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Every model listed inside

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"I've got 18 Zeds, but room for more"
Kawasaki collector who can't say no

BIKES INSIDE
DUCATI 900SS ■ HONDA CBX1000
SUZUKI RGV250 VJ23 ■ YAMAHA TDR250
KAWASAKI Z1 ■ NORTON F1 ■ LAVERDA 750S
HONDA RC30 ■ SUZUKI GSX-R750 ■ MORINI DART

EXPERT WORKSHOP ADVICE
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☑ APPLY DECALS ☑ RECOMMISSION A NON-RUNNER
☑ SUSPENSION TOOLS ☑ Q&A: PROBLEMS SOLVED

BRUTE FORCE

And no ignorance. These bikes were the cream of 1990's sportsbike crop. The ZZ-R may have been faster, the CBR more comfy, but nothing carved an A-road like these two

1990 Yamaha FZR1000 EXUP

A mighty blaster, the EXUP has yet to achieve the cult status of the GSX-R1100, or indeed the ZZ-R1100, which means that where it's high on technology, it's low in price

1990 Suzuki GSX-R1100L

Suzuki got it very wrong with the 1989 1100K. It was an ill-handling pig. But thankfully for all of us the 1990 L redeemed the GSX-R name

WORDS **KEV RAYMOND** PHOTOGRAPHY **RORY GAME**

170MPH FOR A GRAND? Oh, go on then. What's that? You want reliability, practicality and comfort as well? No problem. The EXUP and GSX-R we have here are from that happy time when the Japanese factories finally got their heads around not only building fast engines, but designing chassis and suspension that could cope with big power in a straight line while still keeping it all together in the corners. These were the days when racing was for 750s, so the litre class was freed from the obsession with stratospheric rev limits and light weight. So big bikes could get on with being grunt-laden bruisers that made their power down where the rev counter was marked in single figures – both these bikes are redlined at 11,500rpm but both make peak power well below 10k.

Because they're not designed for racing, they can also be roomy, comfortable, and good for pillions and luggage carrying duty. OK, we're still talking about full-on sportsbikes here, so it's all relative, but compared to their modern equivalents they're positively plush.

Best of all, they're affordable. You can pick up a tatty but sound one for under a grand and even a really tidy example shouldn't rush you much more than double that. For the level of performance you're getting, that's proper bargain hedonism.

Way back then, the EXUP was the next big thing while the GSX-R was yesterday's news, but is that still true today?

There's only one way to find out.

Yamaha FZR1000R EXUP

Yamaha gave us the world's first 21-valve superbike...

21 VALVES? SURELY NOT... Well, depends how you look at it. Yamaha trumpeted its five-valves-per-cylinder head design at the time (and stuck with it until 2007's R1), but it was the EXUP valve in the exhaust pipe that was the big news for the 1989/90 incarnation of the FZR1000. Basically a moveable restriction in the exhaust, the EXUP valve (which stood – and indeed still does – for EXhaust Ultimate Powervalve) meant Yamaha could design the exhaust for peak power (free-flowing) but block it up a bit at lower revs to give more back-pressure and fool the engine into thinking the exhaust was designed for low and midrange torque. It worked a treat.

The previous FZR Genesis was fast but peaky. The EXUP was even faster – a genuine 172mph once you sliced the restrictors out of the inlet rubbers – and had a good 10bhp more than the old one through the rev range.

Even when new, the FZR was a study in opposing philosophies. The engineers obviously wanted to make the best bike they could, but the bean counters wanted to keep the cost down. The engineers won where it

"Despite its faults, the sheer class of this bike shines through"

matters most – the engine's superb, the frame and swingarm are in the OW01 league of finish and loveliness and the electric reserve switch is a nice touch. But there was no cash left to pay for a decent coat of paint on the wheels, the general fit and finish of the bodywork wasn't great and there were odd bits of bracketry that looked like they'd come off a commuter 125 rather than a top-flight sportsbike. As fellow tester, *PS* Features Ed Chris said: "The Yamaha looks almost disposable next to the Suzuki." There were no fancy upside-down forks, and no fancy damping adjusters on the dowdy conventional forks we were left with.

