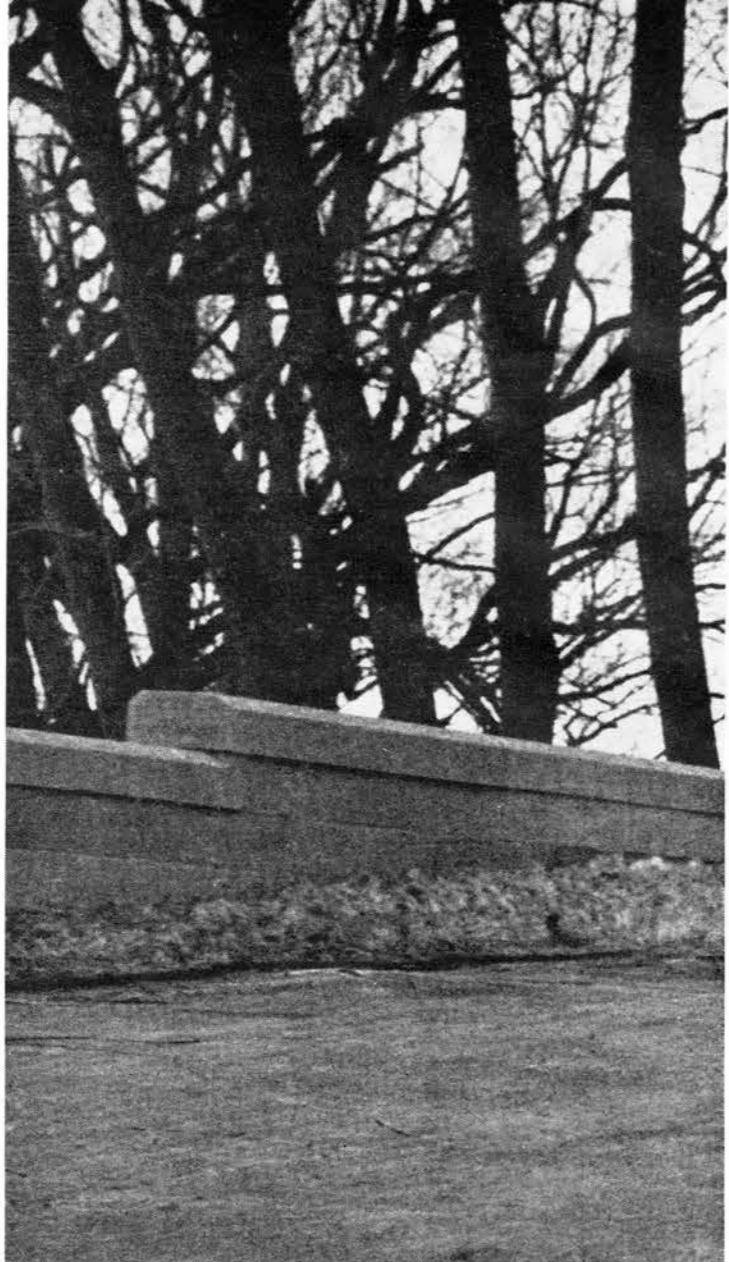


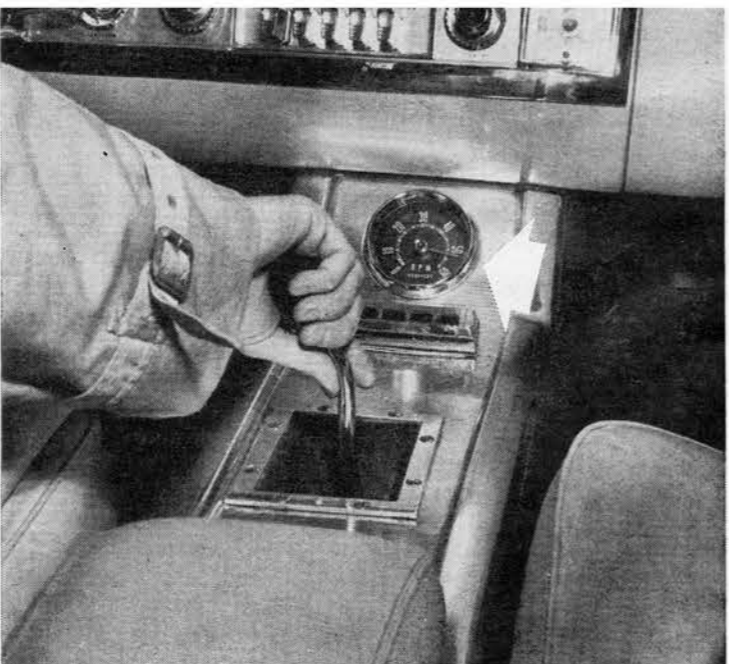


ROAD TEST



400-HP

this latest version has an imported four-speed box and 400 horses... it's the most powerful production car ever



FOUR-SPEED Pont-A-Mousson transmission shift lever is right at home on the 300-F's center console. Teamed with the 413-cubic-inch Chrysler engine it will shift into a screaming 400-hp rating at 5200 rpm (note arrow at tach).

