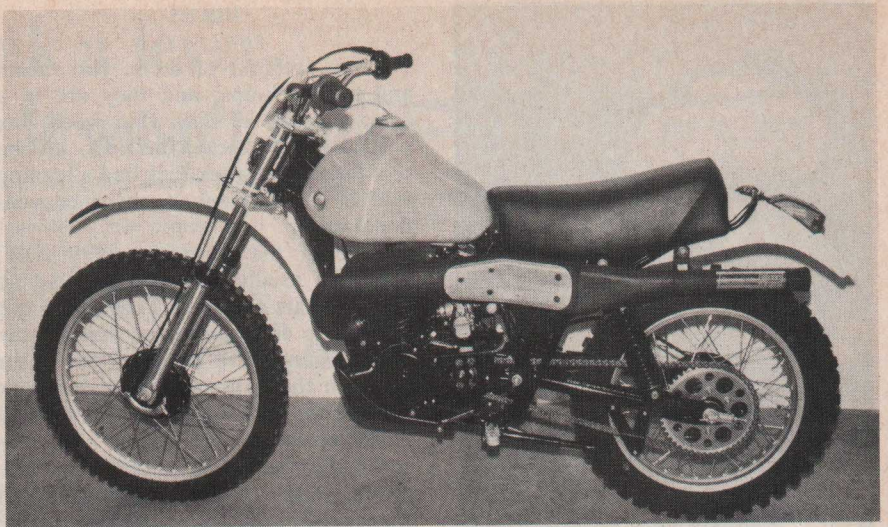
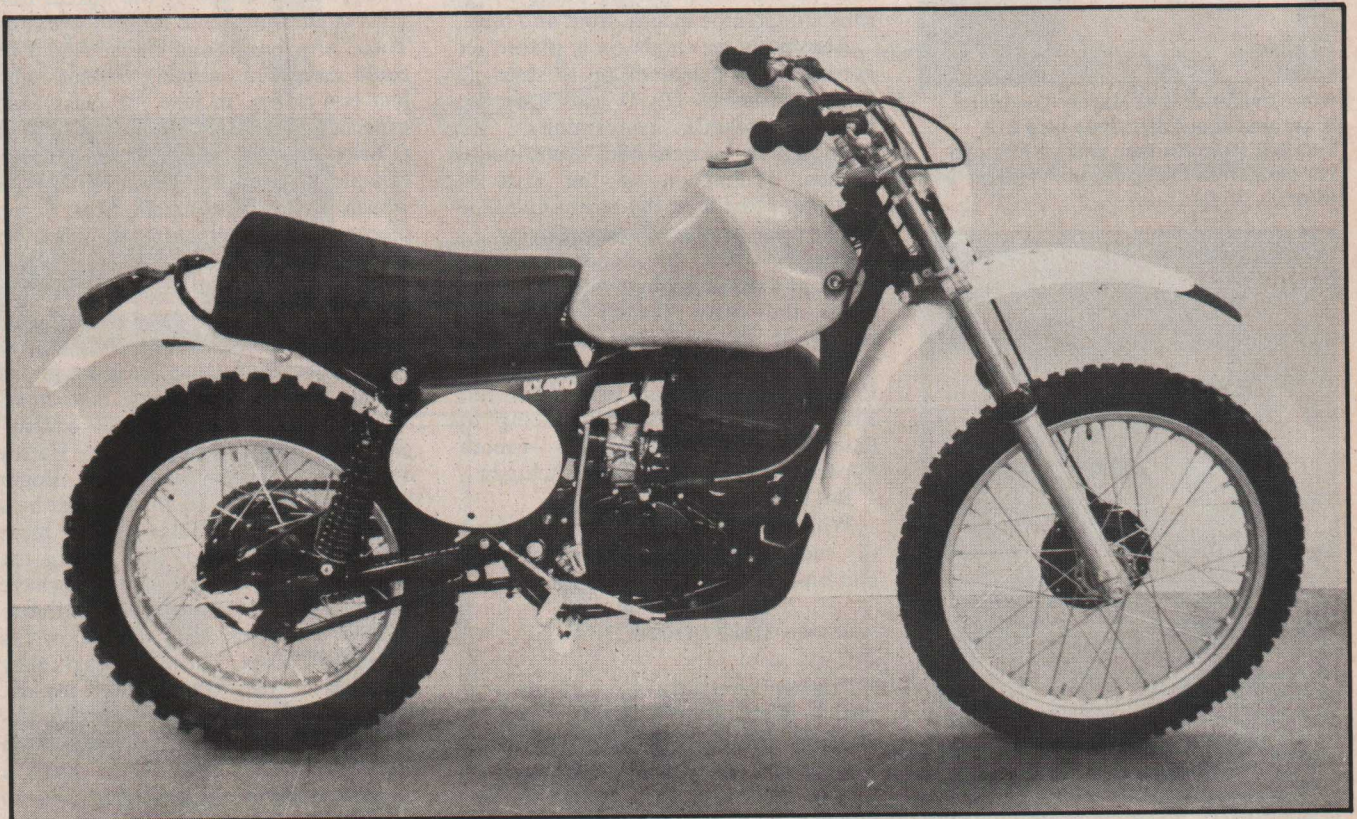


