SUZUKI PE175Z A Neat Bike Loaded

With Enduro Extras

Photos by Ron Griewe

CYCLE WORLD TEST

■ When enduro bikes had license plates and enough suspension travel to traverse painted crosswalks without bottoming the suspension, Suzuki became one of the first large motorcycle companies to build motocross-derived enduro machines. Pure enduro, the term was, so Suzuki called its line of bikes the PE series, first in 250cc, then 175 and finally 400. Even after enduro bikes became obviously different from dual-purpose bikes, they lagged behind the motocross state of the art. This year's enduro bike often is last year's motocrosser with less suspension and a more controllable powerband.

Enduro bikes have become better since the first MX-turned enduro machines. Bit by bit the enduro bikes have lost weight, gained quick change wheels and combination tools for quick trailside repairs. Large, easily reset odometers replaced speedometers. Gas tanks got bigger and suspension has become better.

Single shock rear suspensions have been the latest trend in motocross bikes because the progressive rates created by the elaborate linkage makes the suspension work better. Suzuki has come up with what may be the best of the single shock systems with the Full Floater motocross bikes, so it was especially exciting for enduro bike fans around the office to hear that the 1982 PE175 would get the Full Floater suspension. Only it will be a bit late in arriving, said the Suzuki spokesman. And there won't be a 250 or an open bike.

As the Suzuki people explain it, the factory offered only one size option this year because of development time. U.S. Suzuki picked a 175.

Not many '81 pieces are used on the '82. The plastic gas tank is the most easily noticed. And it's the most dated looking too. The 2.8 gal. tank is long and flat and ugly. A shorter, higher tank would give a modern look and allow sliding farther forward on the bike for tight turns.

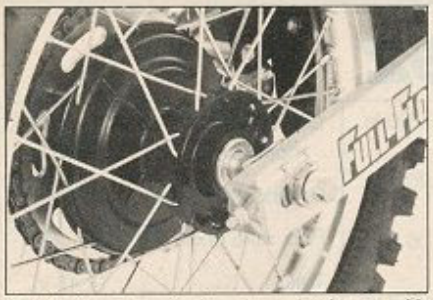
The engine is a combination of new and old. The basic engine cases, cylinder and porting, crank and rod, clutch and shifting mechanism are the same as last year. Transmission ratios are the same for the first three gears and slightly closer for the top three. Externally the engine looks much the same with a good kick start lever with clawed steel boot surface. Cylinder and head finning is adequate and a new pipe with a large spark arrester/silencer muffles the bark nicely. All these parts were pretty good last year and refinement makes them better.

Frame, suspension and wheel assemblies are new and make the 1982 PE175 an exceptional off-road motorcycle. The Full-Floater rear suspension from the motocrossers, with 10.6 in. of rear wheel travel instead of 12 plus, keeps the seat height low and makes touching the ground a reality. Mechanically the shock and rockers are the same as the track racers; the aluminum-bodied shock is placed vertically just behind the engine. The lower mount is under the swing arm, the top attaches to one end of an aluminum rocker. The rocker pivots on a shaft that goes across the frame rails under the seat, the rear of the rocker is attached to the swing arm via two struts. A large spring surrounds the shock body and the body is threaded to allow ample spring preload adjustment. Like the MXers, the shock has a remote reservoir on the end of a long hose, but the reservoir is mounted on the right side of the bike under and to the rear of the seat, not under the tank. No provisions are made for compression or rebound damping adjustment but none of our testers thought it needed any. The extruded aluminum swing arm appears to be a transplant from the 125 motocrosser except for the cross-over brake linkage on the PE. It pivots in caged needle bearings and has a nice aluminum and plastic chain guide attached to the left side. A plastic block protects the front of the swing arm from chain damage. A lightweight plastic guard protects the chain from mud thrown by the rear wheel. The cross-over rear brake linkage seems strange but works fine. Because the countershaft sprocket is on the left side of the bike and Suzuki's conical hub puts the brake on the left, the cross-over brake linkage is used.

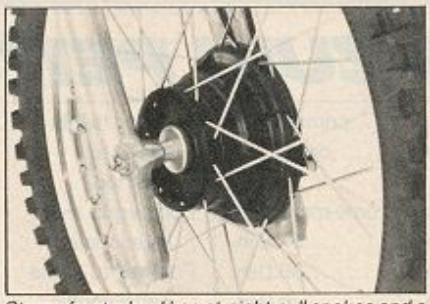
Front suspension has been improved with 38mm fork stanchions in place of last year's 36mm units. Wheel travel is the same as the rear at 10.6 in. Strong triple clamps with solid handlebar mounts and wide clamping surfaces make for a solid front end. Air caps are also standard but we didn't find it necessary to use pressure. It might be needed when the bike gets lots of miles on it and the springs start to sack. It's nice to have just in case.

