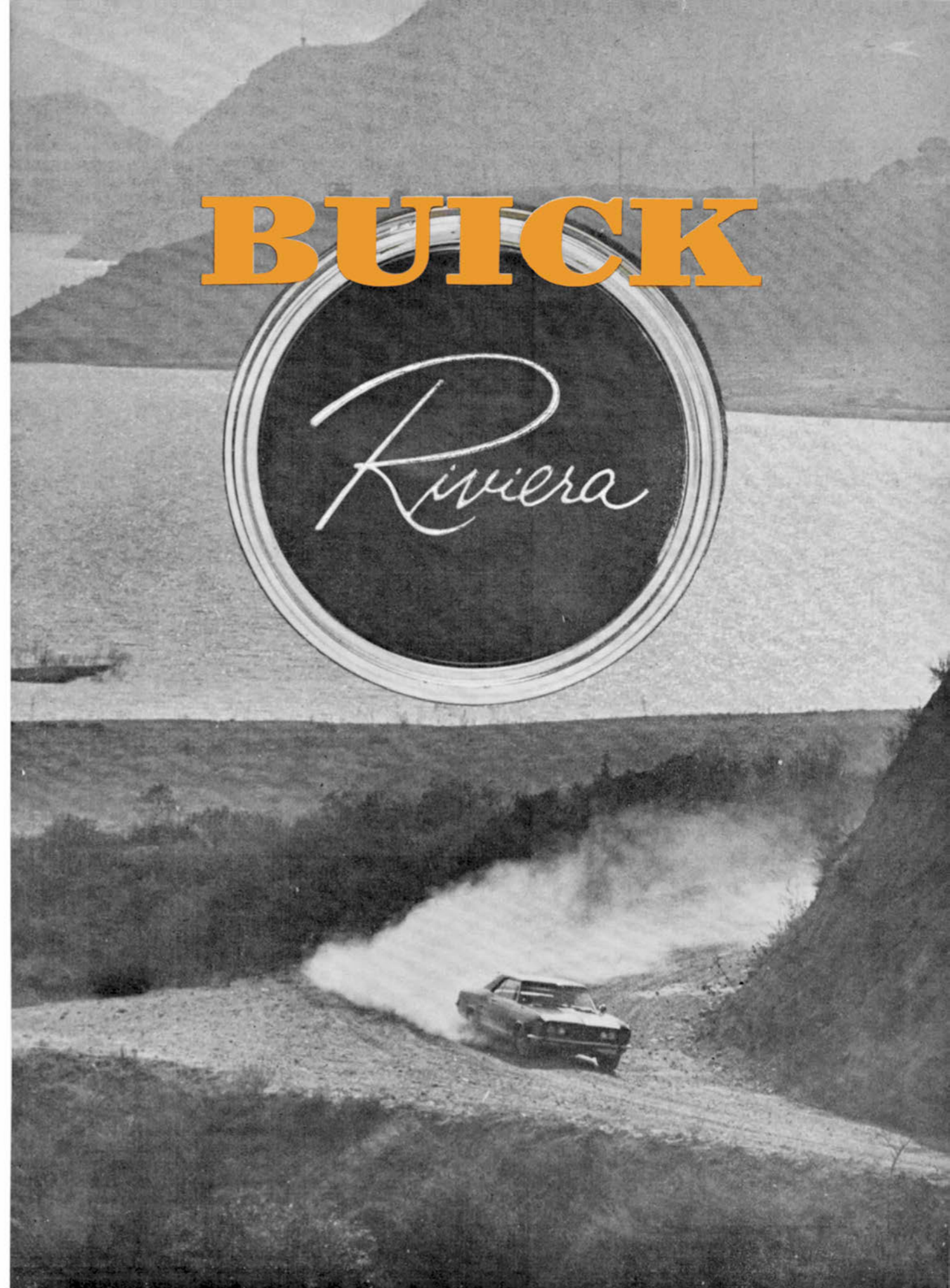
With two men aboard, plus our test equipment and a full tank of gas, the Riviera weighed about 4500 pounds. But even at 2¼ tons, this one's still plenty lively. The standing quarter-mile runs were made at San Gabriel drag strip and were electronically clocked by the strip's Chrondek timing gear. We made several runs, and all were in the low 16-second-ET, 85- to 86-mph bracket. Best was a 16.01-second ET, 85.71-mph trip. The 0-30, 0-45, and 0-60-mph fractions were recorded in our usual manner with stopwatches and the fifth-wheel-operated Weston electric speedometer and came up in 3.2, 5.5, and 8.1 seconds respectively.