Back then, none of that mattered because the FZR could run rings round the competition on any kind of road or track you cared to name. It was perfectly poised – as nimble as a sports 600 but as stable as a sports-tourer, and with a sledgehammer power delivery that still impresses today. So what if it wasn't going to last – we'd worry about that later.

Well, now it's later, and I'm worried. I'm worried because I've just braked hard for a corner and the front has shot to full compression in an instant. I have a nasty feeling I know what's going to happen next and it does – brakes off and it bounces back up to full extension like a space hopper. With the corner looming, all I can do is drag the back brake to settle everything down, and turn in as smoothly as possible. Fortunately the FZR's sweet steering takes over and we muddle round the bend any old how. A good bounce at the next stop revealed absolutely no damping in the forks at all – I suspect there's no more than an eggcup-full of degraded filth in each leg that's probably been there since mid-1990 when this 3LG-2 model rolled off the line.

There is other evidence of neglect – missing fairing fasteners, mismatched panels (some are white, some pearl), furred fasteners, flattened oil cooler fins – much of which is the sort of neglect that comes from a bike having sat unloved in the corner of a warehouse rather than the result of high miles or active abuse. The clocks are showing just over 11,000 miles and the condition of the footrests, the frame and the controls bear that out, as does the feel of the motor. It wouldn't surprise me if it's on the original brake and clutch fluid too – it's certainly on the original hoses and they should have been pensioned off 15 years ago.

But despite all that, the sheer class of this bike shines through. Even with the bouncy suspension, it still steered better and more consistently than the Suzuki. Even with ancient brake fluid, it buried its front Diablo Corsa (like the Suzuki, this has a 120/70 in place of its original 130/60 and is all the better for it), into the tarmac like a good 'un, and even though it feels in need of a service and general tune-up, there's ample midrange shunt and top-end scream from the rattle-free motor. This bike's just gone to a new owner, and although he's got a good few jobs on his to-do list, he's got a hell of a bike to look forward to at the end of it.

If it was my bike, I'd have the forks and shock out and off to MCT for a revalve, and while they're away I'd strip and grease the suspension linkages and swingarm pivot (always a potential seizure point on these) and head bearings, replace the hoses, change the oil and filters and check the valve clearances. The handling would be transformed, and it wouldn't take much to tidy up the rest of the bike. First task will be to clean out and treat the rusty fuel tank – you can see blobs of rust when you open the lid, and hear the flakes sloshing around in the bottom of the tank. Otherwise this bike's a sound starting point.

The EXUP has never achieved the cult status of the GSX-R, which means they can represent serious value for money. A bike like this is worth just north of a £1500, and as the basis of a fast road bike or an OW01 trackday replica, that's very, very tempting.

"There's ample midrange shunt and top-end scream"

£ VALUES
MINT £1700-£1800
CLEAN £1400-£1600
TATTY £1000-£1300
HOUND £600-£900

YAMAHA FZR1000 EXUP

WHAT TO LOOK FOR

1 REAR SUSPENSION
Linkages are prone to seizure, and need regular stripping and greasing. The damping adjuster on the rear shock corrodes as well. The shock is rebuildable (MCT will charge about £100) but there are various later Yamaha shocks which can be persuaded to fit (see www.exup1000.co.uk for ideas).

2 BRAKES
Very strong when new, but calipers need lots of care. For more bling and extra power, later Yamaha calipers are a straight replacement. Discs can warp if used too hard from cold. They're the same as the discs used on most '90s Yamahas so replacements are easy to source.

3 CLUTCH
Not the most robust unit ever – a few enthusiastic dragstrip starts will see it protesting. Stronger springs help. Fluid contaminates quickly and needs frequent replacement to avoid clutch dragging.

4 BODYWORK
Getting a bit brittle now. Once cracks start to appear around mounting lugs, it's best to get it fixed sooner rather than later.

5 ROUGH RUNNING/MISFIRES
Often carb-related. Diaphragms can perish or split, leading to odd running problems. But general wear and tear, especially to the needles and emulsion tubes, seems to be the big problem, leading to rich running (which can also make the oil consumption problem worse). Other culprits are failing coils, and ageing plug leads and caps causing intermittent misfires.

