Top-selling Impala offers a full range of engine options. We've chosen two from the middle.

MT Road Test

by Jim Wright,
Technical Editor

NOT TOO MANY years back, the prospective new-car buyer had very little to choose from when it came to what kind of an engine he wanted in his car. Some manufacturers were offering only one basic engine; others had two – either a Six or a V-8 – but power options were unheard of. This meant the buyer either had to be satisfied with what he could get or he could go the usual (and expensive) "hop-up" route at his local speed shop.

Nowadays, the new-car buyer can get just about any degree of performance he wants, right from the factory. Most of the manufacturers are offering engine options ranging from mild to wild – and no one offers any more than Chevrolet.

At present, they have four basic engines: a 250-cubic-inch Six and three V-8s of 283, 327, and 409 cubic inches (a 425-incher is still in the rumor stage). The Six is strictly their economy model, rated at 140 hp. The "283" pulls 195 hp and, together with the "327," available with either 250 or 300 hp, helps fill the gap between the economy Six and the all-out performance "409." The big ones come in three stages of tune: 340 and 400 hp for "street" use and 425 hp for drags only.

Since we had tested the "283" and the drag version of the "409" last year (July MT), we decided to find out what Chevrolet was offering in between. One of the test cars was equipped with the 250-hp "327," and the other had the newly introduced 340-hp "409." Both were Impala SS sport coupes (the only two-door hardtops now available are in the Impala series). Surprisingly enough, the Impala, which is the higher-priced series, has become the largest seller in the Chevrolet line. Being the SS, or Super Sport versions, both Impalas were equipped with bucket-type seats, padded dash, center storage console, and floor-mounted Powerglide control lever.

Both engines were equipped with single four-barrel carburetors and hydraulic camshafts. The "327" had the higher compression ratio at 10.5 to 1, against the "409's" 10 to 1. Both require premium-grade fuel.

