

February 1992 £1.60 USA \$4.00

パフォーマンス・バイクス

Performance BIKES

GSX-R750LC



LIQUID REFRESHMENT

RAZOR HANDLING

HOW TO GET IT

52bhp TDRs

BLESSED
ARE
THE
FREAK



Contents

FEBRUARY 1992

Cover story: following our new policy of keeping all the interesting pics at the back of a dark cupboard, this will probably be a shot of a scooter beside a brick wall

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22. SPOT ON — if winter comes can

spring be far behind? It can if you've got too much rebound damping.

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46. TDM BITS — sorting out the TDM's suspension, among other things.

58. READER OFFER — ever wondered why hotel bedrooms always have a copy of The Bible? It's because it has more sex, violence and rude bits

than any other book. Never take your wife or your mother to a hotel bedroom.

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34. EH GRINGO — Wendy "bendy" Burch gives the GSF400 a good greasing. Er, are we allowed to say that? No? How about just thinking it, then?

50. FINS AIN'T WOT THEY USED TO BE — GSX-R-watercooled. No more sexist drivell, this is a real man's machine. Well it was until they lowered the seat height.

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Regulars

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4. NEWS — there is nothing subliminal here at all. It is perfectly safe to read this with the naked eye.

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14. RESPONSE — judging by the stains, most of this was written in the foetal position, except the one in green ink.

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BACK ISSUES

To get hold of a back issue just follow these simple steps:

1. Ring 0733 237111 ex 5725 to check which issue you want and whether an actual magazine, or only a photocopy of the specific feature is available.
2. The cost is £2.50 inc. p&p for each issue/photocopy, payable to Performance Bikes, Send to PB Back Issues, Bushfield House, Orton Centre, Peterborough PE2 5UW, with your name, address and the date of the issue/feature you want. We can only deal with orders via the post and sorry, we can't take credit card orders.

BINDERS

PB binders to hold 12 issues from: PB Binder Offer, PO Box 136, Peterborough PE2 OXW, £5.95 including p&p. Please allow 7 days' delivery. Access and Visa only for orders of £10.00 or more; telephone 0733 237111 and ask for ext. 5791.



Dangerous liaisons — Stan's tragic menage à trois with his beloved TDRs, except it wasn't — page 54.

ABC

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THE DANGEROUS



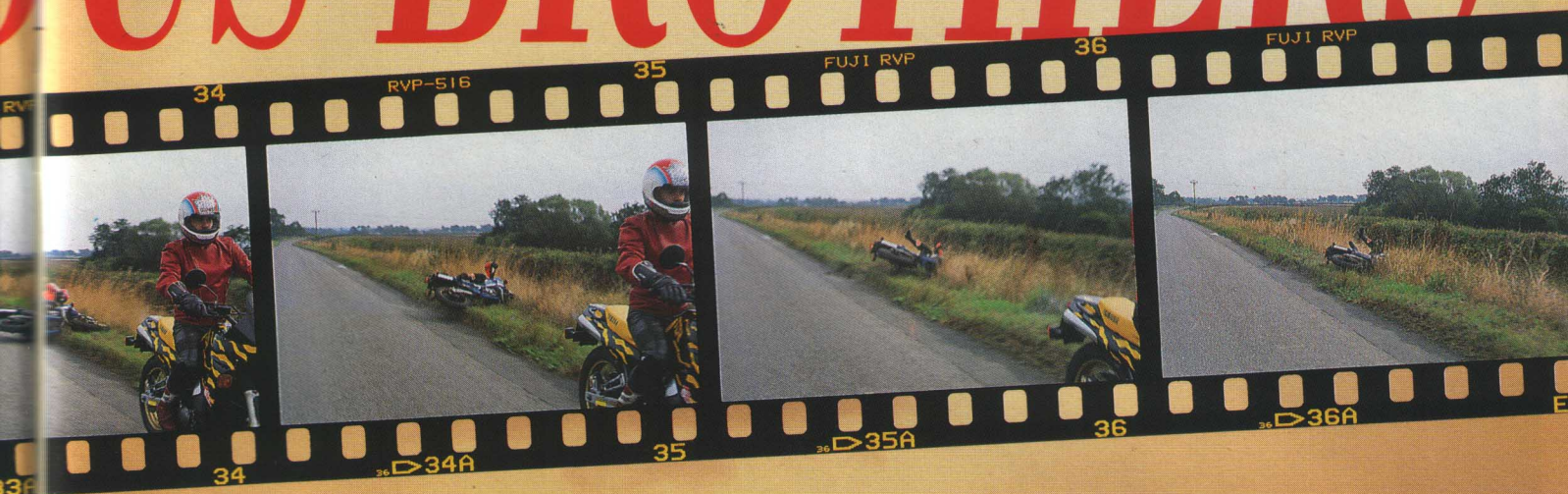
The 52bhp TDR250s: as many two stroke fumes, fits of hysterics and uncontrollable wheelies as you can eat. Drivel: R. Paul. Pics: Kenny P and Pat Gosling. 15% increase in power: S. Stephens.

