

SUZUKI'S NEW

THE OLD ADDAGE: "CLOSE ONLY COUNTS
UNFORTUNATELY HOLDS TRUE IN THIS
A NEWLY GROWING SEGMENT OF ENDURANCE



PE250

N HORSESHOES"
FIRST EFFORT OF
BIKES...

Dirt Test

Bounding into the enduro field with the customary muddy boots, mountain trail fever, and a lot of RM knowledge, Suzuki has added the PE 250 to their line of off-road motorcycles. The main reasons for the bike are obvious. There's a new market opening up in the two-wheel world, a market that caters to the rider who wants a real off-road machine designed for enduro riding. Two-Day Qualifiers, and fun-Sunday-kicked-back trail riding. Yamaha has their IT line, Honda sells the MR series and Kawasaki has something stewing in the pot for 1978. Suzuki didn't want to be left out in the cold and off the sales figures, thus the PE 250 was born. And you can bet your last kazoo that there will be more sizes and flavors of the PE series next year.

At first glance, it looks like a pregnant RM 250. The larger capacity squarely styled gas tank, a headlight, numberplate/speedo combination up front, and the large muffler give it a swollen look.

Many of the components on the new PE are from the RM stables. For instance, the engine is basically an RM unit. The internal combustion chamber and related parts have been modified to tame the powerband, giving you better torque and a more cooperative range of ponies spread over a bigger feeding ground.

The gearbox has been stretched somewhat. Instead of the close ratio RM cogs, the PE goes for a higher overall gear ratio situation, but still retains a selection of five different gear plateaus to play with.

The reed induction system is still doing the main chore of feeding the proper amount of fuel into the cylinder, by means of a 36mm Mikuni carb. Ignition has been changed so that both the headlight and taillight bulbs will burn, derived by adding lighting coils to the PEI unit.

The frame is all RM. No additional bracketry or doo-dads have been added to clutter up the package. The seat, number plates, and wheels will all interchange from the PE to the RM. The only addition to the frame structure is a skid plate below the belly of the engine, so that you don't get an exploded view of your gearbox after picking your way through a rock section.

Suspension is still supplied by Kayaba. Up front you'll find telescopic oil-dampened forks (without the addition of air, like the RM models) offering you 7.17 inches of travel. The rear bingers are also Kayaba

units with three-way adjustable spring tension goodies like the motocross machines.

With a claimed weight of 240 pounds, it isn't the lightest enduro machine around, bucking heads with the IT 250 Yamaha for the "Slightly Puggy 250 Enduro" award for 1977.

Some folks feel that it's just an RM with lights. It's not, but it does have a lot of the RM influence, and the majority of the machine is designed using the RM motocrosser as the basic mold.

By just sitting on the motorcycle, you'll find that the seat is a tad on the hard side. It feels as though your rear end would get sore after a few miles. Fortunately Suzuki has found (like many others) that a soft seat leads to a sore butt. After a few hours of riding, you can "cheek customize" the padding, and find that although your first impression was that you're sitting on a slightly padded board, the seat is actually not offensive at all.

The strangest part is the gas tank. Because of the machine's overall looks, you expect the smaller thinned down RM tank when you swing a leg over the PE. Instead you're greeted with a square-styled 3.2-gallon tank that's taller, wider and goes down closer to the engine. The feeling of having such a large tank goes away after a couple hours of trail cruising. The gas opening is large enough to take just about any can nozzle, and Suzuki has added a small safety strap to the cap so you don't drop it in the dirt or loose it during a frantic gas stop in an enduro or Two-Day qualifier.

The handlebars are smaller in width than those found on the RM series, mainly so that you can go sa-shaying between the trees without leaving gash marks in the bark at handlebar level or coming to an abrupt stop to examine limbs and leaves up close. The speedo, tucked protectively behind the plastic front number plate, is easy to read and has a hand resettable odometer for checking your mileage. Like every other Japanese speedo we've come across, it also isn't very accurate. Mental adjustment is needed to hit the checkpoints just right.

Seat to handlebar to footpeg placement is comfortable, but you'll find that the pegs do get very slippery when wet and are in need of bigger teeth to grab your boots better when the going gets slimy.

All the lighting switches are within easy access of your hands while riding, and there's even a high and low switch for the front headlight beam. The rear taillight also is a two filament bulb, burning while riding, and

SUZUKI'S PE250

brightening when stepping on the brake pedal. It wouldn't be too hard to street legalize the PE 250 in many states.

In the performance department, the bike excels in one point, and is disappointing in two aspects. The outstanding feature of the machine is

the engine's powerband. When riding the bike, it doesn't feel or sound as though it's pulling hard from the low rpm range, yet you notice the large amount of torque that is there to play with. The engine pulls strongly from the bottom, makes the mid-range transition nicely, and still has the good screaming top-end power of the RM series.