Overall view of left side shows lots of ground clearance which was obtained through substitution of a Wirges up-pipe for the stock low pipe. Wirges pipe, Vesco tank and Preston Petty lighting (front & rear) are all easy bolt-ons.



Right side of "enduro" KX 400 shows Wirges MX footpeg and Preston Petty skid plate. The MX style peg is needed to obtain proper footing due to bike's extra width with tank and pipe installed, while the skid plate provides needed protection for the engine's crankcases.



Here's the Bike Kawasaki Should Offer!

By Warner W. Riley

# BUILDING KAWASAKI KX 400 / KX 250 ENDURO MACHINES

Let's face it, the Kawasaki KX 400 and 250's haven't been exactly burning up the MX tracks as of late. These bikes have not kept pace with the competition when it comes to the very latest in suspension technology. The engines and gearboxes are very good, but the chassis just isn't up to the rigors of all-out MX. It was because of these very reasons that an "enduro" version was built around the KX 400 and 250. Not everyone wants to actually race motocross; lots of riders just like to go out for a leisurely trail ride or they end up "play racing" with their friends through the local fields. For this type of usage, other factors become more important and the bike shown here is intended to be a fun bike rather than an all-out serious racer.

This bike is along the lines of the MR series Hondas. Sometimes, just because of the proximity of a particularly knowledgeable dealer, a rider would want to own a Kawasaki dirt bike. Not everyone lives in Southern California where the shops and technology abound. In the case of this particular bike, we found such a dealer. Grayboy Kawasaki is located in Chilli-cothe, Ill., and they stock all of the

components shown in this article as well as completed bikes for sale. Now you may never have heard of Grayboy Kawasaki or Chillicothe, Ill., but if you lived in the area you would be glad to have such a knowledgeable dealer close at hand.

To begin with, a stock KX 400 was taken from the showroom floor and the following items were either exchanged or modified:

The stock gas tank, exhaust system, foot pegs, seat and rear fender were all removed and put aside. Of all these items, only the seat will be used again.

The stock airbox is retained, repositioned 30mm (1-3/16-inches) to the right to provide clearance for the Wirges high pipe. The two top airbox mounts and the two front airbox mounts are redrilled in their new location and bolted in place. The same is true of the rear airbox mount except that only one nut-and-bolt is used and that's through the front of the Preston Petty rear fender. This way, both the fender and the airbox are fastened by one nut-and-bolt right in the center. Be sure to use large flat washers on either side of all the airbox mounts (see below) to help spread the load.

Continue mounting the Preston Petty rear fender using the standard frame-mounted clamp and its two nuts and bolts. This fender features a smooth style light that will not be in the way during a minor "get-off." The Preston Petty taillight/fender also features a dual filament bulb which could be connected up as a taillight/stoplight arrangement. To do this you merely substitute a F9 front brake assembly (part number 46021-010) which has the integral switch and follow the Petty supplied wiring diagram.