The first hooligan was actually an amphibious, warty-skinned creature. I refer, of course, to Mr Toad in Kenneth Grahame's *The Wind in the Willows*.

"I'm not sorry at all. It was glorious," he said after getting a good telling-off from Badger for reckless behaviour culminating



TOAD'S BROTHERS



in crashing.

The recidivist Toad was talking about driving a motor car, but these days operating such a vehicle is about as glorious as reading the Radio Times. Today, Toad's noble instincts would best be satisfied by a motorcycle. In fact I venture to suggest he would have ridden a tuned TDR250.

Call me a senile old git but I've tested about 200 motorbikes in the last six years and I can feel a sweeping statement coming on. Either of these two bikes, but preferably the blue one, is the most fun bike I've ever ridden. Why not? Something's got to be. The riding position and barking powerband give the same initial acceleration surge as an 1100, they wheelie all over the place, they're

unbelievably crash-resistant and, above all, they're cheap.

Tragically, Mitsui stopped importing TDRs last year so if you've never tried one it's your loss. Apparently there are around 100 left in the showrooms, sniff.

Stan Stephens' contribution to the TDR cause comes in two forms: a 'wide spread' tune (the blue one in the pics) and a 'top end' version (black one with flying maggots). There's a big difference, but both make the stock motor look wimpy.

THE BLUE ONE

This is Stan's own bike, tuned for midrange power and crisp throttle response everywhere. For a 250 with skinny tyres and bouncy suspension it packs phenomenal stomp.

Crack the throttle at six grand on the



Top: here's Patrick bending the handlebars and the gear linkage. Patrick is an initiate of the Hillclimb fraternity, some of whom are even madder than he is. He did 1,500 miles on a TDR over TT fortnight, burning a gallon of two stroke. He is addicted to TDRs because, "Living as I do in amongst the twisty lanes, high walls, abundant wheelie yumps and wayward sheep of the Lake District I need light weight, a high seating position, strong brakes and strong wellies."

THE DANGEROUS BROTHERS

Just out of the picture are the 32 double decker buses that Mr Sefton and Mr Paul have jumped over. They did!



stock motor and the front wheel comes up a treat. Do the same on this bike and you'll loop it. The power delivery is so violent and explosive that the wheel comes up under hard acceleration in first, second and third. Even a ZZ-R1100 doesn't do that.

Sometimes you can't help it — teetering round the inside lane of a roundabout, get to the straight bit, give it a burst and WHOA BOY! — the damn thing leaps sideways towards the body-pulping rear wheels of a truck. The tyre grip/throttle response equation means that in slow corners the thing wheelies before it's finished leaning over, just like Kevin Schwantz. Unless you've put a motocrosser or road race engine on the road you won't have experienced anything like it. It is indescribably, hilariously silly. Replacing the stock Metzeler Saharas with Comp K road tyres or similar would make it hairier still.

