

Motorcycling

October 1982 80p

On Test: Yamaha Turbo

Honda CBX550

Yamaha XT550

Honda VF 750



Plus Yamaha DT 125LC

Features: Superservice H-D Cagiva 175/ 250s

Eddie Kidd's Cunning Stunts. Air Suspension

Motorcycling

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Test Bikes

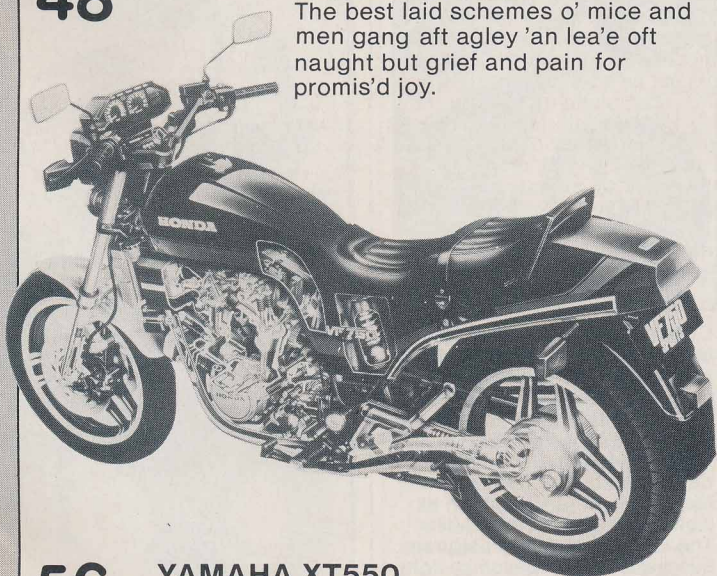
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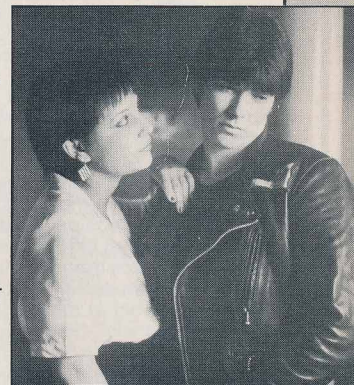
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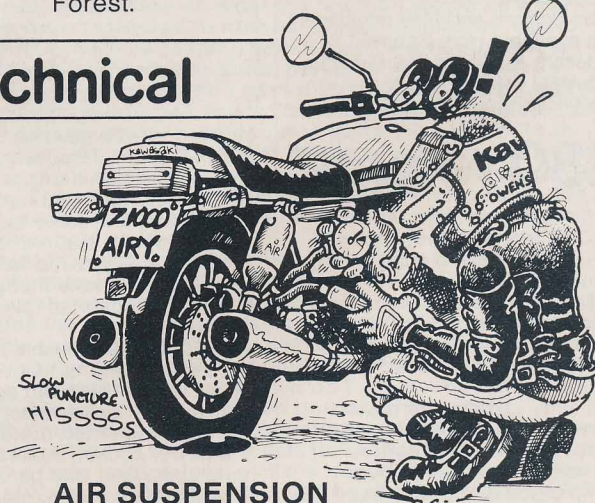
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Many current trail bikes ape motocross and enduro styling. The DT125LC has competition number plates all round with the front plate enclosing the headlight and a humped fuel tank partly covered by extended seat padding. Plus it has all the standard features of Yamaha trail bikes: excellent ground clearance, long-travel suspension with leading axle and extended sliders at the front and a Monocross single-shock system at the rear. It has wide bars with dog-leg levers, a chain tensioner and snail cam adjusters, serrated footpegs, rear wheel security bolt, and a host of finer details that we've come to take for granted.

Plus, and this is a big plus, it has additional details that make a serious difference in a real-life enduro: folding, spring-loaded tips to the gear and brake pedals, fork stanchion gaiters, a small, faired-in, less vulnerable tail light, and all important slim and uncluttered exterior lines.

Plus, and this is the biggest plus, it has a new motor with all the features that made the RD80LC so impressive when we tested it in the July issue. Liquid cooling ensures quiet, clean, reliable running. And by eliminating the need to err on the safe side to cope with hot spots and overheated moments, twostroke oil can be metered at the optimum rate. The test bike's oil tank arrived full and was returned half full with nothing added during the 300 miles in between.