The frame is a strong, well triangulated chrome-moly steel unit that incorporates several six-day type frame tubes under the engine. These tubes are placed wide enough to protect the engine's side covers and mud doesn't build up as quickly as with full coverage type skid plates. The steering head is strongly gusseted and the gusseting is boxed to further add strength. The full rear frame loop helps support the silencer and makes adding a tool bag easier, if the owner wants one. The rear fender has a flat shelf >

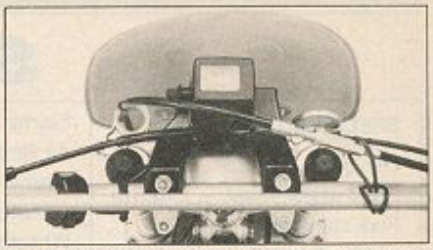

PE
SUZUKI
FULL FRONTER



Quick change rear hub makes wheel removal in 20 sec. possible.



Strong front wheel has straight-pull spokes and a good brake.



Resettable odometer is easy to read. Front brake cable has a rubber security strap so it can't get caught on the odometer and crash you. Top of six-day style multi wrench is on the right.

PE175Z

between the frame loop and seat rear for that purpose. A spare inner tube or other spare parts you might find useful on the trail also can be attached to this spot. Both fenders are long enough to provide fairly good mud protection although we'd like to see a wider front fender. Both are plastic and proved durable.

Suzuki's excellent straight-pull spoke designs have found their way to the PE175. The front is the same as used on the RM125, the rear is designed for the PE and sports a quick change design that should be standard on all bikes. Removing the rear wheel is so easy and quick we removed it several times for friends. It's so easy it's actually fun. Honest. Even a mechanical klutz can have it off in 20 sec. or less! The procedure is: lay the bike on its left side, remove the six-day wrench from the triple clamps and place the back side of the spark plug socket on the smallest of the two nuts, kick the wrench handle in a counter-clockwise direction to loosen the bolt, reach down and spin the nut three or four revolutions until the tension lessens, then pull the axle bolt out of the wheel and swing arm. Next reach down and remove the spacer and lift up on the wheel. That's it, the wheel is off. The drive sprocket, chain, brake hub and wheel adjusters stay in place. And these parts won't fall off or get bumped out of place if the bike gets jiggled. The axle adjusters are held solidly to the swing arm by the large nuts on each side of the swing arm. The other end of the six-day wrench fits them. When it's time to adjust the chain it's not necessary to loosen the axle, just the two large axle adjuster nuts, then use the smallest wrench on the tool and tighten or loosen the nuts that stick out the rear of the arm and retighten the adjuster nuts. It's quicker to do than describe! The front wheel is almost as easy but takes a few seconds longer. To remove the front, take the six-day wrench and remove the axle nut, lay the bike on its right side, grab the axle bar and pull the axle out. Next slide the wheel around to remove the brake backing plate from the fork leg and then lift the backing plate from the wheel. It's a little more difficult to replace than the rear because the spacer is on the bottom where it's difficult to see. Still, with a little practice it can be off in less than 30 sec. Really nice if you're in the heat of competition and have a flat. The procedure is even easier if you install the optional center stand. The frame has the mounts on its bottom and your dealer can order the stand.

All the right enduro accessories are standard on the PE175 Floater; small, flexible enduro headlight/numberplate, rubber housed taillight, easily read odometer, headlight high and low beam switch that's mounted close to the handlebar clamps so it doesn't get damaged, folding tip shift lever, wing nut adjuster on the rear brake rod, dual foam air cleaners with high air intakes and water drains with one-way rubber ends, straight-pull throttle and covers on the lever pivots. Speaking of the levers, the cable adjusters are some of the slickest we've seen; the cover for the adjuster fits tightly and it's separate from the pivot cover. Adjustment is as simple as turning the cover. The adjusters are fitted with spring-loaded ball clicks that keep the adjuster from changing position accidentally. And they ease cable adjustment. Hell, the cables can be adjusted while you ride if you were just late at the last check and don't have time to stop and do it.

