

160_{mph} Plymouth Street Hemi

Plymouth's new streetable "orange monster" is equally at home on the street, strip or salt.

BY THE CARS STAFF

MAKING a car "stock" means many things to many people. To John Holman and Ralph Moody it means blueprinting an engine and designing and fabricating a special chassis and suspension around it. All this is done to meet NASCAR or USAC stock car racing specifications. To Bill "Grumpy" Jenkins it means taking a brand new factory engine and rebuilding it to the closest tolerances possible to make it competitive under NHRA or AHRA stock class rules. If the customer wants to go the full route with Jenkins, he will also get a preloaded chassis that affords him with the ultimate in weight transfer and traction. And to Mr. Average Motorist, up to a couple of years ago, that is, it meant fine tuning a showroom stock vehicle and lettering it up to look like a race car.

Because of factory interest in all forms of racing over the past few years Mr. Average Motorist has learned to read between the lines of Detroit stock car performance advertisements and differentiate between "stock-bodied" and showroom stock cars. Yes Virginia, there is a difference!

He discovered that stock-bodied means nothing more than a showroom stock-type body mounted on an all-out race car chassis and engine. He soon realized that the engines and chassis were one-off creations of independent race car builders and in no way could be compared to the showroom models.

So now if the Detroit "iron men" want to impress potential customers or raise the morale of present owners they know they either have to run a legit stock car or an all-out racing "stock" car and advertise accordingly.

First to pull a really legit stock car attempt at a world speed record is the Plymouth Division of Chrysler Corporation. The very same people who have been flooding the market with advertisements praising their drivers who have been setting all kinds of NASCAR, AHRA and NHRA records with their "stock" hemi-charged "orange monsters" now have a legiti-

Stage I prototype "street hemi" Satellite equipped with auto trans and 3.23 gears was used on proving grounds for testing at new car preview. Stage II, below, prototype was painted white, equipped with roll cage, four-speed, Firestone "salt" tires, 2.93 cogs and turned over to Bob Summers for record attempt. Stage III, bottom, roll cage was removed, Police tires and 3.54 cogs were added in place of "salt equipment" and stocker was turned over to CARS for extended street-strip testing.



1966 PLYMOUTH SATELLITE SPECIFICATIONS

ENGINE

Type	OHV V-8 Hemi
Displacement	426 cubic inches
Compression Ratio	10.25-to-1
Carburetion	Dual Carter AFB quads
Camshaft	Mechanical, .460-inch lift
Horsepower	425 @ 5000 rpm
Torque	490 foot/pounds @ 4000 rpm
Exhaust	Dual headers, dual pipes
Ignition	Standard dual points

TRANSMISSION

Make	Chrysler A-833 four speed
Control	Reverse lockout floor shift
Ratios	2.66, 1.91, 1.39, 1.00

REAR END

Type	Sure-Grip, 9¾-inch ring gear
Ratio	3.54-to-1

BRAKES

Type	Power assisted 11-inch drums, metallic linings
------	--

SUSPENSION

Front, type	Independent, HD torsion bars, HD shocks, sway bar
Rear, type	HD coil springs, HD springs, shocks
Steering, type	Manual, quick, option
Overall ratio	NA

GENERAL

List Price	\$2695
As tested, Price	\$4100
Weight	4040 pounds
Wheelbase	116 inches
Overall length	200.5 inches
Tire Size	7.75 x 14-inch high performance police

PERFORMANCE

0 to 30 mph	3.0 seconds
0 to 60 mph	5.5 seconds
Standing ¼ mile mph	108 mph
Elapsed Time	13.95 seconds
Top Speed	160 mph
Fuel Consumption	7.0 mpg (Sunoco 260)

160 MPH PLYMOUTH STREET HEMI

mate stock car world record to talk about. They actually took a stock '66 model Satellite powered by a 426 "Street Hemi" engine that can be bought at any Plymouth dealership added a roll bar, special racing tires, removed the mufflers and went out and turned a top speed of 160.82 mph at the Bonneville Salt Flats in Utah. Now that's something to talk about!