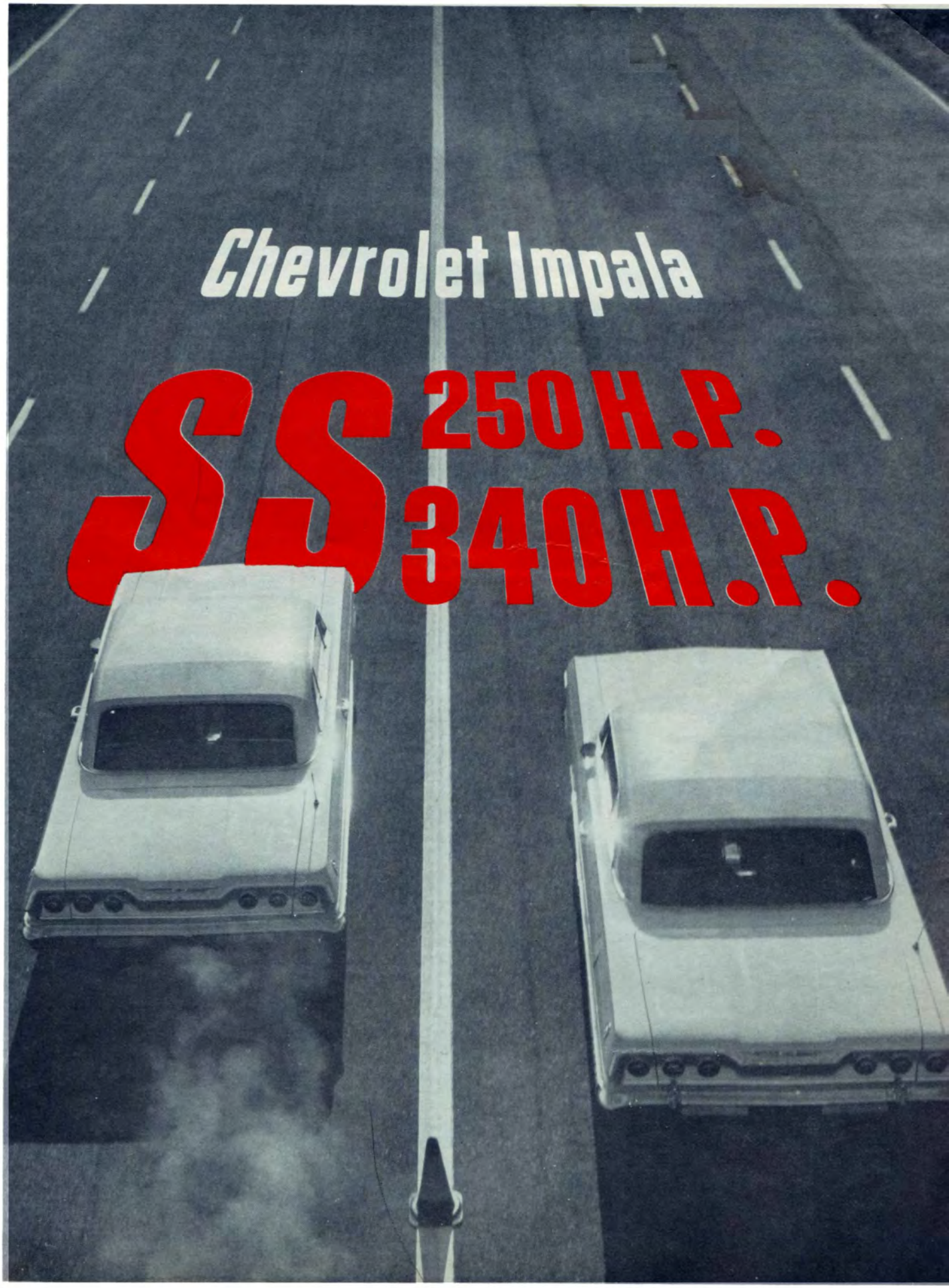
Since this is the first year that Chevrolet has mated one of their big engines with the Powerglide automatic transmission, we were especially interested in trying the "409" with this option. Standard rear axle with the "327" Powerglide is 3.08 to 1; with the "409" Powerglide, it's 3.36 to 1.

Power steering and power brakes were installed on both test cars. The "327" also had air conditioning, power seat and windows. The "409" has a dash-mounted, 6000-rpm tachometer as standard equipment.

The aluminum-cased Powerglide is now used on all passenger cars and has undergone slight modification from last year's. The "409" Powerglide embodies several heavy-duty components beyond those employed in the "327." One obvious difference was in the ratio of the internal gears. The "327" uses a 1.76-to-1 unit, while the modified "409" transmission uses last year's 1.82-to-1 gearset.

The two-speed transmission handled the output of the "409" quite creditably. There seemed to be a minimum of slippage between the low to high shifts, although the actual shift wasn't as quick and positive as we'd have liked. The standard Powerglide is set to upshift under full throttle at 4500 rpm, while the modified "409" unit shifts at 5000 rpm. Even though the "409" had a higher (numerically) rear axle, both cars upshifted at 62 mph. This was due to the differences in transmission gearing, plus larger tires on the "409."

The floor-mounted shift lever is convenient, but we felt it could stand several improvements. First, even after putting over 1000 miles on these cars, we still had trouble


Chevrolet Impala
SS 250 H.P.
SS 340 H.P.

determining what gear we were choosing, because the lever didn't line up with the indicator marks on the console. Also, even though a slight zig-zag action is required to get the lever from one position to another, it's very easy to slam the stick directly from LOW to REVERSE. Indicator lights would also help the driver shift at night.

In addition to Powerglide, both engine options are also available with three- and four-speed manual transmissions. Three-speed with overdrive isn't available with these particular engines.

