

Ford hopes to make racing ventures pay off in street sales now that dealers are stocking performance-oriented Cobra Jets. Who knows, 1969 may turn out to be

# THE YEAR OF THE SNAKE

BY EDESEL SPIEGEL

FOR QUITE a while now Ford has been in the precarious position of openly supporting multi-million dollar auto racing projects (sports car, sedan racing, drag, Indy) yet being unable to supply high-performance street cars and parts to the public. Chrysler has been able to do both over these same years and General Motors has been able to follow through both under and over the table. Ford's popularity with the street set reached a low point in 1968, prompting the factory to release the Cobra Jet Mustang. But, Ford dealers still were unable to cope with the request for factory race parts. And, besides availability, Ford fans were also faced with a price barrier. Chevrolet owners were able to get comparable GM parts quicker and at far cheaper prices. Well, Ford has finally seen the light

they've been talking about for a year or so. Their Prodcut Planning and Engineering groups, in a no-holds-barred effort to put Ford back at the top of the heap, have finally come up with some "good guy" stuff that's going to be hard to beat. First off there's the Fairlane *Cobra*—Ford's answer to the *Road Runner*, a Ram Air 428 CJ *Mach I* Mustang, a new limited-slip rear end that works, factory-installed performance gears and revamped suspensions. And, in the very near future, there will be a streetable dual-disc clutch, a high performance 429 HEMI *NASCAR* mill and a High Performance 351. So as you can see, they've been burning the midnight torches in Dearborn.

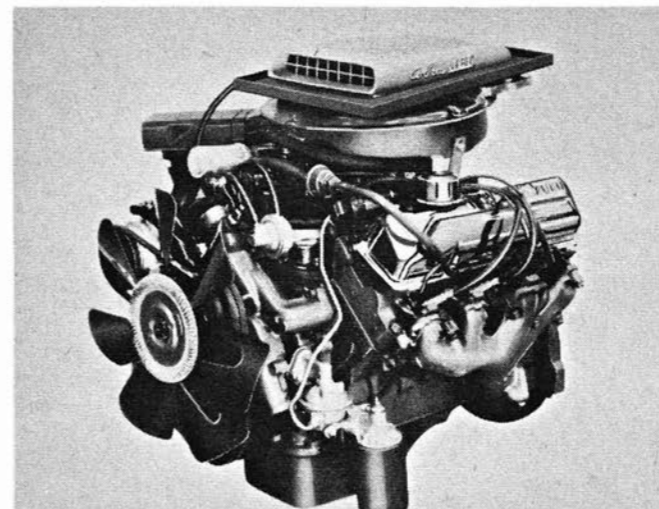
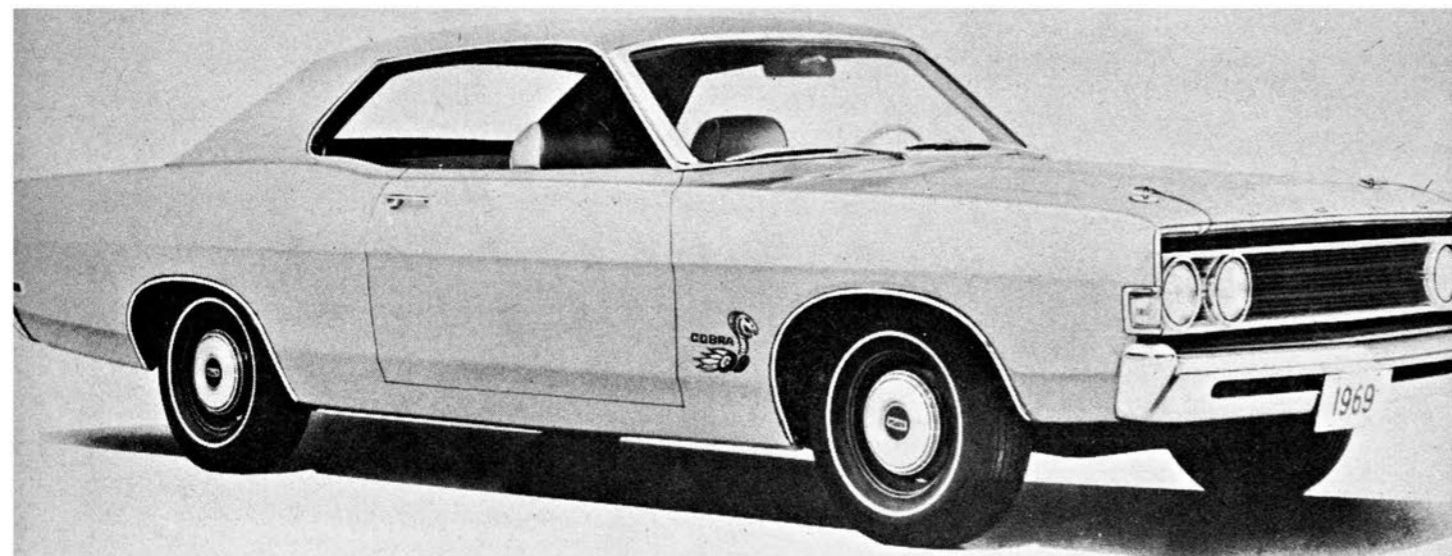
First on the agenda of really new things from Ford is the Fairlane *Cobra*, a refined Dearborn-version of the very