Driven by Bob Summers, the 28-year-old Ontario, California half of the famed Summers Brothers Racing Team, the stock '66 Plymouth Satellite turned a top speed of 160.82 mph and set an official UASC-FIA two-way flying-mile average of 156.35 mph. Officials also credited Summer's Plymouth with a new two-way flying kilometer average of 155.30 mph. The Class B records (cars with 305 to 488 cubic inch engines) were formerly held by Mickey Thompson.

When we first learned of the record from Plymouth factory people, we expressed an expected, "Who are you kidding? You may be able to fool the guys who buy stick Six Belvederes, but you're not going to con us! That Bonneville Satellite was probably as stock as the Plymouth hemi in the Frantic Four's fueler!" After taking about ten minutes of verbal abuse, one of the Public Relations men answered with, "That Satellite is so stock, you can fly out here tomorrow, check the USAC-FIA seals and drive it to New York. In fact, you can even keep it for a couple of weeks. Take your wife shopping in it, use it for commuting to the city, take it out to the drags. Do whatever you want with it."

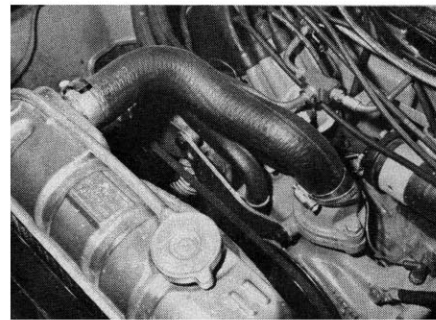
Not ones to pass up an opportunity to drive a 160 mph stocker on the street, Charlie Dodge of Pacers Auto and I hopped a quick flight to Detroit. From Detroit Metro airport we wheeled it out to the Chelsea Proving Grounds, where a most innocent-looking white '66 Plymouth Satellite with black tires and HP-2 emblems was waiting for us. Factory engineers had removed the portable roll cage and Firestone Bonneville tires, which would have proved useless on the street, and gassed it up for the big trip. The Satellite was as stock as any other assembly line model. It had radio and heater, full interior (scarred by the installation of the roll cage)

and wall-to-wall carpeting. The only traces of its adventure at Bonneville were the salt deposits lodged in hard to reach spots under the chassis!

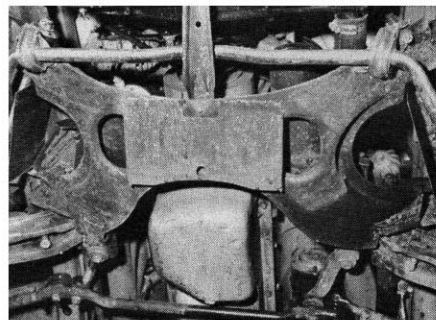
We hopped into the slim Satellite buckets, twisted the key and the responsive 426 street hemi roared to life. After a normal warmup period the detuned "orange monster" settled down to a 1000-1100 rpm idle and we headed out to the highway. After a couple of hours of all types of driving we accepted the fact that the engine was street stock and that a 160 mph Bonneville Plymouth could be driven on the street. Our only complaints were that the manual steering proved to be too much for any type of driving other than flat-out highway cruising and that the hefty street hemi clutch was badly in need of lubrication. We later learned that salt deposits had worked their way into the clutch and regardless of how much lubricant was pumped in we could not free the fingers. We also didn't appreciate the 8-9 miles to the gallon we were getting on the open road. But then again you have to pay a price for performance and we would rather pay for it in poor gas economy than forfeit street reliability.

We made the trek in record time, occasionally opening up all eight barrels to prevent the high torque hemi from feeling neglected! The transition from two to four and then to eight barrels was smooth as silk and the hemi really didn't feel its oats until the tach needle soared past the 3800 rpm mark. And we really mean soared!