CHRYSLER 300-F

THE CHRYSLER 300-F, when equipped with an optional high-speed performance kit and an imported Pont-A-Mousson four-speed transmission, is the hottest, wildest production car to ever journey off a Detroit assembly line. Only seven (7) such automobiles have been built and no more are scheduled.

Built solely for the Nascar Flying Mile trials at Daytona Beach, Florida, in February of this year, the seven screaming Chryslers were shipped down to that southern seaside for the express purpose of smashing any and all existing American production car records for the treacherous sand course. And, smash them they did.

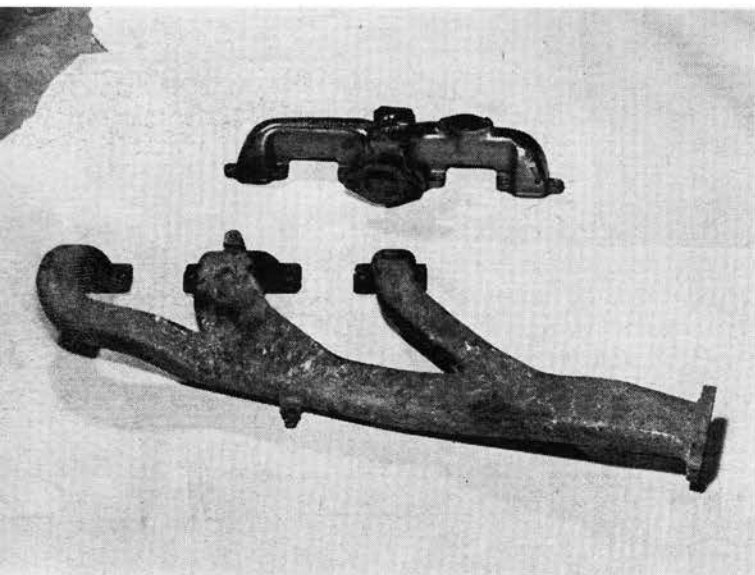
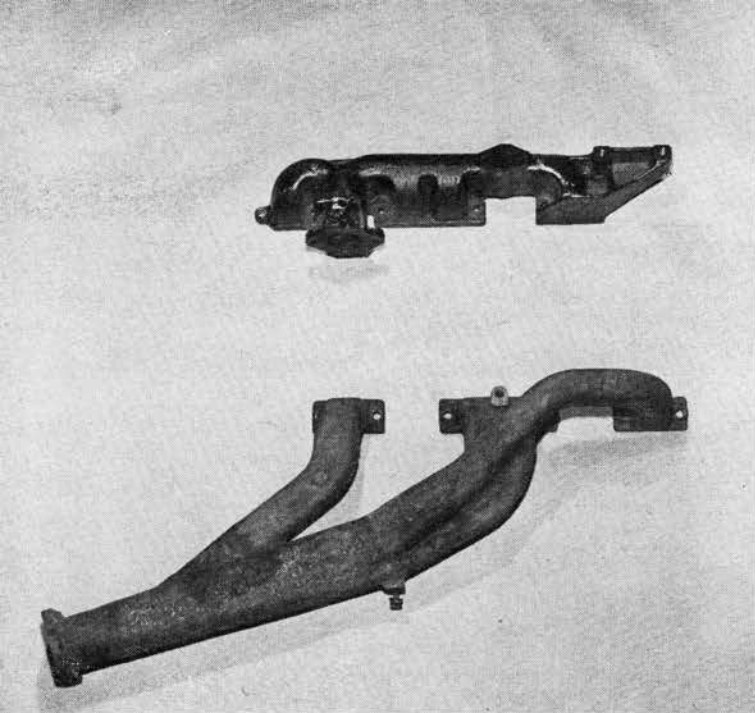
Thinly disguised as private entries, the bevy of 300-F's led by Gregg Ziegler of Elgin, Illinois, flashed through the electronic timing devices to smash every standing record for domestic production cars. Ziegler's own mark of 144.927 mph (two-way average) established for him a new Class 7 time and a new overall record that hot stove league Nascar-philies insist will stand for many years to come.

