

Bringing your early Yamaha minicycle up to the latest horsepower and displacement specs for less than \$150!



## DOUBLE YOUR HORSEPOWER

Occasionally you come across one of those things that's so simple that most magazines completely overlook it. Not that it isn't considered worthy of their time and attention, but most magazines have their eyes set on more complex, confusingly technical topics.

What we're talking about in this specific instance is doubling the horsepower of your early Yamaha minicycle with just a few, bolt-on components.

The parts are listed separately (that means they're available all or in part, separate or all together). See the price rundown at the end of the article, but the grand total of the conversion will run you just under \$150.

The idea is to convert your 73cc mini Yamaha engine to the full 80cc capacity of the class. The latest YZ80C models come with the full displacement and there are a number of kits on the market for the Honda XR model, so if you're still running with an older model Yamaha, you've got a big disadvantage right from the start.

The results you can expect from the kit are a comparatively whopping 8.2

horsepower. The stock 73cc engine puts out only 4.5 bhp.

You start the operation by removing the early cylinder. Remove the standard studs, which are six millimeters in size, and tap them out to seven millimeters. Install the rebuilt (tapped) studs. The engine is then re-installed, using the new list of 80cc parts. Now what could be simpler?

Carburetor .....	\$38.80
Reed Valve .....	15.38
Piston .....	9.14
Carb Adapter .....	4.76
Cylinder Studs .....	2.56
Reed Gaskets .....	.64
Heat Nuts .....	3.92
Piston Rings .....	6.62
Wrist Pin Bearing .....	2.02
Wrist Pin .....	1.14
Head Gasket .....	1.14
Cylinder .....	56.62
TOTAL \$142.74	

One of the biggest advantages of the new engine is the vastly improved induction and breathing. A 26mm

Mikuni carb is included, which allows more air/fuel mixture while flowing through a four pedal reed valve setup. The old engine has a two pedal reed.

The new cylinder has larger ports, to work in conjunction with the larger carb and reed valve.

Of course, a new piston fills the increased displacement of the new cylinder. It's a full 80cc engine now. Everything is ported to allow the engine to produce the increased horsepower.

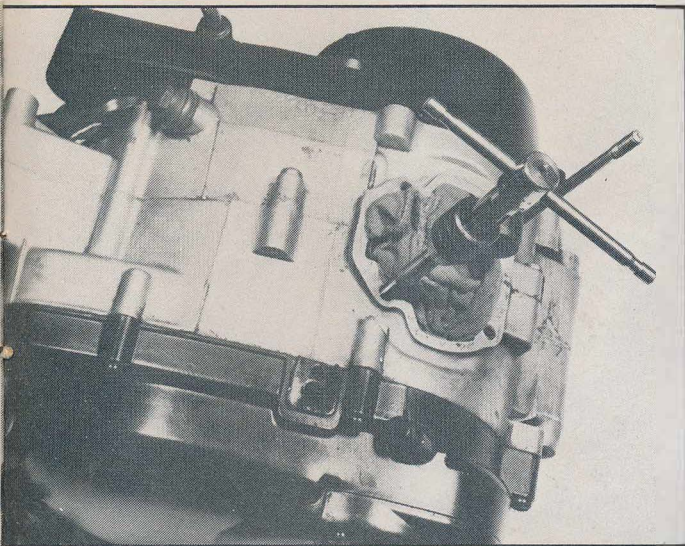
Larger cylinder and head finning allows the new engine to cool better, and that helps the power output considerably.

A Fun 'N Fast air cleaner setup allows the engine to get the air it needs for the increased demand. Plus it uses a foam-type filter element.

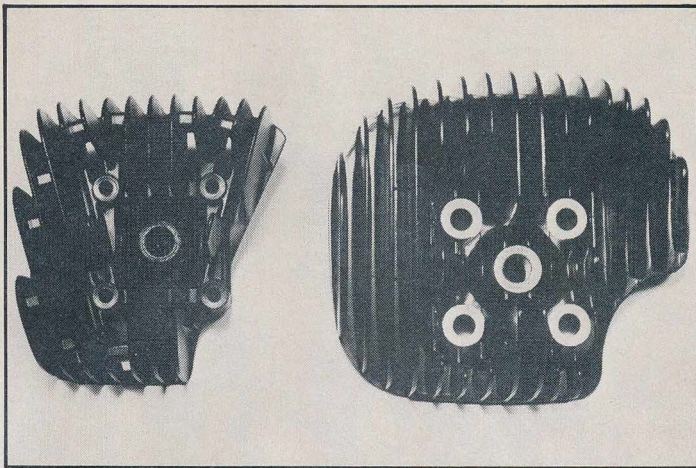
The exhaust pipe used can be the stock Yamaha YZ-80C pipe, or one of several accessory systems for the same model.