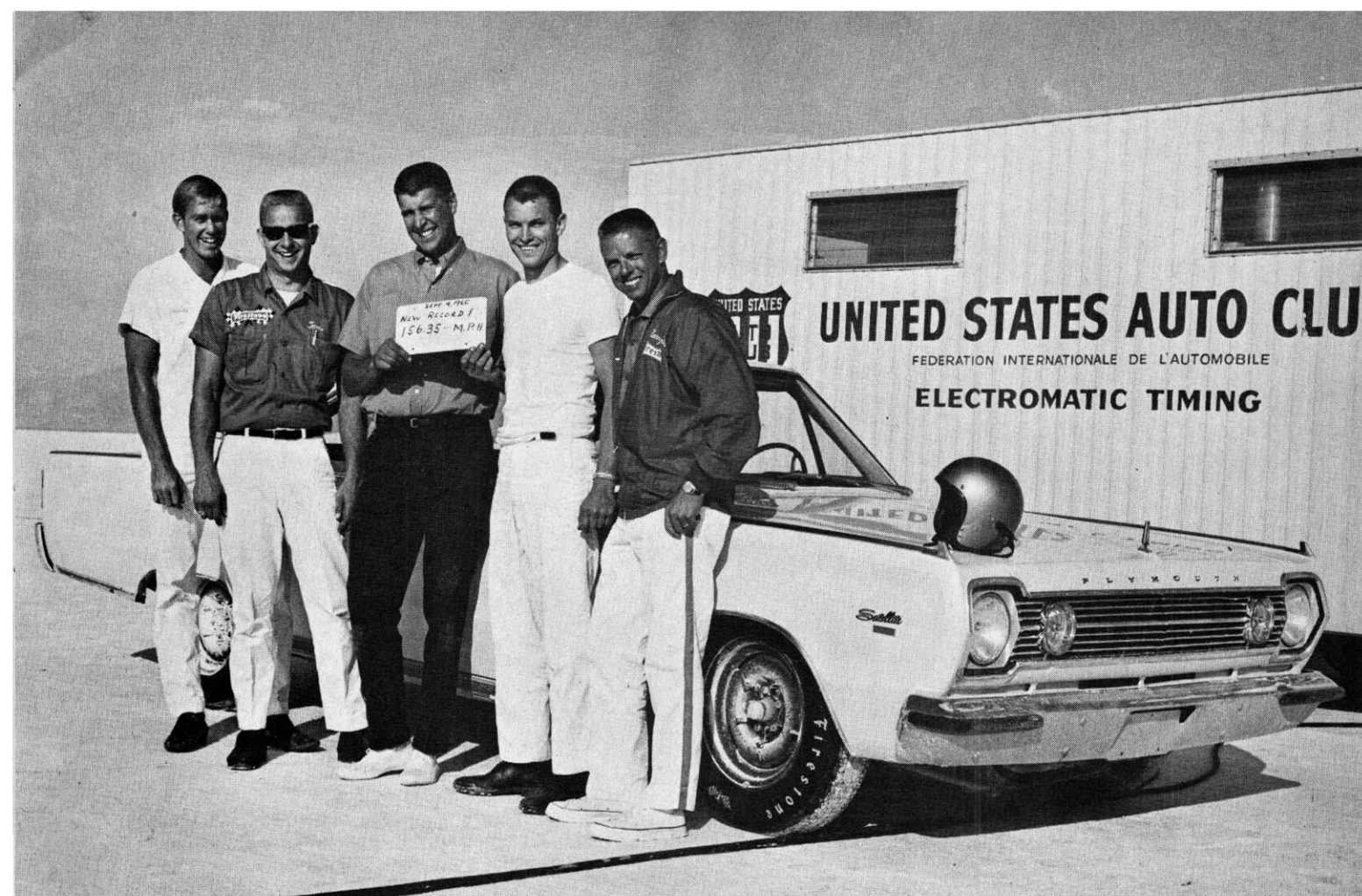
Upon close inspection at Pacers Auto in Oceanside, New York, we learned a lot more about this Plymouth Bonneville record-holder. It was even stocker than Plymouth cared to admit. The paint had chipped around the roof molding area, indicating a quick coat of white paint was applied for the Bonneville record runs. The original color was gold which matched up with the gold vinyl interior. We also noticed that the car was not originally equipped with a four-speed transmission. Tell-tale saw marks around the floor boards to the rear of the bellhousing indicated that the four-speeder was a last minute swap. Also, a little identification card in the



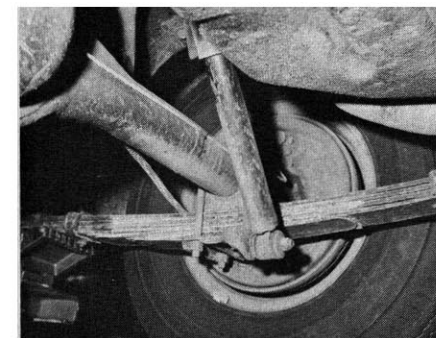
Special radiator hose clamps were installed for Bonneville record runs.



