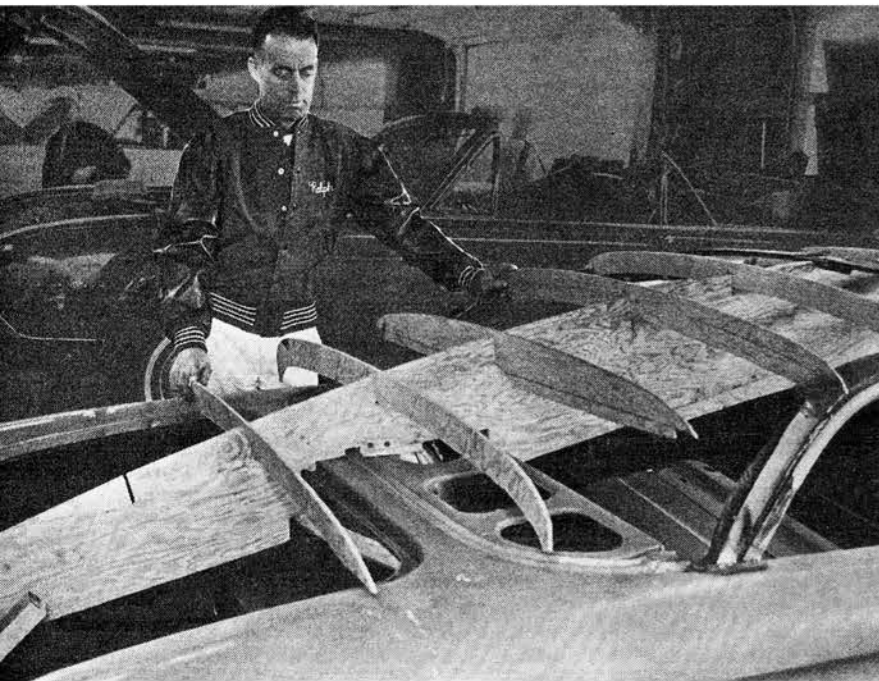
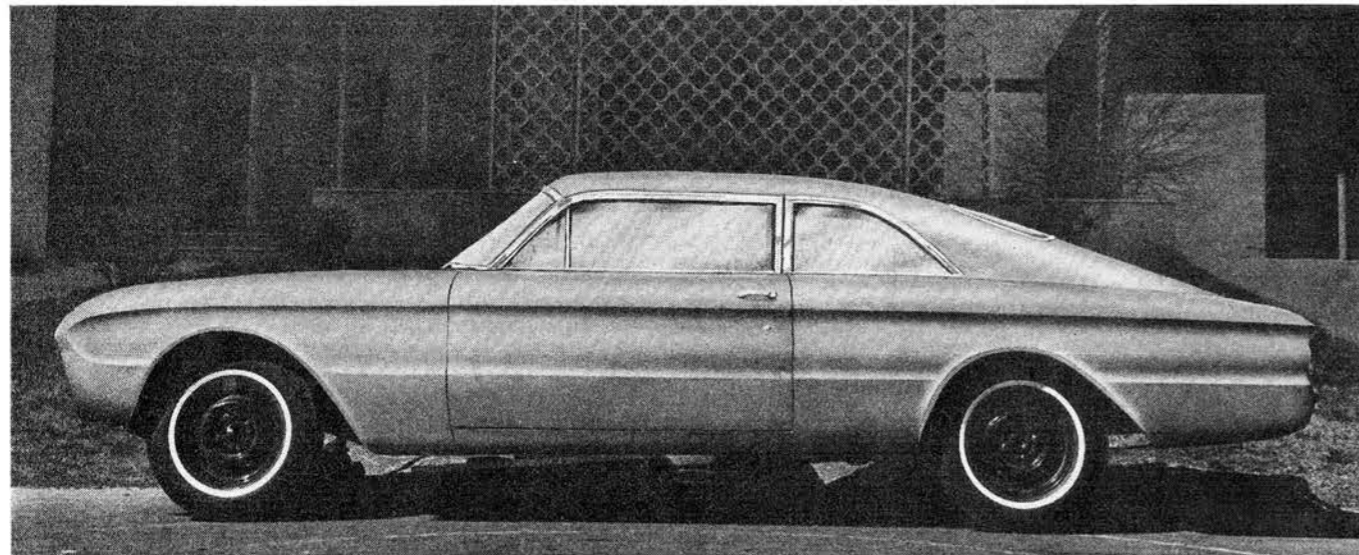




COMPETITION

FALCON CHALLENGERS



Holman and Moody beef up the Ford compact for competition against the world's best

by Max Muhleman



The Challenger III, top, is a possibility for GT international sports competition. Body and top have been chopped and a new aluminum-skinned roof line added.

