



GREAT ACTION: AHRA SPRING NATIONALS

• SAPPINGTON'S CANDID CAMARO •

SUPERCHARGED BLUE HELL CORVETTE

•DICKIE HARRELL'S LATEST ROADSTER•



# Drag strip

VOLUME FOUR, NO. 8 PUBLISHED MONTHLY AUGUST, 1967

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MEMBERS OF



Cover. A pair of blown cars, the new Snodgrass & Mahnken "Psycho" Mustang, and the phenomenal "Hemi-Cuda" of Fred Goeske, coming to rest at the top end. Photos: Guldahl, Freel.

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# Is this Carroll Shelby's answer to the 427 Sting Ray?

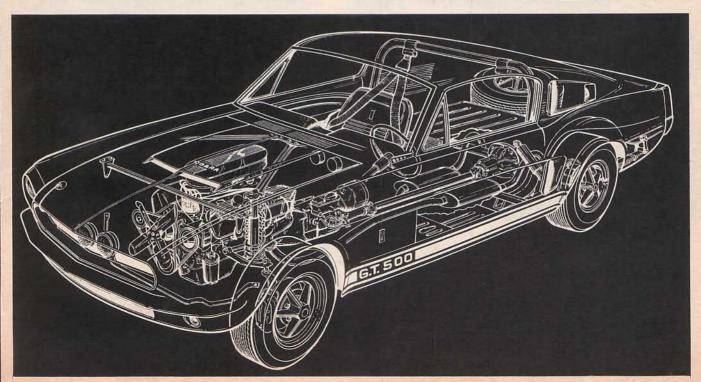
I thought I had seen the ultimate in road cars before: the Corvette Sting Ray 427. Scratch one belief; the new Shelby Snake has it all the way. No reflection on Chevrolet, but this new car, built special by Mel Burns Ford, of Long Beach, California, could show the Chevy engineers how to go about building a real road machine. Of course, can we really compare the two cars? The Chevy sportster sells for about \$5000, whereas the new Shelby creation will have to hold the price line at around \$7500, and this would be on special order from Mel Burns only. In any event, this Long Beach dealer has come up with a package that should make any true rodder's heart throb with emotion. If you can't afford it, you can at least stand there and let your mouth water!

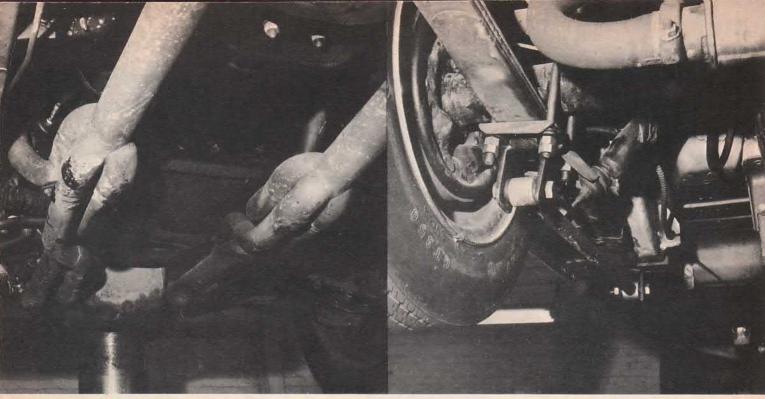
To find out the straight story on the car we went to its true creator, Don McCain. Don has been preparing Shelby Mustangs for drag racing for over two years, so you can bet the new car has all



Text and photos: Fred Freel

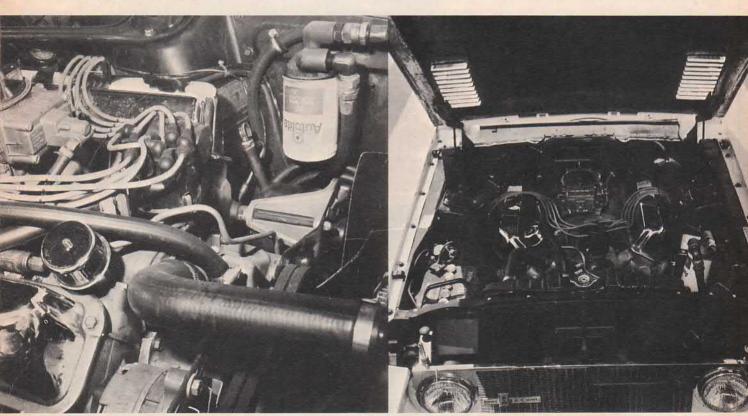
# SUPER SNAKE





The "bundle of snakes" type headers proved to be the most difficult part of this special engine package. Each header pipe is the same length and empties into a Gran Prix type collector.

On the standard GT-500 Shelby's reworked suspension can handle most of the axle wrap chores, but, when you add over 150 hp, you need extra track bars on the rear springs to keep things under control during acceleration.