Energy Induction as proclaimed on the sidepanels is YEIS, a plastic reservoir linked to the inlet manifold to absorb pressure fluctuations and give smoother gas flow for

more efficient cylinder filling in low-speed, part-throttle conditions. A crankshaft balancer revolves in the gearbox to tame single-cylinder vibes.

We thought we would be testing a 12bhp learner special when we took the bike to MIRA. Time didn't allow a full set of performance figures but a top speed of 69mph (72mph best one way) made us think again. Close inspection of the bureau-plate revealed 11.9kW - 16bhp. Yamaha are selling 12 and 16bhp versions for the same price. Their policy is not to reveal details of how the bike gets restricted for fear of incurring DpT reprisals but the engine is the same so induction and/or exhaust systems must be the offending parts.

I was already entered in the XHG Tiger MCC's Bovington enduro on our Honda XR200R and was dubious about changing to a 12bhp 125. I didn't fancy getting stuck at every power-sapping obstacle. But with 16bhp...

Preparing the DT125LC for the event was



Little rad rooster

Yamaha's DT125LC didn't chicken out when the going got tough, Neil Millen did.

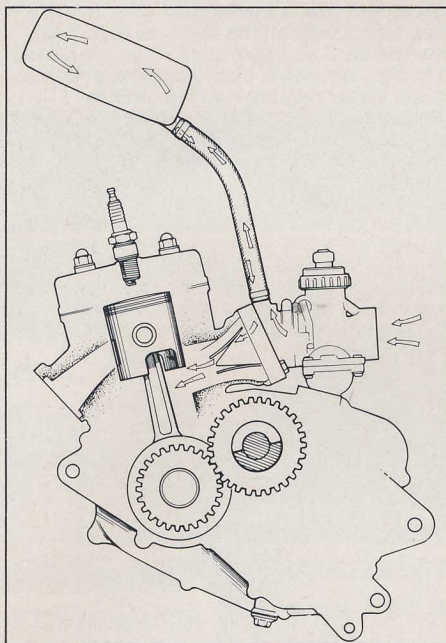
a doddle: it's ready to race. To avoid unnecessary damage and save a bit of weight I removed the wipers, the mirrors, the mudguard tail section including the number plate, the pillion footrests, and the battery (the lights, idiot lights, and horn still worked with the engine running). The whole job only took half an hour using the bike's toolkit. Putting it all back together again was equally quick and simple thanks to good colour coding in the wiring loom, except that it helped to have labelled the wipers R and L beforehand. These precautions were so easy that they'd be worthwhile even for an afternoon's trail ride, leaving the number plate of course.

Back at the enduro, scrutineers weren't being fussy about colours so a yellow crayon marked the built-in black number plates in moments, and the usual hassle of inventing some sort of handhold for dragging the back end out of bogs was unnecessary because the seat loop clears the rear mudguard to form useful grab handles.

Enough paddock speculating. Waiting in the pack for my number to be called to the start line I felt uncharacteristically confident. The DT125LC looked as purposeful as the surrounding pure-competition machinery and MIRA had shown that power and speed were available. In this event knobblies were banned so the DT's standard trail tyres weren't going to be so hopelessly out-gripped. My number was called, a voice shouted GO, the engine zinged quiet and clean first kick, and I was off into the unknown while the other riders in my time slot jabbed and staggered beside their tall and temperamental beasts.

Seven miles of twists and turns per lap took in deep sand, hardened mud, wooded slopes, a seemingly bottomless pit of evil mud, and undulating black-custard bog covered by a deceitful skin of grass with a brief respite of dry, grippy, heather-strewn heath as a reward for survivors. Sometimes I earned that reward but most times the DT earned it for me by skimming across the morass past macabre visions of heavier bikes and their riders slipping hopelessly below the surface. Some poor souls took several laps to disappear completely.

I got stuck too, but only twice and not for long. Light bikes are neither as daunting nor as debilitating to drag out, get upright, get



Crank balancer and YEIS plenum chamber make the DT smooth and tractable.

on, and try again. It was very satisfying to get through where more serious bikes with better riders were also having to fight and often losing. I cleaned every section at least once, proving that the bike could do it even if I sometimes couldn't.

The Bridgestone Trail Wing tyres were frequently struggling for grip, but so were everybody's. Despite being near the end of their life they gripped well enough at the rear in deep sand to keep the front from getting bogged down, scrabbled valiantly up the near-vertical hillclimbs (cunningly laid out so that a fast approach was impossible) and, most surprising, the tread blocks were spaced far enough apart to avoid clogging in the sticky stuff as long as the bike kept moving. Thanks to the security bolt I could let the rear tyre down to 12psi without risk.