For less than \$150.00, you can update your older model Yamaha minicycle to the latest 'C' model horsepower and capacity specifications. That's not a bad deal at all!

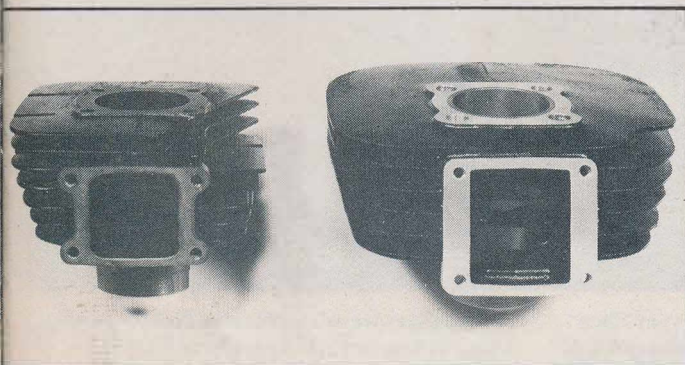




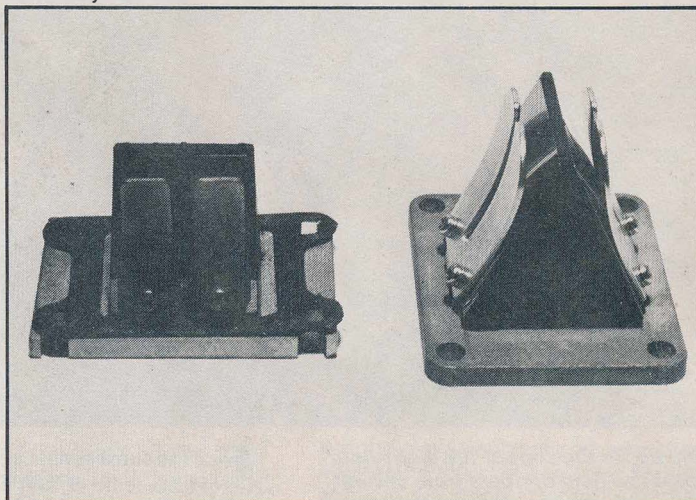
After removing the cylinder, you must remove the stock studs and tap them out from 6 to 7 millimeters. This is the only modification to stock parts required. Everything else is bolt-on stuff.



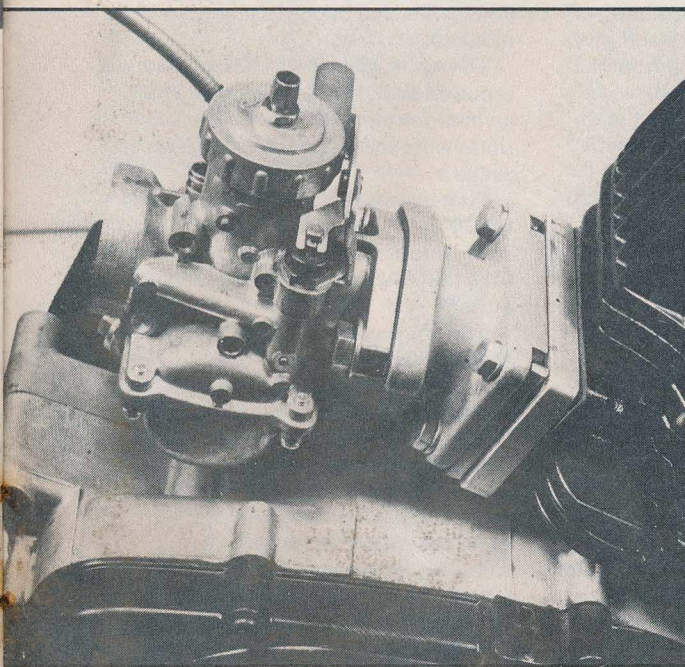
At left, the stock cylinder head. The kit version (at right) is obviously beefier.



Same thing goes for the cylinders themselves. The 80cc kit cylinder on the right is a much beefier unit than the stocker.



Kit uses a four-pedal reed valve setup, instead of the two-pedal arrangement on the stock 73cc Yamaha mini.



Larger 26mm Mikuni carburetor hooks up to the new reed valve setup for one of the biggest advantages of the 80cc kit. Arrangement greatly improves induction and breathing.



Fun 'N Fast foam air cleaner allows the engine to get the increased amount of air it needs.