The Autolite 6000 mile oil filter is relocated so a Shelby oil cooler setup can be used. The Holley carb has a flow rate of 780 cfm compared with 600 cfm for the standard GT-500.

The Le Mans 427 medium-riser V8 fits rather snugly in the Mustang's engine compartment. However, aluminum heads and engine front cover peel 95 lbs. from the car's standard weight.



Le Mans type brake scoops in the rear quarter panels are actually functional and route cooling air to the 10" rear drum brakes. Air extractors mounted to the sides of the fastback roof are also functional and remove stale air from the passenger compartment.



The front grille is custom made for this application, and could be a sneak look at Shelby's 1968 styling. In our opinion the effect of this custom grille is better than the stock headlight placement.



Small spoiler molded into fiberglass trunk lid helps dynamic stability at high speeds. If you could hear the exhaust note that emits from those dual 3" pipes you'd undoubtedly exclaim, "This is no street machine!"

#### CHASSIS

Wheelbase: 108" Track, f/r in.: 58/58

Frame type: unit body construction

Front suspension: independent w/coil springs and ball joints, Shelbymodified for flatter cornering. Front stabilizer: .94" diameter Rear suspension: 4-leaf springs w/special rebound dampers and track bars

to control rear spring windup

Steering system: linkage-type power assist w/16:1 overall ratio

Curb weight: 3480 lbs.

Brakes: front, 11.3" discs w/high speed linings; rear, 10 x 2.5" drums

Wheels, size and type: 6½ x 15 Shelby front and rear Tires, size and make: E70-15 Goodyear Speedway 350s

#### ENGINE

Built by: Ford Motor Co.

Type, no. cyl.: 1967 Ford, LeMans racing version

Bore x stroke: 4.2346" x 3.784" Displacement: 427 cu.in. Crankshaft: Ford 7000 rpm type

Main bearing support: none (cross-bolted block)

Connecting rods: Ford 7000 rpm type Pistons: Ford forged aluminum Piston rings: Ford chrome plated Compression ratio: 11.5:1 Crankcase capacity: 8 qts.

Oil pump pressure: 70 psi
Oil make and no.: Valvoline Racing SAE 30
Valve operation: solid lifters and pushrods
Camshaft: Ford SK series (.500" lift)

Valve mechanism: single rocker shafts w/inclined parallel valves

Valve size, in/ex: 2.195/1.733

Cylinder head type: aluminum medium riser

Cylinder head modifications: none

Carburetion: Holley 4-bbl. w/center pivot floats (780 cfm); fuel pump, 6½ lb. Ford; throttle linkage, Ford

Ignition system: Ford high performance

Spark plugs: Autolite

Distributor modifications: Mel Burns Ford Total spark advance: 36 degrees at 4000 rpm Horsepower: 520 (dyno) 360+ (wheels)

#### DRIVE TRAIN

Transmission type: Ford 4-speed (2.32 low)

Clutch: Ford Scatter shield: Wedge Rear axle ratio: 4.11:1

Differential make: Detroit Locker No-Spin Axles, make and type: Ford 31 spline

the features necessary to make it a full fledged quarter-miler when he deems it proper. Before Don took the position of High Performance Division Manager at Mel Burns he was the West Coast Field Rep for Shelby American. This exposure to Shelby's market gave him the insight on just what the GT buyers wanted. His Super Snake is the answer. Don's background in racing extends back for 13 years, and, as can be expected, his experience is predominantly with Ford products. He doesn't plan to race the car, but if need arises he'll install the necessary optional goodies and attack the nearest strip in force.

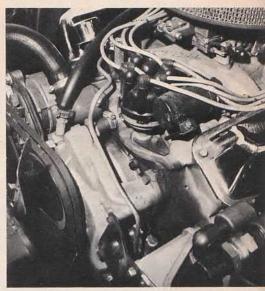
Mel Burns, as a dealership, is going racing in conjunction with Fiesta Ford of Indio, California. They hope to field a series of 427 Fairlanes that will show the



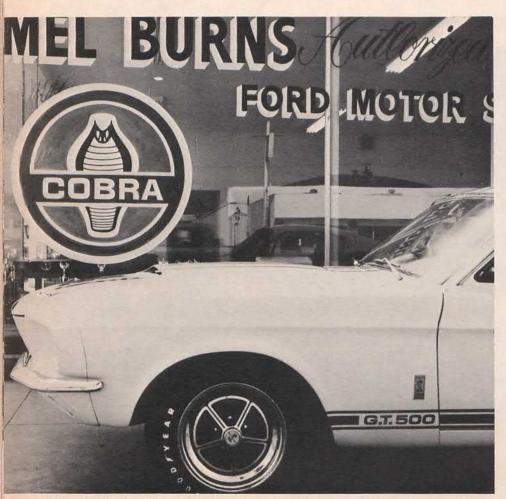
The interior is neat and functional, and has a fire extinguisher placed handily between the front bucket seats for emergencies.



