ISDT-PREPPING THE PE175

Team Suzuki's Prescription For Performance

By Brad Zimmerman

After riding it more than 3000 miles on desert trails, tree-shaded mountain paths and enduro courses, plus competing in the Two-Day Reliability Trials with the Suzuki Enduro/Two-Day Team, I couldn't help but learn a lot about the PE175 that we tested exclusively in our July issue. Impressed initially, the lavish extent of all this serious competition enabled me to see just how good the engineers back in Japan really were.

Preparing a machine for Two-Days is half the race. If the bike isn't reliable, well put together and fast to boot, it isn't competitive. Following the instructions of Team Manager John Morgan, my PE175 received the following modifications:

ENGINE

The cylinder was removed, the exhaust port raised one millimeter for sooner exhaust gas release, and all other fuel passages received the usual clean and match job. Utilizing a strobe light the ignition timing was advanced to 20 degrees above top dead center at 6000 rpm to bring more "zap" into the firing sequence and make the bike rev quicker and more efficiently. The top end received Suzuki CCI-2 at a 20:1 ratio and never ate one of the NGK B9-EV plugs. Gearbox oil was either Suzuki 80 or Torco MTF.

CARBURETION

Swapping the stock 32mm Mikuni for a larger 34mm (available through your dealer from Sudco International) helped smooth the flat spots out of the powerband and increased low-end power. Jetting specifications were: 200 main jet, R-4 needle jet, 6D P-17 needle and a 27.5 pilot jet. The standard air filter was replaced with a dual element unit.

EXHAUST PIPE

About three inches into the center chamber of the pipe resides a large plate with a hole approximately 20mm in diameter in its center. This large flat plate, spot-welded to the pipe walls, should be removed by cutting the pipe in half, drilling out the spot welds and re-welding the pipe back together. The removal of this plate allows the engine to emit the exhaust gases quicker and easier and therefore gain a boost in low end and top rpm response. The spark arrester was not tampered with.

SUSPENSION

The Suzuki Team used Bel-Ray LT200 shock oil in the standard non-modified forks and fitted Works Performance shocks ¼-inch longer than the stock length. My machine had RM forks with an Al Baker fork kit and springs, along with Works Performance motocross shocks, and proved to work well in the California City desert qualifier, but wasn't the hot set-up in the woods—more on that later.

WHEELS

When the stock Tagasako rims got tweaked (after about 2000 miles of rough riding), they were replaced with Sun rims of WM-2 width laced

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with stock spokes and surrounded by Metzeler motocross/enduro tires. For Two-Day events, the rear axle was shortened ½-inch and the locking nut discarded for quicker wheel removal. The front axle received a pull tab for the same reason. Each wheel can be removed in 30 seconds.

GEARING

Using a 12/46 combination of sprockets (instead of the standard 12/48) proved to be the best set-up. I tried the Husky O-ring chain which was of better and higher quality material than the Japanese sprockets—resulting in a perfect condition chain at day's end—and two rounded-off sprockets. Sprockets with better metallurgy than the Japanese units are required for the good Husky chain. The standard chain tensioner rollers were disassembled and re-greased after each event. A 520 Jwis chain was used by the Team.

CENTERSTAND

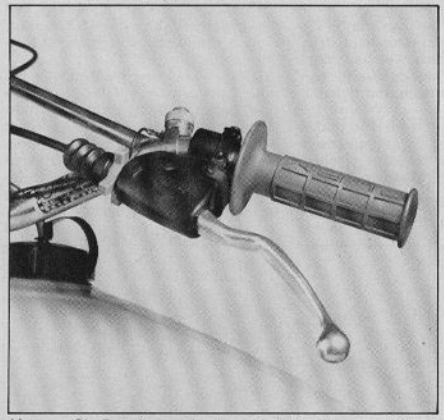
The team lengthened the legs on the optional Suzuki centerstand by 1-inch and then welded large flat washers to the leg bottoms for less sinking in soft dirt. The sidestand and its bracket were discarded.

CONTROLS

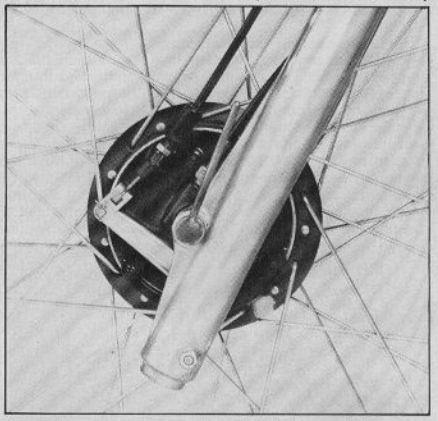
A Magura metal quick-change throttle was used, along with Magura Six-Day levers. The Team used standard bars cut down to 31 inches. My bike ran Al Baker's Broc Glover replica bars shortened to 29 inches—my West-coast spawned phobia of embracing Eastern and Northern trees surfacing here. Standard Suzuki grips or Oury grips were used.

ASSORTED GOODIES

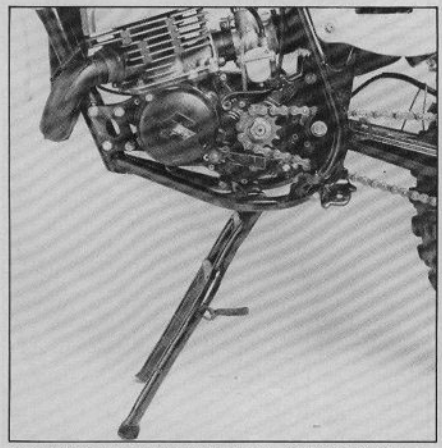
In mud or non-rock runs the stock skid plate stayed home—its tendency



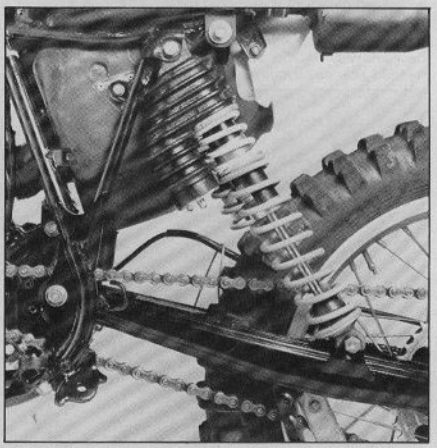
Magura Six-Day levers kept mud and dirt out of the works. Oury or Suzuki grips with stock or Al Baker bars cut to 31 inches allowed clearance through tight spots.