Above, skid plate protects deep oil pan from road debris. Below, Editor Marty Schorr put the Satellite through its paces on makeshift handling course.



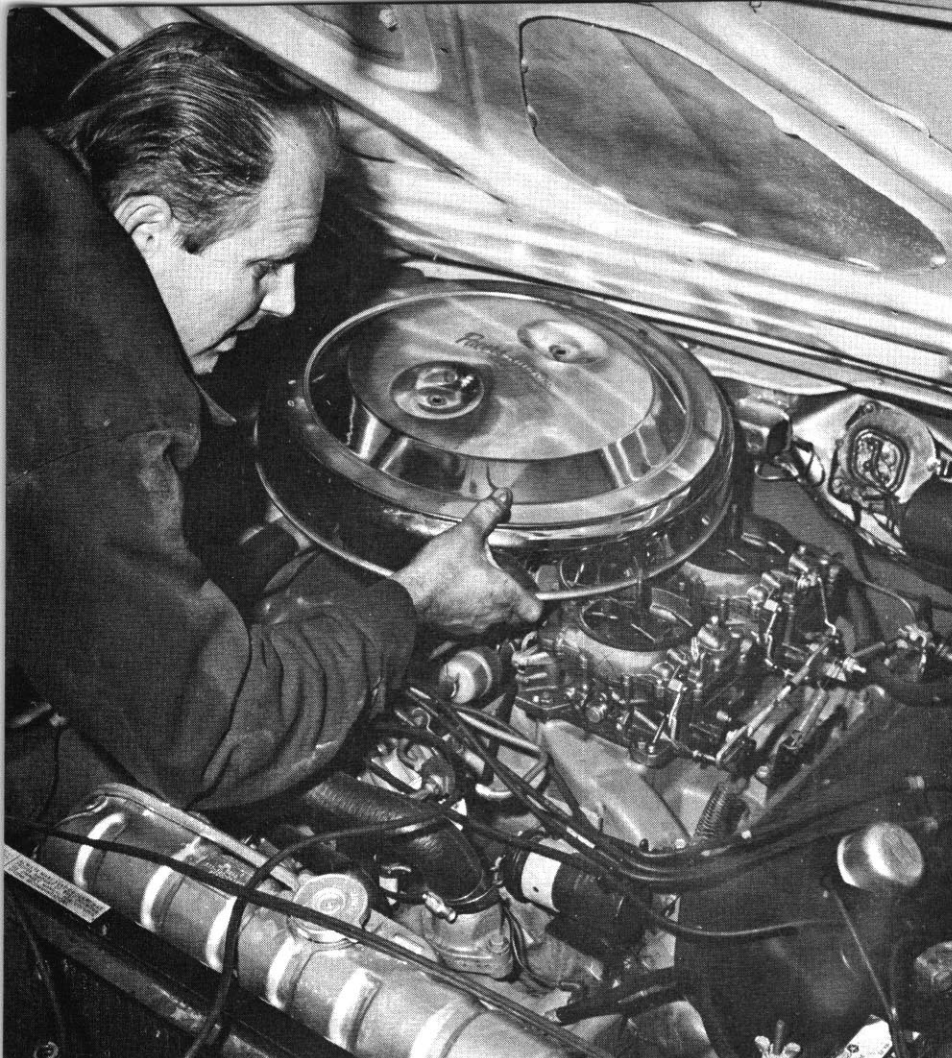
Above, welded-in torque boxes were used to support roll cage. Below, stock street hemi rear suspension is very similar to last year's factory race car setup.



Summers Bros. Racing Team and record-holding Satellite on the Salt.



