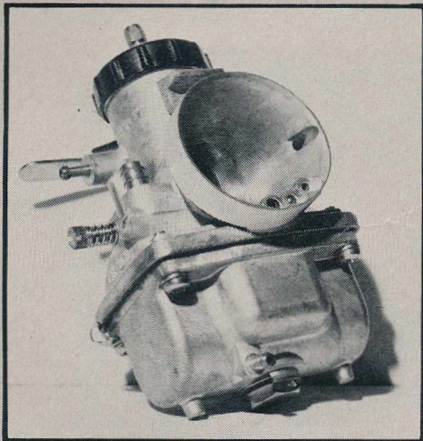


Last month we did a test on the Yamaha YZ 100. If you read the article, you already know that the little 100 runs almost as fast and produces almost as much horsepower as the YZ 125. The only thing it lacks is a little mid-range and some more top-end revs. As far as the bottom-end performance is concerned, you can just about kiss that away. Most 125 and 100cc machines don't have the foggiest idea of what low-end power is, and you'll never be able to teach the bike how to get some without extensive work (e.g., stroke kit with longer rod and smaller piston).

But in the case of the YZ 100 Yamaha, there is something that you can do that enhances the power of the bike. The Noguchi reed valve system will allow you to get that extra mid-range and top-end power and allow the 100 to run almost dead even with the 125.

The kit consists of three parts. The first is the reed valve system. The reed is slightly larger than the stock unit, and if



The special Noguchi/Mikuni setup is used with the Yamaha YZ 100. It's a modified road-racing carb with the proper innards.

you were to measure the comparative sizes, you'd find that the Noguchi reed system has approximately 30 percent more volume capability than the stock unit.

The second item is the different manifold. Although you can use the stock manifold system on this modification, we suggest that you use the modified one. It works better and was designed to be used in conjunction with the reed valve unit (which comes complete with stainless steel reeds).

To really do justice to your 100, a different carburetor should be used. Noguchi has a deal with Mikuni over in Japan. They have available a 32 or 34mm carb that has been reworked using the dimensions that Noguchi demands. The carb is similar to a road racing carb, but has been slightly changed so that it can adapt to the demands of motocross-type powerbands. The carburetor that we used was the 34mm job, and it seemed to work better than the 32mm that we

“petal-ing” as fast as you can



YAMAHA YZ 100 NOGUCHI REED AND CARB KIT

How to
successfully
chase the
125s. By Paul Dino

fiddled with earlier. Price of the carb is \$45.

With all three of these goodies in your hands it's relatively simple to install the system. The only work you're going to have to perform on your bike is to take the cylinder off and sand down the intake section where the reed cage system is homed. The sanding you're going to have to do should only take you about 20 minutes. Start by sanding down both sides of the intake area and keep checking to see if the reed system will fit. Use a high-grit sandpaper, preferably something in the #220 or higher range.

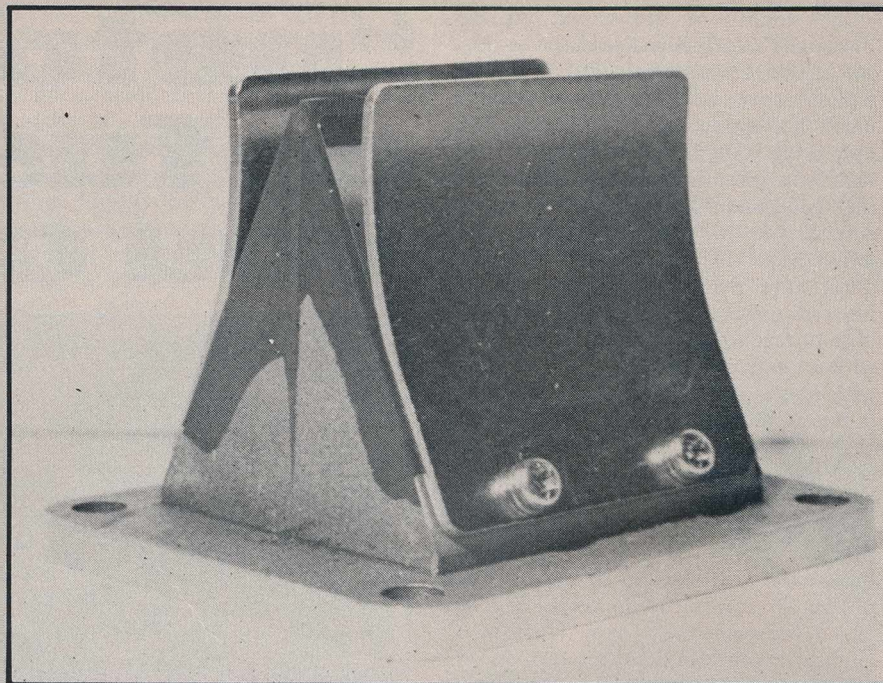
Once the intake is sanded enough so that the reed cage will fit in, carefully and thoroughly clean off the cylinder. Your best bet is to wait until the lady of the house is gone shopping, fill up the sink with warm soap and water, and clean the cylinder. Be sure that you remove any particles that you have sanded down before putting the cylinder back on.