successful Plymouth *Road Runner*. Ford learned a lot from Plymouth's first-year mistakes, as proved by the abundance of image trim and the more livable interior. Power choices are similar to those offered by Plymouth, with the 335-hp 428 Cobra Jet as standard and the Ram Air 360-hp version listed as optional. There's a good chance that Ford will offer this package with a 427 setup in mid-'69.

The *Cobra* is a 116-inch wheelbase genuine supercar which weighs in at approximately 3,600 pounds with the usual equipment. Just one look at the *Cobra's* appointments and you realize exactly who the car was designed for. It's available with either a sportsroof or formal hardtop.

Set off by a horizontal bar theme, the *Cobra's* grille is of extruded alumi-

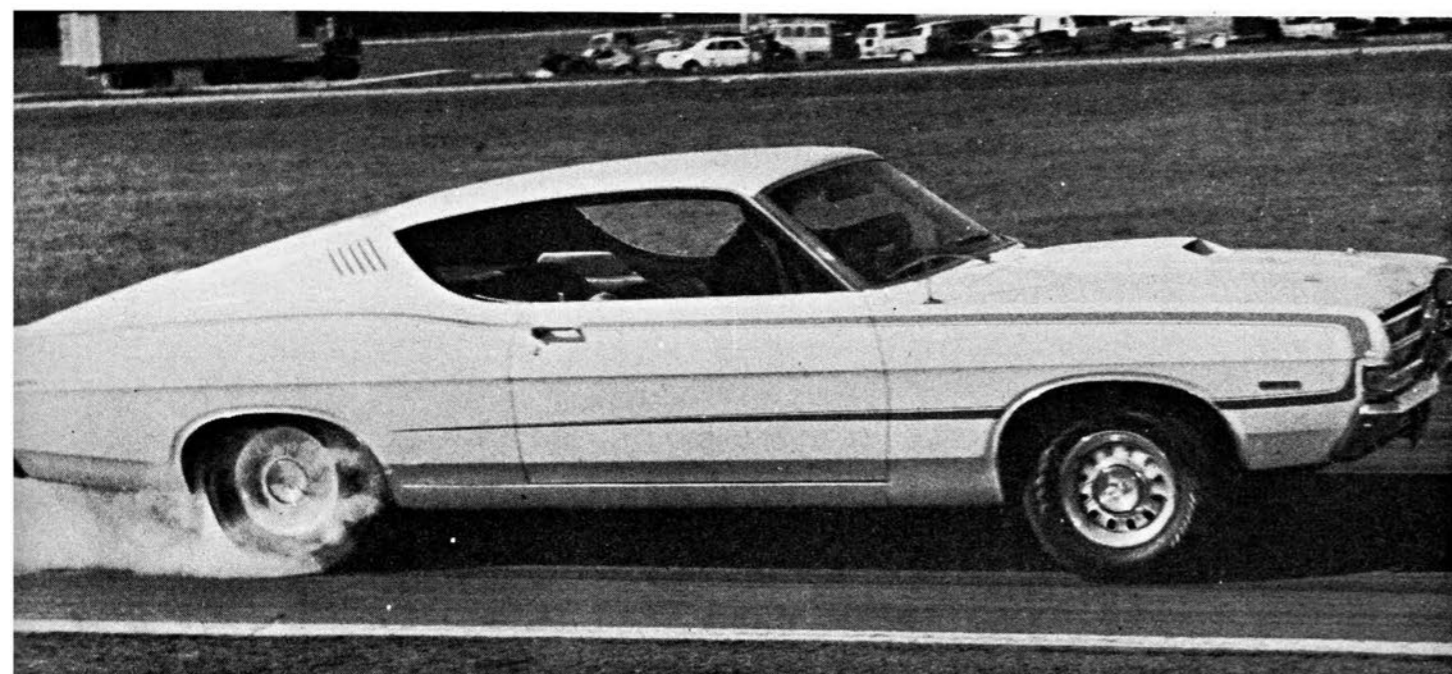
Opposite page, a pair of 428-inch supercars ready to take on all comers. The new Cobra, Ford's answer to the Road Runner, sports the standard engine, while the smoke-making Torino has the full Cobra Jet treatment. Two rooflines are available in Cobra series.



