



PHOTO: GARY THOMPSON

SUZUKI PE175D

Last year's winner struggles to keep up

The 175cc class has always been a class in turmoil. In the past, some manufacturers have punched out a 125cc motor and then the model suffered from gearbox and other engine failures. Other bike companies built, essentially, sleeved-down 250s which suffered from heaviness and lack of power. Now that factories are finally making real 175 engines and putting them in properly proportioned frames, Kawasaki comes along and bumps their engine displacement to 200cc. Suddenly, the 175cc class is no longer the 175cc class. One wonders why all the factories didn't make use of the extra 25cc that have been lying around for years.

Suzuki must be wondering right about now why they didn't make use of the extra 25cc. Last year, the PE175 was the killer motor of the class. This year it is just as good, actually a little better, but suddenly it just isn't good enough.

TECHNICALLY SPEAKING

The PE175D hasn't really changed much for 1983. Suzuki probably figured they shouldn't play with a winner. They are both right and wrong.

The only significant change to the motor was the internal gear ratios. Bore and stroke remain the same, as does most of the running gear.

The quick-change rear wheel setup is the same as last year, and it is one of the best. To get the rear wheel off, all you have to do is loosen the two nuts (one on each side) that hold the axle tight. Then pull the axle out and slip the wheel off. The brake drum, sprocket and chain all stay attached to the swingarm. That means you don't have to take the chain

off or mess with the adjustment, you don't have to undo the brake rod and you don't have to fool with the brake drum, it makes things easier and it makes things much quicker. The only drawback is that you really need a centerstand to use it properly. The Suzuki comes equipped with mounting tabs for a centerstand, but good luck in finding one.

Like last year, rebound damping is adjusted by turning a knob that is located on the top part of the shock. The damping adjusts from position one (softest) to position four (hardest). Position two is the standard setting and we utilized it for our shock dyno test.

The rake and trail of 28°/4.45 inches has remained the same, as has the typically short Suzuki feel. Wheelbase on the 1983 PE175 is 53.1 inches and ground clearance measured out at precisely twelve inches.

The six-volt electrical system puts out the power for the 15-watt headlight and five-watt taillight. The headlight has a wire screen across it to protect it in case of a particularly nasty getoff.

The odometer is Standard Issue Suzuki. It is simple, small and extremely reliable. The PE175 doesn't have a tool bag, but it does have a clever combination tool kit that mounts under the headlight with a rubber O-ring. The set includes a spark plug wrench, a 12-millimeter "fits almost everything" wrench and another wrench that fits the axle nuts.

Though the manual says the gas tank holds 2.8 gallons, when we measured it, it held 3.3 gallons. Maybe their molds have gotten old over the years and that accounts for the extra half-gallon.

No matter how you look at it, the PE175 has not changed much technically for

1983. It was a great bike in 1982 and Suzuki is trying to hold the line with few changes on the new model. Some things didn't need changing—and a few did. Read on.

ON THE GAS

When you get on the 175, you know it's a 175. The seating position and size of the bike tell you that it is definitely not a 250. At the same time, the wide tank and side plate bulge assure you that it isn't a 125 either.

In other words, the size of the PE175 is just about right. Not too big, not too small. The 3.3-gallon tank is a bit roundish and gives the PE a bulky look. That look translates into feel when sitting still on the Suzuki. Once underway, though, the wideness of the bike is not as noticeable. Although more than one tester complained that a single-shock bike should not have a bulge in the middle, it isn't as distracting as some make it out to be.

Others were repeatedly bothered by the short seat, though. Many testers found their rear end firmly implanted on the rear fender more than a few times. Fortunately, the rear frame section is four to five inches behind the seat, so no major bodily damage occurred.

Suspension and motor both have remained surprisingly similar to what Suzuki offered last year. Apparently, since the PE175 was the killer small-sized enduro bike last year, Suzuki decided it didn't need much work to retain the top position in its class.

