MERC goes RACING

Mercury hits the stock car circuit with a new racing team, new body style, and high hopes

Special pre-season tests with prototype racing Mercury proved that new fastback roof line and "427" Marauder engine had potential to average 160 mph around Daytona Speedway.

By Wayne Thoms

WE'LL BE SEEING some very fast, loaded-for-bear Mercurys on the stock car trail this season – the first time in six years such a sortie has been made. The team will carry the banner of racing wizard and Mercury expert Bill Stroppe – just like old times.

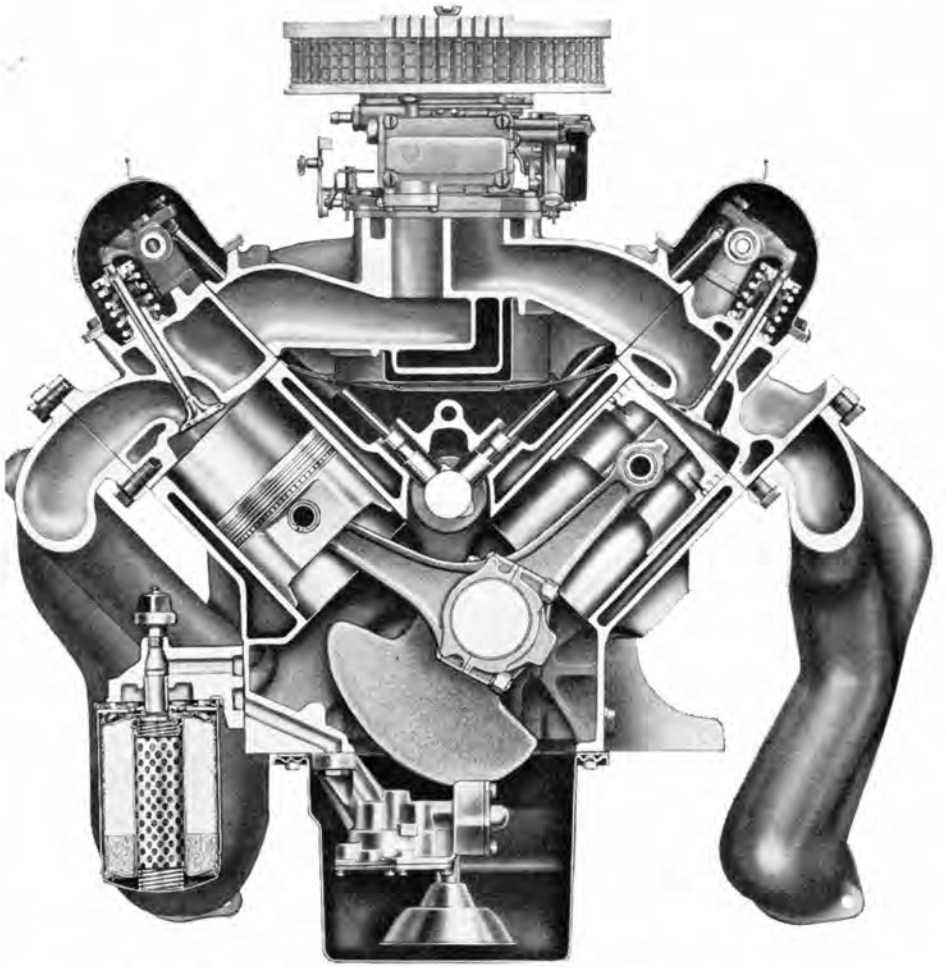
This story actually goes back to 1957, when the members of the Automobile Manufacturer's Association agreed not to participate in any more speed events. It was an edict that struck gloom into the hearts of all stock car race fans.

But little by little, a few factories crept back into racing, for it's a commonly accepted fact that an outstanding performance image sells passenger cars. (Monday sales figures on a winning make from a major race in the immediate area the previous day have shown it time and again.) While those interested factories weren't openly participating with company-sponsored teams, it was rather obvious that certain talented drivers and builders were obtaining factory help. Some were retained as "consultants;" others had an inside track to buying high-performance equipment not generally available. And in the Detroit plants observing the AMA edict were dozens of competition-minded executives straining to go racing again.