6 TYRES
Original fitment was a 130/60 front and a 170/60 rear. Do yourself a favour and fit a 120/70 front, 180/55 combination – more choice, cheaper, better handling. Sorted.

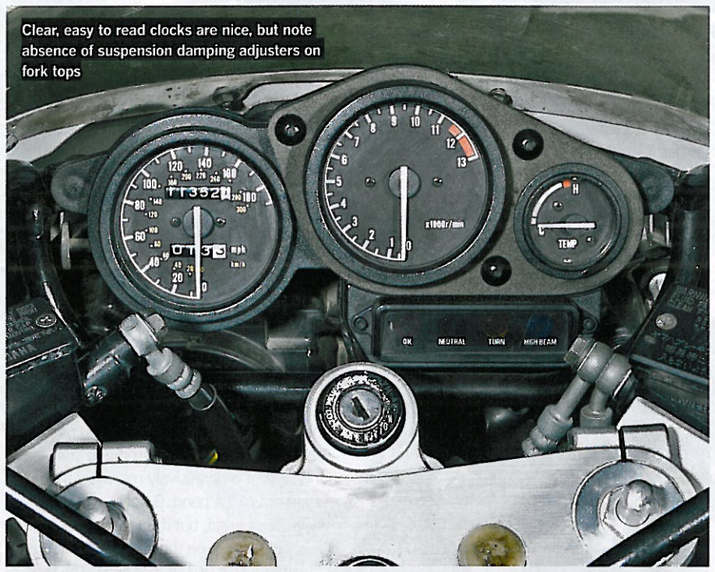
7 EXUP VALVE
If neglected it will seize in its housing. Copper grease is your friend here. Some aftermarket exhausts lose the valve altogether, but you need to keep the servo motor plugged in or the ignition defaults to a get-you-home low-power setting.

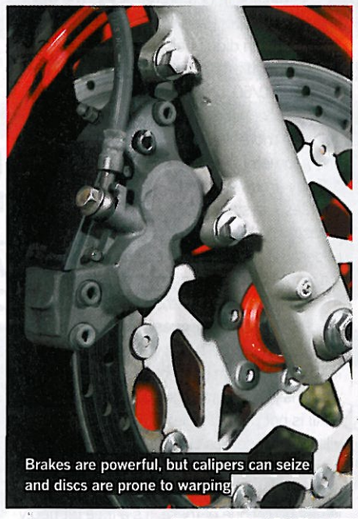
8 VALVE CLEARANCES
Valve-seat recession is a problem on high-mileage engines, which means tappets get quieter rather than noisier. If neglected you'll end up burning out a valve, possibly dropping the valve head into the piston. Be wary if you're getting down to the lower end of the range of adjustment shims as it means a valve-seat job is on the horizon. A lead-replacement additive (try Castrol Valvemaster) helps put off the evil day.

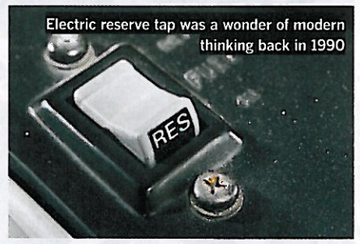
9 HIGH OIL CONSUMPTION/SMOKE
They all do that, sir... Even good ones slurp oil, especially if you use runny synthetics. Decent mineral oil's all you need and you'll burn a lot less of it as well. One litre of oil every 1000 miles counts as good... Incidentally, the oil light is a level light not a pressure light, so don't panic if it comes on while riding. Top up to the very top of the sight glass each time.

ENGINE/FRAME NOs

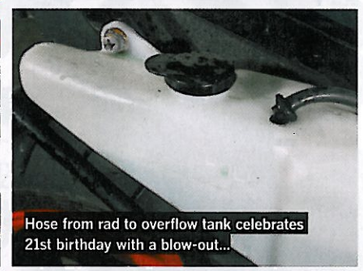
* **1989 3LG-1 model**
3LG-00101 onward (matching)
* **1990 3LG-2 model**
3LG-04100 onward (matching)
(**NOTE:** 3LG-009101 onward is later RU model)


Clear, easy to read clocks are nice, but note absence of suspension damping adjusters on fork tops


Brakes are powerful, but calipers can seize and discs are prone to warping



Electric reserve tap was a wonder of modern thinking back in 1990


Hose from rad to overflow tank celebrates 21st birthday with a blow-out...


