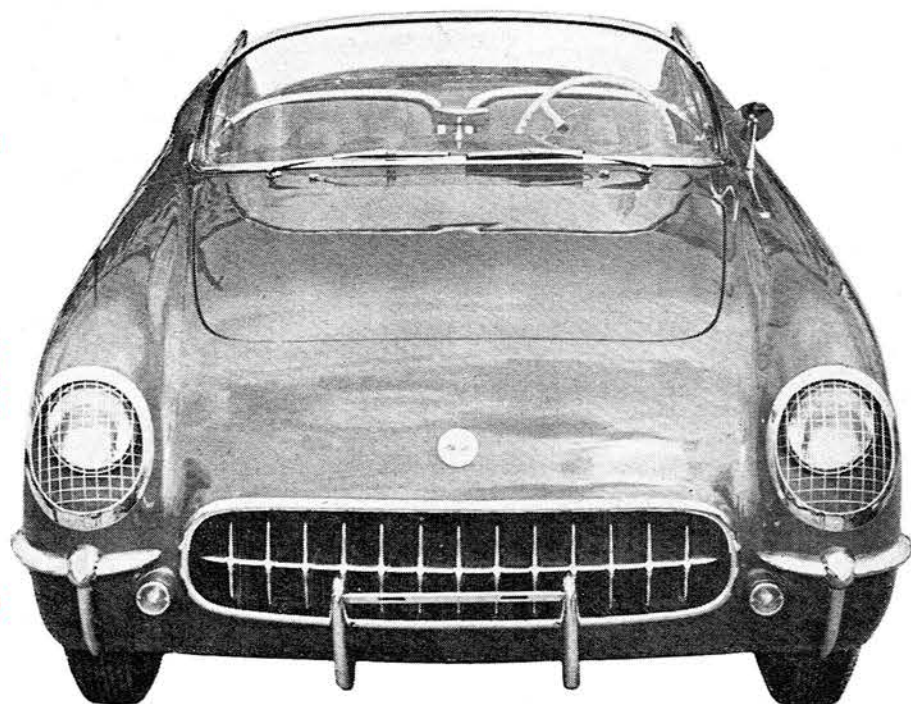


ROAD TEST:

CHEVROLET TAKES THE CHALLENGE WITH THE CORVETTE..



By HANK GAMBLE

CHEVROLET stands alone in the American sports car field, with a true production automobile priced at a figure John Doe can comprehend. Despite this fact, MOTOR LIFE road testers were dubious of a so-called compromise vehicle; the tendency of American automotive engineers and designers is to come up with a cross-breed piece of transportation which barely hints at the handling characteristics of better sports cars.

Their problem, of course, concerns public demand; the small and compact, lightweight car which fits roads of Europe like a train on a track is out of place in America. The American public has variable needs for family transportation—no sports car manufactured anywhere can properly serve the multitude of purposes imposed upon it by John Doe and his wife, children, and visiting firemen from the old hometown.

A sports car is, frankly, a specialized "iron" (or more likely

these days, as with the Corvette—a specialized "plastic"). This car is designed to serve a single purpose. That purpose is the transporting of one or two persons from one place to another in a very short time, with the driver enjoying the trip. Sports cars handle exceptionally well, often accelerate like Flash Gordon, and ride like the streets weren't paved. Relatively few Americans can afford the staggering prices asked for many imported models; if they could, there is still more money to shell out—for another car, one that can contain the family.

With this dare flung in their faces by the European invaders Chevrolet took up the challenge. The result is proof that a "compromise" car can be built; while the Corvette won't hold but two, this GM product combines the best features of a foreign sports car without its stark simplicity of purpose.

The Corvette goes! Aside from the standard performance-figure runs required of a sincere road test (with resultant

times to compare with those of competitors) the Corvette was driven side by side through acceleration and high speed runs against a well known and popular European make of sports car. Engine displacement put them in the same F.I.A. class (a competition common denominator).

From a standing start—and bear in mind that the Corvette has automatic transmission—the new member of the Chevrolet family took off like a scalded dog, left its competitor five car lengths behind at the end of a quarter mile!