The really amazing thing about this tune is the peak power — 52.3bhp is 7bhp more than a standard TDR and the same as a 1991 RGV250. Either way it's pretty astounding considering the motor bulges with torque and pulls hard from 2,000rpm. For the road it's probably the best of Stan's two options, holding 100mph in top into a strong headwind (the black bike needs fifth). For top speed freaks, however, the sharp drop-off in power is a disadvantage; the black bike hung onto its power for far longer, making it less susceptible to gearing and more able to take advantage of following tailwinds and steep hills.

Everyone who rode the bike came back

howling with laughter; no one (apart from Pat) fell off it. According to our figures it even does 1.9 more miles to the gallon than stock — an important consideration for many of you I'm sure. At £176.25 the engine work is brilliant value.

THE BLACK ONE

Supporting what is essentially a TZR proddy tune, the black bike revs nearly 1,500rpm further than the blue one at the expense of low rpm performance, which is what you want if you're trying to slipstream other bikes. Even so it still has a ramp of torque between 6 and 7,000rpm that activates accidental wheelie mode, and because it revs on it's easier to keep the front end up while you change gear. Stan was surprised

"People moan about the ozone layer but haven't we had a lovely summer? We're out there every night revving the bikes up trying to get that hole right over our house."

(Stan on atmospheric pollution)

the black bike made fractionally less peak power (51.6bhp) than the blue one, but it's only 1% less — we've recorded bigger differences between two runs on the same engine before.

I rode the black bike to Mallory for a Bimota owners' day. It was fast, but not fast enough to overtake many of the Bim people (average: 890cc). The once-a-lap wrestle with Gerrard's was plain terrifying, especially in the prevailing violent gusting sidewind — no idea how much grip to go from the Saharas, elderly rear shock pogoing away, though stable enough over the exit bumps at 90-100mph in fifth. It needed all the track to get through the Esses (boot leather wearing out on floor — must send bill to Stan) but felt totally reassuring braking for the Hairpin. In fact, the TDR was in its element through Mallory's four slow turns: gas it out of the Hairpin in first and second (not too violently or the rear lets go, not sat too far back or it loops) stuff it through the Bus Stop, get on the power even more gently on the off-camber exit, wobble down the straight being laughed at by millionaires leaning on the pit wall. Hilarious. Saw 116mph on the clock on the way home too.

Of course all this really proves is that TDRs are no good at fast corners, especially after 10,000 miles of wear and tear. The black bike's gear linkage in particular had developed a lot of slop and sometimes missed the change from first to second. This was really the biggest problem for the two bikes, especially on the narrow powerband version where revs are doubly

THE 'WIDE SPREAD' TUNE

(£175.25. As featured on Stan's own, private and personal TDR250)