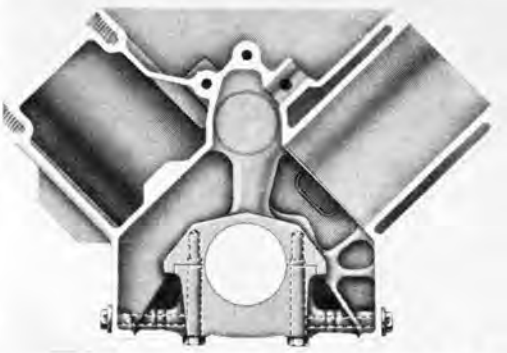
This year the gates are at least ajar. Several companies have announced that they will no longer support the ban on racing, but they haven't really said they'll go racing in a big way. They have good reason to be cautious. Horsepower, speed, and racing strike unpleasant chords with some congressmen who are convinced that the way to fewer traffic deaths is to ban racing and limit power in all cars. And there are stockholders – a hard-headed lot who frown on frivolous expenditures.

So we arrive at Mercury. Ford recently issued a statement that it would not participate directly in racing. But they have made an indirect connection.

***(TOP)** Mercury team manager Bill Stroppe talks strategy with driver Troy Ruttman. **(ABOVE)** Stock car ace Darel Dieringer will campaign in Marauder during '63 season.*



(ABOVE) *Mercury's new high-performance engine, the Marauder "427," develops 410 hp with single carb, 425 hp with dual carburetors.*



(RIGHT) *Cross bolting of the main bearing caps reinforces crankcase and gives precise bearing alignment in Mercury's big Marauder engine.*

(BELOW) *On Daytona high-banked oval, the "427" Marauder demonstrated that its 22-gal. fuel tank would carry car 100 racing miles.*

MERC GOES RACING

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They have contracted with Bill Stroppe, who has prepared a team of cars, signed drivers, and will be solely responsible for Mercury's destinies on the race courses.

The effort won't be anything like the all-out assault during the lush factory days. "Anywhere there was a race, we were," said Stroppe about those years. But it's a carefully planned effort that should bring results. Stroppe has programmed some 27 major events for '63, divided between USAC and NASCAR, including a couple of shows on the FIA calendar which will permit drivers from the two organizations to intermingle.

He has signed six drivers who know their way around a race course better than most: Troy Ruttman, Rodger Ward, Parnelli Jones, Darel Dieringer, Chuck Daigh and Whitey Gerken. In addition, Louie Unser, currently one of the specialists in Stroppe's Long Beach shop, will drive a Merc at Pikes Peak along with Parnelli Jones on July 4.

Just what is it that Mercury has this year that has inspired this burst of confidence? For one thing, they have a new engine—the Marauder—427 cubic inches of high-performance V-8 that cranks out its rated 410 hp at 5600 rpm. For another, they have the new Marauder fastback coupe, a so-called "1963½" model that will top 160 mph on the race course. Finally, there is Stroppe, who has literally remanufactured the cars he will be racing so they will stand the brutal punishment forthcoming.

The single, four-barrel carburetor Marauder V-8, which replaces last year's "406" engine, is a further development of it, bored to the new displacement limit agreed to by the key racing organizations as a practical stopping

Finned oil cooler fits into left of grille opening and requires an extra quart of oil.

point. (There is also a Super Marauder with two four-barrel carburetors; it develops 425 hp at 6000 rpm and will be popular for drag racing.) Bore and stroke are 4.2346 x 3.874, with maximum compression ratio listed as 11.5 to 1. One of the Marauder's most important features is the main bearing cap reinforcement. Number 2, 3, and 4 caps are cross-bolted for extra rigidity and more precise bearing alignment, which should mean more durability in sustained high-speed operation. Ribs have been added in the block's bulkhead area to help carry some of the increased forces.

The cylinder head gasket is water cooled, designed with a flange over the seals around the bores, and normal beads around the outside of the gasket. It's steel, coated with aluminum and plastic. Pistons are lighter, main bearing journals are grooved for better lubrication, and connecting rods have been redesigned around the bolts to increase sections subject to high rpm. Rod bearings for these engines are gauged individually for select fit.