Cover on the left hides EXUP valve. It needs regular stripping and lubing to avoid seizure

SPECIFICATION

'89 YAMAHA FZR1000 EXUP

ENGINE

Type	liquid-cooled, dohc, 20v inline four
Capacity	1002cc
Bore x stroke	75.7mm x 56mm
Compression ratio	12.0:1
Ignition	CDI
Fuel system	4 x 38mm Mikuni BDST CV carbs

TRANSMISSION

Primary/final drive	gear/chain
Clutch	wet, multiplate
Gearbox	5-speed

CHASSIS

Frame	twin-spar aluminium Deltabox beam
Front suspension	43mm USD forks, preload adjustment
Rear suspension	monoshock, preload and rebound damping
Front brakes	2 x 320mm floating discs, 4-piston calipers
Rear brake	1 x 267mm disc, opposed-piston caliper
Wheels	3-spoke hollow cast aluminium
Front tyre	130/60 VR17
Rear tyre	170/60 VR17

DIMENSIONS

Dry weight	209kg (456lbs)
Wheelbase	1460mm (57.4in)
Seat height	765mm (30.1in)
Fuel capacity	19 litres (4.1 gallons)

PERFORMANCE

Power (de-rest)	129bhp @ 10,000rpm
Torque (de-rest)	71lb.ft @ 8750rpm
Fuel consumption	39mpg
Price new (1989)	£6149

£ PARTS PRICES

Prices from www.wemoto.com
Plugs (NGK) £2.52 each
Air filter £16.80
Camchain £39.14
Clutch hose £25.48
Clutch complete kit (EBC) £129.16
Front brake seals/pistons £86.20 (per caliper)
Brake pads (EBC HH) £23.98 per pair
Front brake discs (EBC) £161.94 each
Wheel bearings and dust seals £16.80 (pair)
Pair of tyres (Maxxis Sport) £193.84
Rear shock (Hagon) £301.27
Mirrors £27.91 each
Silencer (Motad) £228
Regulator £96
Steering head bearings £34.50
Seat cover £20.38
Screen £40.80
Chain and sprockets (Izumi) £111.80

Suzuki GSX-R1100L

The 1990 1100L was everything the '89 1100K wasn't

AFTER THE BLUNT instrument that was the original slabside GSX-R1100 of 1986-88, and the short-lived, strange-handling and much-reviled 1100K of 1989, Suzuki rolled up their sleeves and put everything they knew into making the 1990 L model as good as possible.

The K's engine was the one bit that no one complained about, and it found its way pretty much unchanged into the L. Up to 1127cc from the original Slabbie's 1052cc courtesy of an extra 2mm on the bore and 1mm on the stroke, it made a genuine 120bhp which was a lot in them days.

Cosmetically the K and L were similar too, but the biggest changes were in the suspension and geometry. The latter ran an inch more wheelbase, courtesy of a slightly longer swingarm. The new suspension consisted of 41mm upside down forks, fully adjustable for preload, rebound and compression damping, and a similarly fully-adjustable rear shock. Whether many owners really needed the (nearly) five million potential combinations of all these adjustments was open to debate – unlike a

"Relying on midrange shunt is more satisfying than spinning it harder"

lot of adjusters, these really made a difference and it was very, very easy to completely spoil the L's handling with a few ill-judged twiddles of the screwdriver. The big news, though, wasn't the adjustability but the quality – GSX-Rs of the early '90s set a benchmark for supple, responsive suspension that some manufacturers are still having trouble living up to 20-something years later.

Anyway, enough of that and hit the road. God, I'd forgotten how cramped the seat/footpeg relationship is – I'm a shorty and I've still got my legs folded up like a jump jockey. Six-footer Chris could do with a cushion really, but he's young and flexible enough to cope.