Top, mufflers are contoured for extra driveshaft clearance. Above, Charlie Dodge sets up the 426 after quick trip from Michigan to New York.



Above, Charlie removes the plated air filter exposing the progressively-linked Carter AFB quads. Below, "Gee, that's even faster than Dad's new Fury station wagon!"

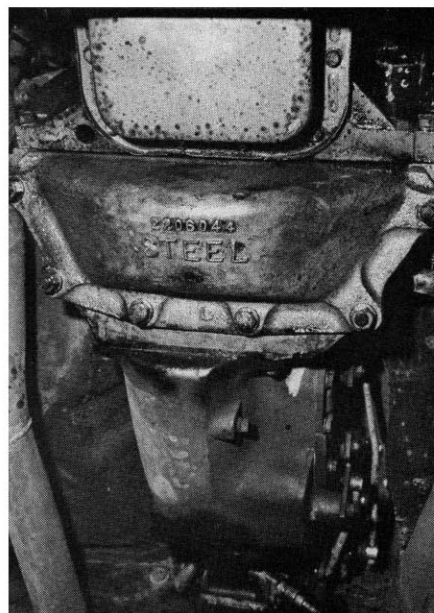


A special #2206044 steel bellhousing scattershield mates the A-833 four speeder to the "orange monster."

160 MPH PLYMOUTH STREET HEMI

glove box let us know that the car was originally equipped with an automatic.

We checked with Chrysler-Plymouth to verify our snooping. Then it hit us! When the '66 model lineup was shown to the press at Chelsea in June there was only one street hemi built. It was a gold Satellite with automatic and the usual street equipment. When the record runs were made in September there were still no hemis built on the '66 assembly line. Plymouth took the automatic hemi Satellite that everyone who turned out to see the '66's tortured on the handling and drag courses (1800 miles on the odometer after the preview), changed the transmission and rear end gearing, added the necessary safety equipment, shot it with white paint and trailered it to the Salt Flats. They actually took a preview model that was driven by people who couldn't tell a Street Hemi from a Slant Six, had it fine tuned and brought up to snuff by factory engineers and shipped it out to Bonneville. To avoid trouble with Highway Patrol representatives during our Chelsea to New York "record run" we insisted that the body be left in absolutely stock condition. We didn't want to look like a (Continued on page 64)



rolling billboard for Bonneville and attract every street racer and state trooper from the proving grounds to Pacers Auto. We had already made an appointment with Wendell John Paulo the artist who does the gold leaf work on the Cars Magazine Racing Team cars to have the car lettered as soon as we arrived at the shop.

Since we had two weeks to conduct our combined street-strip test, we let Charlie Dodge and George Snizek keep it at their shop for a few days for a complete checkup. Fortunately for us, Chrysler Engineering left Distributor Governor Advance and Distributor Vacuum Advance curve charts in the glove compartment.

After the tuneup and initial road test (to determine state of tune) Charlie put the Satellite on the rack and sent it up for a bumper-to-bumper inspection. At first glance the undercarriage looked like a cross between last year's factory drag car and a street machine! The front end of our Bonneville machine was fitted with an ultra thick sway bar which seemed thicker than the stock .94-inch street hemi model, .92-inch torsion bars and special 1-inch diameter heavy, heavy duty shocks. The extra deep oil pan is protected by an 8-inch wide hat-section member welded to the crossmember. It's a refined version of the skid plates used on road rallye cars and it's stock on all street hemi cars. The brakes were also stock street hemi, with 11x3-inch units up front and 11x2.5-inch units at the rear. Metallic linings were installed as there was no talk of a disc brake option at the time this car was readied for Bonneville. The balance of the running gear including the monstrous 5.5 leaf (clipped) springs, specially balanced driveshaft with high speed U-joint cover, 3.54 to 1 Sure Grip rear with 9 $\frac{3}{4}$ -inch ring gear and super duty axles and A-833 four speed transmission with HD gears and reverse lockout linkage are stock on all street hemi equipped models.

