

When Suzuki put a GP bike on the road

WORDS MAT OXLEY PHOTOGRAPHY BIKE ARCHIVE

THE WITNESSES



STAN STEPHENS

Two-stroke tuner who was the star of proddie racing during the 1980s when it seemed several thousand riders used his engines in club and national events. Reckons he tuned every one of the few hundred RG500s that made it into the UK.



MARTYN OGBOURNE

Suzuki race mechanic who'd worked on the RG500 racer since it turned up in the mid-70s. When the RG road bike came out he was fettling Rob McElnea's honeycomb-framed RG in 500GPs. Still works for Suzuki GB's road bike department.



MAT OXLEY

Journalist and racer Oxley was MCN's chief road tester when the suspiciously quick RG500 was launched at Hockenheim in June 1985. He tested the bike against the RD and the NSR. Now covers MotoGP events for *Bike* magazine.



CLIVE PADGETT

Member of Yorkshire bike dealer family steeped in racing (see p170). Padgett converted an RG500 Gamma for Formula 1, racing against street-based 750 four-strokes. The bike won the British F1 title in 1986, with Mark Phillips on board, and in 1988, with Darren Dixon.

In the mid-1980s the big three Japanese manufacturers seemed to go collectively insane, selling replicas of their two-stroke GP bikes to road riders. Yamaha started it all in 1984 with the RD500LC, a very loose replica of its YZR500 GP racer, then Suzuki and Honda followed with the RG500 Gamma and the NS400R. But the Suzuki was the closest thing to a GP bike on the road.

Mat Oxley: They were giddy days. The speed/performance thing was starting to spiral out of control. We were sewing the seeds of today's speed-camera Britain, maybe it's our fault. People never thought the factories would dare put a replica of 500cc two-stroke GP bikes on the road. Then Yamaha launched the RD500LC in 1984. They used King Kenny Roberts in the publicity shots, so it was a big deal. I was so excited that me and a few mates drove to the Paris show just to look at the thing. But the RD was soft compared to the Suzuki. The RG was much more like a GP replica. They were claiming 95 horsepower, quite a bit more than the Yamaha.

Stan Stephens: Yamaha came out with something nice and smooth, which wasn't really what people were after, so Suzuki made something aggressive, and Honda lost the plot, coming out with the NS400R triple instead of a 500.

Martyn Ogbourne: It was the usual thing: one factory did something, then the others had to try to beat them. It was the Japanese domestic market that drove this; all the bikes were sold in Japan as 400s, then they made 500s for Europe, except Honda. The Japanese market was enormous then, when they announced a new model it was like a gold rush. But Suzuki were the only ones who tried to put a proper GP bike on the road. The Honda and the Yamaha were nothing like their race bikes. The Honda V3 engine was the other way round from Freddie Spencer's and the Yamaha RD was nothing like the YZR Roberts and Eddie Lawson were using; it was a 500 two-stroke four, that was about the only similarity.

Clive Padgett: Right away it was obvious the RG was a lot more closely linked to the race bike. In 1984 we built an F1 bike with an RD500 engine in a Harris chassis. It was okay, but the RG was much more like the real thing – a lot of the bits from the race bike would pretty much bolt straight on. **Ox:** Earlier that year Suzuki had flown us to Japan to ride the very first GSX-R750 at their Ryuyo test track. They must've blown their budget because they only took us to Hockenheim to ride the RG500. The bike was a lot of fun and very fast. It revved way past the 10,000rpm redline, one bike even went past 12,000. We should have been suspicious.

Og: We saw the bike being tested in Japan. It was so close to the race bike that it didn't need a lot of development, it wasn't like they were lost in space. It had all the stuff on it – aluminium frame, anti-dive forks and all that. They had the technology, the biggest thing was detuning it for the road.

Ox: When the test bike arrived in the UK we got a mean of 144mph out of it, just one mile an hour slower than the GSX-R750. I was really excited by the 500s. I was racing at the time, so speed and handling were all that mattered to me, and the 500 was so much more fun than the big four-strokes. The GSX-R750 was an animal, a big wobbly animal, while the rest of the big four-strokes were just big old boats. The 500 was light and fun. It was thirsty too, our test bike wouldn't do much more than 23mpg. Not long after Suzuki started selling the RG [at £3299 RRP] we started getting phone calls from owners complaining that their bikes weren't performing like the bike we'd run in MCN. No one could get theirs to rev beyond 9000. Suzuki had tuned their press bikes. **Og:** Only one RG did 150mph. To do that speed it was slightly different. The secret was that it had different exhaust port timing. The cylinders were slightly different with raised exhaust ports, it was easy to do, and they jetted them differently too, leaner, which made a night-and-day difference. That's the only time I know that Suzuki have provided a test bike that was different to what they sold. They don't do it anymore, it's too risky.

SS: The press bikes were tuned, very much

so. I remember when they brought out the mark three RG 250 Gamma they bored the engine 2mm oversize, modded the carbs and fitted special expansion chambers. They said someone must've got carried away in the PDI department! A good stock RG500 made 74bhp at the back wheel, 20 less than Suzuki were claiming.

Ox: It was a con, no doubt about it. The thing is that tuning two-strokes is easy, so when the bike arrived at Suzuki GB it seems that they just couldn't help themselves getting out the riffler files. Or maybe it was done in Japan. It's a problem with test bikes. You rely on the manufacturers to be honest.