The first few miles are spent sitting on the A1, trying to resist the temptation to engage warp speed (paranoia kicking in as the GSX-R's mirrors are blurry at speed and the FZR's only show your elbows). 80mph in top is just over 5000rpm and a slight twist of the wrist is enough to release an addictive whoosh of overtaking power. When we try some top gear roll-ons the Suzuki is the clear winner. It's the same when we hit some twisties – you get a choice of gear to drive out of every corner, but somehow relying on the midrange shunt is much more satisying than spinning the motor harder. It wouldn't surprise me if this bike's had a bit of time and money spent on setting up the carburation to suit the Yoshimura 4-1, because it really is glitch-free and that's not always the case on these oil-cooled GSX-Rs. Speaking of that pipe, I was expecting it to be stupidly loud but it's fully road legal.

We're on a mix of tight twists and fast sweepers and the GSX-R needs a different approach on each. It's most at home on the faster stuff, where it's happy to be steered with the balls of your feet and powered through. Nice, nice, nice. Slower corners need a lot more positive input – a shift of bodyweight and a firm push on the inside bar to make it turn, at which point it feels like it wants to drop right over, so you need to be straight back on the throttle to stabilise it, then give it progressively more gas to drive hard out of the bend. Get it right and it feels great, but if you're half-hearted or just not on the case, you won't get within a sniff of a proper apex. The rear Pilot Sport was pretty well squared off, which didn't help, but thankfully this L is sitting on a 120/70 front rather than the original 130/60, or the effect would be even more pronounced. The M and N models would get even more detail tweaks to the suspension and geometry, but they never quite got it right.

Every time we stop, I spend another few minutes just staring at the bike. It always amazes me how anything can survive a couple of decades' use and still look so factory fresh. If it weren't for the dodgy anodised fittings on the hydraulic lines and that vulgar crankcase breather, you'd never guess this bike was in daily use, let alone that it had 32,000 miles on it. It's been ridden hard, but cared for as well, which is just the way it should be.

All is not perfect though. Pootling through villages it becomes clear there's a loud whine from third gear. That's going to need sorting soon – you don't want the gearbox letting go on one of these. It's a little bit fiddly to get into neutral as well, although to be fair that was always a problem with these boxes – odd, as the rest of the time the shift was and is flawless. Over a series of bumps the rear shock tends to pump down a bit as well, evidence of a little too much rebound damping, but that would be easily dialled out.

There's little to criticise here and a lot to like. The look, the finish, the midrange, the suspension quality – they're all reasons to buy a mint GSX-R1100L, even though a good EXUP is faster and sweeter handling.

As Chris said when we stopped for a buttie: "The FZR feels a lot more modern and handles better, but I think the GSX-R is more fun." I won't argue with that.

"A slight twist of the wrist releases an addictive whoosh of power"

£ VALUES
MINT £3000-£4000
CLEAN £1800-£2700
TATTY £1200-£1700
HOUND £900-£1100

SUZUKI GSX-R1100

WHAT TO LOOK FOR

1 ENGINE
Very, very tough in standard form and can cope with pretty serious tuning without affecting reliability. The engine oil doubles up for cooling duties though and needs changing every 6000 miles according to the schedule, although many owners change it more frequently. Don't bother with fancy synthetics – too thin for such a wide-tolerance motor. Stick with good quality 10W40 mineral or (if you really must) semi-synthetic.

2 GEARBOX
Mostly tough, but second gear can let go on bikes that have done a lot of inept wheelies, and whining in third (as on this bike) is not uncommon.

3 IS IT STANDARD?
If so, cherish it, as very few are. Many are significantly tuned – big-bore kits are popular – and can be great buys if the work's been done properly, but make absolutely sure you know exactly what's been done, by who, and how it should be set up, or it'll come back to bite you later.

4 SUSPENSION
Very good quality, but the forks are pretty hard on oil and will benefit from a change every 10,000 miles. Rear shock eventually loses damping but can be rebuilt. Linkages seize if neglected.