Both cars performed very well in the acceleration tests. The "327," with a curb weight of 3829 pounds and a test weight of over 4200 pounds, was still able to log a 10.4-second 0-60-mph time. Zero-to-30 and 0-45 mph took 4.1 and 7.0 seconds, while the standing quarter-mile was run in 17.8 seconds, with a top speed of 78 mph. The "409" was, of course, much quicker to all the marks. It reached 88 mph in the quarter, with a 15.9-second elapsed time. The 0-30, 0-45, and 0-60-mph fractions were run through the watches at 3.0, 5.1, and 7.7 seconds.

Getting the right traction was a problem with the "409." The car should have been equipped with the Positraction rear axle but wasn't, and as a result, too much initial throttle would cause the right rear tire to burn excessively.

At the drags (under '63 NHRA rules), the "409" would have to run in A/SA, which will be a real rough class this year (it was Super/Stock last year). For this kind of action, either the 4.11 or 4.56 optional rear axles would have to be installed (preferably Positraction), and the car would also need "cheater" slicks in place of the stock tires. Only time and actual results will tell, but we can't help but think that the two-speed automatic will be at a distinct disadvantage against some of the three-speed automatics used by other manufacturers.

Down the long Riverside Raceway backstretch, the "409" reached 117 mph and still felt as if it would go a bit faster. At 106 mph, the "327" was all out of breath. The "409" was also a much more stable car at speed, due to the stiffer springs that are part of the "409" option. The "327" had the characteristic floating feel that one associates with soft, coil-spring suspension, while the "409" felt like a completely different car. Quite a bit of annoying side sway was also evident in the "327."

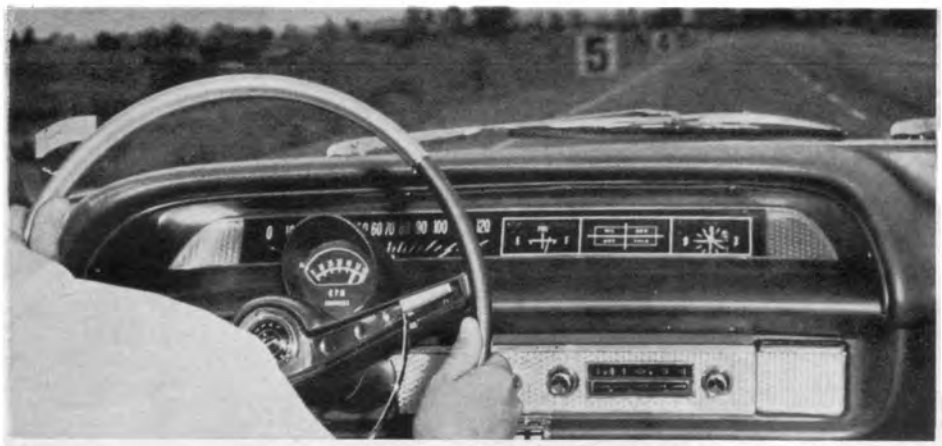
Tight, quick cornering also showed up a world of difference between the "327" and the "409." Both cars use the same diameter anti-roll bar, but the stiffer springs keep the "409" more level and sure-footed (it feels as light as any compact), while the "327" leaned heavily and plowed the front wheels badly. One other difference in equipment that affected the handling characteristics of the two test cars was the four-ply tires, standard on the "409," and the two-plies that come with the "327."

Driving these two cars within minutes of each other under identical conditions was a real eye-opener as to just what extreme (almost ridiculous) lengths a manufacturer (Chevrolet isn't alone in this) will go in pursuit of a so-called comfortable boulevard ride. As near as we could tell, the "409" was every bit as comfortable, without a trace of harshness in the ride, as the "327." In fact, we got a distinctly uncomfortable feeling with the softly sprung "327" mushing about beneath us. In our opinion, this is a good example of where a degree of *actual* safety has been sacrificed in favor of an *imagined* degree of comfort.

Self-adjusting brakes are now used on all Chevrolets, and

Fuses for lights and accessories are mounted on this easily accessible panel located beneath dash.