About the only significant change to the motor was a new set of internal gear ratios. The change has had the effect of a Dr. Jekyll-Mr. Hyde personality change

DIRT RIDER SPECIFICATIONS

SUZUKI PE175D

Serial number.....Engine: PE175-221949
 Frame: J51PG12A6D2100419
 Price.....\$1,620
 Number of dealers (U.S.).....1,390
 Warranty.....None
 Customer service.....U.S. Suzuki
 3251 E. Imperial Hwy.
 Brea, CA 92621
 714/996-9541

ENGINE

Type.....Single cylinder,
 air-cooled two-stroke
 Displacement.....172cc
 Bore x stroke.....62mm x 57.0 mm
 Compression ratio.....7.9:1
 Horsepower/rpm.....21.3@ 9,000 rpm
 Torque/rpm (measured).....12.4 @ 9,000 rpm
 Carburetion.....34mm Mikuni
 Exhaust.....Single, steel into steel
 spark arrester/silencer
 Ignition.....Suzuki "PEI"
 Lubrication.....Pre-mix
 Air filtration.....Oiled, polyurethane foam

DRIVE TRAIN

Transmission.....Six-speed
 Primary drive.....2.76:1 (gear)
 Final drive.....4.00:1 (48/12)
 Gear ratios (internal).....1st 3.00:1
 2nd 2.14:1
 3rd 1.67:1
 4th 1.30:1
 5th 1.04:1
 6th 0.87:1

CHASSIS

Frame.....Steel, single downtube
 split into full cradle

Rake/trail.....28°/4.45 in.
 Front suspension.....Telescopic fork,
 9.9 in. travel (measured)
 Rear suspension.....Swingarm, Full Floater,
 9.0 in. travel, (measured)
 Brakes.....Drum
 Wheels.....Front: J21 x 1.60 Takasago
 Rear: J18 x 1.85 Takasago
 Tires.....Front: IRC 3.00-21 4pr,
 2 Mark II
 Rear: IRC 4.10-18 4pr,
 2 Mark II

MEASUREMENTS

Weight (wet, no fuel).....231 lbs.
 Weight (wet, tank full).....250 lbs.
 Weight distribution.....125/106 lbs
 (46/54%) (Fr/r, wet, no fuel)
 Weight distribution.....116/134 lbs
 (46/54%) (Fr/r, wet, tank full)
 Wheelbase.....53.1 in.
 Fuel capacity.....3.3 gal.
 Reserve capacity.....None
 Sound test.....102 dbA
 Ground clearance.....12.0 in.
 Seat height.....36 in.
 Swingarm length.....24 in.
 Swingarm pivot
 to center of countershaft.....2.5 in.

PARTS/COST

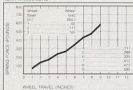
Maintenance manual.....NA
 Carburetor jets.....Main—\$2.32 Pilot—\$2.32
 Needle—\$5.34 Needle-jet—\$3.48
 Sprockets.....Front—\$10.44 Rear—\$40.16
 Handlebar levers.....\$7.25
 Shift lever.....\$13.34
 Piston kit (complete).....\$51.29
 Rings only.....\$16.82
 Cylinder.....\$158.03

Head.....\$74.74
 Clutch plates.....Drive—\$5.35 ea. (7)
 Driven—\$2.78 ea. (6)
 Air filter.....Inner—\$2.95 ea. Outer—\$3.19 ea.
 Brake shoes.....Front—\$7.94 Rear—\$5.38
 Chain.....\$79.45
 Seat.....\$86.18
 Fenders.....Front—\$35.95 Rear—\$45.23
 Fuel tank.....\$165.55

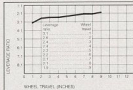
OPTIONS

None

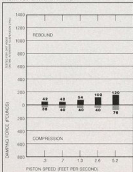
REAR WHEEL LOAD



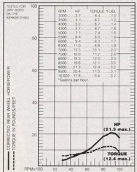
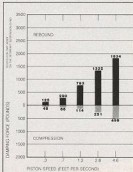
REAR WHEEL LINKAGE



FRONT SUSPENSION DAMPING



REAR SUSPENSION DAMPING



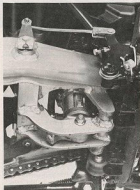


on the PE175's powerband.

Last year, the 175 was the horsepower winner in the 175 class. However, the power was hard to find and even harder to keep. The bike was pipey and horsepower came high in the powerband. An enduro bike can not be that difficult to ride and still be comfortable. Woods sections become suicidal on a rocketship that only runs full bore. The new gear ratios help smooth out the 175's powerband enough that it appears comatose compared to last year. What was once a frustrating bike for novices and beginners has suddenly become their choice when picking a small-sized bike.