It's interesting to note that without the added weight of test equipment and passenger, the Riviera's capable of cutting 0-60 mph in *less* than eight seconds. The engine is so smooth around town that you never get a hint of just how exceptional the acceleration really is in this car.

If 0-60 mph in under eight seconds isn't fast enough for some prospective buyers, we suggest they choose the 425-



RAZOR-EDGE STYLING AND A TASTEFUL USE OF CHROME TRIM ADD A TOUCH OF ELEGANCE TO AMERICA'S NEWEST PERSONAL LUXURY CAR.



cubic-inch, 340-hp engine option and combine it with the 3.36, 3.58, 3.91, or 4.45-to-1 optional rear axles.

With a little set-up work, this car could even be a real sleeper at the drags. The standard 325-hp engine would run in F/Stock Automatic, while the 340-hp powerplant would put the car in E/Stock Automatic (under the NHRA classification system). At present, the record in E/SA is held by a '62 Pontiac at 98.10 mph and 14.18 seconds ET. No national record in F/SA is listed in the NHRA books at this writing. You can almost bet that someone will show up at the Winter-nationals with a Riviera.

There've been some rumors that Buick will be offering a four-speed manual transmission for the Riviera, but so far they haven't announced anything official one way or the other. For a *pure* automatic transmission, the Dual-Range Turbine Drive is hard to beat, either in smoothness or performance. Starting in *DRIVE*, there's no discernible shift of gears as the engine winds out — this is all done by torque multiplication through the variable-pitch turbine blades. Starting *LOW* engages a lower-ratio gearset and is good up to approximately 75 mph before the driver has to shift into *DRIVE*. This shift is quick and positive, and there's very little slip apparent. Several top-speed runs gave an average of 115.5 mph, with our electric tachometer reading near 4400 rpm. Given more room than Riverside Raceway's backstretch, top speed would easily reach 120 mph with the 3.23 rear axle.

During the 2500 miles we had the Riviera, it averaged between 11 and 15 mpg on premium gasoline. Overall average was 13.2 mpg for all road and traffic conditions. Around-town traffic, such as one would normally encounter between home and office or home and supermarket, gave a

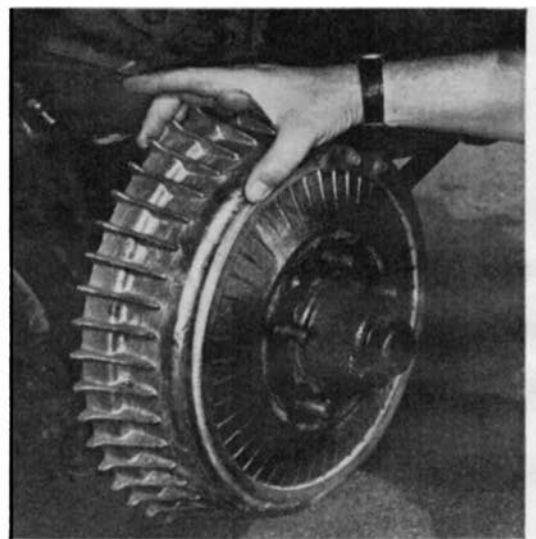
low average of 11.2 mpg, while extended highway trips pushed the figure up to a high of 14.9 mpg. The factory offers one "economy" rear axle with a 2.78-to-1 ratio, which could put the fuel consumption figures in the 12- to 16-mpg range.