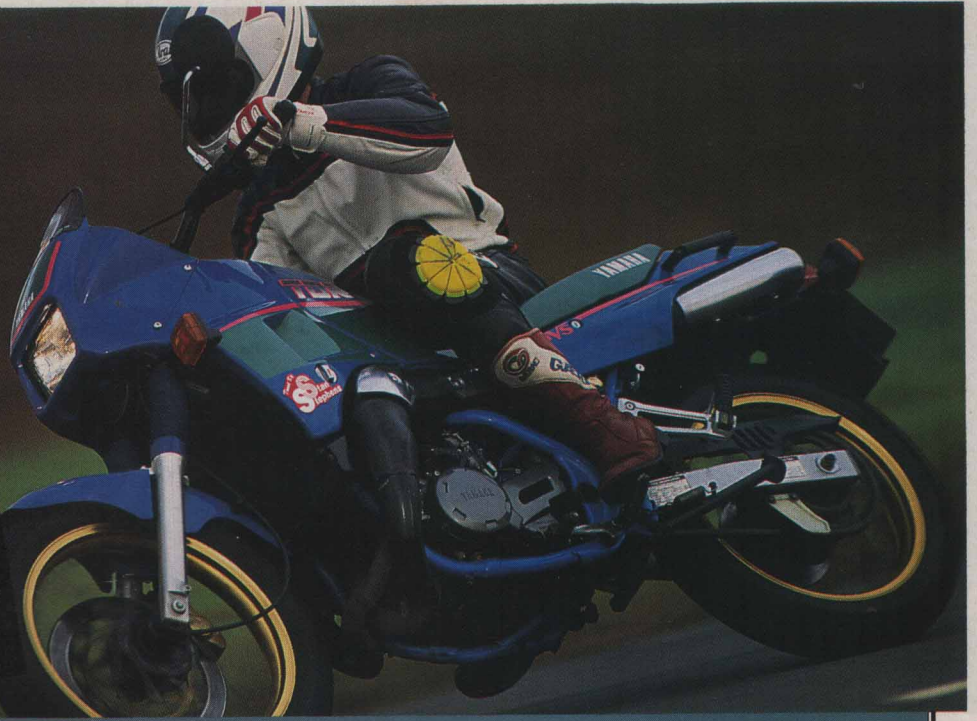
Head: skimmed 0.5mm, but with RD500LC rear head gasket (30 thou thicker than TDR).

Squish: just under 1mm.

Barrels: chop 1mm off bottom and flow ports; shorten and flow barrel legs. Raise transfers 1mm (to get them back to their original position) making sure to match and flow same; re-angle to discharge onto rear of bore. Narrow transfer bridge. Widen exhaust port from 38.5 to 40mm. Slightly raise corners of exhaust port top to get a sharper opening pulse.

Power Valves: blend into exhaust port roof.

Jetting, filter, pipes, gearing: stock.
Fuel: four star.



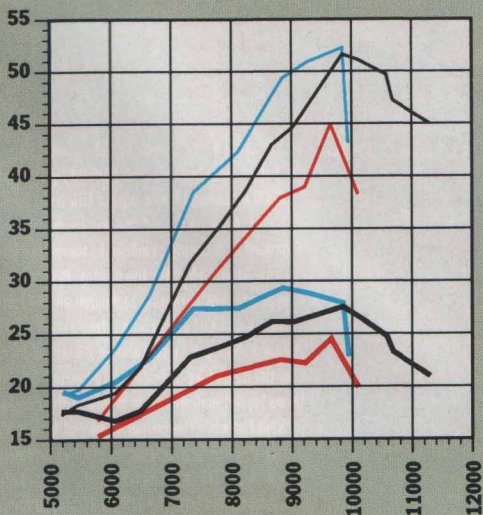
THE 'TOP END' TUNE

(£175.25. As featured on the black one with the flying maggot paint job. Basically a TZR proddy tune)

Head: skim off 40 thou (1mm). Stock gasket.
Squish: machine combustion chamber to get 15° squish angle.

Barrels: flow ports; shorten and flow barrel legs. Raise transfers 0.5mm making sure to match and flow same; re-angle to discharge onto rear of bore. Narrow transfer bridge. Widen exhaust port from 38.5 to 41mm. Drastically re-shape exhaust port top to make it very square indeed and raise to 24.5mm from top of barrel. A rounded exhaust port gives gentler port opening and more torque; a squared-off one brings the power in with a bang and hangs onto it longer.

Power Valves: blend into exhaust port roof.
Jetting, filter, pipes, gearing: stock.
Fuel: four star.



