

# Performance Bike

2008



## MZ 250 v The Ton

The last word in East German putt-putt club racing technology. And the first MZ to break 100mph on Brands Indy. PB discovers all the ‘how?’ and some of the ‘why?’

‘I used to ride an Aprilia RS250 on the road, then I did a trackday and thought, “This is brilliant. Why does anyone ride on the road?” Then I did my first race and thought, “This is brilliant. Why does anyone do trackdays?” The racing bug sunk its fangs deep into Phil Belenkin. Now he has no road bike, six sets of spare wheels, a really nice trailer, a large collection of plastic trophies and this excellent MZ ETZ250 racer.

Passion, time, energy, thought, desire, worry, pain, grief. Phil puts as much into his racing as any club racer in Great Britain. What isn’t in that list is money. The 28-year-old has been racing this bike for five years. In that time he’s written off three East German frames. “They bend quite easily.” He says, though he did crash at Paddock Hill at such a velocity he was bouncing clear off the floor when he hit the tyre wall. The total cost of three replacement frames was £40.

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But don't think for a minute that MZ racing is some king of jolly wheeze for people who want to race but don't have the cuds for it. Because factory development stagnated over 20 years ago, racer/engineers like Phil have experimented, pored over the rulebook and pushed the regulations to the limit. Grids are a healthy 38-40 at every round.

"I thought I'd race MZs for a couple of years and then progress, but I haven't had to," Phil explains. The class is super-competitive with some very good racers, one in particular, Matt Goldsmith, dominating the series for four years, before his recent retirement. There is more engineering experimentation than with the Supersport/Superstock proddie bike racing classes that dominate Club Racing UK. And there are the same groups within the grid battles throughout the pack. As Phil says, if he had moved to race 600s the biggest thing he'd be doing differently is falling off quicker. As it is he and his MZ take on the ton at every race.

## **Chassis and Bodywork**

You could argue this is the bike Phil started racing five years ago, but all that's left of the original are the fork lowers, bottom yoke and petrol tank. The frame is ETZ250. 'That's the one you want,' says Phil. Recently I've heard people say you can't get them anymore but they're out there. I've got a few of them,' he admits. 'Maybe that's why nobody can find them...'

Rules stop anything being welded onto the frame, but you can cut things off (not the subframe though). The engine mounts are strengthened and the engine is fastened to the frame with longer bolts and spacers to attain the desired c of g. Swingarm is a box section from a later MZ 301. 'It looks better than the original. That's really important in MZ racing' says Phil.

Tanks must be MZ and this beaut is from late-80s ETZ250. The seat unit is from a 2005 Honda RS125 race bike. Phil painted the bike himself.

## **Engine**

East German, air-cooled 250, two-stroke, single. Can you feel yourself gently rising at the thought of riding it? Nope. On paper not too exciting but the level of development that has gone into this engine and those it competes against is mightily impressive.

The conrod is swapped for one from the YZ250 motocrosser. This change alone means the engine revs to 9500 rather than the standard 5500. That's not far off double. This considerably higher redline means an electronic ignition replaces points as they can't cope. MZers all use PVL karting ignition with a custom back plate.

Barrel and head are machined. 10mm is take off of the bottom of the barrel, a further 1mm skim taken off the top. Then a number of fins are removed from the barrel. The head has a good three inches of superfluous fin removed. It's partly so the rotated engine will fit in the frame and partly for weight. 'Each fin weighs a kilo,' says Phil.

Casings are ported to match the barrel and the bike runs without a head gasket. Piston is from a Suzuki TS250. Every MZ racer uses one. Carbs have to be MZ, but can be

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bored out to 35mm. That's as far as they'll go. The older carbs are the ones to have. They're scare. Phil has four.

'Some riders are constantly messing around with jetting,' says Phil, 'I don't change it unless the weather is extreme.'

Phil uses a lightweight aluminium clutch basket, a copy of an old MZ works item. He also has straight-cut primaries that are stronger and lighter, and are claimed to increase horsepower because they cut down on power-sapping frictional losses, 'But that's utter rubbish,' Phil reckons.

The gearbox is made for MZ racers and has a special design of a third gear with a bigger undercut for the dogs to engage with, and a closer-ratio fifth.

When it came to the final drive Phil had Talon modify the front sprockets and machine new rear sprockets so he could drop the chain size from 428 to 415. 'It saves 1kg, but everyone said I'd snap chains all the time. They said it after I'd done it. But it's only snapped once and that's when the gearbox locked solid, so I'm glad it did.'

The final piece of the puzzle is another example of Phil blazing his own trail. Until he had Mark of MHP exhausts help him make this expansion chamber everyone was running a low-level pipe with a very short silencer tucked in tight against the swingarm. Phil read the rules again and again and realised nothing was stopping him from making this style of expansion chamber. The can is a titanium stinger from MHP. It means he can have a longer silencer to pass noise tests without compromising ground clearance. 'I don't think MHP will let me have one of their stickers on the bike,' says Phil self-deprecatingly.

The bike makes 29bhp at the back wheel.

## **Wheels, brakes, suspension**

Snooping around a breakers one day Phil found the perfect front wheel, a Yamaha SRX400 Japan-only model. It was only £35 and needed just one spacer to make it fit the MZ. The rear is a TZR125R. It looks a little odd, because it has to be fitted 'backwards'. The MZs chain is on the right, not the Yamaha's preferred left.

Braking is supplied by an EBC disc ('They ran an sponsorship program where racers got a really good price on parts') and Brembo calliper from an Aprilia Mille. Rear is a stock disc and Ducati's Brembo.

Tyres are Dunlop KR133. Slicks on an MZ? Oh yes.

'We have to cut the casings back and re-weld them because they touch down.' That means serious lean.

Externally, forks have to remain standard. Internally, you can have some fun. Phil asked Maxton to fit a pair of the 25mm cartridges they developed for older bikes.

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“It’s the best money I’ve spent on the bike. It transforms the handling. The front used to patter, now it doesn’t. And the feel is great and is much better on the brakes. The conversion was £400.”

The rules say rear suspension must remain twin shock. Phil bought a pair of Maxton shocks as well, though he’s not as impressed by them as he was the forks.

He’s come second at Brands Hatch on stock shocks. ‘Once someone fits something like Maxton shocks everyone else thinks they need to fit them or they’ll be missing out on something, so development inevitably spreads like wild fire.’

## **Technology**

What hasn’t spread like wild fire in the MZ paddock are quickshiftners. Developed by Phil’s retired dad, Andy, who also raced MZs until a high-speed crash at Croix in France, it is fitted mainly to allow Phil to shift gears in corners without unsettling the bike. Andy made the control box because they couldn’t find one to work with a 9v battery. Phil also fitted a mapable ignition, the first in the series, but took it off when he decided it wasn’t in keeping with MZ racing.

The dash is an Alfano karting item. The benefit of the Alfano lap dash is the fact the lap timer works off magnetic strips embedded into most UK tracks so you receive accurate times even at trackdays.

Phil’s attitude to tracing is refreshing. He’s super-competitive (finishing second and third in the last two seasons), but laidback. He takes the engineering and riding seriously but realises it’s just racing MZs at the end of the day, not GP racing. And he makes me want to try it.