

The TS250 weighs 260lbs dry, develops a claimed 22 bhp at 5500rpm from its 70x64mm piston port engine and breathes through a Mikuni 28mm carb. Five gears and a reed valve endow it with a fairly flexible powerband and a top road speed of around 70mph. The engine features Suzuki's by now familiar CCI lubrication system which feeds a metered supply of oil into the crankcase and crankshaft as well as into the induction tract. An electronic ignition system provides the sparks and the bike comes fully equipped with a 6 volt battery, taillights and full road lighting.

Since most of the TS250s you see are used primarily on the road, it's no surprise that the bike comes complete with a 24 inch long seat, pillion footrests and a pair of vibration isolated rear-view mirrors.

As you're only likely to see a PE250 running around town once in a blue moon, it's supplied without any of the creature comforts mentioned in the last paragraph, but its roster of standard equipment is enough to whet the palate of the most ardent enduro expert. Rudimentary lighting, plastic competition number-plates and wide, deeply valanced plastic fenders are merely the icing on the cake. The guts of the PE250 are what grabs the attention...

At 240lbs dry it's 20lbs lighter than the TS yet it churns out 6 more horsepower, although higher up the rev-band at 8000rpm. It shares geared primary drive, wet, multi-plate clutch and a five speed gearbox with the TS, but only on paper. The PE's transmission, and indeed the entire motor unit, is based closely on the RM250 moto-crosser, only the gearing, porting and compression ratio are less tuned to out-and-out racing. Both PE's have twin plug heads and rubber mounted exhaust systems with spring retainers at the exhaust orifice.

The frame is also based on the single down-tube RM unit, complete with hefty, box-section swinging arm and dual sprung, gas/oil rear shock absorbers. Unlike the De Carbon-type 5-way adjustable shockers fitted to the TS250, the PE items are mounted well forward of the wheel spindle and their knurled ring, three position adjusters hidden neatly out of harm's way behind the comp. number-plates. They also offer almost eight inches of travel compared with 5.2 of the TS's rear end.

Things are markedly different at the front, too. The PE's front forks provide nine inches of travel and are fitted with a forward axle mount which, together with a steeper steering head angle, gives the PE a little less trail than the TS with its conventional front suspension and six inches of movement. All the bikes had trip speeds, the TS also has a tachometer.

Brakes are similar in both cases, single leading shoe units encased in a matt black hub. But the PE sports buttoned spokes which are stronger than the TS's, and they're married to a pair of shoulderless Takasago alloy rims, whereas the TS has to make do with steel ones. The rubber is different too. The PE has a pair of trick IRC 'Volcanador' tyres, 3.00x21 at the front, 4.50x18 at the back end. These sport moto-cross tread and side walls which extend beyond the edge of the rim. This is designed to reduce the chance of side wall damage and increase the ease with which the tyres can be removed or replaced. A novel feature here is that the front tube can be removed from the rim without taking the wheel out! All you have to do is undo the wheel nut, pull the axle out far

## CHALK & CHEESE CHOICE



Everyone knows that there's a difference between a domestic trail bike and a real enduro machine, but just how big is the credibility gap? A unique opportunity to pit Suzuki's TS250C against the same factory's PE250 and 175 revealed the ultimate truths. Mark Williams performed the dirty deed. Photography by John Perkins.

Suzuki's trail bikes come second only to Yamaha's dual purpose range in the popularity department. Not only are there a lot of them on the road, but you'll find a few suitably modified 125s and 250s in even the most gruelling enduro event, to say nothing of a club trail run.

In the past year or so, however, the PE250 has been available in the UK via Beamish Motors, the Brighton-based firm who market the factory's off-road competition machines. A lot of serious enduro buffs have thus opted for these dramatic looking racers as an alternative to the slightly pricier alternatives from the European factories. At the Earls Court Show, Beamish displayed the 175cc version of the same bike, with a price tag that put it firmly within the reach of the guy who cut his teeth on a trail bike and wants to move up to something that's less of a compromise for competition use.

This seemed like the time to find out whether the difference in price between a hopped-up TS250 and a PE175 would be fully justified and, perhaps even more interestingly, whether the more powerful PE250 had much (or indeed anything) in common with your average two-fifty trailster.

The opportunity for just such an evaluation came in the shape of an offer from Nick Beamish to spend a day with the two PE's down at his farm in Sussex. We'd already arranged for the loan of a TS250C from Heron-Suzuki, so a drizzly day in early September found us tearing round the Beamish's own moto-cross circuit at Small Dole. . .





enough to remove the off-side spacer, and lever away at the tyre. The tube can then be drawn out without disturbing the brake plate and cable. . . very smart.