Fire-breathing 428-inch CJ mill for Mustang features a built-in ram air scoop which protrudes thru cut-out in the stock hood.



Tire-burning super snake started out as decal artwork on fenders and deck of hot Cobra. Production models feature metal emblems.



Mickey Thompson brings his 427 Tunnel Port Mustang to a halt after lapping the Bonneville Salt circle in the mid-180's.



num construction and finished with dull black lacquer. The scooped or non-scooped hood (depending on engine specified) is secured by the usual locking system plus a pair of functional NASCAR-style locking hood pins. Bright wheel well moldings, *Cobra* emblems, the flat black grille and locking hood pins and scoop make the *Cobra* a very desirable street machine.

Since power teams and suspensions on the '69 Ford *Cobra* and Mustang *Mach I* are basically the same, we'll spend some time going over the design on the *Mach I* then cover the technical features of both. The *Mach I* with the new Sportsroof (mod terminology for what used to be known in Motown as

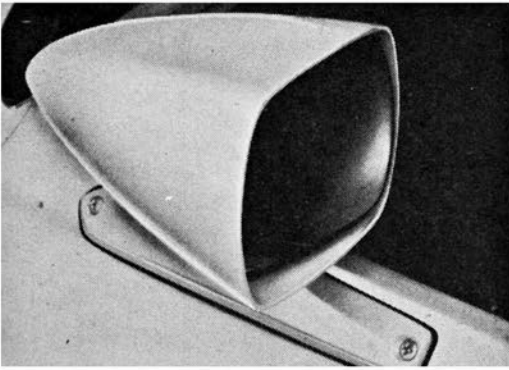
fastback) is the performance model in the Mustang lineup. It's sort of like a compromise Shelby Mustang at production-line prices.

The *Mach I* comes stock with a non-performance 351 which has gobs of potential for the future. Right now it's a consumerish engine with the right bore-stroke configuration for big things. What really sets the *Mach I* off from the rest of the family are a Dull-black-finished, non-functionally-scooped hood, locking pins, unique stripes, dual color-keyed racing mirrors, side and rear spoiler tape stripes, fiberglass-belted tires (also standard on *Cobra*), styled steel wheels and chrome exhaust extensions. In stock form it's sort of a Mickey