SS: When they announced the RG we

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were very excited. At the time I was tuning RD250 and 350LCs, so we thought at last here was a two-stroke that could take on the big four-strokes. The first ones we tuned turned out just over 100 horse. We thought it was going to be brilliant for racing, but the engine was so close to the racer that there was no room for a primary kickstart gear, which meant you couldn't start the thing in gear.

It was dead engine starts back then, so you had to kickstart it with your right foot and then get it into gear with your left foot before you could go. By that time all the guys on the four-strokes had pressed their starter buttons and were well gone, so you were always last into the first corner. I didn't like the handling either, it had this wobble that I always thought I could ride through, but it just got worse. I had some horrendous moments.

Ox: A few months after riding the stocker, Stan Stephens loaned us a tuned RG street bike. It made sense – why buy a two-stroke unless it's had the nuts tuned off it? Stan's dyno sheet said it made more than 110

horsepower. It was mad, one of the few test bikes I really remember. It felt like a proper race bike, lifting the front wheel in all kinds of places where other bikes wouldn't. We got more than 150mph from it at the MIRA test circuit, which was hideously dangerous. We used to do top-speed tests on two parallel mile straights linked by long, looped corners at either end, zero run-off, just tarmac, then Armco. We were really stupid.

SS: The people who were buying the bike weren't so much two-stroke enthusiasts, they just wanted the sportiest bike out there. They were the people who'd buy an R1 or a Fireblade now. But they all wanted the thing tuned, which was great for us.

Og: The year after the RG came out we put Kevin Schwantz on one for the F1 race at the 1986 Dutch TT – it was race engines in road chassis, 750cc four-stroke against 500cc two-strokes. We used to borrow Kevin in between his US Superbike commitments. He'd only ever raced a two-stroke three or four times and he'd never seen Assen before, so he did the F1 race to get more practice for the 500 GP, which he was doing on an RG500 GP bike. He was losing out to the 750s on the straights but he was making up places through the twisty stuff because the RG was more nimble and because he was a better rider. He ended up second behind Joey Dunlop on a factory Honda RVF750. He even beat all the guys on factory GSX-R750s.

Ox: The TT F1 series had been invented in the late 1970s to give the four-strokes a chance of winning something after they'd been hounded out of GPs by the two-strokes. F1 bikes had to use standard crankcases and cylinders, but that was about it, you could change everything else. The RG started beating the four-strokes in

what was supposed to be their safe haven. A lot of people didn't like it.

CP: We basically turned the Gamma into a full-on GP bike. We had the cylinders re-sleeved so we could run port timing that was pretty much like the race bike, ran a compression ratio like the racer, machined the disc-valve covers and had carburettor rubbers made so we could run the race carbs, we used the racer's power-valve motor and racing ignition and the exhaust pipes went straight on.

The standard gearbox was prone to breaking, so Graham Dyson made one, so we could run the racing dry clutch and gear ratios from the racer. Then we put the engine into a 1984 Mark 9 RG500 chassis. The thing was phenomenal, we were doing the same lap times we were doing with the RG race bike. By 1988 we'd got the bike really good. But we didn't do any good in world F1 rounds because the races were a lot longer. We would qualify on the front row but you could only run a certain size fuel tank, so the 750s didn't need to stop for fuel but we did. We would lead the races but then we'd have to pit.

Og: Suzuki only sold the RG for two years. The Honda and Yamaha didn't stick around any longer either. The whole GSX-R thing was taking off with the new 750. But I think all the factories knew the 500s were getting too outrageous, they knew it couldn't go on.

CP: We sold a lot of street bikes off the back of our success with a RG and a lot of racing parts too, we still do, in fact. The RG seemed to really attract specials builders – clever engineers who wanted to build Kevin Schwantz replicas or whatever. They wanted to stick racing parts on the street bike and they made some lovely bikes.

SS: Engine-wise, everything was right with the RG500. We've put RG engines in everything: Honda RS500 GP frames, GSX-R250 Japanese import chassis; even in quads, sprint cars and hovercraft, all sorts of things. The engine has become more of a cult thing than the bike ever was.

IN DETAIL



THE RG GAMMA'S ROOTS

The RG500 GP bike was the most successful 500 of the late 1970s and early 1980s, winning four 500 world championships between 1976 and 1982, first with Barry Sheene, then with Italians Marco Lucchinelli and Franco Uncini.

The RG engine used the technology Suzuki stole from East German MZ genius Walter Kaaden during the early '60s when MZ rider Ernst Degner defected to the West and sold Kaaden's know-how to Suzuki. The square-four RG was basically four MZ 125 top ends, joined by gear drive.

'The first RG I rode at the end of '73 started making power at nine grand,' recalled Barry Sheene in 2002. 'Below that there was nothing, and I mean nothing. To get it out of the paddock you had to scream it to 9500rpm and it stopped at ten-five, so you had 1000rpm to play with.'

Sheene took the bike's first GP victory at Assen in June 1975. 'I told Suzuki I'd come to Japan at the end of '74 and stay until the engine was right,' he said. 'I was there for five weeks, the biggest jail sentence I've ever served, but the bike came good. In '79 it would start at seven five and go through to 11,000.'

The RG won its 50th and last GP victory at Hockenheim in September 1982, almost three years before the road bike came out.



The excitement of a 144mph two-stroke GP replica was palpable for MCN tester Oxley. But readers were slightly less delirious about their standard bikes