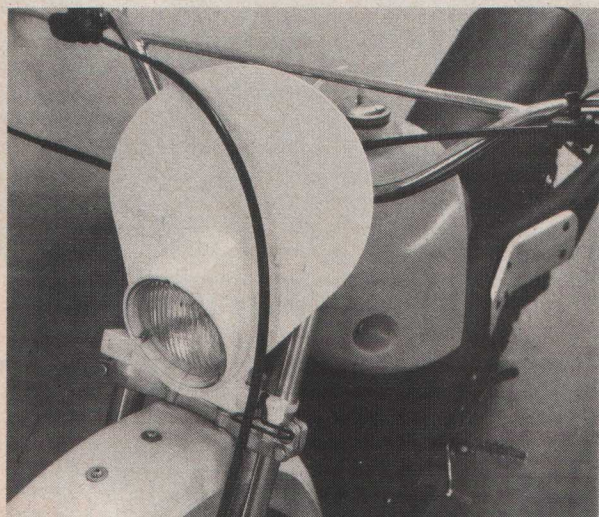
Mount the Preston Petty front number plate/headlight combination with four tie-wraps. Now would also be a good time to work on the wiring system, prior to installing the Vesco gas tank or the Wirges high pipe. This allows for the necessary wires to be properly routed and taped to the frame where they will be out of harm's way.

Remove the left side engine cover which will allow access to the ignition system and flywheel. Use a puller to remove the flywheel and place it aside. Remove the stock ignition coil which is located on the left side and through the use of longer bolts and spacers, place it on top of the right side coil. This makes room for the F9 lighting coil (part number 21047-012) which will now be installed on the left side. To remount both of the original stock ignition coils on the right side, will require two 5x1.25mm screws, 30mm long (1-3/16-inches) and two 9mm- (3/8-inch-) long spacers. These spacers should have an outside diameter of 8mm (5/16-inch) and an inside diameter which allows them to pass over the 5mm screws. The yellow wire from the newly installed lighting coil is fed out through the engine's rubber grommet and is connected to the lighting system. You may choose to use on-off switches and/or stoplight switches, in which case the wiring diagrams must be varied to suit. The Preston Petty instructions cover this very well and should be used as reference material. The other three wires (blue, green and red) are not used and must be taped individually to prevent shorting out.

After completion of the lighting coil work and re-installation of the flywheel and left side engine cover, the Wirges MX footpegs can be installed. This would also be a good time to re-shape the gearshift lever slightly outward to more properly suit the location of the footpegs.

The Vesco tank should be installed now and, other than drilling a few holes, it's strictly a bolt-on. Vesco supplies a very good set of instructions and you have probably already seen three articles on how to install these tanks. We'll leave it at that!

