

SHORT TEST

Honda's Big Softy

Enduro riders who wanted more poke than the XR200 offered can now get it; the XR350. By Team DBR.

As with all racing, there's hotshots and rabbits in enduros. Few, if any, of the hotshots would choose a four-stroke as a competitive ride. Too heavy, too slow, they say though in the next breath admitting that they like the usually easy flow of power.

For rabbits the question of two or four-stroke is largely academic. If you can use all the power offered by a modern 250 or larger two-stroke then you're a hotshot anyway. But overweight is a worry. When you're three hours into an event and it's starting to rain the last thing you want is a heavy machine that'll require heaving around – and picking up. So early advocates of bikes such as Yamaha's XT500 and its derivations have mostly faded, and the only four-stroke ridden regularly in British enduros is Honda's XR200.

The XR200 has proved an excellent clubman's bike; easy to maintain, easy on the wallet, light enough for fatigued limbs to cope with and yet pumping out an

acceptable amount of power combined with reasonable if a bit unstable handling. Those of us who liked the XR would've just liked a bit more poke, a little more roadholding at speed.

Here's the machine; the XR350. It's a completely new engine housed in a comparatively short wheelbase frame, with loads of suspension travel – 11 inches up front and 10½ from the rear Pro-Link.

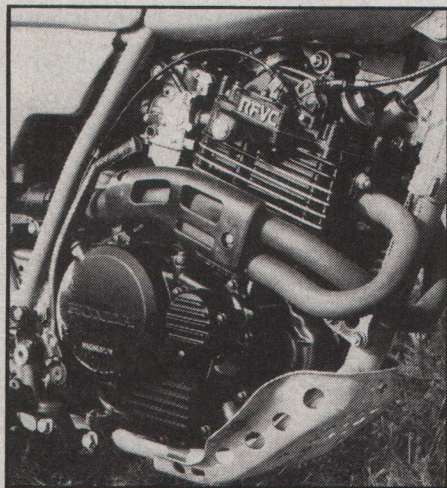
The motor first. It uses yet another new cylinder head design from the Big H called a Radial Four Valve Combustion Chamber (RFVC). Previous Honda four valve heads have had the valve pairs with parallel valve stems, the RFVC sets the valves out at equal angles to each other – radially disposed relative to the bore.

This layout of the valves allows an extremely shallow combustion chamber which, say Honda, in turn means there are no valve seat pockets, no squish bands or peculiar combustion chamber shapes to reduce efficiency. It's an idea

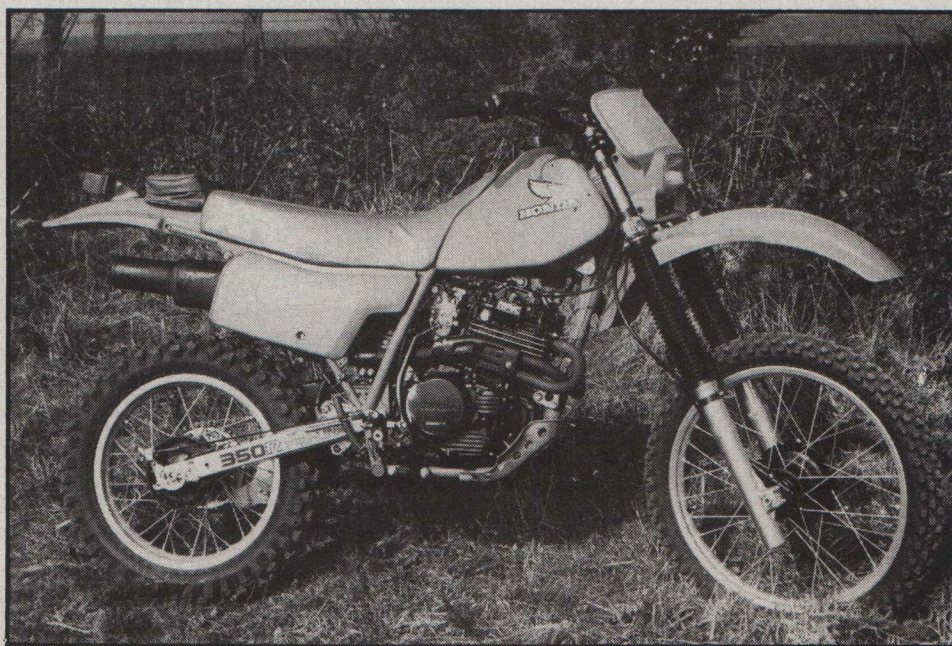
Honda have already used in F2 car racing engines.