Except for a normal amount of fade, the Chevrolet brakes performed very well during our tests. A minimal amount of nosedive was encountered, even during very hard panic stops.



6000-rpm tachometer is a useful extra-cost option. Shroud on tach and hood over instrument panel keep glare off windshield at night. Driving position would be better with lower wheel.

PHOTOS BY PAT BROLLIER

Door opening is wide enough for easy entry or exit, and the interior is big enough to handle a full load of good-sized adults on long-distance jaunts.

*The big engine option includes stiffer springs. The "409" (**LEFT**) corners much flatter and with considerably less evident understeer than "327" Impala (**BELOW**).*

continued

External differences between the two engines are evident at a glance. Internally, "327" and "409" are also completely different. Chrome dress-up kit comes as standard equipment with "409." The Delcotron alternating generator is now standard.

like those of other manufacturers, adjust automatically on reverse stops. Both cars stopped in equally short distances from 60 mph. Fade was encountered when the brakes were used excessively, but they bounced right back after a short cool-down period. On panic stops the "327" had a tendency to "wag its tail," which meant that constant steering wheel corrections were needed to keep it in a straight line. Stiffer suspension made the "409" a much better behaved car during panic stops. The power brakes required light pedal applications to keep from locking up the wheels. The standard brakes are light enough, and the average driver (male or female) shouldn't have any trouble getting along without power assist.

Neither the "327" nor the "409" will ever win any economy contests. The "409" was well broken in and in good tune, so our figures are about as good (or bad) as the average owner can expect. Around town, we got an average of 10.2 mpg. Mixed city and freeway travel brought this up to 12.4 mpg. The tests at Riverside dropped the figure way down to 6.8 mpg. The "327" wasn't completely broken in, and every tank of gas showed improvement. Figures on this one ranged from 7.7 mpg at Riverside to 14.2 on the highway. Properly broken in, the overall average would be in the 12-to-16-mpg range.

The basic Chevrolet body configuration is very much like last year's, with the main difference in appearance coming from the use of all-new body panels below the belt line and restyled front and rear sheet metal. All body styles now have the straight windshield pillar, and the wrap-around windshield has become a thing of the past.

Chevrolet's quality control always impresses us. It's the equal of a lot of cars costing quite a bit more. All panels, doors and trim were perfectly aligned and fit flush on both test cars. Even after a lot of hard usage, neither car developed any squeaks or rattles, and several trips through a car wash showed them to be weather-tight.

Interiors are tastefully done in top-grade loop pile carpeting and tough-wearing, rich-looking expanded vinyl. The bucket-type seats are fairly comfortable, but would be even more so if the seat back were designed with a concave instead of a convex contour. The interior is roomy enough to carry five good-sized adults on long trips comfortably, with enough usable luggage space to accommodate their needs.

Trunk sill is low enough to avoid interfering with loading procedures, and with spare out of way, usable area is plentiful.

The driver's seat offered enough adjustment for our near-six-foot frame. We weren't completely happy with the steering wheel location. It's far from the dash and close to the driver and either too big in diameter or mounted too high. The top of the rim was almost level with our eyes.

Even though only the fuel gauge is "real," the dash is still quite impressive – if only in its simplicity. In addition to the usual oil, temp, and amp red warning lights, there's a green one that comes on when the engine's cold.

Other new features for 1963 include an alternator (Delcotron) on all models, extended-life exhaust systems, as well as extended oil-change and lubrication intervals, and a 24,000-mile or 24-month warranty. /MT

CHEVROLET IMPALA SS

2-door, 5-passenger hardtop

OPTIONS ON CAR TESTED: 340-hp engine, Powerglide, power steering, power brakes, radio, heater, whitewalls, tinted glass

BASIC PRICE: $2922.25
PRICE AS TESTED: $3763.45 (plus tax and license)
ODOMETER READING AT START OF TEST: 1325 miles
RECOMMENDED ENGINE RED LINE: 5200 rpm