Builder Ralph Moody checks the lowered profile of the chopped Challenger III. Total drop is six inches.

MEN OF THE AMERICAN ROAD, beware! You can't trust even a Falcon at those stoplight Grand Prix dashes any more.

A refined breed of Ford's super-selling little compact car is being turned out by the Holman and Moody stock car racing speed shop in Charlotte, N.C., that threatens the security of all but the very hottest Detroit and European machinery in any test from a quarter-mile drag to a whirl around the toughest sports car courses.

Thus far, three versions of hopped-up Falcon have been conceived and executed by John Holman, Ralph Moody and their team of performance specialists. They are referred to as "Challenger I, II and III."

"Challenger I" already owns a combat medal from the Sebring 12-hour Grand Prix of Endurance. In order to enter a new international competition classification for Grand Touring prototypes, Holman and Moody whipped "Challenger I" together in just 10 days, using a 1962 Falcon Futura body and Ford's new 221-cubic inch Fairlane 500 V-8 engine as the basic building blocks. Their spoils: A second in class behind one of Jim Hall's potent Chevy-powered all-out-racer Chapparrals despite a major overhaul that included a replacement of heads mid-way in the race. "We had an oil circulation problem in the heads that we could have located if we'd had time to tear down the engine after its initial shakedown cruise," says Holman, "but we felt pretty good about finishing the race as we did nonetheless."

"Challenger II" is the version you're most likely to find sneaking up on you at your favorite stoplight. This one has the same

special goodies under the hood — which we'll describe shortly — as "Challenger I" but has three inches chopped out of the body just below window level from bumper to bumper.

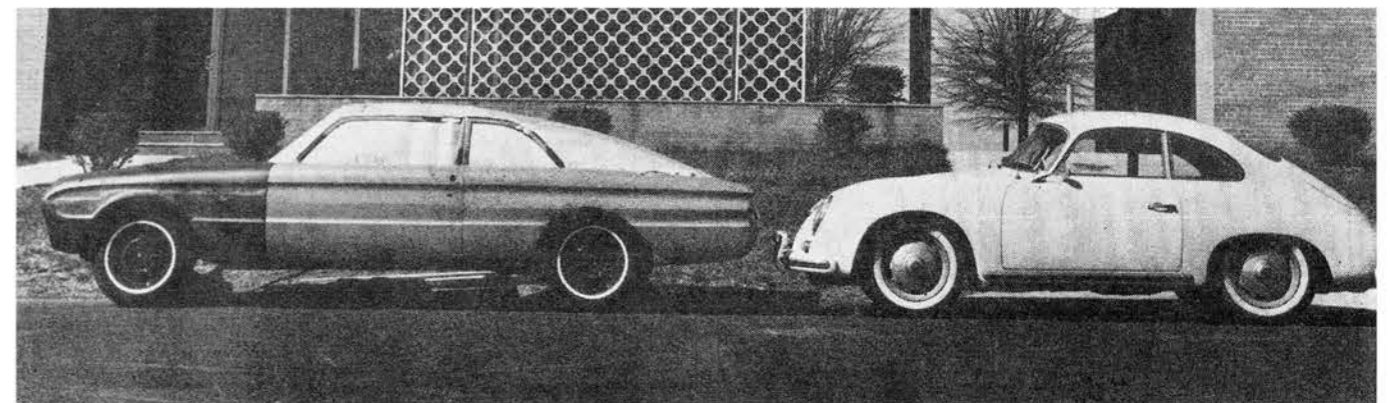
"Challenger III" is the bomb deluxe. She has three inches chopped out of the body, three more out of the top, making it half a foot lower than the standard Falcon, and a sheet of aluminum and plexiglass that tapers the roofline to a smooth contour with the back bumper. Holman and Moody is considering manufacturing 100 units of this type in order to make "Challenger III" eligible for Grand Touring sports car competition under FIA rules. "Challenger I" and "Challenger II", you see, are aimed more at the auto enthusiast who delights in popping eyes and raising eyebrows among friends and neighbors. "Challenger III" is a strict competition version tailored for a driver more concerned with winning races than wearing his top hat on a country spin.

