

You Ask...We Try To Answer

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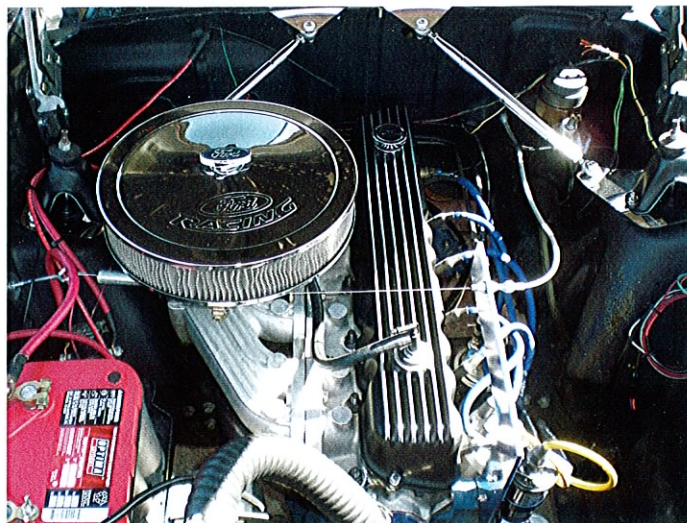
Bob Gardner sent us this article about his own 1962 Ranchero "hot rod six."

Six cylinder engines have been modified for racing and street performance since before the V-8 muscle cars of the 1960s, and are still modified today by inliners clubs and nostalgia racers.

One issue featured Bill Honor's 1968 Modified Australian Falcon XT. The article mentioned that the Falcon included "a built-up six cylinder engine," but there were no details on the engine build and no photos of the engine.

My 1962 Falcon Ranchero was originally equipped with a 170 six cylinder engine and a "three on the tree" three-speed manual transmission. By the time I purchased it in 2011, the 170 had been swapped for a 200 and the three-speed for a C4 automatic. The Ranchero also had significant rust issues, especially with the floor pan, and the previous owner had removed the factory fuel tank and filled in the filler opening in search of the "clean look". Bucket seats from a Mustang had been installed inside.

I wanted to improve the performance of the Ranchero without totally altering it's character, so I opted for a "hot rod six" engine build up rather than the traditional V-8 engine swap. Starting with a 250 from a 1974 Maverick, I trimmed the core support to move the radiator forward and made custom motor mounts from quarter inch plate steel to fit the 250 into the Ranchero's engine bay. The 250 is solidly built, with ARP main studs, connecting rods from a Ford 300 six cylinder engine, ARP rod bolts, and custom forged pistons that result in near zero deck height. A long-duration, high lift Clay Smith hydraulic cam has been installed with custom Smith Bros pushrods and adjustable rocker arms, but what really wakes



this engine up is the large-port, large-valve, high-flow aluminum cylinder head from Classic Inlines (also called Ford Six Performance, headquartered in Mesa, Arizona). The aluminum head allows a removable intake manifold to be used, and the intake manifold can accept two barrel or four barrel Holley or Motorcraft carburetors, as well as Weber carbs, and even includes cast-in bosses for fuel or nitrous oxide

injection. I'm running a Holley 500 CFM two barrel carb commonly used for circle track racing. An Optima battery, DuraSpark electronic distributor, MSD ignition controller, PowerMaster one wire alternator, PowerMaster mini-starter, and stainless steel headers complete the 250. The engine has been dynoed multiple times and produces about 200 horsepower at the flywheel, about the same as a two barrel-equipped 260 or 289, at a much lower weight and with higher fuel economy.

Because of the long-duration cam, a TCI high stall speed torque converter was needed to restore idle quality. Other than that, with a rebuild the C-4 is more than capable of transmitting the torque from the 250. The seven and a quarter inch, four lug rear end has been replaced with an eight inch, five lug rear end, which gives the Ranchero larger drum brakes. The original three leaf rear springs have been replaced with stiffer five leaf springs, and Competition Engineering rear shocks launch the car properly. Up front, the original four lug drum brakes have been replaced with five lug disc brakes,

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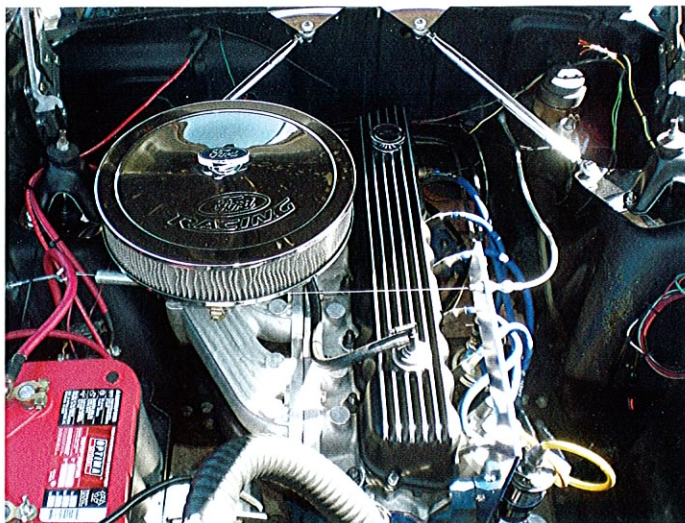
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If you have a question for our Tech Guys, email our Head Tech Advisor Bruce Wolfe at afutura@verizon.net.



and the single chamber "fruit jar" master cylinder will be replaced with a dual chamber master cylinder in the immediate future. True dual exhaust with a "X" crossover pipe and FlowMaster Series 40 mufflers give the Ranchero a distinctive exhaust note. 15" Centerline wheels and BF Goodrich Radial T/A tires complete the chassis.

Within the cabin, the rusty floor pan was replaced with a new one, then FatMat sound insulation was added before installing new carpet. The Mustang bucket seats were removed in favor of an original-style bench seat from another '62 Ranchero, which was recovered in Rangoon Red to match the new carpet and door panels. Most of the wiring in the Ranchero has been replaced by modern wiring, including a wiring panel with blade-style fuses and a small aluminum panel with toggle switches. An under-dash set of Auto Meter gauges monitor oil pressure, water temperature, electrical voltage, and the air to fuel mixture. A Custom Autosound stereo has a retro look, but in conjunction with a dual voice coil speaker in the center of the dash, kick panel speakers, and a 12" subwoofer behind the seat, produces modern sound quality.

Out back, a spun aluminum, street rod style fuel tank has been installed in the bed, and the bed coated with DupliColor truck bed coating, protected by a full footprint rubber mat.

Although the Ranchero has certainly come a long way in the four years since I have owned her, she's still far from finished. A Tremec T-5 transmission will optimize the torque band and RPM range of the 250, while giving me a deep first gear and also a deep overdrive. The trim pieces around the bed and windshield need to be replaced or reconditioned; they are quite hard to find. My last planned upgrade will be a high quality, two-tone red and black paint job.

—Bob Gardner (FCA#14561)
Houston, Texas

Photos were taken at a February 2016 car show in Cypress, Texas.