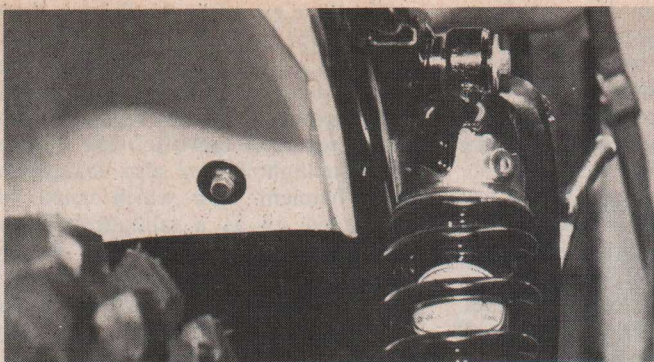
The Wirges high pipe would be the



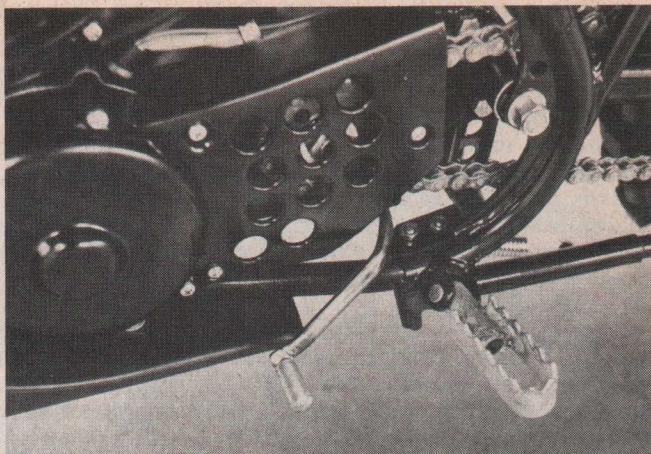
**Preston Petty front light/number plate combination installs easily with tie-wraps and can even be wired for high and low beam if desired. Original front brake cable guide is retained to keep brake cable from being snagged on a passing branch.**



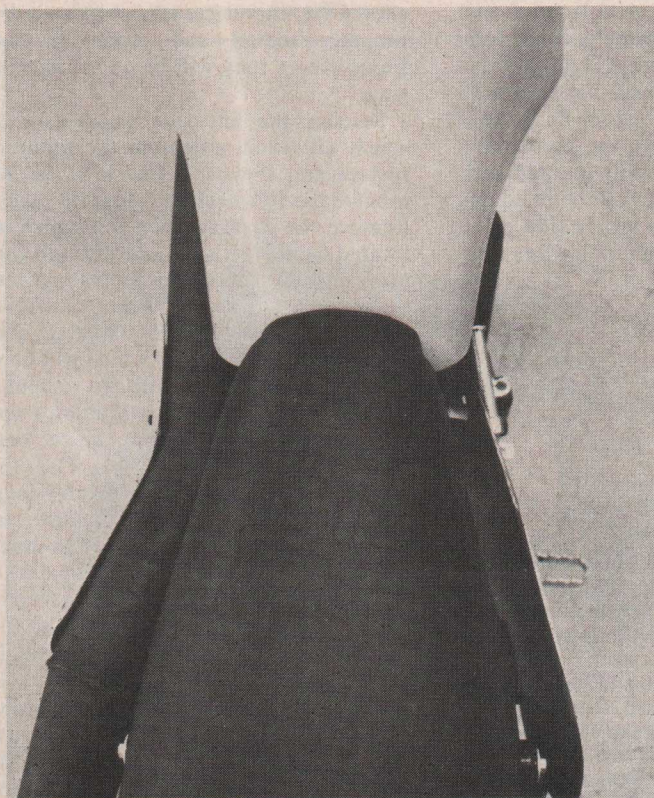
**Wirges up-pipe features a rugged rear mounting bracket and a silenced stinger section. All Wirges pipes have internal baffles for additional noise reduction without power loss. The Preston Petty rear fender/taillight combination bolts on easily using the two stock rear mounting bolts and provides lots of extra protection from a muddy spinning rear tire.**



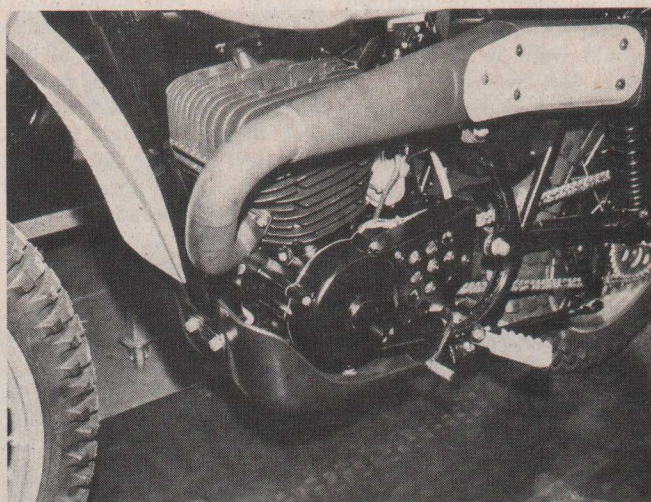
An additional nut-and-bolt was used at the front of the Preston Petty rear fender where the airbox was joined to the fender. This setup proved to be plenty strong and very reliable in actual use. Be sure to use large flat washers on each side of the plastic parts (fender & airbox) to help spread the load.