Foam rubber is molded around the sturdy roll bar (Shelby standard) to keep heads from being cracked on entry to the rear seat. Retractable shoulder harnesses are also standard equipment.



Since the car is to be used as a street machine, power steering with a quick 16:1 ratio is retained from the production version. Ignition is a Mel Burns modified Ford high performance unit.



Fiberglass hood and front grille housing panels extend the GT's overall length by three inches, giving it an even sportier appearance than the standard Stang.



Large 8 qt. oil pan supplies plenty of oil to the engine's lubrication system. Special 4-into-1 headers were fashioned by the wizards from the Cobra works.

NHRA C/SS boys what's happening. This is one of the primary reasons the new GT won't be raced. You could say it's just about the closest you can get to a drag car without making it un-streetable. To back up any sales of the car, Mel Burns is carrying a \$35,000 inventory of racing parts to keep its race conscious customers happy.

The heart of the special GT is its Le
CONTINUED ON PAGE 58

# SUPER SNAKE

**CONTINUED FROM PAGE 24** 



Don McCain, High
Performance Division Manager
at Mel Burns Ford, has been working with
Shelby's Mustangs for over two years.
Previous to his position at Mel Burns he
handled field work for Shelby American.

Mans racing engine. That's right, the engine is almost identical to the engine that won Le Mans last year, and is expected to power the Mark IV GTs to another victory this summer. It's also very similar to the engines used in pre-428 Cobras with some slight changes. When the engine was installed in the Cobra (racing version) it was rated at 485 hp. Well, I don't know how accurate that figure was, but the engine we're working with here pops a hefty 520 at the clutch. To back this up, a reading of 360+ has been taken from the rear wheels on a chassis dyno. Not bad for a street engine!

Is the car tractable? Right! You'd never know that such a mean mill was turning on under the hood. In fact, the only thing that gives it away is the burbling exhaust note and the 1100 rpm idle. After the car is moving you'd think there was only a mild 390 pumping away. Of course, once you put it to the wood fantastic things start to happen. A good comparison would be to Ford's stock 390. Driving along at about 20 mph you put the stocker to the floor, that automatic transmission kicks down to first gear, and you're on your way. How do you duplicate this feeling in the GT? In third gear! That's right, third gear is just about equal to first when accelerating from 20 to 30 mph. That's about the best all-around torquing you'll find in a production car anywhere. The 4.11 axle had much to do with this startling get-up-and-go, but the car was equally impressive with the original 2.75:1 screw.

When the car was first completed Carroll Shelby took it to Texas for some Goodyear tire tests. There's nothing like an open tire test track to see just what a car will do. Carroll lapped the track at an easy 150 mph, and when the 427-incher was really turned on the speedometer CONTINUED ON PAGE 60

#### CONTINUED FROM PAGE 58

tripped the 170 mph mark with ease. Undoubtedly the Mustang's clean body lines had something to do with these fantastic runs. At these speeds the engine had to be turning in the neighborhood of 6000 revs, so the camshaft must be one of those beauties that turns on both on top end and down where the torque is needed. All the specs we could get out of Don McCain was .500" lift and an SK series stamp on the stick. Ford only knows what is happening here.

What makes this engine so spectacular? Well, if you take every racing part Ford offers for the 427 high-riser engine, put them in a medium-riser design, add aluminum heads and front engine cover, you have about the most dependable racing engines available. That was the whole idea behind this package. The dual-quad 427 drag engine is fine, but reliability on the street leaves something to be desired. The Le Mans engine was designed primarily for endurance, since it had to hold together for 24 hours in the famous French race. If it can hold together under those conditions, there is no telling how long it will last for street use. Every part possible was replaced with items designed for the 7000 rpm kit including super-light valves, beefed rods and crank, lifters and pushrods, and a special oil cooler for an added reliability factor.

When a Mustang is reworked by Shelby American its handling qualities take a sharp turn for the better. The stock heavy duty suspension is pretty good, but Shelby makes adjustments that are needed to handle the extra horses of the standard 428 cu.in. engine. In fact, the rear suspension is set up so well that track bars aren't even needed. Of course, if you add some 160 hp, things start to happen that wouldn't normally. As an added precaution Don installed a set of small traction bars at the rear to prevent axle wrap. This was a good move, since the added horses did give some instability during acceleration. If the car was to be drag raced, it would be necessary to install a set of much stronger bars, and a little weight jacking would probably be necessary, too.

The only drawback to this Super Snake package is its cost, but there isn't much anyone can do about it. The Le Mans engines are in very short supply, so the car can be purchased only on special order. However, if you've got the loot and want one of the best-performing street machines on the road, give Don a call. I'm sure he'd be happy to give you the particulars.

It is too bad that I couldn't give you a complete drag test on the car, but this issue's deadline made it impossible. However, you can watch my column for any news that may come from Don in the near future.