Like the car tested for this report, Ziegler's machine was

fitted with a 413-cubic-inch Chrysler engine, complete with solid lifters, a high-lift cam, headers and "shorter" ram tubes in the induction department. The expensive four-speed Pont-A-Mousson transmission (an import from France and a standard item on the luxury, French-made Facel Vega automobile) transmitted the estimated 400 hp back to a 2.93-ratioed rear end. For this test, a 3.31 axle ratio was installed but, aside from the difference in cogs, the test vehicle was a duplicate of the record-breaking car.

Basically, there is little difference visually between a super-fast "F" such as this car and the normal version which was reported on in the February, 1960, issue of *MOTOR LIFE*. On the inside, only the short, stubby shift lever that protrudes out of the console between the padded bucket seats, indicates that this is not a garden-variety 300.

Of course, if you lift the long, louvered hood and peer down into the maze of plumbing, you might spot a pair of smooth headers. But, aside from these two clues both versions appear identical. The same, that is, until you turn the ignition on and



SPECIAL EXHAUST MANIFOLDS are pictured below the standard units in the pictures at left. Their more graceful lines offer a better gas flow path for the high powered engine. The forward portion of the right bank manifold (top photo) is jogged out of line in order to provide mounting space for the alternator.

throttle is pushed down over 3500 rpm. But, alas, when such a collection of moving metal is graced by such a collection of power—all is not roses.

First off, the car suffers from a common Detroit malady known as—brake fade. In fact, if you drive the car like it was designed to be driven, you run out of braking power after a few miles. Bigger brakes that cool faster are what the vehicle needs—and needs badly.

Then there's the matter of Chrysler's "full time" power steering to contend with. In either version of the 300, warm or white-hot, the car is a decided handful to place squarely in a corner with the extra-light steering unit fitted. The torsion spring front end offsets this fault to a degree in that it contributes to the car's relatively respectful behavior in flight. But it cannot, nor does not, alleviate the problem completely. Though it might well require super-human effort to wheel the car at rest, an unassisted steering assembly would be a big asset once under way. On the plus side, the car offers a great deal. In addition to the spirited high-speed performance mentioned, the lucky seven individuals who happen to purchase the seven examples of this car, will be getting, for all intents and purposes, a hand-built vehicle—a rarity in the day of mass production on American assembly lines.

The latter benefit comes about simply because the cars were put together by engineers in Chrysler's Jefferson Avenue assembly plant—one at a time. The variances between these seven units and the normal 300s that are also built in this plant are so great that it was impossible to build them any other way. And, it is these variances we shall discuss next.

First off, there's the all-aluminum cased Pont-A-Mousson transmission. For its installation in the 300, the box carries a first gear ratio of 3.35, a second cog of 1.96, a third of 1.36 and a direct fourth.

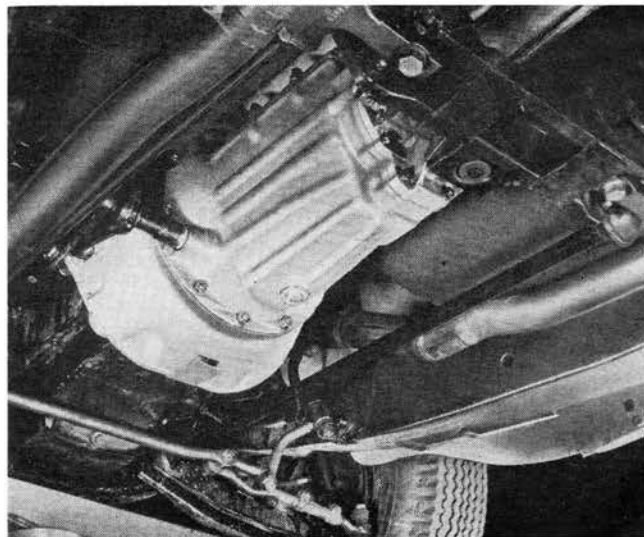
Coupled to the Pont-A-Mousson is the higher-revving version of the 413-cubic-inch Chrysler ohv V-8. As mentioned, the engine is fitted with mechanical lifters in place of the hydraulic units standard on the powerplant. A new "high performance" camshaft has been ground for the latest valve train, offering

crank up the wild, high-revving engine. Then, the difference becomes apparent!

In the more subdued version, you reach maximum torque (495 lbs.-ft. at 2800 rpm). Reaching its maximum torque at such a low-to-mid range of engine revolutions gives the car a big boost of speed all the way up to 100 mph. But there the car falls off real quick and a top speed of over 125 mph isn't very likely.

In the super-fast unit, the big push comes on when the tach needle reaches 3500 rpm—from that point on it's just plain hairy and it gets worse all the way up to 5200 rpm. The kind of power this engine turns out would frighten anyone the first time behind it.