Even smarter is the tool which facilitates this, a special all-purpose spanner which undoes the seat retaining nuts (thereby providing access to the metal air filter cover and removal of the 2.4 gallon alloy gas tank), the spark plug, wheel nuts front and rear and features a spigot designed to hold the axles in place when tightening them up. This delightful little tool is held in a natty steel bracket atop the off-side fork stanchion by a heavy duty rubber band.

The TS, on the other hand, has conventional trials-type boots, a side hinged seat and a full tool-kit. And whilst the TS has a robust side-stand only, the PE has an almost identical device plus a centre stand, (although the spring which retains it is finicky and easily upset).

Another plus on the PE is the chain tensioner which keeps the transmission in order throughout those eight inches of travel and a rubber covered chain guide built around the swinging arm which stops the chain from snapping under extreme movement. Both bikes have steel bashplates, the PE's being more substantial than the TS's, but then it does have magnesium engine cases to protect.

Naturally the PE175 has much in common with its larger brother, only its engine is based on the 6-speed RM125 moto-crosser. This gives it an almost square internal displacement of 60 x 57mm, six ports and 22 horsepower at



(Clockwise, from top left). PE displays neater profile, more clearance and longer chain than the somewhat cluttered TS250. De Carbon-type shocks are inverted for easy adjustment, but they're not in the same league as the PE's dual spring unit, (opposite). PE's frame is strong but delicately laced. Note box section swinging arm. Drive sprocket guard is a must, ditto rubberised chain guide around swinging arm pivot.

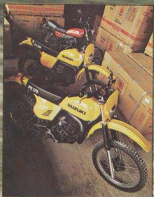
9000 rpm. Dry weight is just under the PE250 at 234lbs and the only other discernible differences are in the design of the well muffled (for an off-road bike) exhaust system, smaller section rear tyre (4.10 compared to 4.50) and a fractionally shorter wheelbase. However the suspension is a tad softer than on the PE250, something that only makes itself felt under the extremes of competitive use. . . we'll come to that in a moment.

Starting any of the Suzukis is a doddle. The taps are turned on (the TS contains a filter, the PE's are mounted sensibly inside the lip of the tank's bottom), the chokes are applied (a near-side lever on the TS, an off-side plunger for the PE) and one kick on the pivoted shaft kickstart usually has the bike fired up from cold. Chokes could be dispensed with almost immediately.

The PE clutches, although different in size and composition to each other, were similar in feel; short but progressive travel and easy to use. The TS's clutch started to grab after a few turns of the Beamish's circuit and locating neutral was in fact harder on this bike than the two racers, despite the apparent advantage of a neutral indicator lamp! The gearchange on all three bikes was exceptionally positive however, and they could be booted through the cogs with impunity.

First gear on the 175 was naturally lower than on the 250s due to its narrower power-band and extra ratio, and the smaller bike could in fact be ushered away as smoothly and rapidly as the bigger PE. However the TS250





needed a bit more clutch slippage than either bike as it's clearly geared for road rather than trail use.

Tight, uphill corners could be taken in third on the 175 providing the revs were kept up, whereas the PE250's more flexible power supply meant less gearchanging all round. Familiarity with the course found this writer more at home with the 175 however, not because the bigger bike was too powerful, but rather that the 175 could be footed around sharp, loosely surfaced turns with a greater sense of control and, if anything, its steering seemed lighter and more precise.

And when you get down to steering you realise just how unsuited to fast, off road going the TS250 really is. The suspension is sloppy to the extreme and there's not enough travel to cope with the sort of rocks and ruts that leave the PE's steering department virtually untroubled. On the TS you're fighting to keep the front wheel on the ground and this seriously upsets steering input. The difference in trail only makes matters worse as sudden changes of direction are exaggerated by the bouncing front wheel, often resulting in it pulling the chassis over rather than along the rider's chosen course, i.e. he falls off!

The rear end isn't much better, although at their stiffest setting the De Carbon units do keep the rubber where it's meant to be a fair bit of the time. Despite this the PE could be jetted up a long, steep bumpy hill far quicker than the TS as the whole chassis is more attuned to constant traction with minimum power loss. Both the PE175 and 250 would take this test

half in third, no sweat, whereas the TS rider had to fight his way to the top in third for the first few yards and down to second from there on.

Nick Basmish and Ad. Man. Charlie Harris were quicker round the course than a rather out-of-condition yrs. trier (as well they should be!), but neither of them wanted to chance their arm on the TS. Mr. Kemp managed to fall off the thing at least once a lap, and I bit the dust a couple of times when I tried to emulate my performance on a PE. To minimise its quick steering it was necessary to take a wider line than on the PE, and to avoid excessive jouncing, one simply had to go slower – either by using a lower gear and keeping the motor revving, or getting as much out of the reed valve's bottom end potential as possible.