With a standard transmission this remarkable performance would, of course, have been even more impressive.

Modified PowerGlide describes the Corvette transmission. To handle 223 lb-ft of torque the oil pressure has been increased. A shifter valve gives a full-throttle upshift at 4500 rpm (or 55 mph), and full-throttle downshift up to 47 mph. It has been modified for the Hotchkiss drive; a transmission oil cooler is not required.

Rumor has it that the Chevy people may, in the future, offer the Corvette with standard transmission; if true they might well be looking enviously at American sports car road race circuits—the Corvette is, in its present condition, very close to being competition material.

The standard and reliable Chevy 6-cylinder engine of 235 c.i. displacement, with modifications, makes the Corvette perform. At 4200 rpm it delivers 150 hp; the compression ratio is 8 to 1. Triple carburetion is stock, with manual choke. Some 8 to 10 lb-ft torque in the midspeed range was gained by use of a special exhaust manifold, a dual set-up which keeps the exhaust gases in the throat of each of the two downpipes always whirling in one direction. The two exhaust systems are separate. The engine, incidentally, as compared with the family Chevy, is located 3 in. lower and 7 in. further back.

A driving impression not entirely favorable concerns cornering. However, it must be explained first that for average driving the Corvette behaves itself around corners very nicely, turning flat, with a proper seat-of-the-pants feeling in the cockpit. When we tried to "break it loose" at high speed on a rather severe corner the Corvette complied, as any car will when centrifugal limits are passed—but it showed a definite unwillingness to "tuck back in." This could, undoubtedly, be corrected with improved rear shock absorber treatment.

An adaptation of the existing Chevrolet rear axle to a Hotchkiss drive, the Corvette rear suspension uses 2x51 in. leaf springs which are inclined to give about 15 percent roll understeer. The front suspension is standard but stiffer, with a fairly stiff front stabilizer.

The steering is correct for a sports car, with a steering gear ratio of 16 to 1. There is a positive-control feeling behind the wheel when maneuvering in town traffic or on the highway. Power steering is not necessary since the Corvette is comparatively lightweight.

The Corvette does not offer the riding comfort its more conservative Chevy family members do. However, this is not to be expected and next to impossible to achieve hand-in-hand with superior handling qualities. A certain amount of road bounce is experienced but is not objectionable as a "hard" ride.

The arrangement of the instruments on the dash is good except for the location of the tachometer; rather than in its present location in the center of the panel the tach would serve its important purpose better if relocated directly in front of the driver, next to the speedometer. An excellent added feature, with the tach, is a counter which permanently records revolutions as an odometer does with mileage. The speedometer is large, easy to read, and more accurate than most with less than a four percent error noted.

The cockpit of this two-seater is plush in the American fashion, with handy door compartments and plenty of space—maybe too much space. It is a pleasure not to rub elbows or shoulders with your passenger but the car could hold three if accessory space was cut down.

The GM curved windshield offers minimum wind resistance and no visual distortion, but a tall person has to slouch down a bit or the top beam over the windshield becomes a psychological hazard. Fender vision is good, especially to the rear, eliminating an oft-prevalent parking difficulty.

The car was driven with the top up and down. There is no feeling of being "closed in" with the top up. The top is manual, as with all sports cars, and slides neatly into a concealed rear deck compartment. No problems were encountered in raising or lowering the top; you don't need a passenger along to help you perform this minor task.

A question might be raised about the Corvette's inset license plate with glass over it, and the wire mesh headlight protectors; despite the fact that both are well designed and functional this treatment is illegal in some states.

The use of fiberglass as body substance is a revolutionary move—production-wise—on Chevrolet's part. The resin-glass combination is definitely out of the experimental stage and has proved a worthy successor to sheet steel, offering lightness and strength. The Corvette body is a laminar construction of glass fiber and plastic, weighs 411 lbs. It will not rust, takes a good paint job, and will not crumple in the event of a collision. It is easy to repair (fiberglass can be torn) but at this writing there is still a problem of authorized repair; few garage mechanics are as yet familiar with fiberglass and how to patch it.