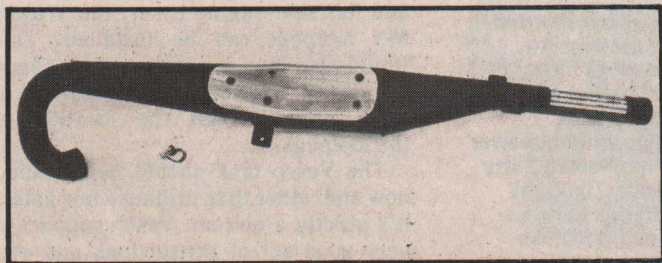
Use of Preston Petty skid plate required mild reshaping of the shift lever for proper clearance. This worked out perfectly because the MX pegs also placed the rider's foot slightly outboard. Personal preference may require that shift lever be mounted one spline higher on the gear shift shaft.



The KX 400 becomes a tad wider in the middle due to the up-pipe, gas tank and airbox which has been relocated 30mm (1-3/16") to the right. Airbox was moved over to allow extra room for the pipe. Bike feels very good when either standing or sitting. Extra width is no problem because the bike was ultra-narrow to start. Use of Wirges MX pegs also help spread feet out about 25mm (1") on a side to obtain a proper stance and secure footing in wet or muddy conditions.



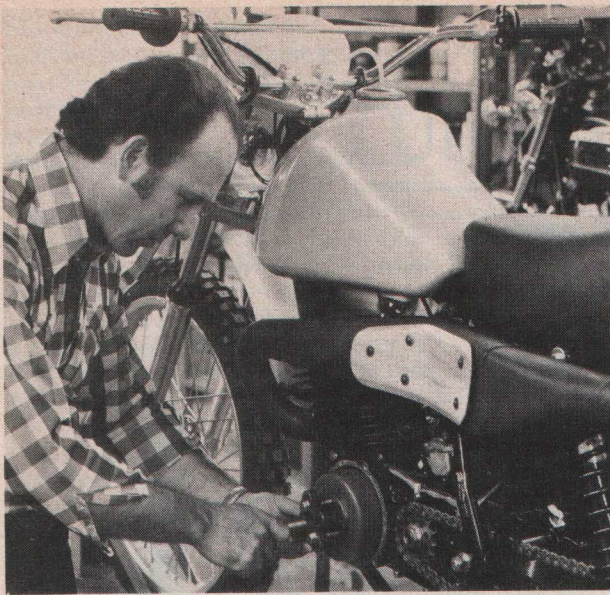
Close up view of the KX 400's left side shows how the up-pipe blends in with the bike's general layout. Pipe looks and feels as if it belongs there!



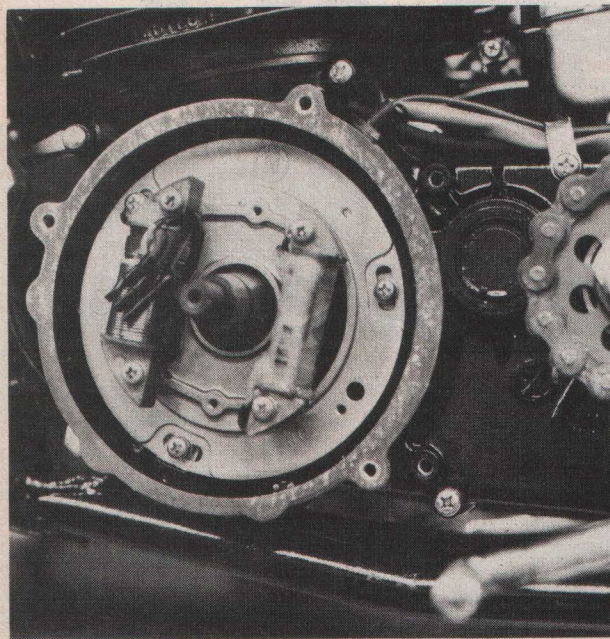
Here's what the Wirges up-pipe looks like all by itself. Pipe would also work well as an alternative to the stock down-pipe for MX, especially if any work has been done towards increasing the suspension travel.