It starts easily, the carburation is just right for the intended purposes, and you won't find too many situations where you've got to get off and

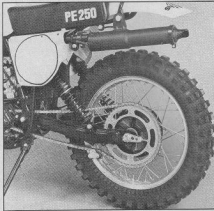
paddle because the low end torque of the engine wasn't enough to pull you over, up, or through that six-mile-per-hour section.

Where the machine falls short is in the suspension and gear ratio section. Both of these areas, extremely critical on an enduro machine, just don't coincide with the rest of the machine's performance.

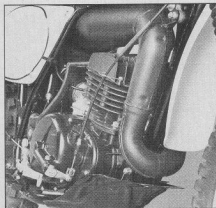
The suspension on the whole is too mushy for your average enduro. At a comfortable speed on the trail it's about two bumps behind you.



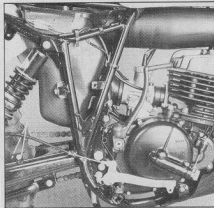
The large 3.2-gallon capacity gas tank found on the PE will get you along for half a day's worth of trail riding without going dry. The safety strap over the gas cap to avoid dropping or losing the unit is a good idea.



Laid-down Kayaba shocks, a new muffler system, and an additional rear frame loop to hold the taillight set the PE away from the RM. Pipe is quiet and mounted so that there aren't extra stress points vulnerable to breakage.



An RM-type pipe snakes its way through the frame to exit out of the left rear of the machine. Skid plate is nice to have for rocky riding, and to protect the expensive magnesium side cases.



To help waterproof the machine, Suzuki has put on a very tall air box system to ward off water. The footpegs and brake pedal should be larger, and that cursed pull choke rod is still around.

Going very fast, for instance at a Two-Day speed, leaves you with your hands full.

The problem stems from a variety of suspension designs. For instance, the front forks have two problems. The spring rate is too soft, allowing the forks to bottom more often than they should. It is a progressive spring, but the progression from the top, with the lighter psi rating all the way to the bottoming out phase, is easily too soft. The spring rate found on the RM series would probably be

too harsh for most enduro riders. But the spring rate that comes stock on the PE 250 is too soft for most applications. The only situation where you might want to leave the spring rate in its stock condition would be if you bought the machine with the in-



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tention of just trail riding on a leisurely Saturday afternoon, enjoying the smooth fireroads and sitting down as the scenery slides by.

Along with the spring rate the damping characteristics of the forks are a bit "off" for enduro riding. The compression stroke, when the forks are pushed down by striking an obstacle, is too quick. The forks are allowed to compress too easily and too quickly for enjoyable riding. Admittedly, some of the problem stems from the light spring rate, but with a slower and tighter compression stroke, derived by a different damper rod and orifice design, the machine would be more pleasant to ride. The PE 250 is in need of a good fork kit, something that is placed between what comes stock and what's available on a motocross machine.

The rebound action of the front forks is also similar to the compression stroke. When an obstacle is hit, the forks will bottom easily, and then bound back up too quickly, allowing the machine to bounce quite a bit before settling back down to a normal riding stance.

The rear suspension is also suffering from the same dilemma. The springs are too soft for the average rider, the compression and rebound strokes are too quick, and the overall performance of the machine is hampered by the fact that when you do hit a bump or rut, the machine reacts too slowly and takes too long to prepare itself for the next bump.

The third drawback that we found in the machine is the gear ratios. They just don't jive with the powerband. In first and second gear there is a nice match and smooth flowing performance. The powerband works well with the machine, and the transition between first and second is smooth. There is a small spot at the bottom of second gear when the engine's powerband isn't capable of pulling cleanly and strongly, leaving you with a flat spot where available power is at a minimum.

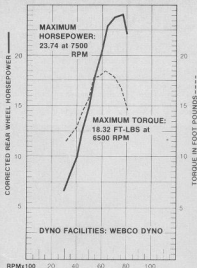
From third gear on up, the ratios are too tall, and don't coincide or relate with each other. There are wide

gaps, most noticeable when shifting from high revving third to bogging fourth. If you're not in a hurry, this problem probably won't bother you too much. But for serious off-roading and enduro competition, you'll discover situations where the power is needed, and just isn't available because the engine can't get in its good powerband area because of gearing.

There are also other small items that we felt should have been modified more. For instance, the rear wheel design. On Yamaha's IT 250 there is the new quick-change system for on-the-trail repairs. The Suzuki is equipped with the same set-up as the RM series, and doesn't allow you to take off either wheel quickly or easily, without a lot of spacers and various odds and ends that fall out or get lost. A quick change rear wheel would help the buying capacity of the machine.