Engine and suspension setups on all three "Challengers" are the same, so we'll begin our close-up look at the furious Falcons with the engine. The 221-inch V-8 was first bored out to 243.968 inches, just a shade under the four-liter sports car limitation of 244 inches. Stock stroke was retained. A Holman and Moody grind camshaft, slightly "milder" than those used on H&M's 1962 Ford racing stock cars, was adopted.

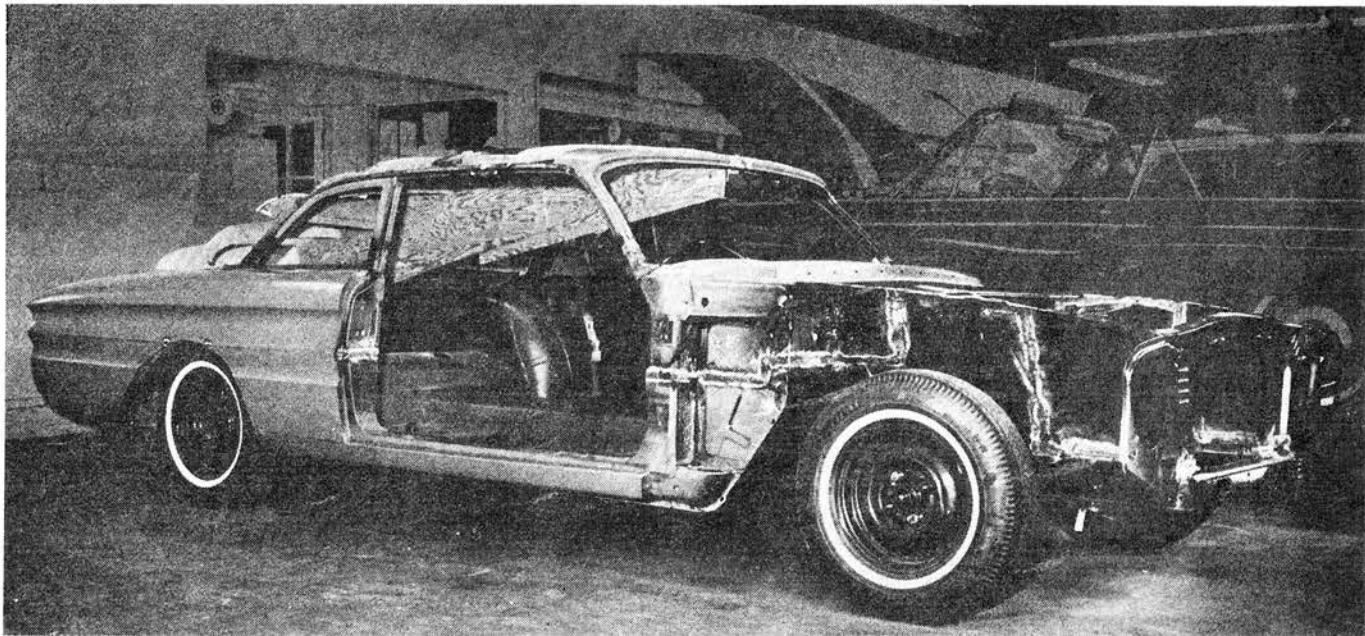
Larger intake and exhaust valves, of '57 Ford size, were used. A dual valve spring setup with mechanical tappets was incorporated. The big four-barrel '62 Ford high performance carburetor, available with the 406-inch engine, was installed with all ports precisely matched. The exhaust header was the standard



CHALLENGER I, MADE READY IN JUST TEN DAYS, FINISHED SECOND IN CLASS BEHIND A CHAPPARAL IN SEBRING 12-HOUR GRAND PRIX.