The problem with the valves set out like this is that they can't be actuated through conventional overhead cam and rocker arms so

Honda promptly added in *sub-rocker arms* to cope with the extra angle. This sounds complex but in fact has been achieved with remarkable ease, and adjustment of the tappet clearance is still by



Above: Evidence of weight saving everywhere on the XR – dished nuts and bolts, light gauge bash plate. Note difficult access to spark plug. Right: Short wheelbase and shallow steering head angle give reasonable turning ability with stability.





simple screw and locknut. The spark plug is centrally located which is good for ignition but makes it a little hard to get at since the front downtube hides it.

Big four-stroke singles often don't run too smoothly at low revs - it's difficult to get efficient cylinder filling when the gas flow is slow - and to ease this Honda have a similar idea to what Yamaha used on their XT550; two carburetors. Unlike the XT, both the XR's carbs are the constant velocity type with the left one breathing straight to the left inlet port and via a small reed valve to the right port. The right carb comes in a high revs to allow the motor to rev out.

And it certainly is a sweet motor. Even though the bike we had a brief ride on was suffering from a few problems, it would stream through the low and mid-range right from a steady tickover. Our tight test track didn't allow the bike to be revved out in top but about 75mph is claimed for it on the supplied gearing. Since the XR has six gears with a fairly low first ratio for woods-picking,

there's scope for experimenting with overall ratios.

The chassis is also completely new with a full cradle frame unlike the XR200 which uses the engine as a stressed member. A single down tube splits into two to run under the wet sump motor, and is sturdily braced to the rear assembly.

Forks are Showa air-assisted of 41mm diameter and work extremely well though they lack any kind of damping adjustment other than experimenting with oils. The rear single shock Pro-Link suspension with 12 compression damping settings and four rebound, as well as spring preload.

When you sit astride the bike at first it feels big and soft... and a little vague on the steering on the first few turns. But you soon come to terms with that lightness and it's certainly a welcome change to the usual front end heaviness associated with four-strokes.

Brakes are disappointing; the rear drum is okay but it could really do with a better front stopper than the single-leading shoe drum fitted - like the hydraulic disc

the tyre that's come on in leaps and bounds



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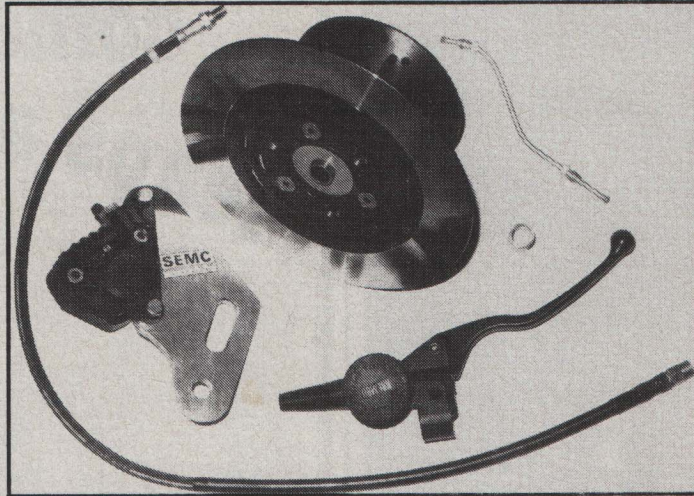
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NEW TRICKS FOR OLD DOGS

Help For Slow Stoppers

NOT so long ago the idea of a hydraulic disc brake on a dirt bike would've invited caustic comment but with the big open class 'crossers getting so quick, they're essential on some bikes. A disc brake usually works better than a drum because it isn't so prone to heat fade but there's the added bonus that in muddy or sandy conditions there's no drum to fill up with slop.