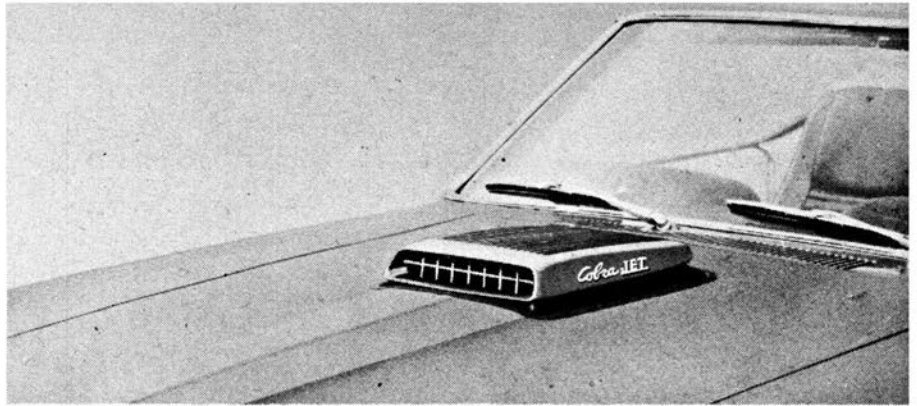
Mouse machine for pseudo sports who missed the Pepsi Generation by 25 years!

But that's in stock form. The restyled, longer and bigger Mustang is something else when it's fitted with the 428 *Cobra Jet* engines. You even get a real air scoop when you go for the Ram Air model. Unlike the *Cobra* package, the *Mach I* Ram Air deal features a scoop which is part of the air cleaner. The hood is cut out and the scoop looks as though it's mounted on the hood. How long these will last on a dark New York City or Chicago streets is anyone's guess.