Being late at checks shouldn't be a problem with this bike though. The PE175 Floater gets through the rough stuff just like its motocross brothers—very smooth and fast. Never mind the enduro only has 10.6 in. of travel at both ends, it doesn't need any more. And touching the ground is pleasantly easy, even for people of normal height. Forget about that nasty section of sand whoops you know are just ahead, just stand on the pegs and leave the throttle wide open. The bike will get you through without removing any of your skin or causing any ugly bumps on your head. Sure a fast rider can use up the wheel travel but he is never aware of it as the bike doesn't bottom severely. And the terrain has to be really severe or the jump exceptionally high before the rider even feels the suspension bottom. Yet the bike is smooth and comfortable at slow trail speeds. More proof of the Full-Floater's progression and superior design.

Engine power is good for a 175 with plenty of mid range on tap and fairly good top end. Low end is not strong but not bad for such a small engine. When making comparisons with other 175 enduro engines the PE comes out second to the '82 IT175 in the mid-range torque department. The PE requires more winding to get the same forward speed and we suspect the IT actually has a little more horsepower. But, the PE175 is delivered over geared and the IT isn't. The PE needs a one tooth smaller front sprocket to close up the ratios on the trail and boost mid-range response. The over-gearing is most noticeable when trying to pull 6th gear on fast trails and the rider has to shift back and forth from 5th and 6th, trying to keep the engine on the pipe, or when making a 180 at the bottom of a steep hill and the clutch must be slipped because 1st isn't low enough. A front sprocket with one less tooth would fix both.

We criticized the last PE175 because it felt like a 250 with a 175 engine. It was a nice bike but it seemed too much compromised. The new PE175 Floater has a chassis that fits its engine size. The bike feels like a 175 although it does feel larger and heavier than an IT175. After many outings every rider thought it was a great bike and best of all, fun. The large forks and solid frame combine for good steering precision and the bike stays on the trail through ruts and rocks and whoops. The 2.8 gal. gas tank is good for 65 to 75 mi. with a hard rider and up to 90 mi. with a slower rider aboard. Any fuel worked in the bike, not even the worst low-leads causing any ping.

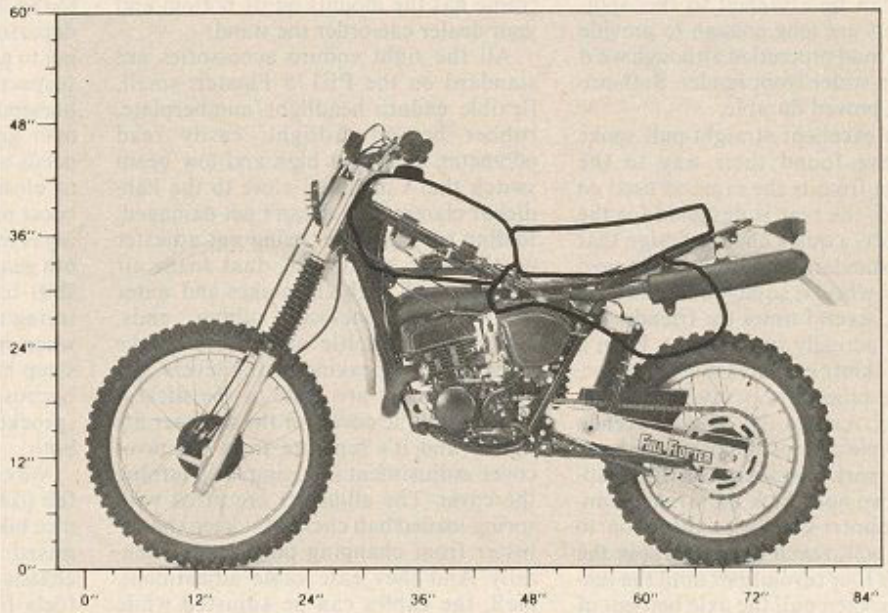
Excellent quality components abound. Only the tires are marginal because the flimsy carcasses were easily cut by rocks. One short desert loop produced two front and two rear flats, though the quick-change wheels took some of the pain out of patching. Even pulling the tires off the rims is easy because of the weak sidewalls.