But it was the engine that was the DT125LC's strongest enduro feature. Developing a class-beating 16bhp and



Bob first tried the LC at a Press-bash in Shropshire . . . Neil (below left) got serious on it at the Bovington enduro.



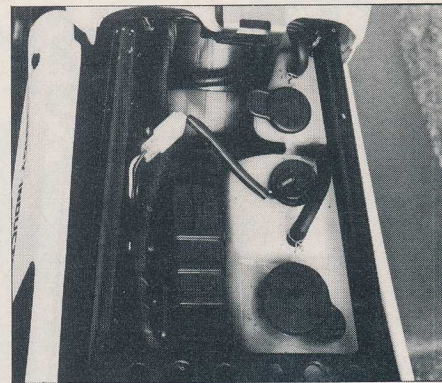
12lb.ft of torque is commendable, and having both peak at 7000rpm is inevitable for a 125. It is a wheelie-pulling motor that needs to be kept in its powerband to bite aggressively. But YEIS didn't let it die when the revs dropped. It waited patiently for a blip of throttle or a change of gear to bring back the action. When the power peak returned, in a sudden surge, the momentary excess was usually dissipated in a burst of wheelspin. So although the engine would sometimes stall because I had stopped, I never stopped because the engine had stalled. The only places where tractability failed were the hillclimbs – it was necessary to scream up in ultra-low first gear.

Off-road handling was at least as good as any other small trail bike, especially taking into account that I was usually travelling at well in excess of normal trail riding speeds in conditions rarely encountered in a normal slice of countryside. I often stood up to insulate myself from a bump only to find that the suspension absorbed it effortlessly. About twice per lap the rear end bottomed. Adjusting the spring pre-load would cure it, but this needed a special spanner that's not in the toolkit. Ground clearance was generous and so was the plastic sump guard. Although the latter tended to collect lumps of unwanted ballast it was reassuring to know it was there, and someone had thought deeply enough about servicing to leave a hole for gearbox drain plug access.

The front forks were too stiff to track accurately in motocross-type turns, causing



Sticky-out rad is vulnerable to enduro ground stuffings and a bit iffy for bending straight.



Monoshock nestles beside oil and coolant reservoirs. Adjustment needs special spanner.

destined to spend most of their time, it had all the endearing qualities of a modern trail bike. Light, easily handled, big framed, attractive, with an all-absorbing, comfortable ride. Being unrestricted it would cruise at 60-65mph and often wind up to near 70 on the slightly *pessimistic* speedo. Superb performance for a trail-geared 125, but at a price – 51mpg overall. We never got better than 53mpg. Despite my reservations off-road, stability at speed on tarmac was total.

The seat was just about long enough for two adults, the motor still pulled happily up to 55-60mph and, with the passenger's weight safely forward of the rear axle, it stayed stable. But two-up journeys were restricted by twitching, swinging arm mounted pillion pegs and lack of a grab rail.

Road handling was generally good, limited only by a tendency for the front end to drop into bends – the price paid for high-up weight and off-road steering geometry. With the bars wide anyway and the big, clear mirrors wider still, it was all too easy to play pat-a-cake with other vehicles in traffic.

Without the benefit of a torque-absorbing loose surface, living with the motor's peakyness had to be learned. First gear was best avoided. Even second and third required right-wrist restraint to keep the front wheel down. Unless riding flat out and so meeting each new gear in the powerband, all six slick upchanges started with a gentle pull that would switch to fierce acceleration at a

moment of its own choosing. Exhilarating, yes. Smooth and relaxed, no. And the SLS drum brakes, which had been a near-perfect balance of power and feel in the enduro, were barely adequate in a road emergency.

Most trail bikes can complete, if not compete, an enduro. There are usually a few entered in any event giving first timers a low cost chance to taste off-road sport or twice-a-year no-hopers like me a satisfying and challenging day out. But the number of people who buy trail bikes for riding enduros must be a tiny proportion of the number who buy them to ride trails, who in turn are a tiny proportion of the number who buy them strictly for tarmac transport.

Yamaha seem to have ignored this logic with the DT125LC. Their publicity says "... the new model has been designed and engineered with super enduro performance in mind, by giving specific emphasis to the improvement of off-road handling qualities while superior on-road performance is retained". They have succeeded, so much so that the 125LC will be replacing the much-respected DT175MX. But why they should want to do this when they already have a pure-enduro IT range is beyond me.