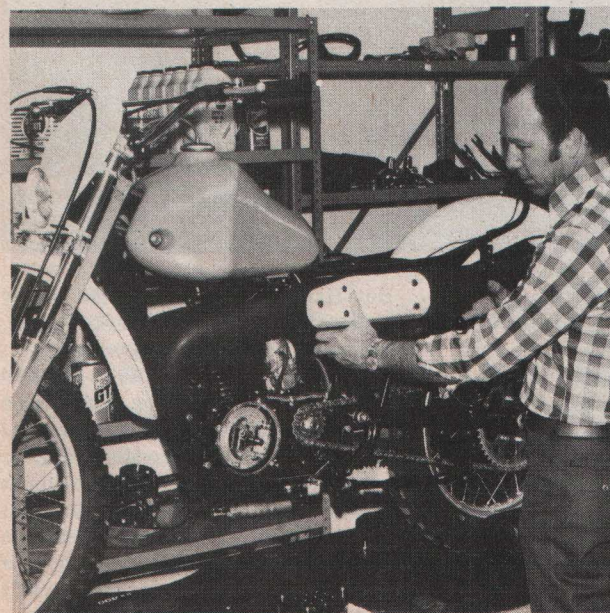
Airbox is offset 30mm (1-3/16") to the right for additional clearance. Two top mounts and two front mounts are drilled through and then fastened with nuts & bolts. At the rear, only one nut-and-bolt is used to fasten the front of the rear fender to the airbox.



**Bill Wirges removes the bike's ignition flywheel prior to working on the lighting system installation. Use of a proper puller is mandatory to prevent busted knuckles and expensive damaged parts!**



**Close-up shows lighting coil on left side which has had its yellow wire run out of the engine for connection to the bike's lighting. The remaining wires (blue, green, red) are not used and must be taped individually to prevent shorts. The lighting coil comes from a Kawasaki F-9, part number 21047-012. The standard left side ignition coil has been moved over to the right side through the use of longer screws and two spacers. It is now mounted directly on top of the other stock coil. Screw length and spacer dimensions are listed in the test.**



**Bill Wirges does some checking for proper fit, personally tending to the design of every new pipe. It is important that an up-pipe fit the bike properly because space is at a premium and concern for the rider's comfort is essential.**

next item to be bolted on and this becomes about a two-minute job. Their pipe uses the standard spring arrangement at the front along with two rubber mounted brackets at both the center and rear of the exhaust pipe. Very positive and very easy.

Last of all would be the Preston Petty skid plate which also goes right on. One U-shaped bracket must be made, but the Petty instructions show how. We used a piece of 5/16-inch diameter threaded rod which was bent in a vise.

All in all, this was a fairly easy project. Most of the basics are there and all of the aftermarket components are well designed and easily installed. It should be noted that for someone who did not require lighting equipment (a play rider rather than an enduro racer) building the bike would become even simpler. The Wirges pipe and MX footpegs, the Vesco tank along with Preston Petty's wide rear fender (without the light) and skidplate would take care of any casual off-road trail riding.

It should also be noted that although it wasn't shown, any of the bikes that Grayboy Kawasaki builds will also have a Number One Products front fork kit installed.

Here's a list of who makes what and where all of the neat little extras that can help make your bike more enjoyable come from.

Complete bikes or any of the components:

Grayboy Kawasaki  
217 W. Cedar  
Chillicothe, IL 61523  
309/274-5411

Big Gas Tanks:

Don Vesco Products, Inc.  
7936-C Lester Avenue  
Lemon Grove, CA 92045  
714/465-8256

Fenders, Skidplates, Headlights,  
Number Plates, & Grips:

Preston Petty Products  
Box 89  
403 North Main Street  
Newberg, OR 97132  
503/538-9457

Fork Improver Kits:

Number One Products, Inc.  
7931 N. Encinita Ave.  
Temple City, CA 91780  
213/287-9738

Exhaust pipes (high & low mount)  
and MX Footpegs:

Bill Wirges, Inc.  
Box 408  
Rural Route #2  
Princeton, IL 61356  
815/875-3356