

1978 PE-250C?

Building A Better Suzuki

By Ned Owens

When Suzuki's PE-250 hit the market last year, it was met with mixed reviews. Some found little fault with their first serious enduro effort—not polished—but a good effort.

Others said that the gear spacing and overly soft suspension would keep it from being a contender. Both of those things are faults, admittedly, but are they irreversible? What would it take to "shape the PE?"

We decided to tackle this project and provide several stages of engine and chassis tune that would suit budgets from slim to big buck. We also knew the '78 PE would be coming out soon and we tried to anticipate what it might be equipped with. Our shaped PE is a mix of all the factors.

SUSPENSION

When Suzuki started with basically an RM-250 and designed some changes on that basis, they figured that the suspension for an enduro bike should be as comfortable as possible. But this soft, plushness ruined the chassis integrity by causing the bike to wallow unduly. The rear suspension, many times was

near bottoming under normal riding conditions.

This extra softness seems fine to some riders, but it is detrimental to precise steering and puts the PE at a disadvantage when compared to the KTM/Penton or Yamaha IT machines.

The first step, and least expensive is merely bolstering the spring forces at each end. A pair of air caps with 8-12 psi can be used with the stock springs. Procuring a set of split-rate Kayaba springs from an RM-riding motocrosser (who has probably replaced the original shocks before he put 10 hours on them) will spring the rear to satisfaction. This minor change will make a noticeable difference. The front end will bite as it was intended.

Stage two suspension involves the installation of the Moto-X Fox air/spring fork kit in the front. Treatment of the rear includes a pair of modestly priced shocks like S&W Freon baggies or Gas Girlings and progressive rate springs.

Going for shocks in the under \$150 category is the next step used in conjunction with the Fox fork kit. Fox

Shox, Curnutts, Works Performance and Arnacos are some of the top shocks in this price range. Each has different features that offer the rider a wide selection based on his riding style and terrain. (You'll also find that each of the shock manufacturers have tested various lengths of their shocks and usually have a combination worked out. For instance, Works Performance Shocks tend to be longer than the stock length. Arnacos on the other hand are almost always fitted as the same length. Confer with these companies as to their suggestions. It'll save you time and hassles.)

The next stage would be to go for accessory forks. Among those available are Marzocchi, Betor, Ceriani, TTC, Kayabas and the Simon's Forks. Unless you are after a bunch more travel, we wouldn't go that far. The Fox kit performs admirably with an increase in travel. The forks listed above range from about \$220 to \$375. (The new air/spring forks like those on the "C" model RMs are also available from your Suzuki dealer, but the tab on those is \$400.)

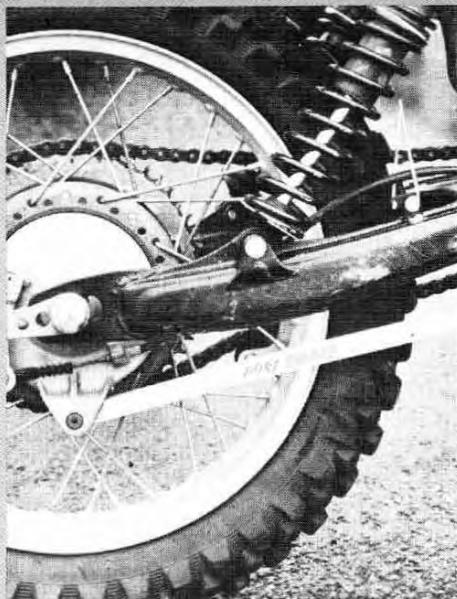
Bag is attached to tank only, so that removal of the tank in emergency is not hindered. Yam IT gas cap replaces hard-to-grip slick Suzuki unit.

Control modifications include Magura blades in the stock Suzuki clamps; mirror and bulb horn; switches moved under the cross-bar for protection; and sticky Oakley grips. Speedo bracket is sandwiched between clamps to lower mounting for long-travel forks—the cable became too short with the switch.

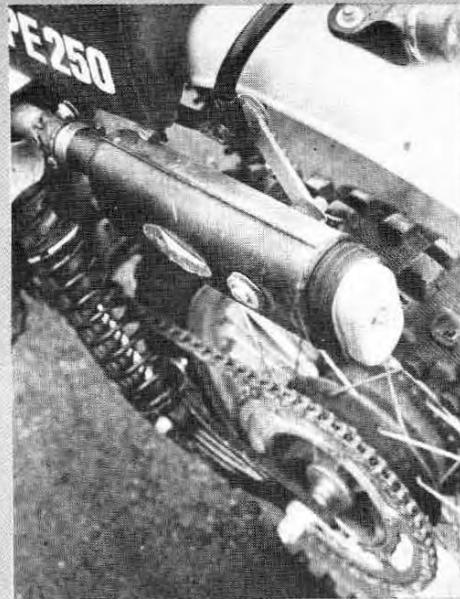




Forks from an RM-250C provide over nine inches of smooth travel. Air pressure can vary from 20 to 36 psi.



Motocross Center bolt-on floating rear brake assembly works well with grooved shoes.



Skyway Silent Partner provides more torque to help the wide-spaced gear box. It is substantially quieter, too.

There are several ways to go in the suspension department, from inexpensive to mega-buck—all of them work. Try it in stages.

ENGINE

The slightly-off gear spacing is accentuated by a fairly narrow power band in the engine. This is brought on by a not-so-cleanly jetted 36mm Mikuni. This is actually too large a carb to provide good mixing through all engine ranges, but use of a 34mm would mean changes to the filtering and intake manifolds, so that is a bit much for the average home tuner.

