PERFORMANCE TEST

PLYMOUTH'S HOT ROAD RUNNER

Performance and low cost make Plymouth's new hot car a sleeper to watch.

By George Elliott

Until this year no one has really thought of the 383-cubic-inch Plymouth engine as a performance powerplant. It's been an engine that gives ideal performance, dependability and economy, and the engine has performed well enough so that it has not received any major changes since its first design. So this year Plymouth decided to change. Nothing major in design, just a few minor revisions to muster more horsepower and to place the engine in the performance car league.

Changing the engine to the performance category is done in one model Plymouth only — the Road Runner. Road Runner is available with only two powerplants, either the 383-cubic-inch wedge head or the 426-cubic-inch hemi head engine. Also, heavy-duty suspension, brakes and drive train are standard since it is a performance model. Another item that is especially tailored to the Road Runner is the price tag. It is designed to fit the "poor man's" hot rodding pocketbook.

It all sounds good, but they always do! POP ROD acquired a 383-cubic-inch Road Runner with a three-speed automatic trans to find out if the car was as wild as it sounds. However, we already had an idea as to the performance because we were able to drive one of the prototypes prior to their introduction in September, and at that time we were impressed with the performance of the 383 Road Runner, which didn't have much trouble keeping up with a 440-Super Commando-powered GTX.

Making the Road Runner's 383 engine rate higher than standard 383s are the performance modifications to it. For an extra performance boost the camshaft, cylinder heads, intake manifold and crankcase windage tray from the 375-hp 440-cubic-inch Super Commando engine are used in place of the regular equipment.

Using the 440 camshaft gives the intake valves a lift of .450-inch with a duration of 268 degrees and an overlap of 46 degrees. The exhaust valves have a lift of .465-inch with a 284-degree duration. The stock 383 cam has a lift of .425-inch on the intakes and .437-inch on the exhausts with a duration of 256 degrees and 260 degrees respectively.

The primary reason for using the 440 heads and manifolds is the increase in branch and runner sizes in the manifold and larger ports in the head.

One other modification to the cylinder head is the quench area. This is an area just between the head and piston which is opened up to eliminate carbon build-up and give a more complete combustion of the gas. The reason behind this change is the emission control device (smog device) that also works in conjunction with a carburetor adjustment and special advance curve in the distributor. There is not any significant loss in horsepower with the Chrysler emission equipment.

The new crankcase windage tray is an item that has been in the Plymouth factory racing cars over the last year. The device fits under the crank (mounts between the pan and block) and shields the oil in the pan. The purpose is to eliminate oil aeration (bubbles) and the sucking of oil into the crankshaft's path under high rpm operation. In return, the windage tray gives security to engine owners as they know the oil in the bottom of the pan is not all air bubbles and will be picked up by the oil pump. There is a horsepower advantage, too, because the oil sucked up in the crank's path (without the windage tray) creates a drag which means a loss in horsepower.

With the exception of the aforementioned improvements, the 383 engine is the same as before with its 4.25-inch bore, 3.38-inch stroke and 10-to-1 compression. In the Road Runner version 335 hp is produced.

Transmitting the power to the rear wheels can be done in one of two manners in a Road Runner: through a four-speed manual transmission which is standard, or a three speed TorqueFlite trans. Our test car had the automatic; however, the prototype that we previously drove had the stick.

At the drags we learned about some interesting features of the TorqueFlite, which overall is a heavy-duty unit. As we held the car on the line, we raised the rpm to 2500 before the engine began to load. Later, however, we found that 2000 rpm was a good "stall" speed for starting. This was a little unusual for stock transmissions. Generally they load the drive train at about 1500 rpm which makes good drag starts difficult because the rpm is too low.

As we released the brake and buried the throttle to the floor, the Road Runner left very little tire smoke behind. Traction was very good, which can be attributed to the wide oval F-70 tires used on most Chrysler performance

Basically the Road Runner is a Belvedere model. The grille is flat black for a racing appearance. Styling is on the simple side.

The two-foot-long hood scoop insert tells the displacement of the engine which is under the Road Runner's hood. Four screws can be removed to make the scoop functional.

cars. If you need the car to break loose at the start, just raise the starting rpm to 2500 and they'll light up more than enough for anyone.

We had some trouble with our car "loading up." Then the engine would start clearing out and a surging action would start which made good times impossible. This did not happen all the time, but mostly when the engine was quite warm and sitting for awhile in the staging lanes. We also noticed that the prototype did a similar stunt, therefore, leading us to believe that Plymouth has a carburetion bug to be worked out.

On those runs where the car ran hard we turned good speeds, most of which were in the 95-96 mph area with ETs ranging from 14.90 to 15.55! Stick-shift cars will turn speeds around 98 mph with ETs about the same as the automatics.

We shifted at 5200 rpm, which was noted on the new 8000-rpm tachometer housed in the instrument cluster in front of the driver. The tach is not standard, but costs $51 extra. Even though the unit matches the instrument cluster nicely, we noted that the indicator jumped around above 5000 rpm, a feature which eliminated accurate readings.

As the Road Runner left the line and shifted through the gears you could feel the car transfer weight from the front to rear. The heavy-duty suspension system does not necessarily favor strictly drag racing, yet it works extremely well under these conditions. There is no wheel hop under hard acceleration and the car does not dive when quick stops are made. The leaf springs in the rear consist of six leaves where the stock springs in a Belvedere model normally have 4.5 leaves.

