

## A CARS COMPARISON TEST

*Chevrolet offers six V8 power team options for its 1961 product, so there must be one that will suit you.*

by **CARS TESTING STAFF**

*Stand-pat powerhouse*

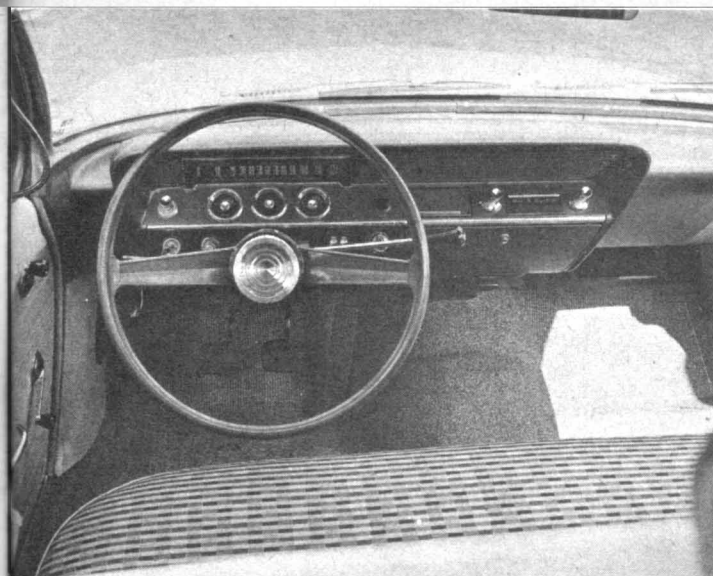
**T**HIS YEAR, Chevrolet Division of General Motors Corporation has concentrated on body rather than power changes. Therefore, although it offers a wide selection of power-transmission teams in its V8 lineup, they are to all intensive purposes identical to those offered during the 1960 model year.

As a fair example of Chevy's hottest regular production option, we chose as our test car an Impala powered by the 305 horsepower, 388 cu. in. V8 mated to the renowned—and deservedly so—four-speed synchromesh transmission. While this combination was fitted into a 1960 Impala body (our test was made in mid-September, preceding full-scale production of 1961 models), power and suspension components were those to be found in this year's models and the only difference between the two worth mentioning would be a weight differential of about 50 pounds, in favor of the '61, which gains its weight advantage through a reduction in length from 210.8 to 209.3 inches and a width reduction amounting to 2½ inches.

Two more powerful versions of the 348 may be purchased on special order. One is a 320 horsepower 348 engine that peaks at 5,800 rpm with the help of larger valves, a larger four-barrel carburetor in place of the four-barrel found on the 305 horsepower powerplant, and mechanical rather than hydraulic valve lifters. The other delivers 335 horsepower at 6,000 rpm, using triple duals. Both come equipped with a hotter camshaft. Both fall into the "Police Special" category and have 11.25-to-1 compression ratios which qualify them for membership in the super premium fuel class. The 305 horsepower version (Continued on page 66)

# '61 CHEVY IS STILL HOT





Radio and glove-box are easily reached by driver. Instruments are well-placed, but we're still against oil pressure and generator warning lights rather than gauges.

Windshield wiper test showed that paralled-operating arms do excellent job of clearing large glass area.

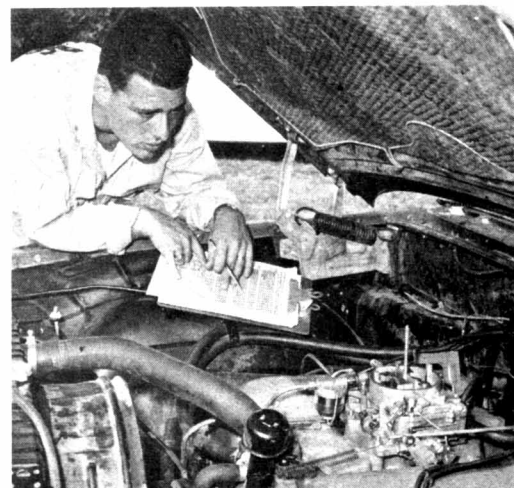


Fins have completely disappeared. Sculptured metal rather than chrome highlights Chevy's lines.

### 1961 CHEVROLET V8 POWER TEAM OPTIONS

ENGINE			TRANSMISSION AXLE RATIO		
Displacement	Carburetor	Compression Ratio	BHP		
283 cu. in.	two-bbl	* 8.5-to-1	170@ 4200	three-speed	3.36
				overdrive	3.70
				Powerglide	3.08
	four-bbl	9.5-to-1	230@ 4800	three-speed	3.36
				overdrive	3.70
				Powerglide	3.08
348 cu. in.	four-bbl	9.5-to-1	250@ 4400	three-speed	3.36
				four-speed	3.08
				Turboglide	3.08
	four-bbl*	11.25-to-1	320@ 5600	three-speed	3.70
				four-speed	3.08
		11.0-to-1	305@ 5600	Powerglide	3.55
3x2-bbl	9.5-to-1	280@ 4800	three-speed	3.36	
			four-speed	3.08	
			Turboglide	3.08	
3x2-bbl*	11.25-to-1	335@ 5800	three-speed	3.70	
			four-speed	3.08	

(\*) With special camshaft



Big engine really fills front compartment. But oil dip stick has been repositioned for increased accessibility.

cidentally, all times were stopwatch-recorded after correcting for speedometer error that averaged about four mph under indicated speeds between 30 and 60 mph. The time quoted for each run is the result of four test runs, two in each direction, on a level ¼-mile test track straightway:

0-30	3.6 secs.
0-40	4.9 secs.
0-50	6.4 secs.
0-60	8.8 secs.
30-50	4.9 secs.
40-60	5.5 secs.
50-80	10.8 secs.