In fact, our novice tester liked the powerband's smooth delivery so much it was hard to get him off it. Our intermediate testers, on the other hand, thought the taming of the PE175 had gone too far. The 175 does not feel fast. Not on the bottom end, not in the mid-range and not when wound out to 10,000 rpm. The PE175 is seriously underpowered for anybody above novice riding skills.

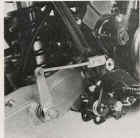
At 4,000 rpm, the Suzuki is already



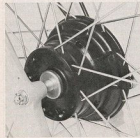
Suzuki's Full Floater is still one of the best rear suspensions on the market today.



Headlight/number plate combination survived intact. Tools are mounted on triple clamp.



Rear brake linkage is complicated and steals a little sensitivity, but it works okay.



Front wheel removal is practically effortless. Brake works fine after water crossings.



Rear wheel removal is probably the simplest around. Saves lots and lots of time.



The PE could use a few more horsepower to help it keep up with the KDX200.

lagging behind the KDX200 by 2.5 horsepower. At 5,000 rpm the gap lengthens to 3.6 horses. By 6,000 rpm, the Suzuki is giving up 5.5 horsepower to the KDX200. The Suzuki compares least favorably at 7,000 rpm, where the KDX pulls 7.3 horsepower on the PE175.

The KDX dies out at 8,500 rpm but the PE175 keeps on screaming. In fact, if you want to get any kind of comparable power out of the PE, you have to scream it. The 175 finally gets up to a competitive 19.6 horsepower (the KDX200 put out 22.4 max.) at 8,500 rpm. At 1,500 rpm higher than the KDX's maximum horsepower output comes the Suzuki's maximum output of 21.3 horsepower.

While the Suzuki only gives up 1.3 horses overall to the KDX200 at peak horsepower, the KDX200 has a much stronger mid-range. The Suzuki has a definitely noticeable lack of punch throughout the powerband. This makes it difficult to lift the front end over obstacles seen at the last second and even more difficult to "race" through a special test. The mellow motor of the PE175 is well suited for the enduro rider who stays on time all day and never has to grit his teeth and go for it. The PE also is well suited for fun trail rides. It just won't impress you with its power delivery.

The PE175 needs some mid-range power to make it competitive against the KDX200. Not only would it make it competitive, but it would make it a lot easier to ride fast.

Suspension on the PE175 gets the job done without a lot of flash. The forks come set up soft, but they aren't actually too soft until you start pushing the bike hard. On slow, easy sections of an enduro or trail ride, the forks are very plush. Stiction is non-existent.

Compression rebound numbers taken from the Interpart suspension dyno were softer all the way down the line for the PE175 when compared to the KDX200. At 0.3 and 0.7 feet per second, the two bikes had similar readings for both compression and rebound, although the PE175 was slightly softer. At 1.3 feet per second the KDX's numbers start getting higher. The Suzuki's figures were 40 on compression and 54 on rebound, while the KDX showed 58 and 68 respectively. When the dyno picked up speed to 2.6 feet per second, the PE175's compression stayed at 40 while the rebound picked up to 102. The Kawasaki, at the same speed, had a compression figure of 70 and rebound of 130. A dyno speed of 5.2 feet per second saw the PE go to 76 on the compression reading and 130 on the rebound. The KDX went to 84 on the compression and jumped all the way to 296 on the rebound.

The PE175 does nothing to hurt Suzuki's reputation for excellent rear suspension. It feels soft enough to make slower riding comfortable, has enough travel (nine inches measured) for a small bike to soak up bigger bumps and has good



OPINIONS

The PE175 is okay, but it sure isn't exciting. The power is way too mellow. An enduro bike doesn't have to be boring to be comfortable. All the way up to 8,000 rpm, the Suzuki is seriously underpowered compared to the KDX200. At 9,000 rpm, it finally gets close. But close just isn't good enough. At 7,000 rpm, the KDX is putting out 7.3 more horsepower than the PE175. On an Open class bike, 7.3 horses would be too much to give up. On a small bike like the 175, it should be against the law.

All the PE175 needs is a mezier motor. The suspension is still among the best. In fact, the rear suspension is a little more compliant than on the KDX. The fork is fine on the PE. It's a little soft the way it comes set up, but tuning is simple enough.