LOW PROFILE AND RACY LINES OF STILL UNCOMPLETED CHALLENGER III ARE SHOWN IN DRAMATIC CONTRAST TO THE POPULAR PORSCHE.



HOLMAN AND MOODY BEGIN THEIR FALCON CONVERSION WITH A STANDARD FUTURA MODEL. VERY LITTLE OF ORIGINAL IS UNTOUCHED.

Falcon Challengers *continued*

Fairlane 500 design but outlets were increased one-half inch. All exhaust ports were also enlarged, as were all oil galleys throughout the block. Ford's 406-engine-type oil pump was installed.

The 406 Ford 4-speed transmission was dropped in along with a Holman & Moody clutch and pressure plate with a clutch spring pressure of about 2,600 pounds. (Standard is 1,400 to 1,600 pounds). Howard DeHart, the H&M engine specialist who did most of the engine work, reports that compression ratio is thus increased from about 8.5:1 to 10.5:1. Horsepower is nearly doubled from the standard figure on the 221-inch block to a true, dynamometer-tested 230-plus.

Instilling sports car-type handling qualities in the car was Ralph Moody's personal project, a field in which he has gained much fame in the stock car racing wars. Moody chose H&M's full-float rear end. Rear springs were moved in about four inches to permit sufficient tire clearances at the rear wheels. Thunderbird ball joints with regular Ford front springs were

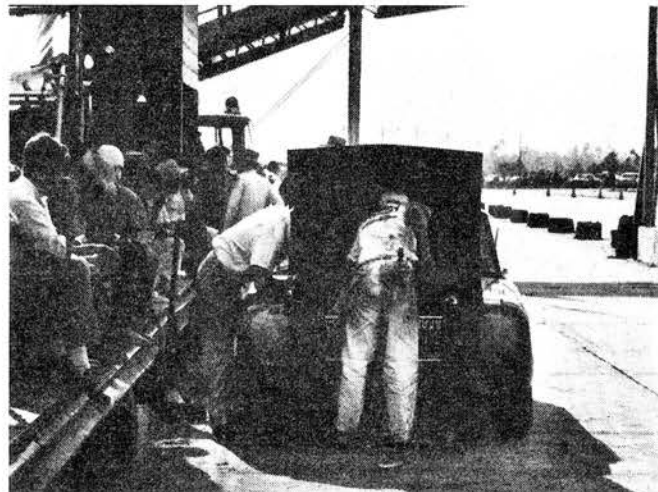
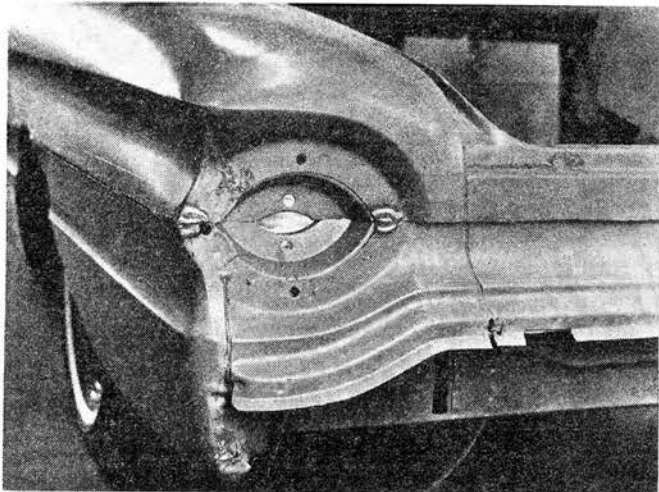
added. Ford racing shocks were used, although they required making new mounts. A special heavy-duty sway bar was produced. Moody installed 1953 Ford rear springs to top off the suspension.

In order to allow the car to carry 36 gallons of fuel, Moody conceived a two-tank setup, one on each side of the driveshaft in the original rear seat area. The tanks were joined by one filler neck which opened at the right rear fender. The tanks were covered with a firewall and upholstery and very much resembled the seat they had replaced.

Even the driver's seat on the competition-geared "Challenger I" reflected Moody's special touch. A Falcon Futura bucket seat was used, but Moody, mindful of the many bends ahead at Sebring, took exhaust tubing and fashioned a skeletal frame in the outline of a seated driver. This tubing, covered with foam rubber, provided additional bracing for arms, shoulders, head, hips and legs. Steering was beefed up, as on stock cars, but the steering ratio remained unchanged. Three-inch brakes were

It's easy to see that three inches of the body have been chopped when you study the taillight housing. An additional three inches is taken from the top.