And, surprisingly enough, though it doesn't get its real bang until the revs are up, the car will turn on faster than the lower rpm-power range of the hydraulic lifter engine. Wheelspin is wild, of course, but if you get it off just right, 0-to-60 mph arrives in 7.2 seconds. It's quite possible, because of the difference in weight more than anything else, that a well set-up Ford or Chevy might "shut it down" at any given point. But, when that power comes on—look out! Here is a car so powerful (and front-end heavy) it can break away in fourth gear when the



ALUMINUM CASED Pont-A-Mousson transmission adds the Continental touch to the 300-F. This expensive unit has made its reputation as the regular transmission on French-made Facel Vega.



RAM TUBES of the special engine have the same external length (30 inches) as other Chryslers, but the internal dividers have been removed from the first half of each pair, resulting in four double-width passages feeding eight 15-inch ram tubes. Short ram tubes resonate at higher rpm. Note alternator in foreground.

higher lift (.449 versus .430 for intake and .454 versus .430 for exhaust) and longer duration (284 degrees versus 268 degrees for both intake and exhaust). The valve overlap has consequently been altered with the new cam delivering 55 degrees—Intake opens 25 degrees BTDC and the exhaust closes 30 degrees ATDC as opposed to the overlap for the hydraulic version that adds up to 48 degrees—Intake opening 20 degrees BTDC and exhaust closing 28 degrees ATDC.

Compression ratio is 10.1-to-1 and the same three-ring aluminum pistons used in the hydraulic engine are fitted here. Ram induction manifolding is also standard on both versions of the 300's engine, but there is a major difference between the two manifolds, resulting in a revision of power output along the curve.

In the standard 300 engine, 30-inch long ram tubes deliver fuel from the carbs directly to the intake ports. This manifolding system has been widely described since its introduction in the fall of 1959 and it would be repetitious to include a full treatment of its principle here. However, the significant difference in the super-fast 300's manifold and the normal long tube version must be outlined.

In the regular manifold, as mentioned, one tube is provided for each port. Externally, there are four tubes running across the engine layout, each tube with two separate tubes within. Or, one large tube has two distinct channels within it. On the super-fast model, the tubes are also 30-inches long with the normal complement of four tubes exposed. However, the latter manifold has the center section (or inner individual tube walls) removed for the first 15 inches of tube from the carburetor.

Thus, the individual tubes are now 15 inches in length, measured at a point beginning 15 inches away from the carb. With these shorter tubes fitted, the maximum torque is achieved at a higher rpm figure (3600) and the top end speed is thus increased over the long tube model.

This revised induction system is combined with a full-flow exhaust unit that utilizes headers and a large (2½-inch) exhaust pipe layout.

And so we arrive at a super-fast 300-F—not a family car—not a very pleasant machine to maneuver about the streets and not, by any stretch of the imagination, a very available unit. What the fate of the seven cars is (actually six because Ziegler bought his) can't be predicted. If they were offered for sale the price would be extremely high. ●

MOTOR LIFE TEST DATA



1960 CHRYSLER

Test Car

TEST CAR: Chrysler 300-F Special
BODY TYPE: Two-door hardtop
BASIC PRICE: \$6800 (approximate)

Maneuverability Factors

OVERALL LENGTH: 219.6 inches
OVERALL WIDTH: 79.4 inches
OVERALL HEIGHT: 55.1 inches
WHEELBASE: 126 inches
TREAD FRONT/REAR: 61.2 and 60 inches
TEST WEIGHT: 4712 lbs.
WEIGHT DISTRIBUTION: 52.8 per cent on front wheels
STEERING: 3.5 lock-to-lock
TURNING CIRCLE: 49.7 feet
GROUND CLEARANCE: 59 inches

Interior Room

SEATING CAPACITY: four
FRONT SEAT—
HEADROOM: 34.6 inches
WIDTH: 63 inches
LEGROOM: 46.2 inches
TRUNK CAPACITY: 17.7 cubic feet

Engine & Drive Train

TYPE: V-8 ohv
DISPLACEMENT: 413 cubic inches
COMPRESSION RATIO: 10.1-to-1
BORE & STROKE: 4.18 x 3.75
CARBURETION: two 4-bbls. (ram induction manifold)
HORSEPOWER: 400 @ 5200
TORQUE: 465 @ 3600
TRANSMISSION: 4-speed manual
REAR AXLE RATIO: 3.31

Performance

GAS MILEAGE: 8/10 mpg
ACCELERATION: 0-30 mph in 3.7 seconds, 0-45 mph in 4.9 seconds, 0-60 mph in 7.2 seconds
SPEEDOMETER ERROR: Indicated 30, 45 and 60 mph are actual 30, 44 and 58.5 mph
POWER-TO-WEIGHT RATIO: 11.78 lbs. per hp
HORSEPOWER PER CUBIC INCH: .976