With a new head gasket and base gasket, slide the cylinder and head back into position. Now taking the reed system, slip it into the intake tract. Follow that with the manifold, appropriate gaskets and the stock bolts that you took out when you removed the stock reed cage.

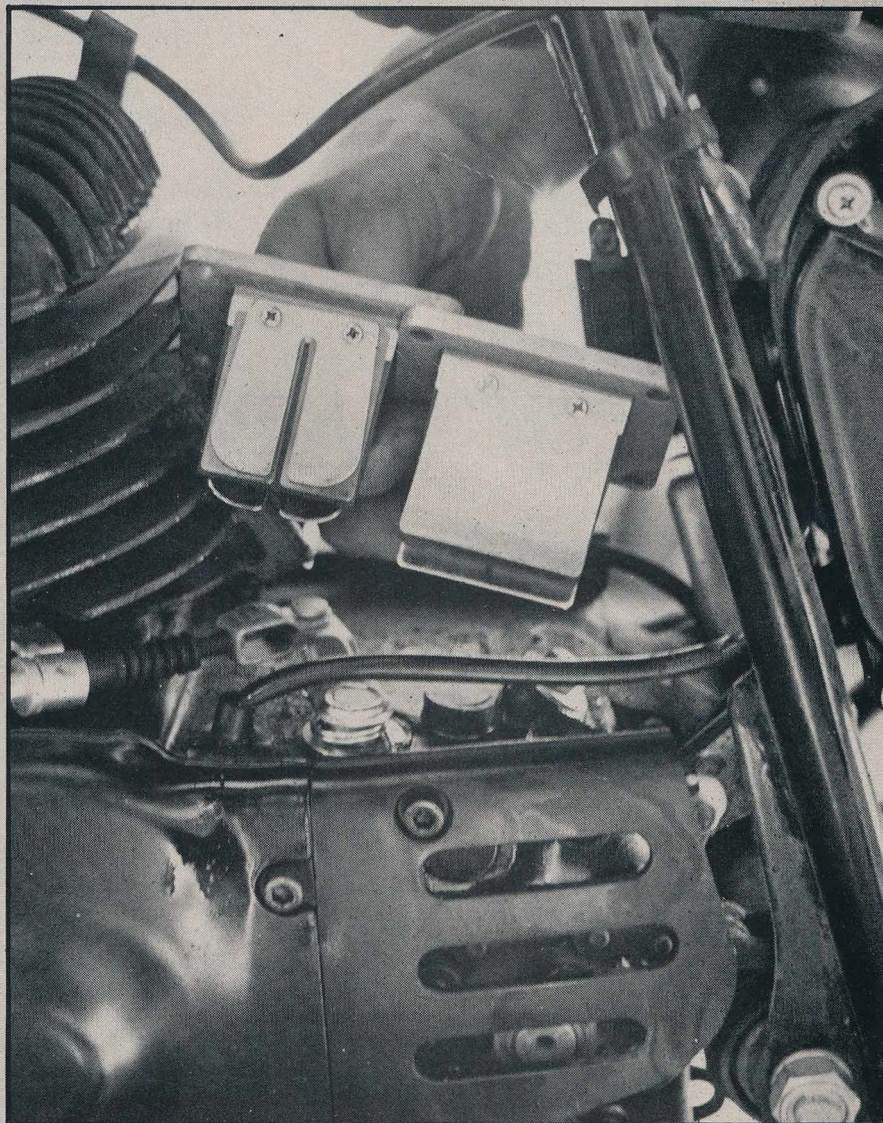
Installation of the carburetor is simple. The only thing you're going to have to do is to take the stock throttle cable off the stock slide, slip it into the new 34mm Mikuni and set the carb in place. It will bolt right up to the manifold on the reed valve side, and the throat towards the airbox is small enough that you can use the existing rubber boot.