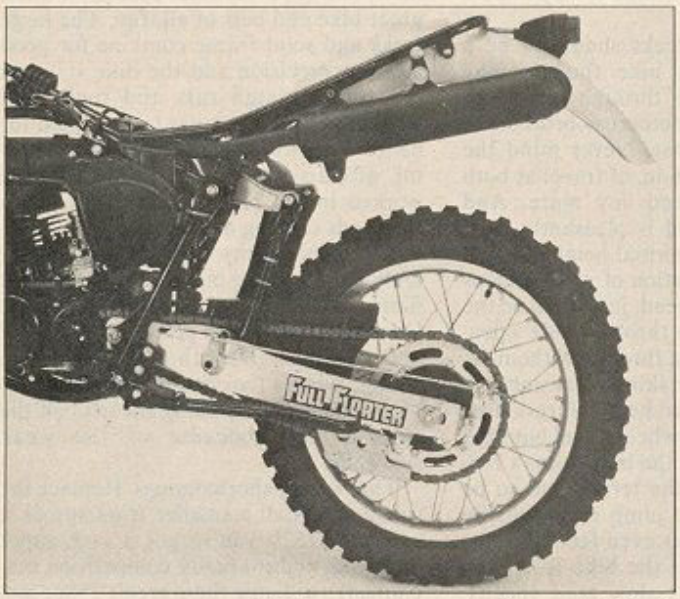
That's it for shortcomings. Replace the tires and install a smaller front sprocket and for $1529 you've got a fast, super handling, enduro-ready competition machine. It's a shame there aren't 250cc and open-class enduro bikes like this, but this 175 works so well it hardly matters. ⊠

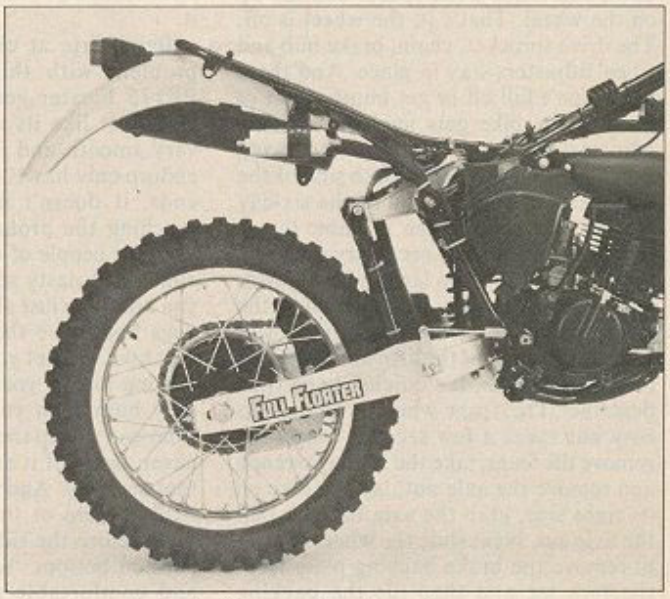
SUZUKI PE175Z

SPECIFICATIONS

List price	$1529
Front wheel travel	10.6 in.
Fork stanchion tube diameter	38mm
Rear wheel travel	10.6 in.
Front tire	3.00-21 Bridgestone M-23
Rear tire	4.10-18 Bridgestone M-22
Engine	two-stroke Single
Bore x stroke	62 x 57mm
Piston displacement	172cc
Compression ratio	na
Claimed power	na
Claimed torque	na
Carburetion	34mm Mikuni
Ignition	CDI
Lubrication system	premix
Primary drive	straight-cut gear
Gear ratios, overall:1	
6th	9.66
5th	11.53
4th	14.30
3rd	18.04
2nd	23.42
1st	32.69
Oil capacity	2 pt.
Fuel capacity	2.8 gal.
Fuel tank material	plastic
Swing arm material	aluminum
Starter	primary kick
Air filtration	oiled foam
Frame material	chrome-moly steel
Wheelbase	57.2 in.
Seat height	36.0 in.
Seat width	6.0 in.
Seat length	20.2 in.
Seat front to steering stem center	15.0 in.
Handlebar width	31.6 in.
Footpeg height	16.0 in.
Footpeg to seat top	20.7 in.
Footpeg to shift lever center	6.0 in.
Footpeg to brake pedal center	5.3 in.
Swing arm length	22.5 in.
Swing arm pivot to drive sprocket center	2.6 in.
Gas tank filler hole size	2.2 in.
Ground clearance	12.6 in.
Fork rake angle	28°
Trail	4.45 in.
Test weight w/ half tank fuel	234 lb.
Weight bias, front/rear percent	46.6/53.4







Full-Floater rear suspension is great. 10.6 in. of travel soaks up the harshest terrain without bouncing the rider around. Cross-over rear brake linkage works fine.