ROAD TEST:

BUICK'S NEW CENTURY

By GRIFF BORGESON

WIPE FROM your mind whatever impression you may have of the Buick automobiles unless you've driven this year's line. The 1954 Buicks are a big forward step in the company's history and differ from the Flint products of the recent past so radically that it's hard to believe they're the same make. The new Buicks combine all the most desirable features of the modern car to a degree that makes them one of the world's best buys. They are likely to deal a harsh blow to the competition, including sister makes within the GM family, even within the financial colossus that is GM the various divisions fight as ruthlessly for public acceptance as though they were "independents."

Our key test car was the new Buick Century, the light model with the big engine. The car has fabulous performance but it is actually only slightly quicker than the Roadmaster; weight-to-power ratios of 18.5 and 21.3 both make for remarkable acceleration. Although the Century is the fastest of the new Buicks it is only slightly more so than the Roadmaster and can be taken as the approximate measure of both models.

The Century is definitely a better accelerating machine than any production car of 1953. This year's road tests will tell which '54 cars, if any, have more sheer scat. There are some cars that can top the Century's flat-out speed, but very few. From the simple point of view of devouring pavement the Century leaves nothing to be desired.

General road behavior is every bit as good. Our Buick experience before this test had been concentrated upon pre-'53 specimens. These were notable for their "feather-bed ride" which was the joy of dowagers and a delight on super highways with curves of generous radius, but had limited appeal to the large number of motorists whose reflexes are quick and

SPECIFICATIONS

PERFORMANCE

TOP SPEED
- Average of two-way runs: 107.5 mph
- Fastest one-way run: 112.2 mph

ACCELERATION
- 0-30 mph: 4.1 secs.
- 0-45 mph: 7.8 secs.
- 0-60 mph: Low, 10.6 secs.
- 0-60 mph: Drive, 13.6 secs.
- Standing Quarter Mile: 18.3 secs.

EMERGENCY BRAKING DISTANCES
(By Perfometer)
- From 30 mph: 44 ft.
- From 45 mph: 104 ft.
- From 60 mph: 186 ft.
- From 75 mph: 290 ft.

FUEL CONSUMPTION
(Using Mobilgas Special)
- At constant 30 mph: 19.8 mpg
- At constant 45 mph: 18.1 mpg
- At constant 60 mph: 16.9 mpg

SPEEDOMETER CORRECTION
(Above readings all taken at corrected speeds)
- Indicated 30 mph: 29 mph actual
- Indicated 45 mph: 41 mph actual
- Indicated 60 mph: 54 mph actual

SPECIFICATIONS

POWER UNIT
- Type: 90° V8
- Maximum brake horsepower: 200 @ 4100 rpm
- Maximum torque: 309 lbs.-ft. @ 2400 rpm
- Piston displacement: 322 cu. in. (5280 c.c.)
- Bore & stroke: 4.00 x 3.20 in. (101.5 x 81.2 mm.)
- Stroke to bore ratio: 0.80 to one
- Compression ratio: 8.5 to one
- Valve arrangement: Pushrod-operated in-line valves in hemispherical chambers
- Carburetion by: 4-throat Stromberg or Carter
- Ignition: 12 volt
- Oil Filter: Full flow

DRIVE TRAIN
- Clutch type, with optional conventional transmission: Buick single plate
- Clutch friction area: 106.8 sq. in.
- Clutch plate pressure: 1680 psi
- Conventional transmission: All-helical, constant-mesh 2nd
  Ratios: 1st 2.39, 2nd 1.53, 3rd 1.00, Rev. 2.53
- Automatic transmission: Twin turbine Dynaflow, torque converter with gears
  Ratios: D: 1xConverter Ratio; L&R: 1.82x C. R. Max. ratio to stall: 2.45 @ 1700 engine rpm
- Final drive ratios: Conventional 3.9 to 1
  Automatic 3.4 to 1

CHASSIS
- Suspension, front: Coil spring independent
- Rear: Coil springs; axle torque taken by torque tube
- Steering type: Ball bearing worm and nut
- Steering wheel turns: 4.5 lock to lock
- Steering turning diameter: 43 ft.
- Brake type: Hydraulic
- Brake drum diameter: 12 in.
- Brake lining area: 207.5 sq. in.
- Wheel bolts or studs: 5, 5.0 in. circle diameter
- Tires: 7.00 x 15
- Wheelbase: 122 in.
- Tread: Front 59 in.; rear 59 in.

GENERAL
- Overall length: 206.3 in.
- Overall width: 76.6 in.
- Overall height: 60.5 in.
- Weight, shipping: 3790 lbs.