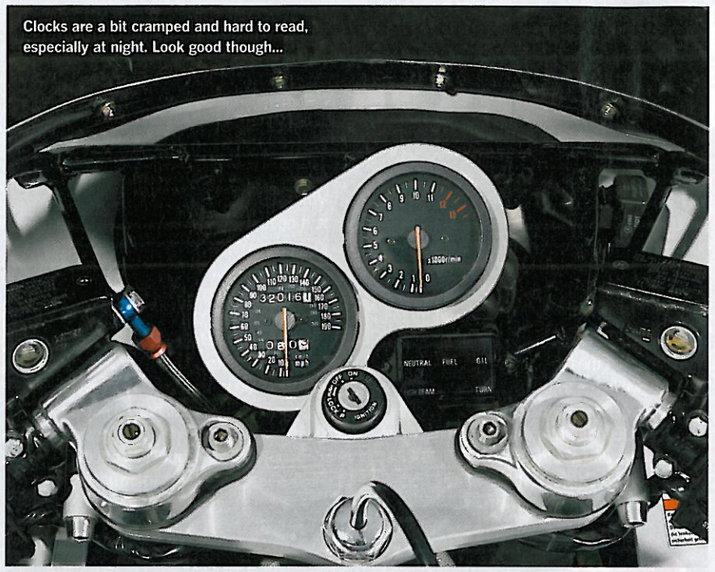
5 BRAKES
Strong and with good feel. HH pads make them stronger still. Seals eventually swell and cause brakes to stick – regular cleaning helps stop pistons corroding. Calipers from many other Suzukis will fit straight on. Mastercylinders also get sticky – Hayabusa versions fit if you can find them.

6 CARBURATION
There are a lot of gains to be had from careful carburation setup – not so much in peak power but in drive out of bends. Unless you're a whizz with carbs, best take it to an expert. Try www.straightlineracing.co.uk – they know big Suzukis inside out. Original carb rubbers are likely to be hardened by now, making removal and fitting tricky – worth fitting some new ones.

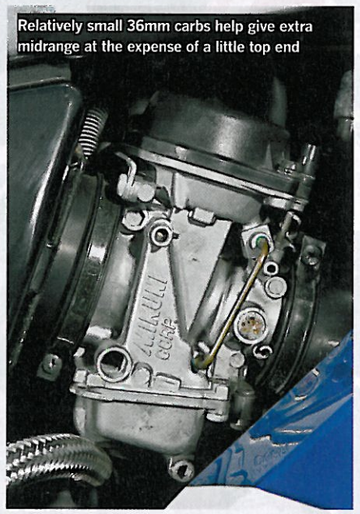
7 CRASH DAMAGE
Apart from the obvious visual damage, beware anything that looks like it's had a front-end impact. The upside-down forks are immensely stiff under compression and tend to transfer the whole impact to the headstock instead of bending. In extreme cases that can turn the headstock oval, meaning the frame's scrap. The engine is extremely vulnerable to damage if the left side goes down – the very end of the crank punches through the cover and snaps off, also usually damaging the crankcases beyond repair.

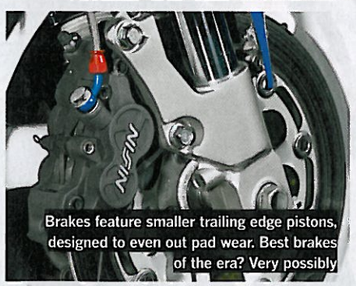
ENGINE/FRAME NOs

★ **1990 L model**
Frame: GV73B-103392 onwards
Engine: V710 103358 to 106074
★ **1991 M model**
Frame: GV73B-106082 onwards
Engine: V710 105006 to V711 107483
★ **1992 N model**
Frame: GV73B-108660 onwards
Engine: V711 108839 onwards
Note: Engine and numbers don't match. If checking them against a V5, there may be an extra zero or two ahead of the engine number.


Clocks are a bit cramped and hard to read, especially at night. Look good though...