The excellent Al-Fin aluminum front brake drums (standard equipment on big Buicks for the past several years) are used on the Riviera, too. Rear drums are finned cast iron and look as if they came from the same mold as the fronts. In terms of effective lining area, Buick brakes are small compared with several cars that weigh a lot less than the Riviera, but the quick cooling afforded by the big, finned drums makes them more effective than those with more lining area. These brakes will survive at least two more panic stops than other cars with cast-iron drums all around that we've tested. When they do fade completely, they require only about half the cool-down time before they're ready to go again.

We've never been too happy with the power brake system



Spare is covered with foam-rubber-padded boot to keep luggage from scuffing against it. Area is plentiful enough for needs of average motorist.



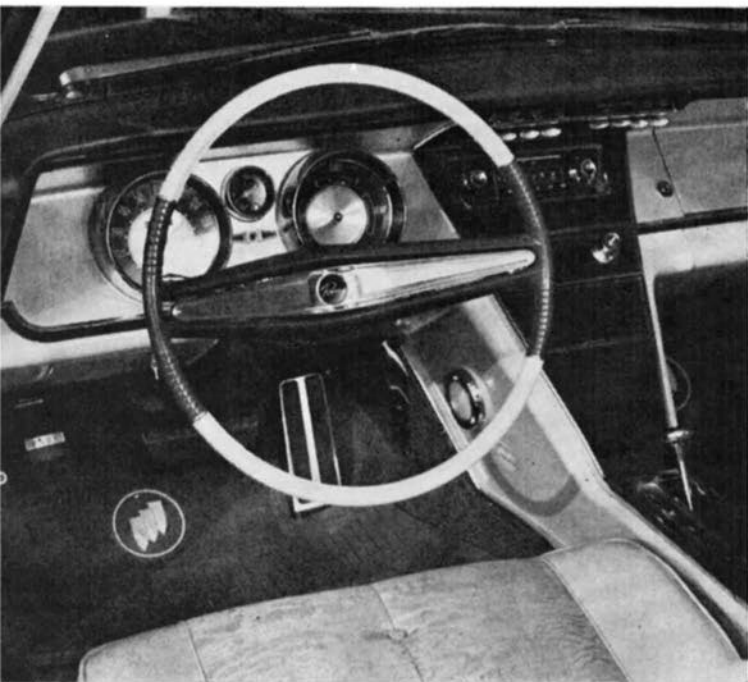
(LEFT) There are bigger drums, but none more efficient than Buick's finned aluminum units.

PHOTOS BY BOB D'OLIVO

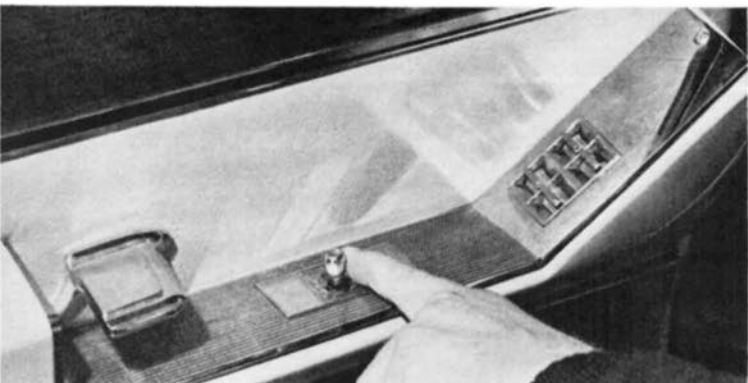
(RIGHT) Standard 401-cubic-inch engine supplies the power, with an optional 425-incher also available. Delcotron alternating generator is standard equipment, as are power brakes and steering.

HANDLING QUALITIES
ARE SURPRISINGLY GOOD,
MAKE THE RIVIERA A
PLEASANT CAR TO DRIVE.





Interiors are in good taste, with a minimum of flash. Still, we'd like to see more instruments in a dashboard like this.



Controls for windows and driver's seat are carried on door panel. Seat and adjustable steering wheel are good extras.



Doors are wide enough to allow easy entry and exit. Riviera is designed to carry four large adults in complete comfort.

used by Buick — it's just too touchy and takes a long time to get used to. About the time we *could* make smooth stops without applying too much pedal pressure, the rainy season started, and we had to learn how to use them all over again.