To sum it up, the Chevrolet Corvette is a true sports car, offering the prospective buyer tops in performance. It has a few "bugs" as does any model first or last, but none are so extreme as to discredit the car to any degree. The Corvette is a beauty—and it goes! (Continued on page 62)

Profile of Chevrolet Corvette, with top up, is low and streamlined. Top is raised or lowered with ease by one person

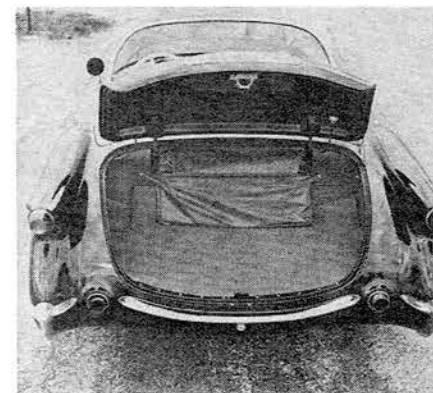
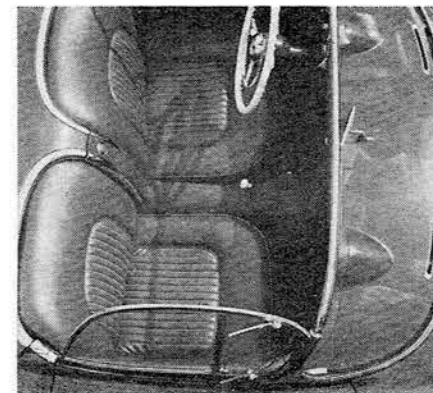
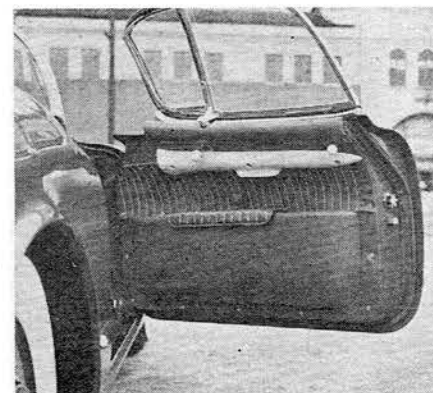
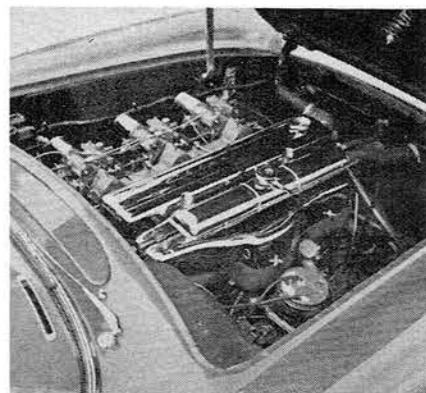
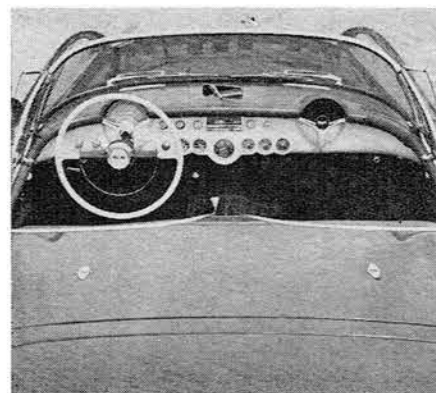
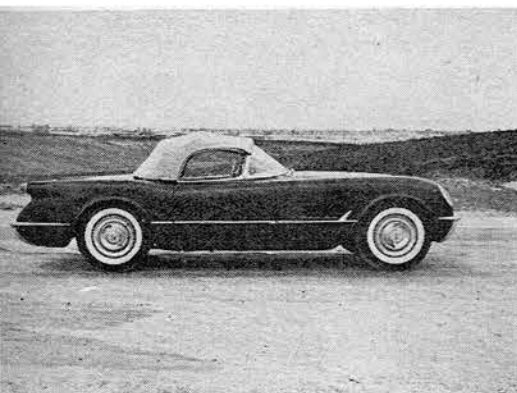
Top lowers into concealed compartment behind seats. The instruments include tachometer and rev counter