PERFORMANCE

ACCELERATION (2 aboard)

0-30 mph	3.0 secs.
0-45 mph	5.1
0-60 mph	7.7

Standing start ¼-mile 15.9 secs. and 88 mph

Speeds in gears
Low .....62 mph @ 5000 rpm (shift point)
High .....117 mph (observed top speed)

Speedometer Error on Test Car

Car's speedometer reading	29	45	50	60	70	80
Weston electric speedometer	30	45	50	60	70	80

Observed miles per hour per 1000 rpm in top gear.....22.5 mph

Stopping Distances — from 30 mph, 30.5 ft.; from 60 mph, 134 ft.

SPECIFICATIONS FROM MANUFACTURER

Engine
Ohv V-8
Bore: 4.313 ins.
Stroke: 3.50 ins.
Displacement: 409 cu. ins.
Compression ratio: 10.0:1
Horsepower: 340 @ 5000 rpm
Torque: 420 lbs.-ft. @ 3200 rpm
Horsepower per cubic inch: 0.83
Ignition: 12-volt coil

Gearbox
2-speed Powerglide; floor-mounted lever

Driveshaft
2-piece — open tube

Differential
Hypoid — semi-floating
Standard ratio: 3.36:1

Suspension
Front: Independent, with upper and lower control arms, coil springs, direct-acting tubular shocks, anti-roll bar
Rear: Rigid axle; coil springs with 4-link control for torque and braking forces, and direct-acting tubular shocks

Steering
Recirculating ball, with external power assist cylinder
Turning diameter: 40.5 ft.
Turns: 5.06 lock to lock

Wheels and Tires
5-lug steel disc wheels
8.00 x 14 4-ply tubeless rayon tires

Brakes
Hydraulic, duo-servo, with power assist; cast-iron drums
Front: 11-in. dia. x 2.75 ins. wide
Rear: 11-in. dia. x 2.00 ins. wide
Effective lining area: 186.2 sq. ins.

Body and Frame
Welded steel, box section, "X"-type frame
Wheelbase: 119.0 ins.
Track: front, 60.3 ins.; rear, 59.3 ins.
Overall length: 210.4 ins.
Curb weight: 3789 lbs.

CHEVROLET IMPALA SS

2-door, 5-passenger hardtop

OPTIONS ON CAR TESTED: 250-hp engine, Powerglide, power steering, power brakes, power seat and windows, air conditioning, radio, heater, tinted glass

BASIC PRICE: $2922.25
PRICE AS TESTED: $4119.65 (plus tax and license)
ODOMETER READING AT START OF TEST: 225 miles
RECOMMENDED ENGINE RED LINE: 5200 rpm

PERFORMANCE

ACCELERATION (2 aboard)

0-30 mph	4.1 secs.
0-45 mph	7.0
0-60 mph	10.4

Standing start ¼-mile 17.8 secs. and 78 mph

Speeds in gears
Low .....62 mph @ 4500 rpm (shift point)
High .....106 mph (observed top speed)

Speedometer Error on Test Car

Car's speedometer reading	30	45	50	59	68	75
Weston electric speedometer	30	45	50	60	70	80

Observed miles per hour per 1000 rpm in top gear.....23 mph

Stopping Distances — from 30 mph, 35 ft.; from 60 mph, 135 ft.

SPECIFICATIONS FROM MANUFACTURER

Engine
Ohv V-8
Bore: 4.001 ins.
Stroke: 3.250 ins.
Displacement: 327 cu. ins.
Compression ratio: 10.5:1
Horsepower: 250 @ 4400 rpm
Torque: 350 lbs.-ft. @ 2800 rpm
Horsepower per cubic inch: 0.76
Ignition: 12-volt coil

Gearbox
2-speed Powerglide; floor-mounted lever

Driveshaft
2-piece — open tube

Differential
Hypoid — semi-floating
Standard ratio: 3.08:1

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