—Bob Carpenter

Age/Ht./Wt.: 23/5'9"/185 lbs.
Motorcycle(s) currently raced/ridden:
None
Riding ability: Intermediate motocrosser

I really like the PE175. I don't care what the dyno says and I don't care if the sticker says 175 or 200. The PE is a bike that you can feel confident on. It doesn't snap your arms off when you are zipping through the trees and it doesn't fire me out as quickly as a lot of other bikes.

And one of those "others" is the Kawasaki KDX200. I found the KDX to be too pipey and too explosive. The PE175, on the other hand, built revs slowly and surely.

The rear suspension is typical Suzuki.

plush. It feels good throughout the suspension travel. Nine inches is sufficient for me.

—Gary Thompson

Age/Ht./Wt.: 23/5'8"/172 lbs.
Motorcycle(s) currently raced/ridden:
1983 Honda CR250R
Riding ability: Novice motocrosser

I read the test story before riding the PE175, and my first impression was to tell the boys to back off a little with their complaining about the Suzuki's power. That was before I had the opportunity to ride both the PE and a KDX200 through Arizona's Prescott National Forest. Both bikes were jotted for altitude, and the Kawasaki is by far superior, powerwise, although I liked the Suzuki's handling slightly better.

A pat peave of mine is air filters that are awkward to service. The PE has two elements, and they're on opposite sides of the bike under two separate sidecovers and box covers with a handful of screws and spacers to drop and lose. Give me the TT600K's air-box any day!

I think it's time for the company that developed an excellent bike then rested on its laurels, to go back to the drawing board and redesign the excellent PE175 that they're certainly capable of producing.

—Charles Morey

Age/Ht./Wt.: 36/5'10"/180 lbs.
Motorcycles raced/ridden:
Kawasaki KX250, KTM 504GS
Riding ability: "B" enduro rider

final ratio numbers to keep the ditches and drop-offs from crunching your back. Take a look at the wheel load chart on the PE175 and compare it to last month's wheel load chart on the KDX200. The Suzuki starts off softer in the first inch of travel, giving it a better feel on ripples and little stuff. Travel from two inches through eight are about the same with the Suzuki slightly stiffer. The final inch of travel for both bikes (nine) is where the major difference shows up. The KDX has a wheel load number of 477 while the PE thwarts bottoming with a number of 595. The end result is rear suspension that works a little nicer on the PE175.

Handing on the PE175 doesn't even come close to its rival, the KDX200. The PE feels much too short, although it isn't really all that diminutive. The 175 has a tendency to shift around and wobble its way down the trail. It seems like no matter how hard you concentrate, you can't get the 175 to go in a straight line. This is accentuated when you're in sand. Our test editor cursed for at least five minutes after the PE175 spit him off in a rudy, off-camber, downhill turn. It shifted to the left, it swapped to the right and it firmly implanted him into the ground on the left. We assumed that dropping the fork tubes down a bit in the triple clamps would solve our squirm problems, but we were surprised to find them already as far down as they would go. It appears that there is no cure for the squirrely Suzuki. About the only thing to do is put some high-quality tires on it and hope that eases the problem.

Just remember that the harder the terrain, the less the Suzuki has problems. So if you live in the Sahara desert, you definitely don't want to invest in a PE175. On the other hand, if you live in a hard-packed dirt area, the PE won't give you any of the problems we discussed.

With the little Suzuki twitching so much while you ride it, you'd think it would be a precise turner. Not exactly. It is a good turner, at least as good as last year's PE175. It's just that it doesn't turn as well as the KDX200. Sure, you're probably getting tired of all the comparisons to the KDX200, but the green machine is the big competition to the PE175 and it has set new standards. The PE175 does not carve as precise a line through corners as the KDX.

To turn the PE effectively, you have to stuff it into a corner and get out of it as quickly as possible. If you ride around a corner or give it less than a whole-hearted effort, it feels a little unsure of itself. Of course, if you slow down to a leisurely pace, the PE175 feels fine. But any bike feels fine at a leisurely pace. It's when the speed and difficulty of the trail intensifies that a bike absolutely has to handle well.

Last year, the Suzuki PE175 was the bike to own in the 0 to 200cc class. This year, it is struggling to keep up with a bigger, better-handling challenger—the KDX200. DR

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