To bring out more power in mid-range and help the gear spacing out some, we went to a new Silent Partner from Skyway. We not only wanted an increase in back pressure but also a quieter bike. We achieved both with the Silent Partner. It is amazingly quiet.

It uses a series of stainless steel plates and a baffle system that negates the use of silencer packing to achieve the low Db readings. The increase in back pressure caused us to go down three sizes of main jet and two sizes in the pilot. Even during some overly rich running during the sorting-out process, the Silent Partner never clogged as plate-type silencers sometimes do.

This not only provided more mid-range but also improved our fuel consumption by about 15 percent. The bike pulls much stronger even through the improperly spaced gears. If most of your riding time is spent on slow, tight trails, it is possible to go down one tooth on the countershaft sprocket. If that is too much of a step, then go up two teeth on the rear sprocket. Circle Industries and CT Alloy are just two of the outfits that offer replacement

sprockets.

These changes can take a stock PE and make it not only more fun to ride but a more serious contender in an Enduro. Uphill traction is increased with both the suspension and exhaust system changes.

OUR '78 REPLICA

At Suzuki all things progress on a fairly smooth basis, so the new PE, we figured might have a suspension much closer to the RMs. As it turns out it will have the new air/spring forks, but reservoir Kayabas are a toss-up.

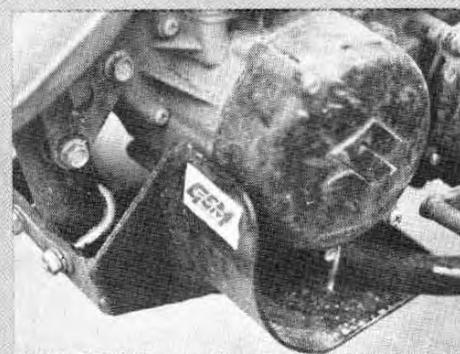
We set out to procure some suspension for our well thrashed beast when we started the project. To get an idea of what the mere addition of the "C" model RM equipment would do to the PE, we bolted up a set of the new forks and a pair of remote reservoir Kayabas.

Changing nothing internally in the forks, and keeping the same spring rates at the rear, we found the transformation to be startling. This is what the PE should have been all along with one exception. The shocks are a little insensitive to small, sharp bumps, but the spring rates are correct to preserve chassis integrity. The forks have been faulted by none in the absolutely stock condition.

We added a Preston Petty-Tony D.-autograph-model-mudder front fender to improve splash protection.

It helps keep not only the rider cleaner, but protects the front of the cylinder and head from the over heating caused by packed-in mud.

Although the PE comes with a skid plate, it is a little skimpy, when it comes to protecting the mag and clutch side cases. We opted for a Graham's Sheet Metal aluminum skid plate. It



Graham's Sheet Metal skid plate is wider, and offers more protection to side cases and levers.

extends out for enough to protect the clutch actuating lever and the rear brake lever on the right side, and the mag cover and shifter on the left. If you ride in a lot of rocks, this is a must.

We used a Penton/Hi Point tank bag, that had to be tuned on to fit the gas cap. The large cap diameter must be cleared or it will not snug down and eventually leak. The straps run under the centerline of the tank, so that if the tank has to be removed during an event the bag will not have to be untied from the frame tubes. (Also it keeps the straps away from the expansion chamber.)

Also on the tank, we replaced the stock gas cap with a lid and seal from a Yamaha 400 IT. They have the same threads, but the Yamaha is easier to get a grip on, than the slippery-smooth Suzuki item.

To prevent a hole being melted in the airbox, we slipped a square of asbestos sheeting between the pipe and box.

Magura Six Days levers made spe-



cifically for the Suzuki lever clamps, replace the standard blades. Also on the bars, the light and on/off switches were moved closer to the middle of the bars under the protection of the crossbar. Just in case you loop it or dump the thing you won't rip off those controls. It also improves the position of the levers in relation to the end of the bars. A bicycle mirror and bulb horn are added to make it enduro legal as is required in some places.

To accommodate the longer forks the bar clamp top halves had to be trimmed so that the speedo bracket could be set between the clamps. The brackets were cut off through the centerline of the mounting holes. The front of the number plate was notched to fit over the headlight.

The reservoir shocks which protrude into the carb access area can be easily loosened and rotated outward for carb removal or servicing.

Replacement tires consist of a 325x21 Metzeler up front and a Yokohama 460x18 rear. The combination provides good traction and reasonable pricing—at least at the rear. (The Metzeler front normally lasts quite a while so the initial expense is worthwhile. One could

*Can this be the 1978 Suzuki PE-250C?
It may be very close.*

go broke buying rear skins. The Yoko is a reasonable alternative.)

To provide better, more progressive braking at the rear we went with a Motocross Center floating rear brake unit for the PE. It is a fully bolt on unit featuring quality hardware. (See the January '78 issue for a full product evaluation.)

Brake shoes have been grooved diagonally to help squeeze water from the brakes. Grooves are cut at $\frac{3}{4}$ in. intervals.

Future plans include folding shift and brake levers, Preston Petty IT rear fender and a change to a pair of Arnacos.

As it turns out our creation is very similar to the reports of the '78 PE that are filtering in. We'll see in the very near future.

(Some of the goodies listed in the story will be featured in future shopper's guides and product evaluations. Next month we do the same thing to the Yamaha IT 400. See you then.) ●