The heart of Ford's new models is the 428 *Cobra Jet* engine in either stock

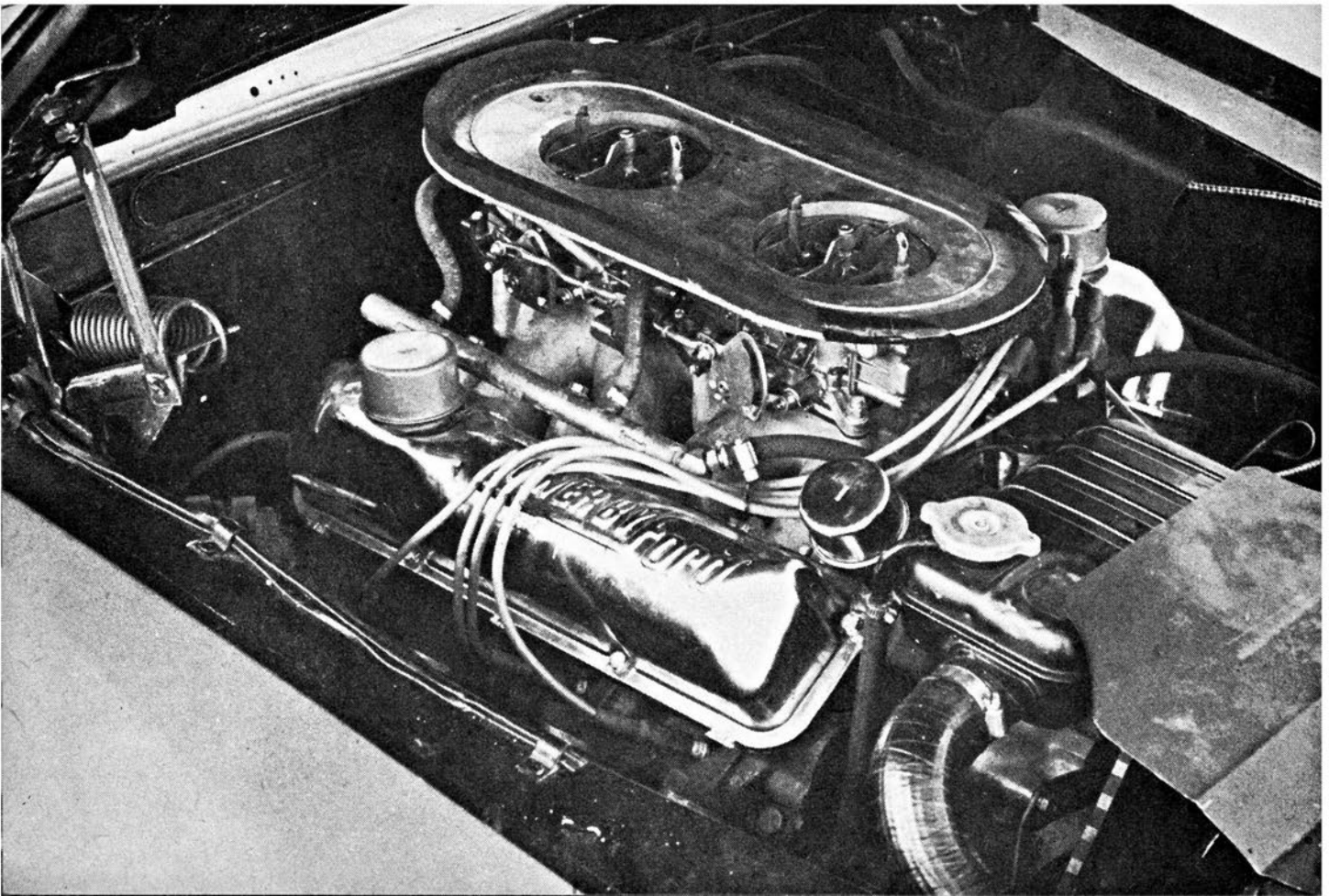


Streamlined mirror pods are boss looking besides being super functional.



Vacuum cleaner sticking through the *Mach I* Mustang's hood is for 428 CJ ram induction.

Tunnel Port 427 mill is available in *Mach I* Mustang, but production is limited. Dual Holleys feed the solid-lifter monster.



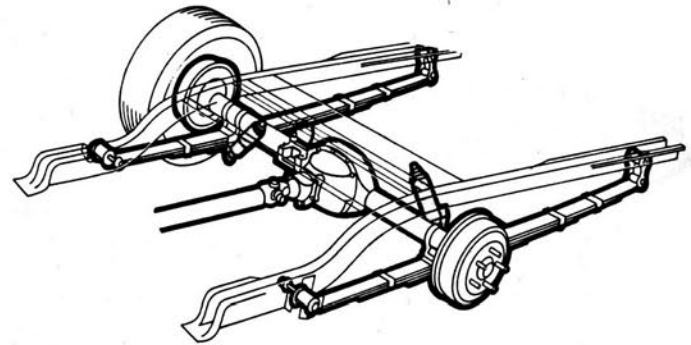
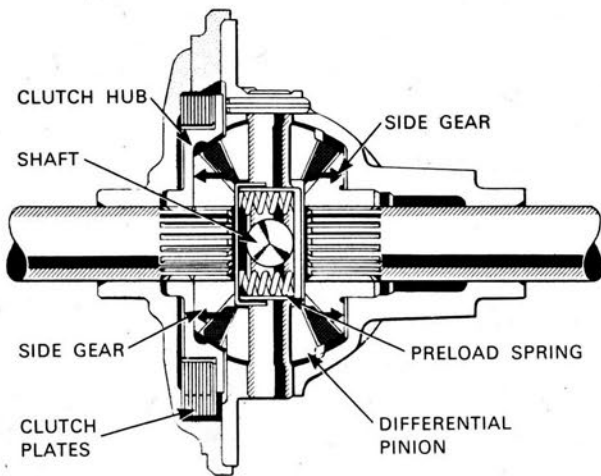
335-hp trim or in 360-hp Ram Air shape. Hidden under the chrome goodies and emblems are some pretty interesting component parts. Breathing is handled topside by a 735-cfm Holley four-barrel and at the bottom end by a pair extended runner length cast iron headers designed specifically for the rpm capability of the 428. A bigger 780 or 850-cfm Holley and tubular headers are recommended for increased performance. New HP heads with wedge chambers were designed to work with the new 10.5-to-1 pistons. A high-lift hydraulic cam with special springs permits revs to 5,000-plus without fear of pump-up and float. The stock distributor is fitted with dual points.