- max blue power 52.3bhp @ 9,836rpm
- max blue torque 29.4ft-lb @ 8,838rpm
- max black power 51.6bhp @ 9,853rpm
- max black torque 27.5ft-lb @ 9,853rpm
- max stock power 45.1bhp @ 9,657rpm
- max stock torque 24.5ft-lb @ 9,657rpm

"...thus improving power throughout the rev range." Well it does, actually. These curves are so impressive that initially we suspected Stan of using secret big bore kits, but the unmistakable signature of a big bore motor is to peak at lower rpm than stock, and these don't. Take a bow, Mr Stephens. All figures obtained on Ledar's DPX3 chassis dynamometer using wonderful DID chain supplied by Bickers Anglia Ltd.

crucial. Re-bushing the linkage would be a worthwhile exercise.

Quintessential TDR activity involves hurtling up to a second or third gear corner, helping yourself to a generous slice of front brake confident in the knowledge that it's attached to one of the most feedback-intensive, late-brakeable front ends in the business, use all the leverage of the wide bars to snap it into a footrest-skating lean and squirt it out a fair bit sooner than is prudent. Stan's efforts merely intensify the experience. If I ever get to meet that Sue Lawley on Desert Island Discs my luxury will be a tuned TDR and two miles of twisty asphalt. Poop poop.

RP

THE DANGEROUS BROTHERS



TDR facts

The TDR as a species is prey to certain faults. Corrosion attacks the calipers which, being devoid of dust seals, seize their pistons, gradually robbing the brake of power and feel. To fix it, strip the pads out, clean the pistons to perfection and get them moving freely again, not forgetting to smear Copaslip on the pads and pins. Neglect a caliper too long and it's scrap.

Head bearings: as even your old granny could wheelie a TDR these take a hammering and can easily be snookered inside 10,000 miles.

Chain and sprockets: would last 15,000 miles if anyone treated them properly but no one ever does.

Rear spokes: after prolonged use they shear off at the hub, presumably because of some incompatibility in the spoke head/hub design. It's easy to spot (I've seen it on three 10,000 mile bikes) and if you love life an early repair is recommended.

Ignition/YPVS system: doesn't take kindly to salty winter roads. Wash frequently with warm, soapy water and spray with WD40 or similar.

Rear indicators: vibration cracks the pressed steel bracket and the indicator falls off. Again, I have witnessed this with my own eyes on three separate TDRs. It happened to the black bike on the way to Mallory, trapping the winker between the swing arm and tyre and making a very worrying run out of oil/flat tyre type of noise. The indicator plastic melted all over the right edge of the tread and it took a long time to wear off.

Oil tank: hideously difficult-to-get-at horizontal filler hole at the back of the fuel tank. People have been hung, drawn and quartered for lesser offences than designing this.

All the above are livable-with and no more troublesome than owning a mad dog and having to wipe the froth off its jowls before taking it walkies.

RP

Performance

	The blue one	The black one	Stock TDR, July '88
Speed prone, stock gearing	113.5mph	115.5mph	106.5mph
Speed prone, optimised gearing*	116.5mph	115.5mph	n/a
SS¼ mile	13.75s @ 92.5mph	13.50s @ 97.0mph	13.89s @ 97.5mph

Fuel consumption

best	46mpg	40mpg	n/a
worst	34mpg	35mpg	n/a
average	38.9mpg	37.8mpg	37.0mpg

* with available 45, 42, 41, 40T sprockets - both clutches on Stan's bikes not up to quarter mile testing. Three gentle runs each only.

The man in the orange Crowtree leathers is Pat Sefton, who built his own TDR500 by grafting an RG500 motor and frame onto a TDR front end and body. After he'd used this missile to distinguish himself at a couple of hillclimbs we invited Pat to ride Stan's bikes for the photos. His foot down, opposite lock cornering technique on wet tarmac was horrifying to watch and the day had scarcely begun before our man executed a graceful lowside on the black bike outside a farmhouse. "I tried to throw myself underneath to minimise the damage," said Pat while the farmer came out to complain. After this exciting incident we put him on the blue bike instead. This time he wheelied over backwards and turned left into a ditch. Thankyou for your contribution, Mr Sefton. Don't call us. Both bikes are for sale. Stan Stephens is on 0474 854331.