The sharpness of the TS's front brake didn't help the apple cart, either – it came on too suddenly and the rear brake was just too soft altogether. Again it would seem the TS is set up for road rather than dirt use. In contrast the PE brakes were fine, although prone to fading



after excessive use. Unfortunately the opportunity to test their resistance to water didn't arise.

Thus far it would appear that the TS was totally unsuited to the sort of high-speed thrashing that the PE175 and 250 relished and that was in fact the case. However it must be possible to improve some of the domestic bike's faults, or people wouldn't contemplate entering them in enduros. Obviously the front forks could be hefted up by the addition of spring compression slugs and heavyweight oil, whilst at the rear end a set of Koni of Girling gas shocks would help keep the power in its rightful place.

But only extensive port work and carb tuning could improve the engine performance to a level where it seriously approached that of the PE's, and the handling would still be a compromise even then. The riding position of the PE bikes was superior to the TS, too. The 175's bars are lower and slightly more swept back than the PE250's, but their foot rests are identically placed, only slightly forward of the swinging arm pivot line — whilst those on the TS are a good four inches in front and thereby push the rider's weight further towards the steering head. The disadvantages of this are obvious — wheelies are harder!

But the PE's do have some drawbacks. The filler caps on both test bikes failed to seal properly and a steady trickle of fuel wept all over the tank, messing up leathers and paintwork. The 175 tended to run a bit rich and sometimes proved difficult to start, although a simple bit of carburettor twiddling should overcome that. And I didn't like the location of the Kokusan Denki CDI unit on the down-tube where it seemed unduly prone to damage from a flying rock or a falling bike (not that any of us fell off a PE, I hasten to add!) The centre stand retention problems I've already mentioned and I guess that's about it as far as grouses are concerned. But put in perspective, they are really no more than fleas in the ointment, as every serious off-road rider will happily modify a bike to suit himself. In summation, both PE's are easier to ride faster

than one might expect of ultra-competitive enduro mounts, they handle deftly and precisely and they appear to be tough as nails.

Only the latter comment can be applied to the TS250, however, and then only with reservations. I was surprised that the clutch should exhibit problems so soon after I took it over, but then it was a press back and may very well have had a lot of abuse from journalists in its short life. The trafficators, unlike those fitted to the Yamaha trail bikes, are not rubber mounted and are vulnerably located. The chain only had a rudimentary guard and no tensioner.

However it's advantages as a road bike are difficult to avoid. It accelerates in a very zippy manner, it nips in and out of traffic well, and it's got enough power to maintain a top gear cruising speed of 65 with two people aboard. Its 43mpg fuel consumption and 2.2 gallon fuel tank don't exactly encourage touring, neither does its riding position. But at £689 it's cheaper than the opposition from both Honda and Yamaha and a lot of folk will find that the most compelling of attractions.

But for not a lot more money, you could buy a PE175 and compromise flies out of the window. The PE250 is nearly £300 more again and quite frankly I don't think its advantages are worth it unless you're a really competitive rider who can put its extra, top-end power to real use. Still, if the 250 class is your particular cup of meat, the PE250 is still cheaper than a KTM!

Finally our thanks for a most enjoyable day out to the Beamish family and in particular Nick and Steve who prepared the bikes.

PE's handy spawner, handily mounted! Q/A throttle disengages cable rapidly.



	Suzuki TS250	Suzuki PE250
Engine:	2 stroke single	2 stroke single
Bore & Stroke:	70x64mm	67x70mm
Capacity:	246cc	246cc
Compression Ratio:	5.7:1 (corrected)	7.2 (corrected)
Carburation:	28mm Mikuni	36mm Mikuni
BHP @ RPM:	22@5500	28@8000
Primary Drive:	Gear	Gear
Clutch:	Wet multiplate	Wet multiplate
Gearbox:	5 speed	5 speed
Electrics:	6v battery, magneto	6v PE1 ignition
<b>DIMENSIONS</b>		
Wheelbase:	55.1ins	57.3ins
Seat height:	9.4ins	11.0ins
Ground Clearance:	260lbs	240lbs
Weight:	2.2gals	2.6gals
Fuel Capacity:	3.00x21	3.00x21
Tyres (F):	4.00x18	4.50x18
(R):	Drum	Drum
Brakes (F):	Drum	Drum
(R):	Drum	Drum
<b>EQUIPMENT</b>		
Trafficators:	Yes	No
Electric Starter:	No	No
Trip Mileometer:	Yes	Yes
Steering Lock:	Yes	No
Headlight Flasher:	No	No
others:		
Importers:	£689	£896
Concessionaires:	Heron-Suzuki Beddington Lane Croydon Surrey	Beamish Motors Camden Street Pontrilas Brighton