The Ram Air option includes a functional hood scoop on the *Cobra* models and a built-in air cleaner scoop which protrudes thru the hood opening on the *Mach I*. Both installations utilize an air cleaner assembly with a vacuum-actuated by-pass inlet valve mounted in the top. When the engine is operated at nearly full throttle, the vacuum motor opens the large air cleaner bypass valve and allows additional air to flow directly into the air cleaner assembly. This forced flow of cooler air into the engine has a definite affect on the performance output.

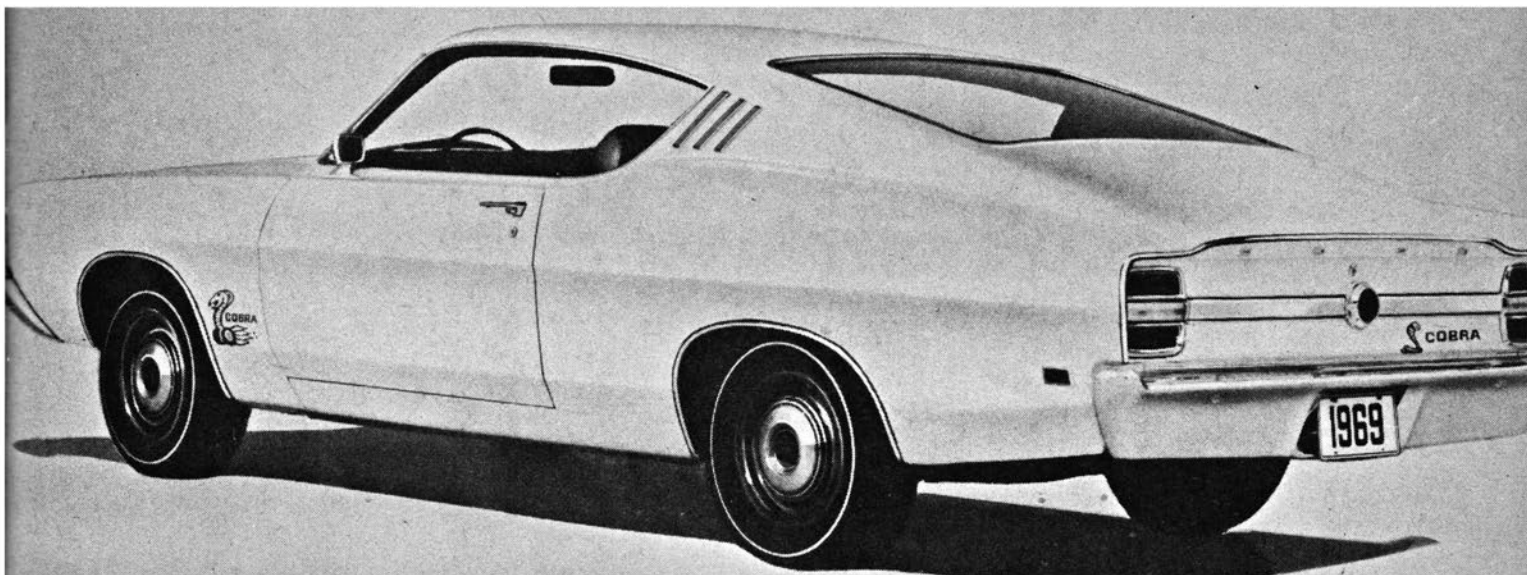
Anyone familiar with the Ford performance picture is aware of one of its weakest points—the rear end. Besides

not being able to get drag ratios installed at the factory there was no performance-oriented limited-slip differential. The old clutch-operated Equa-lok differential was not available on the really hot equipment as all it took were a couple of banzai burnouts to destroy the clutches and the operation of the unit. So they preferred to offer nothing at all until they developed a new unit. Drag boys were advised to use the Detroit Auto gear-style locker which is almost indestructible. It's also extremely expensive and not that well suited to street use due to its noisy operation and almost fully locked-type attitude on corners.