RATING FACTORS
- Bhp per cu. in.: .62
- Bhp per sq. in. piston area: 1.99
- Pounds per bhp: 18.5 (based on shipping wt.)
- Pounds per sq. in. piston area: 37.7 (based on shipping wt.)
- Lbs.-ft. torque per cu. in.: .96
- Cu. Ft. per ton-mile dry: 1570
- Piston speed in ft. per min. @ 60 mph: 1550
- Piston speed in ft. per min. @ max. bhp: 2185
- Brake lining area per ton: 109.5 sq. in.
- Ton miles per gallon: 34.7

MAINTENANCE DATA

ELECTRICAL
- Spark plug gap: .030-.035 in.
- Breaker point gap: .0125-.0175 in.
- Battery: 12 volt Delco-Remy, negative ground

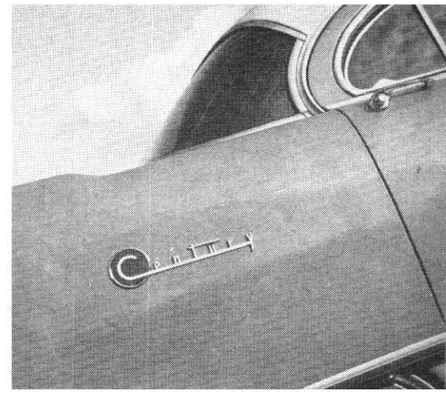
VALVES
- Timing—Intake opens: 25° BTC
  Intake closes: 77° ABC
  Exhaust opens: 70° BBC
  Exhaust closes: 42° ATC
- Tappet clearances: Intake zero in., exhaust zero in.

WHEELS
- Tire pressures: Front 24 psi, rear 24 psi
- Alignment—Caster: ½° positive to ¾° negative
  Camber: ⅞° positive to ⅝° negative
  Toe-in: zero to 1/16 in. (outside tread)

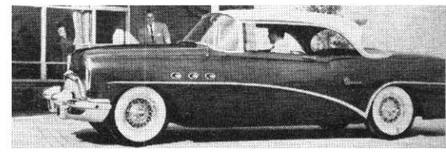
LUBRICATION
- Crankcase: 6 qts., SAE 20W summer, SAE 10W winter
- Transmission—Conv.: 2.5 pints SAE 90
  Auto.: 20 pints AQ-ATF or Buick Dynaflow oil
- Rear axle: 4.5 pints SAE 90, GM 4655M only

RADIATOR
- Capacity—without heater: 16.5* qts.
  with heater: 18.0* qts.

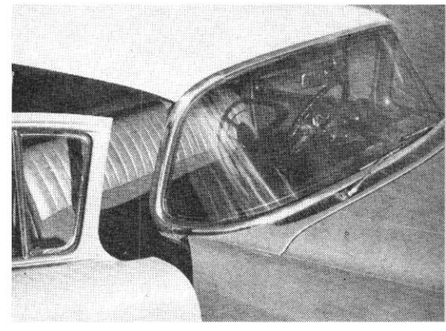
*Two additional quarts required if fitted with Dynaflow.



Century name returns to Buick line for first time in postwar years, combines big engine and shorter Special chassis

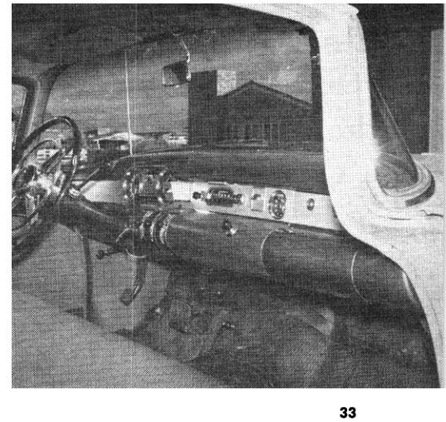


Riviera hardtop, modelled after famed Skylark styling, is extremely popular car. This one is in the Super series



Drastic style change is new windshield. Driver gets increased visibility, which the passengers in rear compartment share

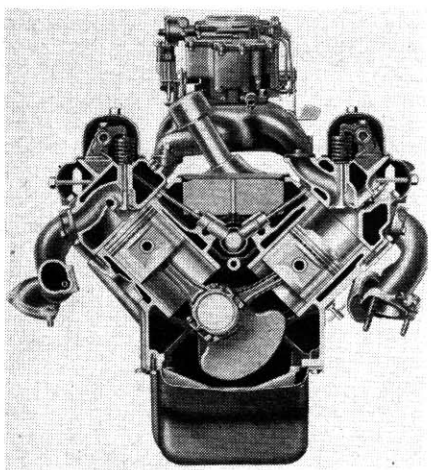
Moving corner posts back does not hinder easy access to the front seat



Test driver makes roadside stop in desert after fifth-wheel runs. Note big trunk, vertical position of spare tire

whose suspension and steering preferences are relatively Spartan. None of our test crew was addicted to the *old* Buick chassis; driving the Century was a startling and deeply impressive experience that re-educated us all in a hurry.

