PRODUCT EVALUATION:

DG/PE175 Suzuki

An assortment of bolt-on answers for the question, "What's a nice, slow enduro like you doing in a fast desert race like this?"


LEN WEED

• Good things are better left alone, the old axiom tells us. So why would anyone bother to modify a Suzuki PE175? Surely it is one of those "good things," for not only was it acclaimed by most critics as last year's best all-around 175cc enduro machine, 1978 saw PE175s score some impressive finishes in regional and national enduros, in the ISDT-qualifier series and even in the ISDT itself.

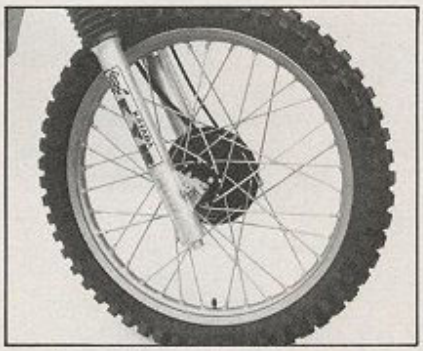
Viewed in that light, the PE175 doesn't seem like it's crying out for aftermarket modifications. But if you look beyond last season's box scores and get down to the nuts and bolts, there's evidence to the contrary. The PE175s campaigned by U.S. Suzuki, for instance, were almost stone-stock, but the few modifications they *did* receive were meant to pump up the bike's meager horsepower output. And those changes are in direct alignment with the only serious criticism that has been leveled at the PE175, which is that for certain uses, it isn't fast enough. Its flat torque curve is on-target for the average rider sloshing around in the average tight, Eastern-type enduro; but the stepped-up speed demands of ISDT-style events, open-terrain West Coast enduros, and desert and cross-country races can put the mild-mannered PE175 at a distinct disadvantage.

That horsepower deficit motivated DG Performance Specialties to develop some power-boosting accessories for the PE175. Although motocross is DG's normal off-road habitat, the PE's enduro motor essentially is just an over-bored, detuned RM125 motocross engine. DG's application of its high-horsepower motocross technology to the PE therefore was a logical move. And as soon as all the PE175 hop-up equipment reached finalized form, Harry Klemm, head tuner for DG, outfitted a PE with a full complement of the new goodies and turned it over to us for evaluation.

Among the power-inspiring modifications that greeted our inspection of the DG/PE were a Klemm-ported cylinder and a gold-anodized, radially finned cylinder head that raises the compression ratio from 7.6:1 to 8.4:1. The port sizes and timing specifications are not as radical as those on the RM125, but still racy enough to provide a substantial boost in rpm and horsepower. The porting changes are backed up by a DG pipe built to motocross specifications (using the stock PE muffler) and a 36mm Mikuni replacing the original 32mm unit. DG's motocross-developed four-petal case-reed inserted in place of Suzuki's two-petal assembly also helps the PE's intake breathing at higher rpm.

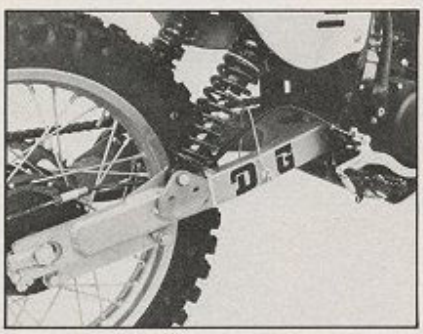
Klemm felt that the bashing of high-speed off-roading could overwork the stock chassis, so he also did some wheel and suspension hot-rodding on the PE. A Kayaba Pro-Line air/spring front fork is the most obvious (and expensive) of the chassis alterations, giving the PE an inch more front wheel travel (9.8 vs. 8.8), plus four-position adjustable rebound damping. The fork's 38mm-diameter stanchion tubes also provide more rigidity than the PE's 36mm legs, and the beefy Pro-line triple clamps machined from solid billets of aluminum further inhibit front-end flex.

At the rear is a DG gold-anodized aluminum



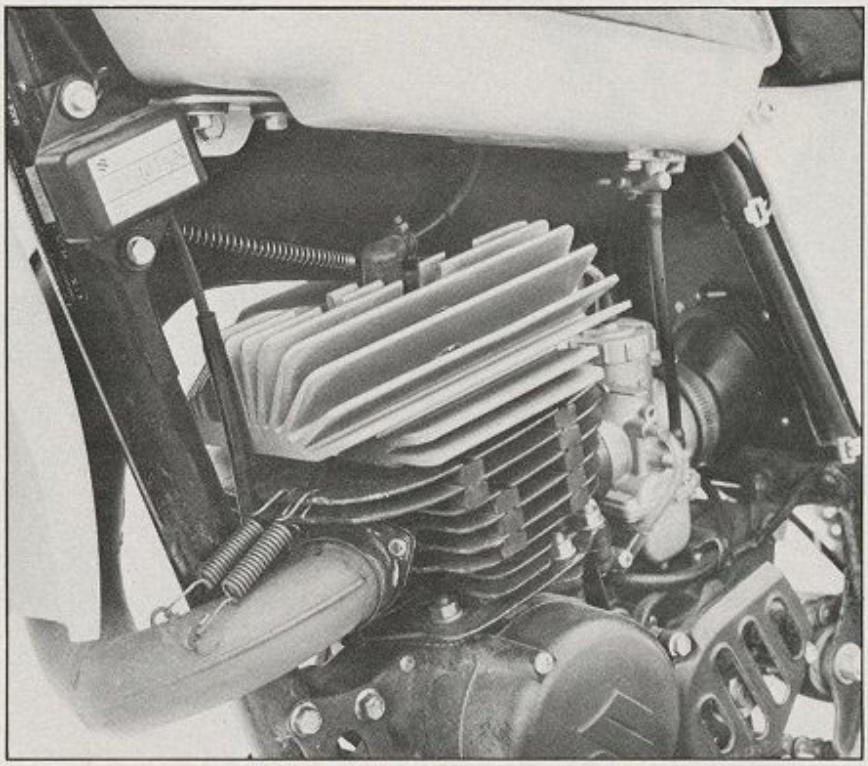
Pro-Line racing fork, indestructo wheel

Only berserkers need apply.