A small grab-tab was welded to the front axle for quicker removal. Stock hub and spokes accompanied Sun WM-2 rims and a 300 x 21 Metzeler motocross/enduro tire.



The optional centerstand (Part No. 42100-41400) was lengthened one inch. Malcolm Smith's folding shifter was used and stock sprocket cover discarded.



Works Performance shocks were used by the Suzuki Team all season. Shown are the new Remote units—the Team used Gasser models ¼-inch longer than stock.

PE175 PREP

to pack-up unwanted mud being the main reason for its absence. RM250 footpegs were mounted to the bike with nuts and bolts rather than the stock locating pins. The 5-watt taillight bulb was swapped for a 10-watt taillight/stoplight bulb to eliminate filament blow-outs. I also used an SPS titanium nut-and-bolt kit designed for the RM125C. The Suzuki Team ran standard nuts and bolts.

RESULTS

My bike, set-up as mentioned above, set second fastest class time in the California City qualifier, finishing eventually in second place—by 4/10ths of a second behind first. It was the only time that a PE175 didn't win its class in the five Qualifiers. Due to a very rare (the only known instance) heat-treatment failure on third gear, my bike ran the last 180 miles jumping from second to fourth. Despite the bad gear, the rest of the tranny held-up great—and is still going strong today.

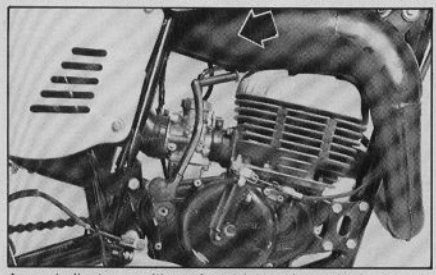
From riding on a minute situated between teamsters Mike Rosso and Drew Smith, I was able to observe what the real "factory" guys were doing, and found out instantly that motocross suspension isn't the hot set-up in the woods. Due to overall stiffer ride and faster stroke travel, my PE was continually twitching around the trails, making my job harder. The bike's suspension has since been converted back to what the team riders have—and goes faster because it's easier to ride.

In all instances, the Yamaha IT175s were quicker and faster in a drag race than the Suzuki, yet had more difficulties in tight woods due to their lower ground clearance and different suspension.

In the Qualifiers the PE175s ridden by the team racked-up an impressive string of wins: four 1st place finishes, four 2nds, two 3rds and two 4ths. In National Enduro Competition they have continued to trounce, with Drew Smith winning two Nationals on his PE175. To date Ted Worrell on a PE250 leads the points chase, followed by a second place tie between Smith and Dick Burleson (250 Husky).

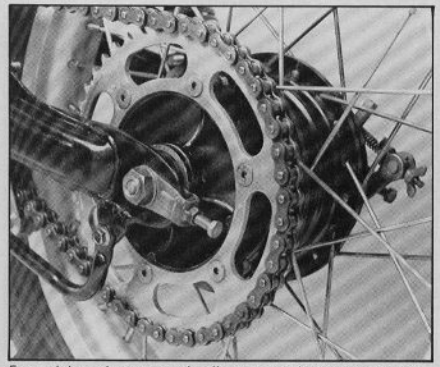
For this year's ISDT in Sweden, Suzuki has mounted five of their six riders on PE175 machines set-up as described here. Tom Penton and Dave Hulse, formerly PE250 riders, took a test spin aboard 175s and felt they could do better overall on the smaller bike. With last year's overall winner of the ISDT on a 125cc Zundapp and the second place finisher on a 125cc machine, it's obvious that the smaller machines are scooting around the special test sections faster and quicker.

Overall I was very pleased with the bike's performance. Other than the one gear, nothing broke, rattled loose or gave less than 100-percent effort. The bike is very reliable, works well and with the modifications listed here is a proven humbler to big bore riders. The PE175, either in stateside or international competition, is capable of winning all the marbles. M

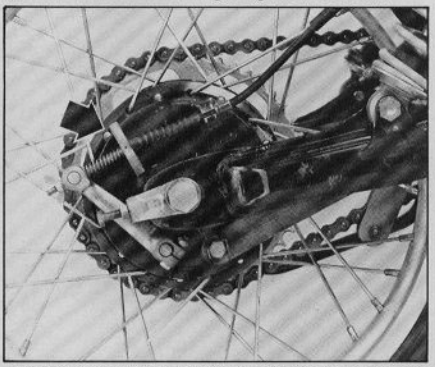


Arrow indicates position of restrictor plate which should be removed. RM250 pegs were used, along with hex-headed side cover bolts and two-element air filters.

After more than 3000 miles our little PE175 is still going strong. Sandblasted-head and missing fork boots are personal touches. The bike got 2 golds in 3 events.



For quicker changes and adjustments the rear axle was shortened and the locking nut on wheel adjuster was brazed to the main body. Jwis chain is super-strong.



For quicker cable adjustment this small block was pressed onto the cable. When adjusting wing nut the block hits the backing plate, stopping cable rotation.