Seventeen-year-old road riders might get a good deal for a change. With luck, if the 12bhp restricted version loses its 4bhp at the top end without messing up mid-range carburation, the learner-legal LC will be slightly slower but much easier to ride. ■

the front wheel to first run wide then dig in the sand and try to flick to full inside lock. Also, on the one fast, flat section (surfaced by stones the size of cricket balls) the front wheel needed undivided attention to keep it pointed in the right direction, keeping me down to a timid 50mph when the motor wanted to do more. The wide bars were a blessing when correcting for both these limitations.

The only vulnerable part of the bike turned out to be the one-sided radiator. Although cleverly disguised by the colour scheme of its plastic cowling, this sticks out a long way on the right. So when, blinded by dust, I lost my way at 40mph and found a large and substantial bush, it got stuffed into the ground. The rad survived but folded back on its flimsy brackets, unpopping the cowling from its grommets and so fouling the mudguard. Duct tape pulled it clear for the rest of the event and, afterwards, with crossed fingers and uplifted eyes, it all bent back into shape. But how many times?

The marsh and madness stripped the chain of any trace of lube and stretched it to near destruction but the spring-loaded tensioner took up most of the slack and a nylon guide kept it on the sprockets.

I survived less well. After twice getting the ignition key in my chest while ricocheting off the instruments on my way over the handlebars, I retired – seven of the necessary 18 laps completed. Moral: next time disconnect the ignition switch.

On the road, where most DT125LCs are

TECHNICAL SPECIFICATIONS

ENGINE

Type: Single-cylinder, reed-valve, liquid-cooled two-stroke with YEIS inlet manifold plenum chamber and gear-driven crankshaft balancer in gearbox. **Bore x stroke:** 56.0 x 50.0mm. **Displacement:** 123cc. **Compression ratio:** 7.2:1. **Carburettor:** 24mm slide type. **Lubrication:** Oil injection. **Max bhp:** 16.2 @ 7000rpm. **Max torque:** 12.3lb.ft @ 7000rpm.

TRANSMISSION

Overall gear ratios: 1st 36.89, 2nd 23.33, 3rd 16.40, 4th 12.54, 5th 10.53, 6th (top) 8.85:1. **Clutch:** Wet multiplate. **Final drive:** Chain.

FRAME and FORKS

Frame: Single downtube, double cradle. **Front suspension:** Coil sprung, oil damped, telescopic forks. **Rear suspension:** Swinging fork with single gas/oil damped coil spring. Stepless spring pre-load adjustment. **Front travel:** 9.1in.

Rear travel: 7.9in. **Trail length:** 4.6in. **Castor angle:** 61 degrees, 30 minutes.

WHEELS and BRAKES

Front tyre: 2.75-21 Bridgestone Trail Wing. **Rear tyre:** 4.10-18 Bridgestone Trail Wing. **Front brake:** SLS drum, 5.1in dia. **Rear brake:** SLS drum, 5.1in dia.

ELECTRICS

Ignition: CDI. **Battery:** 6V 6Ah. **Generator:** Flywheel magneto, output not available. **Headlight:** 45/40W. **Tail/stop lamp:** 5/21W. **Indicators:** 21W. **Warning lights:** Neutral, turn, high beam, low oil, 3W.

DIMENSIONS

Seat height: 33.1in. **Length:** 84.1in. **Width:** 32.3in. **Height:** 47.0in. **Wheelbase:** 53.0in. **Ground clearance:** 10.6in. **Dry weight:** 212lb. **Fuel tank:** 2.0 gal inc reserve.

COMPARISONS

Make	Speed prone	SS ¼ mile prone	Dry weight	Claimed bhp	mpg	Price inc tax
Yamaha DT125LC	69mph	n/a	212lb	16 @ 7000rpm	51	£799
Kawasaki KE125A7	65mph	20.81sec/57mph	215lb	13 @ 6500rpm	53	£649
Suzuki GP125	73mph	18.81sec/67mph	205lb	15 @ 8500rpm	69	£498
Suzuki TS100ERN	60mph	21.20sec/59mph	196lb	11 @ 8000rpm	73	£595
Yamaha DT100	62mph	20.35sec/61mph	206lb	10 @ 7500rpm	90	£617
Yamaha RD80LC	65mph	19.45sec/62mph	172lb	10 @ 8500rpm	71	£646