While the Riviera uses the same X-type frame used on bigger Buicks (only shorter), the rear axle's been modified to the point where it's lighter but just as strong as the others. Where the larger Buicks have a rear track of 61 inches, the Riviera has a track of 59 inches. The front's been narrowed from 62 to 60 inches. Different spring rates, combined with the lighter weight of the Riviera, give a firmer ride than the big Buicks, although it's still quite soft by anyone's standard. At high cruising speeds, the Riviera floats too much, but we think this could be cured with slightly stiffer shocks. Directional stability is excellent, due mainly to suspension geometry and the Panhard-type track bar incorporated in the rear suspension. It completely eliminates side sway. This means the Riviera's little affected by all but the highest crosswinds.

Cornering in the Buick causes a bit of surprise at first because it does it so well. A stiff anti-roll bar at the front keeps the Riviera very flat even in short, sharp corners. With the low recommended pressures in the two-ply tires, there's quite a lot of noticeable scrub when cornering hard, but this is easily cured by boosting the pressures up to around 30 psi. With harder tires, the ride's still comfortable and the Riviera has much-improved handling characteristics. The tendency for the front end to plow is eliminated completely. Once the driver gets firmly acquainted with the light, quick (3.5 turns lock to lock) power steering, the Riviera can be whipped over twisty mountain roads with the best of them.

Around town, the Riviera's as completely at home as it is out on the road. It handles easily in traffic and can be parked by anyone. All-around visibility is good, but tall drivers will find that the low rear window limits their line of sight to about a half-block back.

Our test car had the seven-position adjustable steering wheel. Used in conjunction with the four-way-tilt driver's seat, it allowed us to find a driving position that was comfortable and well suited to our particular frame. We've tried this wheel before in a car that didn't have the power seat and weren't too impressed with the practicability of the different positions. Still, together with the seat, it becomes very effective.

The semi-bucket seats allow comfortable seating for four passengers, with plenty of hip, head, and leg room available both front and rear. Standard upholstery is all vinyl, but the test car had optional vinyl and nylon materials. Genuine leather isn't available this year.

Buick craftsmanship was evident on the exterior, where all panels were perfectly fit — and on the inside, where detailing is top-notch. We were a bit disappointed in the instrument panel. A speedometer, odometer, trip odometer, and fuel gauge are all housed in the two large dials; lights do the job (?) for oil pressure, temperature, and ammeter. A car of this sort should really have a full complement of gauges to accentuate its character.

Most engine accessories are out in the open for easy servicing, and the trunk's large enough to accommodate several large suitcases plus a few smaller ones for week-enders or longer trips.

In our opinion, the Riviera would be a very satisfying car to own. It offers plenty of performance and roadability plus traditional Buick quality, a combination that could make it a leader in the personalized luxury car field. /MT

BUICK RIVIERA

2-door, 4-passenger hardtop

OPTIONS ON CAR TESTED: Power seats, power windows, adjustable steering wheel, radio, cornering lights, deluxe wheel covers, special upholstery, tinted glass, trunk release

BASIC PRICE: \$4333

PRICE AS TESTED: \$5158.61 (plus tax and license)

ODOMETER READING AT START OF TEST: 5614 miles

RECOMMENDED ENGINE RED LINE: 5500 rpm

PERFORMANCE

ACCELERATION (2 aboard)

0-30 mph.....	3.2 secs
0-45 mph.....	5.5
0-60 mph.....	8.1

Standing start ¼-mile 16.01 secs. and 85.71 mph

Speeds in gears

Low.....	76 mph @ 5500 rpm
Drive.....	115.5 @ 4400 rpm (observed top speed)

Speedometer Error on Test Car

Car's speedometer reading.....	32	46	51	62	72	83
Weston electric speedometer.....	30	45	50	60	70	80

Observed miles per hour per 1000 rpm in top gear.....24.5 mph

Stopping Distances — from 30 mph, 35 ft.; from 60 mph, 151 ft.