We did, however, notice a couple of non-stock items. The bellhousing scattershield was of heavy duty steel construction instead of cast iron and there were torque boxes welded into chassis members for roll cage support. We found quite a bit of salt lodged in there that evaded the spray job done at Chrysler Engineering. We also noticed that the dual reverse flow mufflers which sounded like California glass pacs carried MoPar numbers were contoured to avoid contact with the driveshaft. This is to prevent sparks from flying in case a tail pipe

hanger loosens up and the mufflers end up too close to the high revving driveshaft.

Charlie adjusted the clutch as best he could, pulled the inspection cover and checked out the assembly and greased up all the component linkage. This helped a bit but the clutch still behaved as though every part from the pedal to the flywheel was covered with solid rust. As a last measure Charlie drilled out the clutch cross-shaft (not fitted with any lubrication fittings), installed a lube fitting and pumped it full of grease. This helped quite a bit but the fingers on the pressure plate still acted as though the salt had taken its toll.

To check the overall stop and go economy of the street hemi and to see if it can actually be driven on a daily transportation basis, we played "freeway freedom fighter" for a week. At first it was a bit rough with the manual steering and sticky clutch, but we eventually learned to master the situation. The only problem being that 95 percent of the time we never went over 2500 rpm or higher than Second gear. We occasionally opened up all eight just to convince a few motorists that the lettering on the side was for real. We went through Sunoco 260 at the rate of 5 to 6 mpg during that week.

Never even changing a plug or checking the timing we drove the brightly lettered Satellite to the drag strip. Nothing was touched under the hood, all four 7.75x14 Goodyear Police tires were left intact as were the 3.54 gears. Charlie experimented with various methods of coming off the line, but found that the times didn't differ appreciably. First he tried burning out, power shifting up around 6000 rpm. Then he tried bogging out of the hole for a good bite and mashing his foot into the pots. We started out turning mid 14-second ets with speeds around 105 mph. By the end of the day we were clipping off 13.90's and 108-110 mph quarter-mile times. Considering the full street equipment, condition of engine (we were asked by Chrysler to keep the revs below 6200 as the valve springs and component parts were showing signs of wear) and the extra weight (250 pounds) of the welded-in torque boxes for the roll cage, trailer tie downs and pilot model parts, this baby really turned on. When the drag boys start setting them up for Double A stock competition, you can rest assured those street hemis will be honking in the 12's.

We made a few passes against the stop watch to check out the 0 to 60 potential of the Bonneville car. We

averaged 5.5 seconds for the popular run, making it quick enough to put down just about any of the current Detroit "supercars."

The amazing part of the street hemi Satellite was that it could be driven in everyday traffic sacrificing nothing more than fuel economy and be taken right out to the strip for a trophy charge. Right out of the showroom the car will run mid 14-second ets with speeds to 105 mph. With the stock suspension and without the so-called benefits of traction bars (a status symbol for Drive-in rodders!) this car will charge right out of the chute without any traces of spring windup. It does take some getting used to with fishtailing coming in under full bore acceleration. But it is an easy car to live with. The engine will idle at 1000 rpm and climb right to the 6000 rpm factory redline quicker than any other Detroit product. And it does all this without the benefit of tall gears.

About the only faults we found with the car were the long throw between gears (bring back the Hurst linkage) the stock tach console mounting position, and the bulky steering. The added weight of the street hemi and the lowered front suspension did very little for steering control. The Police-type brakes were good, but we felt that a car with 160 mph potential should have been equipped with discs. They are now available as an option.

Even though the street hemi engine option price is set at \$907, we feel that it's the best buy on the performance market. You can hardly buy that kind of performance for twice the price! And best of all, it's covered by a special one-year Chrysler Corporation warranty.

CHITTENDEN continued

nights and the stockers on Sunday afternoons. Fontana, presently on a winter schedule, runs only on Sunday afternoons as does the new Irwindale strip.

What might be an interesting solution for the AHRA strips in SoCal would be for Lions to keep their present set-up of hot cars on Saturday and stockers on Sundays, and for Fontana, the hardest hit for attendance of the three, to run stockers on Saturday and hot cars on Sunday. Irwindale, due to local zoning requirements, can run only on Sundays.

WILL THERE BE a new Cobra? One with roll-up windows and modern design? There is one in England right now! Known as the "AC-427," it is being made by the same people who make the Cobra chassis and body.