The hastily constructed Challenger I turned in an amazing performance at Sebring despite fact that it had to undergo a major overhaul during the event.



used for the front wheels with 2½-inchers at the rear, all incorporating metallic Gray-Rock linings.

As soon as "Challenger I" was finished and coated with the dark blue and white American racing colors, she was whisked off to a nearby airport for a test run by Moody. Using a 4.11 gear with 670 x 15 tires, Moody, a driver of no small reputation himself, wound it up to 6800 revs per minute "to see if anything would come apart." Externally, it appeared that all was well and the car was then hustled off to Sebring where stock car jockey Marvin Panch and sports car chauffeur Jocko Maggiocomo were to run it in the 12-hour race. The final touch was installation of a pair of airplane lights for night driving and a neat number "9" on each door.

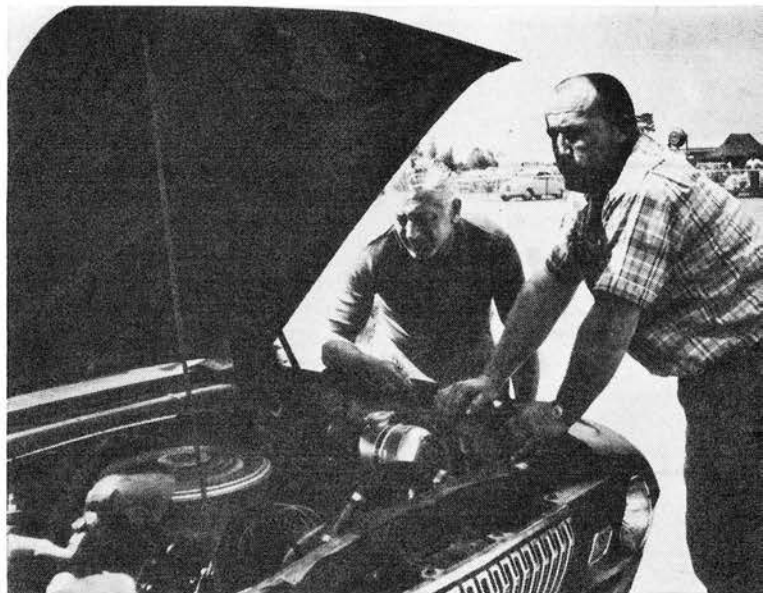
Top speed at Sebring appeared to be about 135 miles per hour, but even before "Challenger I" had turned its first lap, crew chief John Holman was already envisioning the chopped, streamlined model he tagged "Challenger III" as the ultimate competition Falcon. This is not to say that "Challenger I" was any slouch, however. It earned a second-in-class paycheck of \$1,000 in addition to the more rewarding respect of a number of drivers of higher powered machines who found themselves shockingly outmaneuvered in some of the tighter bends and corners.

"We felt that the car's top-end performance could be considerably improved by lowering it as much as possible, which would also further improve the handling qualities, and streamlining the rear from the roof line to the back bumper," Holman explained. It was then decided that the maximum deletion of height that would still permit a driver to perform without feeling as though he had run under a trailer truck would be three inches out of the roof and three out of the body. A plexi-glass rear window interrupts the sheet of aluminum which streamlines the rear area of "Challenger III."

Holman says his outfit is seriously considering attacking the FIA Grand Touring circuit soon, which would first require production of 100 of the "III" units. "Challenger II," with no alterations in the roof but three inches out of the body, is being tailored for the enthusiast who wants a machine he can drive anywhere, while "I", the original, seems destined for retirement on the blue ribbon circuit after a successful debut in the April New York Automobile Show. /MT

Original 221-inch V-8 has been bored out to just under 244 cubic inches. Among additions are H&M camshaft, larger valves and four-barrel carburetor.

Challenger's Sebring debut is just the beginning. Holman and Moody are now considering world competition.



Surveying the Challenger I engine compartment are its first pilot Jocko Maggiacomo, left, and John Holman.