Fully adjustable suspension is high quality – bewildering array of permutations though


Relatively small 36mm carbs help give extra midrange at the expense of a little top end


Brakes feature smaller trailing edge pistons, designed to even out pad wear. Best brakes of the era? Very possibly


Fitted-from-nearly-new Yoshi (USA) pipe looks loud but it's actually road legal

SPECIFICATION

1990 SUZUKI GSX-R1100L

ENGINE

Type	air/oil cooled, dohc, 16v inline four
Capacity	1127cc
Bore x stroke	78mm x 59mm
Compression ratio	10.0:1
Ignition	CDI
Fuel system	4 x 36mm Mikuni BST CV carbs

TRANSMISSION

Primary/final drive	gear/chain
Clutch	wet, multiplate
Gearbox	5-speed

CHASSIS

Frame	aluminium double cradle
Front suspension	41mm USD fork, fully adjustable
Rear suspension	monoshock, fully adjustable
Front brakes	2 x 310mm discs, Nissin 4-piston calipers
Rear brake	1 x 240mm disc, opposed-piston caliper
Wheels	3-spoke hollow cast aluminium
Front tyre	130/60 VR17
Rear tyre	180/55 VR17

DIMENSIONS

Dry weight	219kg (423lbs)
Wheelbase	1465mm (57.7in)
Seat height	810mm (31.9in)
Fuel capacity	21 litres (4.6 gallons)

PERFORMANCE

Power	118bhp @ 9100rpm
Torque	70lb.ft @ 7500rpm
Fuel consumption	36mpg
Price new (1989)	£5899

£ PARTS PRICES

Prices from www.wemoto.com
Plugs (NGK) £4.24 each
Air filter £24
Oil filter £6.59
Clutch complete kit (EBC) £174.60
Front brake pistons/seals £86.40 (per caliper)
Brake pads (EBC HH) £29.98 per pair
Fork oil seals £8.83 per pair
Wheel bearings (front) £10.20
Gasket set £138.22 (pattern parts)
Rear shock (Hagon) £301.27
Brake hoses (HEL) £56.17 (front)
Camchain £43.38
Exhaust link pipes (Viper) £70.78
Brake disc £1161.94 (EBC, front)
Chain and sprockets (Izumi) £107.74
Regulator £42
Pair of tyres (Maxxis) £150.58
Steering head bearings £34.50

Conclusion

TWENTY-ONE YEARS AGO there wouldn't have been much question – the GSX-R felt old-fashioned and unwieldy next to the sharper, better balanced FZR. Most road testers (myself included) gave the nod to the Yam. But things have moved on and now they both feel a bit old-fashioned.

The difference is the Suzuki has aged a little more gracefully. That's partly down to far better build quality, especially the suspension and bodywork. It's also partly down to the cult of the GSX-R which gives the Suzuki a bit of retro glamour while the Yamaha's still in that 'too old to be current, too new to be classic' limbo land which afflicts most top-dog sportsbikes at some time in their careers. Of course, the good news for those who don't care about such things is the relative prices – good EXUPs go for less than decent GSX-Rs, so you get a lot of bike for your money.

The other factor at play here is the relative condition of the two bikes on test. No matter how much you try and filter it out and try to get to the essence of the bike underneath, it matters that the GSX-R is an outstanding example while the EXUP's lost its way a bit. The Suzuki's not perfect (that third gear whine will need attention soon and I think the suspension's due a refresher session) but it's so close to standard and it's obviously been cared for so well that you just can't help but want to find some space for it in the garage.

Which isn't to say the EXUP is bad – it's not. It needs a bit of love, but it's low mileage and hasn't been mucked about with. There's nothing important here that couldn't be fixed with a brief splurge on the credit card and a weekend of fettling, lubing and tidying up. Then I'd be torn between a gradual cosmetic restoration back to standard or a bit-by-bit transformation into a trackday/street sleeper using more recent forks, brakes and shock but keeping the looks standard. Either way, I'd be very happy to own it, but I can't help feeling I'd be just a little bit happier to own the GSX-R.

THANKS

John Deighton from the Engine Room, Cheltenham (www.the-engine-room.co.uk, 01242 222020); Mike Penderis for letting us ride his newly acquired bike before him, and John Martin(FBJ) for the loan of his superb GSX-R1100