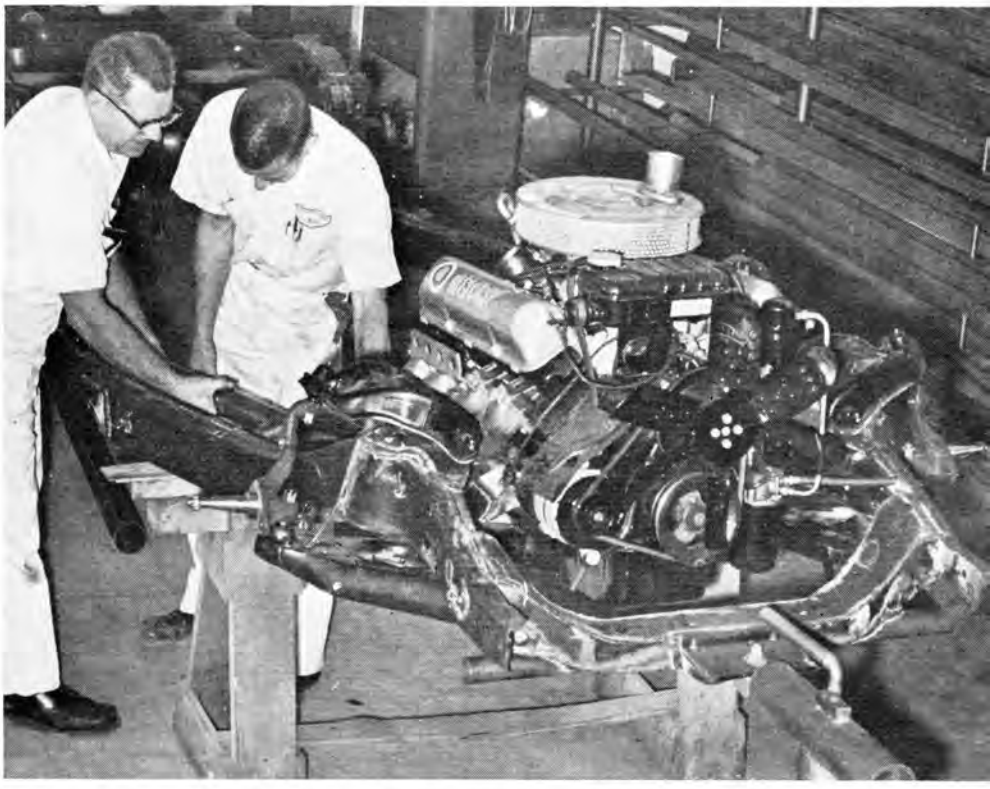
A finned oil cooler at the left front of the engine compartment requires an extra quart of oil and will aid in keeping engine temperature down. Intake manifold is a lightweight aluminum casting, while exhaust manifolds are newly designed for minimum back pressure. Mercury has even carried its planning into the fan belt, a highly essential item. For the "427" engine it has a dacron insert liner that shrinks as heat builds up under high performance. The belt tightens, ending slippage or whipping.

Merc engineers have confidence in their engines – confidence that goes far enough to advise Stroppe to use them exactly as they come from the engine plant for the initial race. Normal procedure, even for a factory-prepared racing engine, is a complete teardown

continued on page 88

Racing Mercurys get alterations that contribute to safety but not to performance. One such is rebuilding the front A-arms.

Standard Mercury brakes are not quite up to racing, so Lincoln drums with cooling bells are substituted. Lining is metallic.



***(ABOVE)** Mercurys are prepared for racing at Bill Stroppe's shop. Here technicians fit exhaust system through side of frame rail.*

***(FAR LEFT)** For maximum safety, stock frames are placed in special jig, completely rewelded. Tube is added for a stabilizer bar.*

***(LEFT)** Bill Stroppe demonstrates protection of roll cage in 1963 Mercury race car. Bars are padded with foam rubber, all reinforced.*

MERC GOES RACING

continued from page 63

before it is raced, checking clearances, fit, and bolt torques. In this case, the factory wants to demonstrate that they can work to racing specs; the engines won't get a taste of internal maintenance until after the first event.