SPECIFICATIONS FROM MANUFACTURER

Engine

Ohv V-8
Bore: 4.1875 ins.
Stroke: 3.64 ins.
Displacement: 401 cu. ins.
Compression ratio: 10.25:1
Horsepower: 325 @ 4400 rpm
Torque: 445 lbs.-ft. @ 2800 rpm
Horsepower per cubic inch: 0.81
Ignition: 12-volt coil

Gearbox

Dual-Range Turbine Drive;
console-mounted shift lever

Driveshaft

Two-piece — open tube

Differential

Hypoid — semi-floating
Standard ratio: 3.23:1

Suspension

Front: Coil spring with upper and lower control arms, direct-acting tubular shocks, and anti-roll bar
Rear: Rigid axle, with coil springs, leading control arms, track bar, and direct-acting tubular shocks

Steering

Recirculating ball and nut, with integral power
Turning diameter: 43.6 ft.
Turns: 3.5 lock to lock

Wheels and Tires

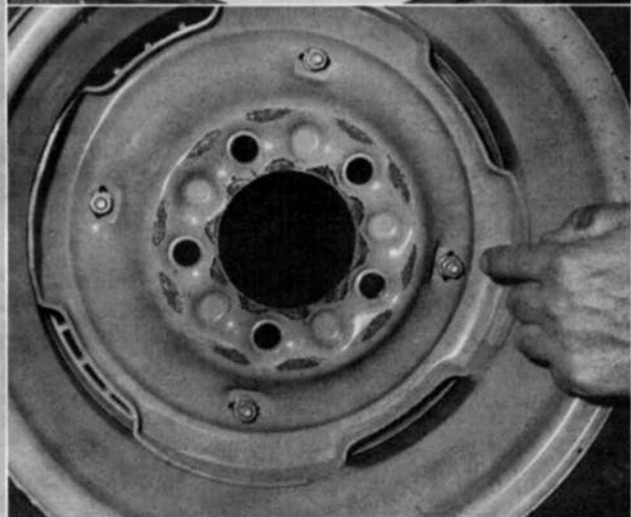
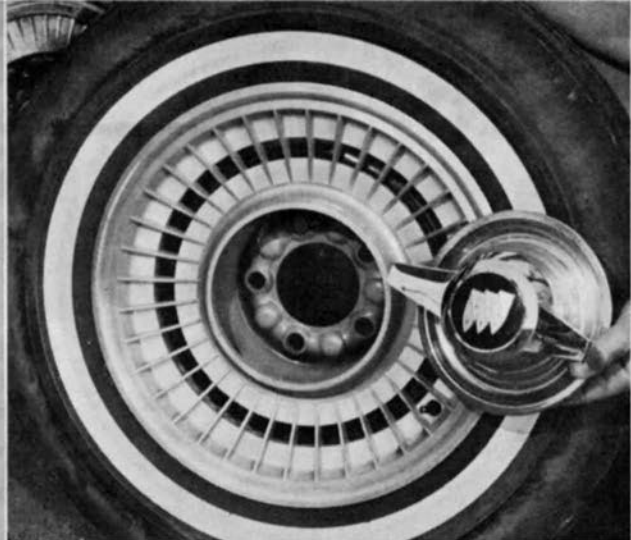
5-lug, steel disc wheels
7.10 x 15 2-ply (4-ply rating)
tubeless rayon tires

Brakes

Hydraulic, duo-servo
Front: 12-in. dia. x 2.25-ins.-wide finned aluminum drums
Rear: 12-in. dia. x 2.0-ins.-wide finned cast-iron drums
Effective lining area: 156.9 sq. ins.

Body and Frame

Cruciform (X-type) frame with separate body
Wheelbase: 117.0 ins.
Track: front, 60.0 ins.; rear, 59.0 ins.
Overall length: 208.0 ins.
Curb weight: 4192 lbs.



OPTIONAL DELUXE WHEEL COVERS ARE BOLTED TO WHEEL. 'KNOCK-OFF' CAPS GIVE ACCESS TO LUGS.



QUARTER-MILE PERFORMANCE WITH THE STANDARD ENGINE IS DEFINITELY ABOVE AVERAGE.