

The C1 Corvette's Blue Flame Six

used clever modifications to breathe more fire into a passenger-car engine

By [Mike McNessor](#) from September 2021 issue of [Hemmings Motor News](#)



The Corvette legend was powered by V-8 engines, but it was an inline six-cylinder that started it all. Chevrolet's 235-cu.in. six was the only engine available in the Corvette for 1953 and '54. In '55, the 265 V-8 was offered as an option and most of the 700 Corvettes built were small-block powered, leading to the inline engine's demise in '56. More than 60

years (and counting) since, every Corvette has had a V-8 under its hood, despite persistent rumors for decades that a V-6 could be on the horizon. The Blue Flame Six wasn't the most fiery engine to ever power Chevrolet's long-lived sports car, but it was made hotter than its passenger car counterparts thanks to hop-ups and custom touches applied by the engineering team that developed the first Corvette.



Jeff Koch

1. A special rocker cover for the '53 Corvette six had rounded ends, recesses for the hold-down nuts, and the oil filler was moved rearward. This is a rare piece of Chevrolet engine tin today.
2. A mechanical camshaft with .405/.414 lift, a compression bump from 7.5:1 to 8:1, and dual exhausts exiting out of a two-outlet manifold helped raise output from 115 to 150 hp.
3. To keep the engine's profile low, a trio of Carter YH-2066-S side-draft single-barrel carburetors were mounted to an aluminum intake. Fuel was fed by a mechanical double-action pump.
4. The Corvette engine was based on the six that was paired with Powerglides in passenger cars, so it had full-pressure lubrication and aluminum pistons. The passenger-car engine used a hydraulic camshaft, however, and a fiber timing gear. The 'Vette engine had solid tappets and an aluminum gear.
5. Due to a lack of shielding from the fiberglass body, radio interference from the ignition was a problem, so the Corvette engine had this stamped shield that covered the distributor, coil, and wires.
6. The radiator was low profile, so the expansion tank was mounted alongside the rocker cover. The Corvette water pump and impeller were special, too, designed for high output in a compact size.

SPECIFICATIONS:

1953 Chevrolet Corvette Blue Flame Six

Type: Inline-six; cast-iron block and head

Displacement: 235.5-cu.in.

Bore and stroke: 3-9/16 X 3-15/16 inches

Compression: 8:1

Horsepower: 150 @ 4,200 rpm

Torque: 223 lb-ft@2,400 rpm

Pistons: Cast aluminum with steel struts

Connecting rods: Drop-forged steel

Camshaft: Mechanical with aluminum timing gear

Carburetion: Three side-draft one-barrels