DG's anodized aluminum swingarm

Longer, stronger, but no lighter.



Radially finned head, ported cylinder, 36mm Mikuni, power-boosting pipe

Motocross-style bolt-ons for the Pure Enduro that's a little too pure.

swingarm which is no lighter but undoubtedly stronger than the PE's standard mild-steel arm. The original-equipment non-reservoir Kayaba gas shocks were left on the DG bike, but not because they are highly regarded. Klemm intended to use Ohlins shocks, but they didn't arrive from Sweden in time for our test. The rear wheel travel with the Kayabas is up from 9.4 to 9.8 inches, though, due to the one-inch greater length of the DG arm. Gold-anodized DID rims and DG's 8-gauge spokes finish off the chassis improvements.

DG/PE175 Wish List

• Once you feel the urge to revamp your PE175 into an RM125-chasing cross-country racer, all that's left is to sign the check, lick the stamp and wait for the postman to call. Here's what's available from DG and how much it will dilute the clout in your bank account.

Radial cylinder head	$64.80
Pipe (without muffler)	85.00
Four-petal reed valve	59.50
36mm Mikuni carburetor	61.50
Port your cylinder	95.00
New ported cylinder	195.00
Kayaba Pro-Line fork assembly	399.00
Aluminum swingarm	159.50
DID gold-anodized rims (each)	42.00
8-gauge spokes (each wheel set)	23.00
DG tank decals (set)	6.00

DG Performance Specialties, Inc.,
1170 Van Horne,
Anaheim, CA. 92806
(714) 630-5471.

With that long list of modifications, it doesn't take a Rhodes scholar to figure out that the DG/PE is a faster, more capable dirt racer than when it rolled out of the crate. But the question is in whether those changes, and the engine hop-ups in particular, have made the PE a better enduro motorcycle. The answer varies dramatically depending upon what any individual expects from an enduro bike.

Desert racers and cross-country competitors, for example, would probably find the DG bike more to their liking than the stock PE. It accelerates about as briskly as a 1978 RM125C and has a wider usable rpm range. That the PE can run with an RM is rather impressive, considering that the enduro is about 20 pounds heavier than the motocrosser, has a heavy external magneto flywheel (the RM uses an internal-rotor CDI) and a wide-ratio gearbox not ideally suited to the new powerband. The DG/PE's power comes on with a vengeance about midway through the rpm range and continues strongly until the engine runs out of revs somewhere in excess of 10,000 rpm.

Those desert types would surely appreciate the front suspension, too. With 10-weight oil, the rebound damping set on minimum and about 12 psi static fork air pressure, the front of the PE glides over the roughest terrain much more smoothly than with its stock fork, which was a mighty effective suspension unit in its own right. And the adjustable damping feature offers a tunability not found on other forks.

At the rear, the suspension behaves much the same as on the stocker, since the shocks *are* the same. The added length of the swingarm effectively makes the springing and damping softer, which, if anything, results in a minor improvement over the stocker's tendency to kick up on sharp-edged bumps. In any superfast off-road events, though, the added leverage the long arm lends to the rear wheel will cause enough hard bottoming to warrant stiffer springs and/or better shocks.

Go-fast riders will be pleased with the added high-speed stability of the longer wheelbase. Riders who do lots of low-speed turning will *not*, however, just as they won't appreciate the DG's power characteristics, which are not as good for tight-woods enduro use as those of the stock PE. The top-end power came at the expense of too much low end, spawning a motorcycle that must get a run at every steep hill if it hopes to reach the top. And that's a luxury no good enduro bike can afford. The DG machine performs better at low rpm than an RM125, but that's still not good enough for Eastern-type enduros and all-around trail riding. The standard PE has good bottom-end torque for those conditions, but it could not afford to lose as much as the DG setup demands.

Furthermore, the PE's widely spaced gear ratios, when combined with the narrower DG powerband, really get in the way during woodsy trail riding. The engine can bridge the broad gap between gears on level ground, but many mild uphill grades give it trouble. The worst behavior occurs during the third-to-fourth upshift, where screaming the engine to its limits in third is rewarded by bogging and slowing down after the shift into fourth. Sometimes, fanning the clutch a few times in fourth will get the bike accelerating again, sometimes it won't. Either way, the gearbox and the powerband weren't made for each other.

Moreover, most woodsy enduro riders don't need the sophistication of the Pro-Line fork and the aluminum swingarm, nor do their levels of wheel abuse warrant the expense of bulletproof spokes and rims. The DG machine as we tested it clearly is useful, but only to those involved in flat-out off-road competition.

Still, this does not mean DG has nothing to offer the East Coast PE175 rider. If you were to carefully pick and choose from DG's engine hop-up pieces, you could liven up your PE175's overall performance without seriously damaging its low end. Using just the pipe and the head, and maybe even the DG reed valve, could add the snap you've been looking for without taking away the grunt you've been depending on. The DG porting and the 36mm Mikuni, however, should be considered only when low-end power is expendable and where the PE's gearbox ratios won't be a detriment. And the suspension and wheel modifications only make sense to those who have found shortcomings with their stock components.

In other words, if your PE175 Good Thing isn't quite good enough, one of these DG accessories may be the perfect cure. Just make sure you pick the *right* one. —*Paul Dean*