With the whole unit installed and properly jetted (you shouldn't have to do too much fiddling) you'll find that your Yamaha YZ 100 now has a lot more mid-range than it did in its stock condition. The top-end power is greatly enhanced by the new reed system, simply because there is now more gasoline going into the cylinder at a greater volume and rate. If you're really into getting more response, you can fiddle with the timing a little bit, advancing it until the optimum in throttle response and top end power is achieved.

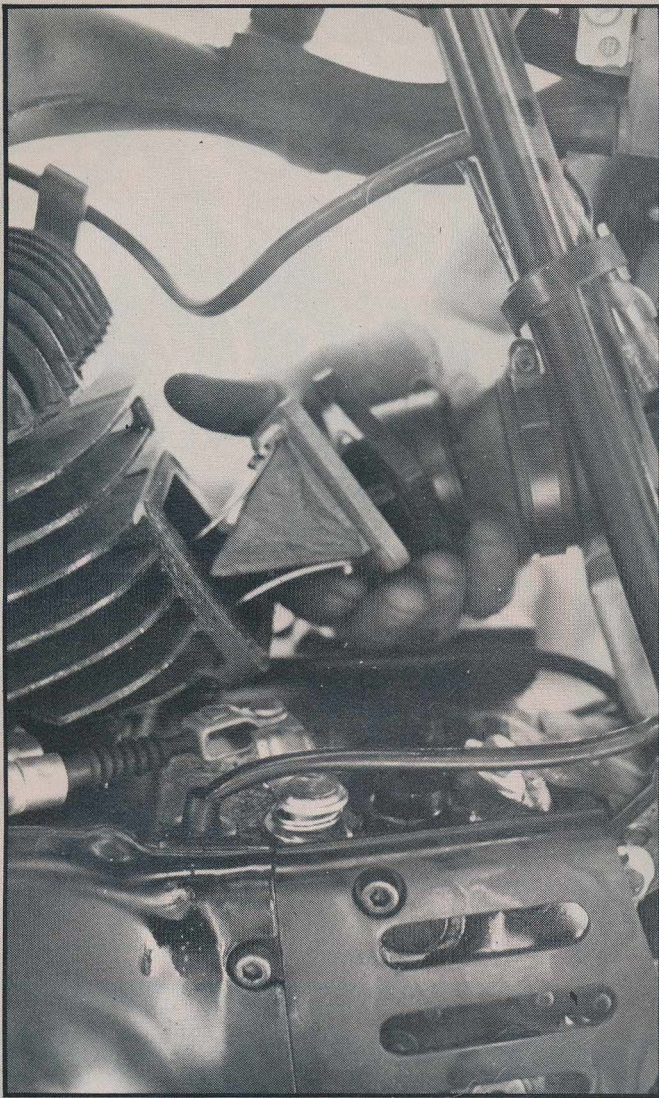
The Noguchi YZ 100 reed system, along with the same kit available for many other machines, is available through Moto-Fast, 1070 Florence Way, Campbell, CA 95008. Be sure to specify what year and make of motorcycle it's going to be used for and include the appropriate check or money order. You'll find that with the Noguchi kit, your Yamaha YZ 100, which in stock condition was relatively close to the bigger machines, will now run right up there with the YZ 125 model and easily have a big advantage over the other 100cc machines that you're competing with.



The larger reed system uses stainless steel petals and bolts to the existing cylinder.