Stroppe has had some of the early "427s" on the dyno. While he is not talking about specific power figures, the confident smiles around the shop indicate that the factory's 410-hp rating is not only reasonable, it just might be conservative.

The fastback coupes are impressive weapons. They are all steel (no aluminum or plastic body components allowed this year), and Stroppe figures that the new top design is good for an extra 4½ mph over existing roof lines. In December, he hand-assembled one of the bodies, installed a "406" engine in the chassis, and took it to Daytona, where it averaged 159.5 mph, with Ruttman and Dieringer sharing the driving. The slightly larger engine, Stroppe believes, will give him enough extra horses to average 160 or better around the course.

Stroppe is actually preparing eight cars. Just before the start of the racing season, his shop looked like a branch of the factory assembly line. Six of the machines will be for the team, one a spare, and one is being sold to a private entrant, John Rostick. Price is reportedly somewhere between $8000 and $10,000 for the finished car, ready to race.

It takes an astounding amount of preparation to get one of these cars ready for action, understandable when one considers the forces acting on every weld, bolt, and fitting when the car pounds off the straight into Daytona's high bank at 165 mph. Frames have been completely rewelded in a jig that Stroppe built especially for the purpose. The welds are ground smooth, the frames sandblasted, enameled and they are far better than new. Long tubes are added to enclose and protect both front and rear stabilizer bars. A pair of 3½-inch holes are cut directly through the sides of the frame rails for the heavy-wall exhaust pipe which is welded into place so that the frame rail regains its original strength. To prevent the torque reaction of the engine from tearing the exhaust system out, a section of tubing between the manifold and the pipe that passes through the frame rides loosely inside the two parts with enough overlap at both ends to keep it from falling out. Dual exhaust lengths, incidentally, are tuned for maximum efficiency.

Brakes are of prime importance on some courses, such as the Riverside road circuit. Linings will be segmented metallic. The most effective drums were found in the stock Lincoln parts list. Lincoln has a bell-shaped flange around the inner diameter that will help cooling, as will drilled backing plates. The drum's rubbing surface will be drilled to get rid of internal dust.

Since the rules allow parts pertaining to safety to be virtually anything the entrant wants, most of the suspension and steering pieces are either rebuilt completely or of proprietary origin. Wheels, as one example, carry 7½-inch-wide rims and are heavily reinforced.

Interiors of the cars appear to be gutted, but in fact there is no weight saving. Upholstery is removed as a fire safety precaution. Added is a sturdy gusseted and padded roll cage that must surely outweigh the lost seats. And the rules say that there must be a steel firewall between the fuel tank and the rear seat; stock item is light fiberboard.

The stockers are limited to 22 gallons of fuel, the capacity of the Mercury's tank. At racing speeds, this amount is good for about 100 miles.

In racing trim, the Merc will weigh about 4000 pounds. This compares to the lightest of the current crop — the '63 Plymouth, which goes at about 3300 pounds. Stroppe does not feel that his weight penalty will be much of a hindrance on the longer courses, but it could be on the mile tracks where quick acceleration is more important. Mercury has about six inches more rear overhang this year than in the past, but this can work to the car's advantage. The additional weight in the rear will help unload the right front tire, could permit it to wear less.

All the side windows must be operable, as the cars normally run with windows closed to reduce turbulence. Windshields require special hold-down clips and rear windows have two special metal straps to keep them from popping out. Hoods must be tied down in three spots, and the doors bolted shut in three places.

Covering races in widely separated parts of the country, mostly far from home base, requires support equipment. Stroppe will use two station wagons plus three tractors, two of which will tow his race car carryalls, the third for a large, enclosed parts and tool van which will be kept in a central location during the season.

One thing of which we can be sure: when those immaculate red, white, and blue Mercurys hit the track, the opposition is going to be in for some serious racing. And the spectators had better be ready for action, because Stroppe will provide his share. **/MT**