The new Buick ride is typically devoid of any trace of harshness; what is new and really admirable is the flatness and firmness of the ride, a feature which is in solid harmony with the car's substantial overall character. It speeds around curves with barely a trace of roll and very

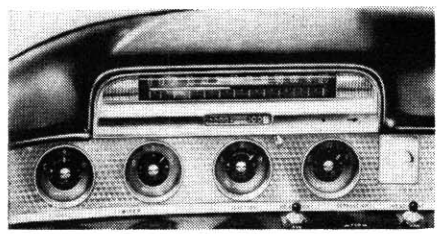


Buick V-8 has more efficient combustion chamber. Big engine has displacement of 322 cubic inches, 264 for Special

little tire squeal. In 1,200 miles of shakedown, we rolled up about 200 miles of fast driving on difficult mountain roads and about 20 of these miles were covered in a torrential downpour. We cornered the Century faster on drenched pavement than most drivers would think of doing on dry. We did this with a perfect sense of security based on what we had learned of the superior balance, stability, and tire adhesion of the new Buick chassis.

ONE OF the most important factors contributing to the new Buick's fine handling qualities is its redesigned steering system. A new, parallelogram-type linkage provides practically zero toe change through the compression and rebound ranges of the front suspension, improves directional stability and cuts wheel-fight on rough roads to a minimum. This steering linkage is an integral part of the new front suspension, which is notable for the extreme length of its A-arms or wishbones and for new, direct-acting shock absorbers vertically mounted within the coil springs but independent of them. This happy arrangement of the front end components is largely responsible for the new Buick's maneuverability.

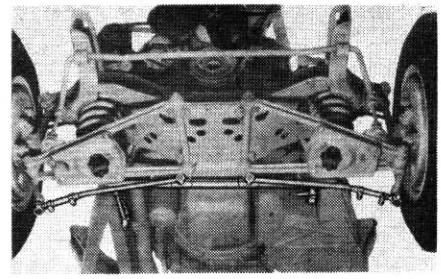
Our Century test car was equipped with power steering, which has a slightly faster ratio than the manual form. It is of the pre-loaded type requiring a fair pull on the wheel to change direction at any speed. Even on our fastest runs, with the speedometer needle beyond the 120 mark, both steering and ride remained as taut,



Novel "thermometer" speedometer appears on Roadmaster and Super models. Dash was styled after Wildcat sports car

firm, and confidence-inspiring as they are at 30 mph. Although it is a big car, the new Buick lends itself to being whipped around tight bends almost like a small sports car. *Don't laugh until you've tried it!* The driver's will is this car's command to a remarkable degree. Its steering seems to respond in the same way an alert horse does to a feather-light tug on the reins: you let it know where you want to go and its own obedient will takes over. We decided the Buick is quite an enginering feat—it's buoyant but wiry, big but nimble at all speeds.

Buick's very advanced V-8 engine was adequately praised and analyzed when it was introduced in 1953. This year it replaces the last straight-eight holdout of the Flint line, which powered the Special. During our test of the Century our team agreed on three points concerning the Fireball V8. First, it is one of the best in a competitive field flooded by excellent power plants. Second, probably no other V8 can match the Buick for accessibility, convenience of maintenance and—even with full power equipment—lack of clutter in the engine room. Third, the engine in our Century vibrated very markedly on the unwind, when the throttle was blipped with the car standing in neutral. This last most likely resulted from the brand new engine's natural tightness but we mention it because it was the only note which jarred against the car's otherwise entirely rock-solid quality.



New steering linkage on all Buicks improves directional stability and reduces handling problems on rough roads

The big Buick engine which powers the Roadmaster and Century has had its output increased to 200 bhp from last year's 188 and the Super's bhp has been boosted from 170 to 177. This increase in urge is accompanied by increased efficiency and was accomplished by drastic changes in both heads and pistons, as an illustration shows. For the 1954 engines the piston domes were lowered almost half an inch and the combustion chambers greatly decreased in size. A look at the before-and-after drawing shows how the 1954 head, by extending out over the pistons, creates a very desirable turbulence-causing squish or quench area. Furthermore, the combustion chamber surface is greatly reduced, meaning that less heat is rejected to the water jacket and more is put to work making the wheels go around. The new squish area seems to erase the last trace of the pinging that was not unknown in '53 models. The sky-high compression ratio of 8.5 to one is still used in the most powerful Buick engines. *All* cars use hydraulic tappets and 12-volt systems.

HOW ALL this fine machinery performs is the next question. A disarming thing about these cars is that you just don't realize how potent they are until you breeze away from a few traffic signals and every time find yourself all alone, a block away from the herd just beginning to charge. Another way to appreciate what

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Joshua tree frames Century as it swings down winding desert road. Fine power steering prevents over-control in turns