(Continued on Page 68)



New limited slip unit can handle HP torque and is recommended on all supercars. Staggered rear shock layout reduces wheel hop.



Super sano Cobra is Ford's budget-priced supercar for the youth market. Hottest 428's are available with four-speed or three-speed auto.

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(Continued from Page 64)

track racing; 43 for drag racing. Auto-lite-AT2, A22, A23, or A903 for track racing; AT4, A42 for drag racing. Champion - J61Y, J60R, J86Y, or UJ60P for track racing; J63Y, J6J, or UJ64P for drag racing.

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Maximum Oil Temp - 300 degree in oil pan.

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In operating conditions where fresh air is ducted to the carburetor (fresh air hoods, plenum air cleaners, etc.), it is necessary that an air cleaner element or low restriction element be used to diffuse the air entering the carburetor. If no diffuser is used, the engine mixture distribution will be upset, causing poor power and misfiring at high engine speeds.

## THE SNAKE continued

But, for '69 Ford has its new unit ready. It's called the Traction-Lok differential and it's available with performance ratios of 3.50, 3.91 and 4.30 from the factory. Lower gears (higher numerically) are available for do-it-yourself installations. This differential locks tighter in proportion to the driving torque applied than the old unit. A decrease in fixed loads, together with an improved clutch and special gear angles, provide a wide range of performance under all conditions. It's ideal for street or strip use, but still nowhere as efficient as the gear-type locker for sophisticated drag machinery.

Ford also has a new clutch that's really perfect for high horsepower street and strip applications. It's a dual-disc affair which was originally designed for trucks and later proven under enduro conditions in the *Mach 1* Mustangs driven by Mickey Thompson to 350 records at Bonneville. The original dual-disc clutch discs were too heavy, causing the synchros to work themselves to death in the transmissions. They had a tremendous amount of hard shifting problems when the units were first released for truck service. However, the improved version used in the *Mach 1* Salt record-breakers features lightweight

discs and floater plates and have no ill effects of shifting. The improved unit will be available to the public early in 1969.

There's also a new street/strip suspension available with 428 Cobra Jet cars fitted with four-speed transmissions. The same suspension is available on automatic transmission cars, except that the shocks are mounted conventionally instead of staggered. The staggered shock arrangement is designed to control spring wind up and wheel hop caused by the axle twisting under acceleration conditions. The left shock is relocated to the rear of the axle, while the right shock remains ahead of the axle. This setup partially restrains and damps out the twisting motion of the rear during full throttle starts. This provides the owner with an excellent starting point only, as the car still needs more performance oriented shocks, traction bars and possibly adjustable air bags for proper chassis preloading for strip tractions. Chevrolet went the staggered shock route last year with the Camaro, but the car still needed traction bars. To aid the suspension and traction aids there's an LPO (Limited Production Option) which specifies that the battery be mounted in the trunk over the right rear wheel.

Ford has obviously gotten the message and you can expect bigger and better things from Dearborn in mid-'69 and '70. They finally have come to realize that the street is where the action and the sales are, not at Indy or LeMans.

## MINI COBRA continued

of chatter or hop. Some of the give in the rear suspension comes from the tires—a set of 9:50x14's—have seven inch tread width. The attempts at dropping tire pressures to 6 pounds for very slippery tracks were unsuccessful, as the slicks proved squirrely and lost too much at the top end. With eight pounds pressure, they worked well. "Traction is just not one of our problems," says Bob.

Win, lose or draw there is always that long tow home sometimes with a broken rear and that's when you see guys working into the night changing axle housings at the last minute. Bob comes prepared with a special center section that is set up for towing. He has no gears, just an aluminum coverplate instead of a flange for the rear "U" joint. After the last run, this "towing third member" is installed. It cuts down

(Continued on Page 70)

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