Top speed and ¼-mile acceleration figures were impossible to obtain because of the ¼-mile length of the straightway. As a matter of fact, the Dearborn test track is not designed for speeds above 100 and high speed testing is conducted elsewhere. But reliable reports that filtered through to CARS' testers in Detroit gave 118 mph as the top speed recorded by a completely stock, 390-equipped '61 Ford using the four-throat carburetor and dual exhaust system that are standard equipment with this engine option.

Since CARS reported earlier on the body styling of the 1961 Ford and on the power pack to be available optionally with the 390 (October, 1960), let's just say that this combination promises to be right up there with those hot Pontiacs at the strip and on the race course. Matter of fact, we've heard of drag strip test runs here and there in which 390's hit the traps ahead of the power kingpins among pre-'61 stockers!

## CHEVROLET 348

(Continued from page 13)

has 2-3/16-inch intake valves and 1-3/16-inch exhausts. Transmission ratios in the hotter 348-equipped, manual-transmission cars are lower below direct drive than they were last year to keep them winding longer for increased peak torque (our test car reached its peak torque of 355 lbs/ft at 3,600 rpm).

The four-door Sport Sedan which served as our test car weighed 3,950 pounds ready to go, and all tests were conducted with our two testers, having a combined weight of 340 pounds, aboard. All readings were taken with a fifth wheel borrowed from Chevrolet Engineering at G.M.'s Milford, Michigan, proving grounds. However, some speedometer corrections taken out of curiosity showed the Chevy speedo to be unusually accurate, registering an indicated 30 mph at an actual 29.1 and being only 2.4 mph under its indicated 60. The car was equipped with both power-assisted

brakes and steering. In all tests which required shifting, it was accomplished at 55 mph (into Second), 75 mph (into Third) and 92 mph (into Fourth). The transmission was mated to a 3.08 rear end and its individual gear ratios were 2.20:1, 1.66:1, 1.31:1 and 1:1, First through Fourth respectively, and 2.26:1 in Reverse.

All acceleration tests were conducted on a ½-mile straightaway and each time quoted represents an average of four runs, two in each direction, to minimize any possible incline in the road surface.

Our results were:

0-30	4.1 sec.
0-40	5.8 sec.
0-50	7.7 sec.
0-60	9.7 sec.
0-100	27.5 sec.
¼-mile	17.2 sec.
Speed at ¼	82.0 mph

Passing tests in the 40-60 and 50-80 mph ranges were conducted in both Third and Fourth gears. The times recorded were 5.4 secs. in Third and 7.2 secs. in Fourth from 40-60 mph and 8.7 secs. in Third and 11.1 secs. in Fourth from 50-80 mph.

Various braking tests conducted in conjunction with our acceleration tests produced some brake fade after four to six successive panic stops from 60 mph, but we never experienced any brake grab. And there was always enough pedal left to provide comparatively quick stopping. One problem encountered by our testers was that of clutch slippage during our acceleration runs. And after re-evaluating our driving impressions of this particular car, we both decided that we would rather drive it with an automatic transmission for normal everyday use. It was our opinion that the car's normally soft suspension precluded using the four-speed box as we had been able to in the '61 Corvette (CARS Jan. '61) and that the task of frequent shifting didn't result in sufficient performance increase to make it worthwhile.

Of course, the optional Police Cruise suspension offered by Chevy would surely remedy the suspension problem to a great extent. And only Powerglide is offered as an automatic transmission option with this 305 horsepower engine setup because of the AFB aluminum carburetor used in this version of the 348 cu. in. engine.

Our ride and handling characteristics testing was done in a 1961 Biscayne powered by Chevy's reliable six-cylinder engine mated to the standard equipment three-speed synchromesh transmission.

Again, our car was a pre-production model. Steering and braking were not power-assisted, but the pedal pressure required to stop the car from even high highway speeds was not excessive. The rack-and-pinion steering, requiring 3½ turns lock-to-lock, was responsive and had excellent return. Handling was judged very fine, with excellent tracking on bumpy roads. We did "lose" the rear wheels on a couple of tight curves taken at about 55 mph, but an instant's relaxation of the throttle foot was enough to remedy the situation. Again, as with most domestic cars, we would recommend the stiffer shock absorbers (if not the optionally available stiffer suspension) offered on special order by Chevrolet.

Interior finish and freedom from annoying rattles and rubber squeaking were judged excellent. Entry and exit front and back were easily accomplished, thanks to the virtual extinction of that old nemesis, the dog-leg, and our over-six-foot tester found that he had four inches of headroom when seated in the rear, plus ample rear seat leg and knee room with the front seat as far back as it would go.

Wind noise was about nil at speeds up to 60 mph and barely noticeable at 70. Fresh air ventilation, with outside air coming directly into the car interior via vents built into the front wheel wells, kept its occupants comfortable even though the outside temperature was 90-plus and a hot sun was beating down.

The '61 Chevy's parallel-operating windshield wipers do an excellent job of cleaning almost the entire windshield area and sweep across the mid-line area untouched by wipers of the non-parallel type.

Trunk space has been increased by moving the gas tank forward a bit. This allows the trunk to accept deeper luggage or other objects to be stored because Chevy's engineers were able to lower the trunk floor.

Summing up, Chevy for '61 becomes an excellent performance car when powered by one of the higher-output versions of the 348 cu. in. V8 engine. Certainly one of the two special order engine options would at least make the car the equal in performance of hotter models of certain competitors. But then again, they have special order power options, too.

## STROKER KITS

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points. After the welding is completed, the shaft is rough-ground, and put back in the furnace. Re-heating it serves the dual purpose of relieving stress concentrations built