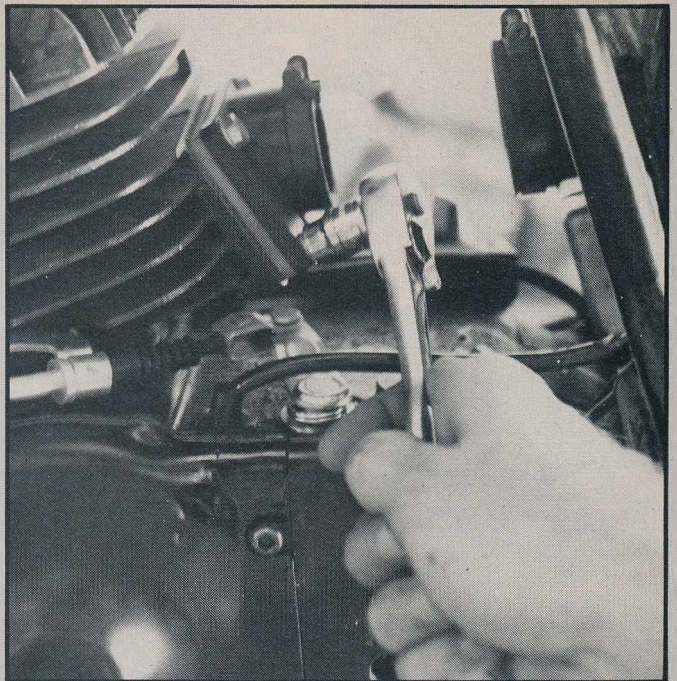
In comparison, you can see the advantages of the Noguchi (right) as compared to the stock unit.



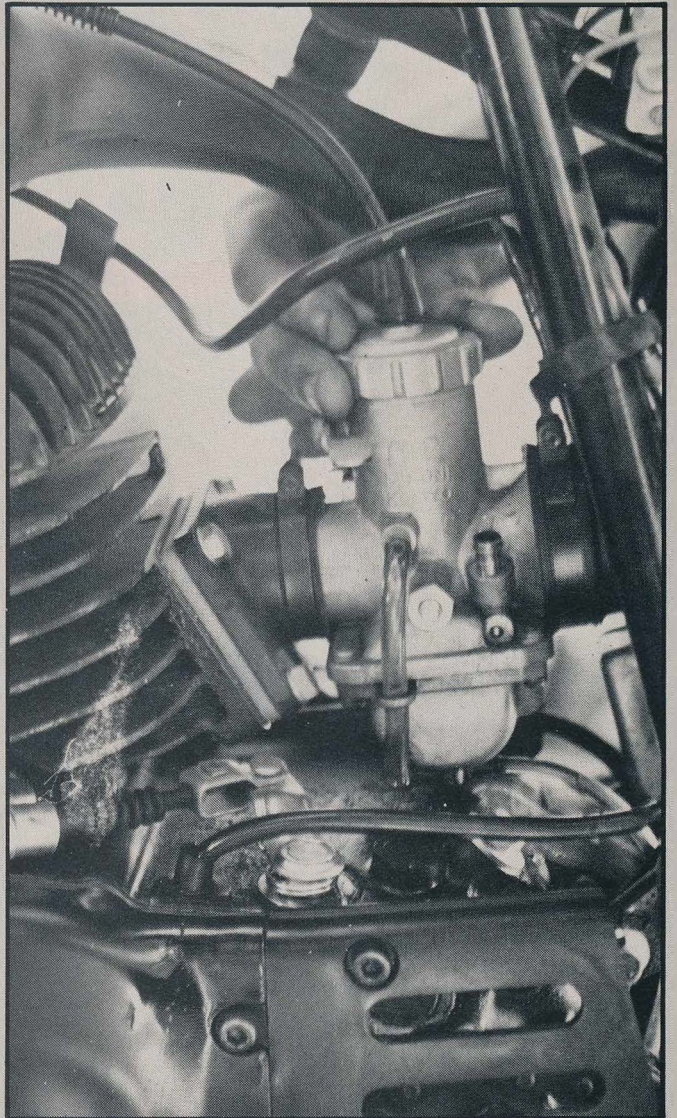
After you've sanded the cylinder inlet to allow for the wider clearance of the Noguchi kit, you can install the reed, gasket and manifold system.



Stock hoses and clamps can be used. Make sure you don't overtighten the clamps, which will rip the hose and cause an air leak in the system.



When tightening down the bolts, be sure to cross tighten, so that you don't get the reed or manifold wedged in sideways.



The stock throttle cable is then routed through the 34mm carb top and placed in the throat. Hook up the fuel line, and you're ready to go.