As mentioned before, the footpegs are too small and don't have large enough teeth to sufficiently grab your boots when leaving water crossings or muddy sections. We also felt that something should be done between the seat and the rear fender so that





PRICE

SUZUKI PE250	\$1450
PENTON 250	\$1851
YAMAHA IT250	\$1348

HORSE-POWER

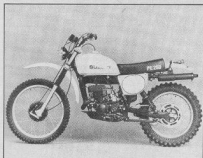
SUZUKI PE250	23.7
PENTON 250	31.9
YAMAHA IT250	(NOT AVAILABLE)

WEIGHT

SUZUKI PE250	256lbs
PENTON 250	235lbs
YAMAHA IT250	247lbs

TRANSMISSION

SUZUKI PE250	5-SPEED
PENTON 250	6-SPEED
YAMAHA IT250	5-SPEED



TEST BIKE: SUZUKI PE250

Price, sugg. retail.....\$1450

ENGINE

Type.....Piston and reed valve 2-stroke single
 Bore/stroke.....67 x 70 mm (2.64 x 2.76 in.)
 Piston displacement.....247 cc (15.1 cu. in.)
 Compression ratio.....7.0:1 (corrected)
 Carburetion.....Mikuni VM36SS
 Air filtration.....Polyurethane foam
 Ignition.....Pointless electronic
 BHP @ rpm.....23.74 @ 7500
 Torque @ rpm.....18.32 ft. lbs. @ 6500
 Lubrication.....Oil in fuel
 Electrical power.....6V flywheel magneto
 Battery.....None

DRIVETRAIN

Primary transmission.....Helical gear (2.727)
 Clutch.....Multi-plate, wet
 Secondary transmission.....Single-row chain (3.846)
 Gear ratios, overall :1.....1st 27.96; 2nd 18.35; 3rd 13.11;
 4th 9.57; 5th 7.25

CHASSIS & SUSPENSION

Suspension, front.....Telescopic fork
 Suspension, rear.....Swing arm
 Tire, front.....3.00-21
 Tire, rear.....4.50-18

Brake, front.....Drum, 5.9 x 1.1 in. (150 x 28 mm)
 Brake, rear.....Drum, 5.9 x 1.1 in. (150 x 28 mm)
 Brake swept area.....40.7 sq. in. (103.4 sq. cm.)
 Rake/trail.....29.75°/4.96 in. (126 mm)
 Wheelbase.....56.5 in. (143.5 cm)
 Seat height.....33.2 in. (84.3 cm)
 Handlebar width.....31.0 in. (78.7 cm)
 Ground clearance.....10.3 in. (26.2 cm)
 Instruments.....Speedometer, trip reset
 Stands.....Side
 Tire retention device(s).....Security bolts; 1 front, 2 rear

WEIGHTS & CAPACITIES

Fuel capacity.....3.2 gal. (12 lit.)
 Oil capacity.....1.9 pt. (900 cc)
 Weight, wet, unladen.....256 lbs. (116.1 kg.)

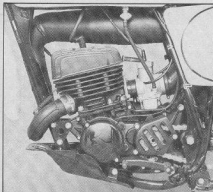
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mounting a tool pouch is possible without jamming or breaking the tail-light or seat mounting brackets. The brake pedal surface is a bit too small and the kick starter ball joint is vulnerable to getting stuck in the closed position due to the lack of a protective rubber boot. Same holds true for

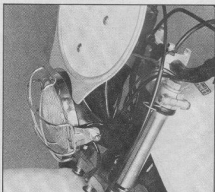
the clutch actuating arm on the right side case. Being out in the open, although it is protected by the skid plate, leaves it susceptible to branches, and mud stoppage while riding.

In overall performance, the machine is "nice" but doesn't quite cut it in the enduro or Two-Day competition aspects. Hopefully, Suzuki designed this machine as a holdover. They knew that Yamaha was coming out with the new IT line, and we are guessing that the PE 250 is here because Suzuki wants people to know

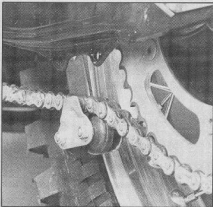
that they're getting into this newly born field of enduro machines, and the 1977 PE 250 isn't a finished product. Perhaps they're tooling up for the 1978 model year with a different machine, one that is more thought out and thorough. As it stands now, the PE 250, with its suspension and gearbox flaws, and the small unfinished particulars, doesn't come head to head with Yamaha's offering of the same displacement. It's good competition for a DT model, but it doesn't come up to the performance or quality of the IT 250. **M**



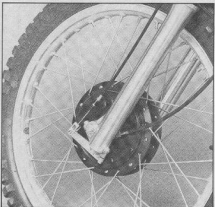
With different porting and a milder intake system, the PE's engine has excellent lower end power and mid-range juice. Unfortunately, the powerband doesn't coincide with the gearbox, much like an MR Honda.



The entire front headlight and number plate system can be removed easily from the upper fork tubes in about 20 minutes. Tucked securely and safely behind the number plate is the speedo, complete with resettable odometer.



One of the nice goodies on the machine is this chain tensioner that takes up the slack due to the longer travel suspension. Supposedly by exchanging your #520 chain for one of the #530 size, you can eliminate a lot of problems caused by the chain hopping off sprockets.



Suzuki uses front wheel unit larger than the RM series for the PE machine. The front suspension problem resides inside the lower legs. The damper rods and springs aren't just "right" for off-road riding and their performance falls below the norm.