Bringing the Road Runner to a halt is done through heavy-duty drum brakes, or with the optional arrangement of disc brakes in the front. When drum units equip all four wheels, the big 11 x 2½-inch drum units are used. If front brakes are disc units, then the rear drums are 10-inchers.

The rear end ratio is 3.23, but the automatic transmission and the gears could easily stand to be lower. Under optional equipment, a Sure-Grip differential and 3.55-to-1 gears are listed.

Since overall performance is a point highly stressed in the Road Runner, it must also handle well in corners. For this reason the RR has a sway bar incorporated in the front end as well as heavy-duty shocks. Power steering equipped our car and without the assist the driver would have a heavy feel when trying to manipulate into tight parking spaces. Since the Road Runner is basically a lightweight car, there is a light feel at the wheel when traveling at high speeds. Stability during fast driving, however, is very good.

We did have the opportunity to travel through high winds during our test and didn't find the affect on the car's handling to be any more than that of a car weighing 4000 pounds. The Road Runner's weight is 3600 pounds with the 383 engine.

When the Road Runner is driven hard, whether it be drag racing or hot desert-type driving, there is not going to be a problem of over-heating. Standard on the Road Runner is a heavy-duty radiator which is actually that type of radiator used for air conditioning in other models.

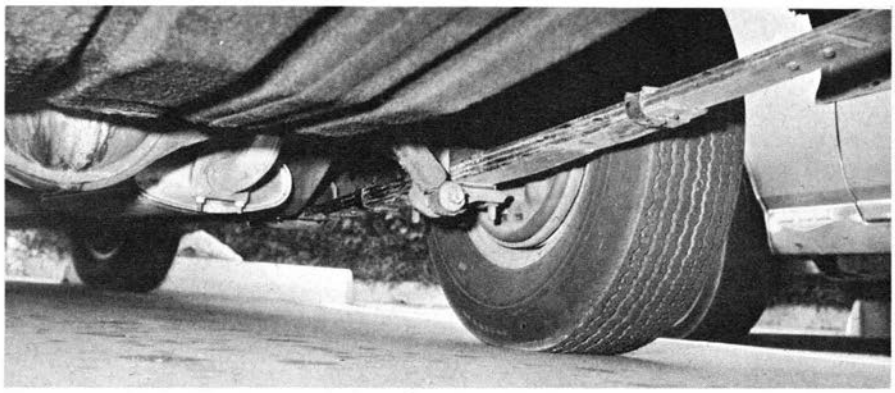
Two engines are offered in the Road Runner, the hemi or the 383. The 383 is specially modified for the new performance car.

When you take an overall look at the Road Runner's body, you find a great deal of simplicity in styling. There is not any chrome trim to clutter the exterior, nor is there any to enhance the lines. The grille is a flat black unit to give a performance accent. Of course, the car has chrome bumpers, and as optional equipment a chrome sill for the window area and lower panel is available.

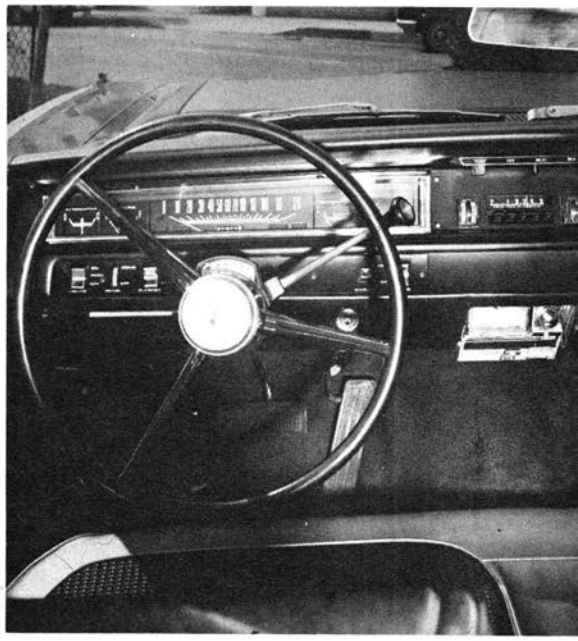
A two-foot-long scoop is atop the hood and if desired can be painted a flat black color, too. Inlets on the scoop are out the side of the unit. At the present time the scoops are not functional from the factory; however, the factory has made it very easy to make them functional. Simply remove four screws and the plate, which also displays an emblem designating the engine size. Road Runner decals and medallions are placed on both sides of the car at the doors and one on the right side of the deck lid.

Highlighting the decals and medallions is the sound of the Road Runner, not engine sounds but horn sounds. The unique horn of the car actually goes "Beep-Beep" in an identical tone to the famous Warner Brothers cartoon character. One bad feature of the horn ring is its location in the center of the steering wheel. This makes the driver's hand leave the wheel when he wants to sound it.

With the European-flavored flip-out rear windows, this car really has a lot to offer. Obviously, performance and handling with low cost are the main features of the Road Runner. It has a base price of $2,900. Sound like something to beat?



ABOVE: Suspension is heavy-duty type as are the shocks and brakes. A sway bar aids cornering which is a good feature of the car.



RIGHT: Interior of the Road Runner is plain but efficient. The four-speed transmission and the three-speed TorqueFlite are the only systems offered. An 8000 rpm tachometer replaces the clock.

A Road Runner insignia identifies the special model as does a special "beep-beep" horn. The price is slanted in favor of the low budget rodder.