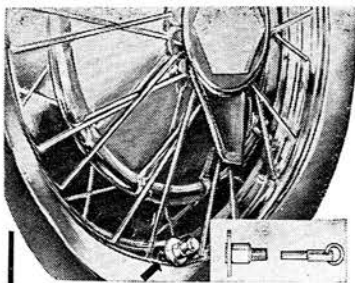
Modified Chevy engine furnishes 150 hp at 4200 rpm. The power-to-weight ratio of Corvette is 19 to one

Photo of open door shows built-in compartment, located handily for driver. All the interior handwork is well done

Spaciousness of Corvette driver and passenger compartment is shown in overhead photo. Leg room is ample

Unlike many sports cars, the Corvette has a roomy and convenient-to-get-into trunk. The bumper is adequate, simple





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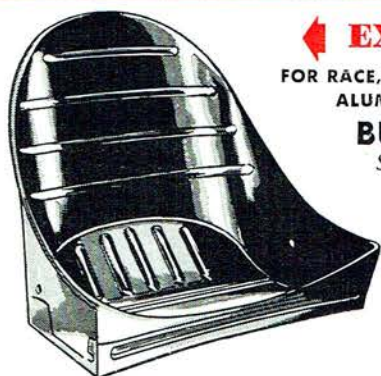
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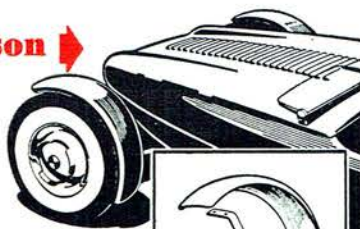
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OFFIE CHALLENGER

(Continued from page 20)

to one. The new forged magnesium supercharger impeller is geared 6.06 instead of 5.35 to one and will rotate over 39,000 times a minute at a crankshaft speed of 6,500 rpm. While the old blown engine used carburetors on the suction side of the blower, the new one has a fuel injector at each intake port. The blower impeller housing is larger and a boost of 30 pounds above atmospheric is hoped for instead of the old engine's 25 psi. And while the earlier engine's magneto would ignite a charge reliably only up to 150 psi, the new 180 has a rotorless distributor feeding current to a separate ignition coil mounted above each of the four spark plugs, producing a spark that remains strong up to 600 psi!

This year, as in many years past, one does not need to be a prophet to specify another Offie victory at Indianapolis, in spite of promised European entries. The absorbing question is "blown or unblown?" If the new 180 ticks over as its backers hope it will, the car it propels will have a great advantage. Its torque curve is tailored to the Speedway. It should be able to literally jump across the short straights at each end of the oval. It can come charging out of the turns and with its great advantage in power accelerate down the long chutes faster than any unblown car. This will permit the driver to back off at a comfortable distance before the turns; it should be a car that demands less sheer bravery and is easier to drive.

This is if all goes well. It might, and we wish the new experiment the luck it deserves and needs. One thing is certain: if Louie and Dale and their engineer Leo Goossen have hit a new winning combination, the era of supercharging that was the climax of racing in the Twenties is bound to be reborn.

CORVETTE TEST

(Continued from page 25)

PERFORMANCE

TOP SPEED—

Average of two-way runs: 106.4 mph
Fastest one-way run: 107.1 mph

ACCELERATION—

0-30 mph: 3.7 sec.
0-50 mph: 7.7 sec.
0-60 mph: 11.0 sec.
0-80 mph: 19.5 sec.
Standing quarter mile: 18.0 sec.

FUEL CONSUMPTION—

18 mpg at continuous high speed;
16 mpg under test conditions and
20 mpg under normal driving conditions
Fuel used for test was Shell Premium

GENERAL SPECIFICATIONS—

Engine—6 cyl., 150 hp at 4200 rpm.
Power-to-weight ratio—19 lbs. per 1 hp.
Center of gravity—18" from ground
Overall Hgt.—47"
Weight Distribution—53% front, 47% rear
(with 2 passengers and no load in trunk)
Weight—3210 lbs, test condition; 2890 lbs.
normal, with full gas tank
Ignition—6 V.
Price—\$3760, F.O.B. St. Louis