Now Slater, who are agents for the Italian factory of Brembo in the UK, have a range of purpose built disc brake kits for dirt bikes. The pic, right, shows one for a



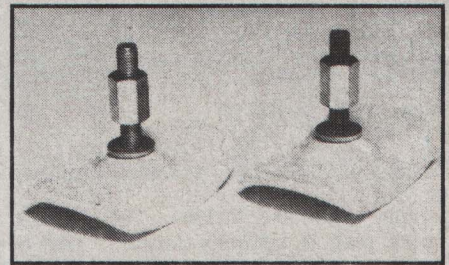
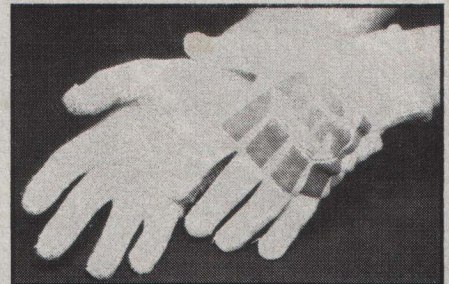
Yamaha XT500 and comprises of a stainless steel rotor, hub, twin piston caliper, hydraulic piping and master cylinder/lever.

They claim the hydraulics are capable of coping with wheel travel of over 300mm, and that the caliper and pad material is specially designed to work efficiently at low speed and in wet and muddy conditions.

Machines for which the kits are available are: Honda XLs, CR125, Kawasaki KDX420, Suzuki RM125 ('83), Yamaha YX125 ('83), XT500, Cagivas, Can-Ams, Husqvarnas, KTMs and Maicos.

Cost of the kit is £172.50 plus postage which is a heck of a lot. More info from Brembo Brakes UK, Collington near Bromyard, Herefordshire.

Hmmm, these gloves are so smart that they'll never get taken out in the wet... but that's what they're meant for, say MX One. As well as keep your digits warm they're supposed to grip on slimy 'bars. £3.50 and available in red, yellow, blue and black or white. From MX One, Unit 59, Garamonde Drive, Wymbush, Milton Keynes. No, these aren't a mutilated form of dentures but tyre clamps - you knew all along, didn't you? In small, medium and large, they cost £3.25 from MX One.



King Thumper

YAMAHA'S king thumper the TT600 is to be imported in limited numbers this summer.

This 595cc SOHC four-stroke enduro mount, not to be confused with the Tenere, has its engine based on the XT550 unit. Lightweight frame, rising rate rear suspension and YZ style forks are included in its specification, and claimed weight is only 123kg.

Fantic Folder



Above: Latest thing from Sammy Miller is a folding tip gearlever for Fantic 240 trials bikes. Price is a total of £6.90 inc VAT and postage from Sammy Miller Ltd, Gore Road, New Milton, Hampshire BH25 6TF.

XR350

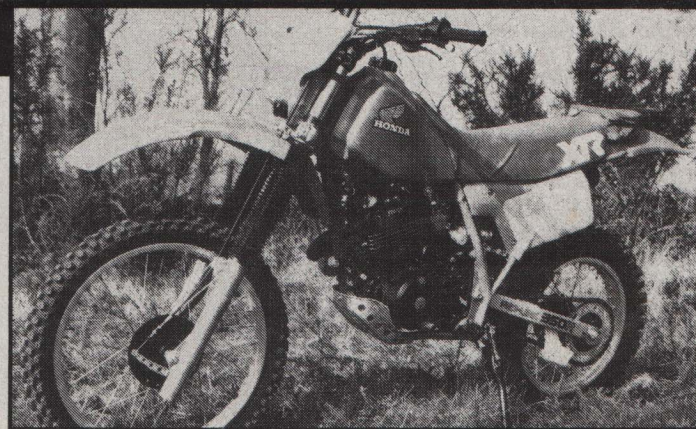
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found on the Stateside XR500, not available in the UK.

We didn't have the bike for long so a full test wasn't possible - that'll come in a future issue later this summer. But an indication of the bike's worthiness can be found watching Honda supported rider Derrick Edmundson this season. Derrick is contracted to ride the XR350 in British nationals though he'll have a modified CR250 moto-crosser for internationals. The XR just doesn't have quite enough speed yet for that level.

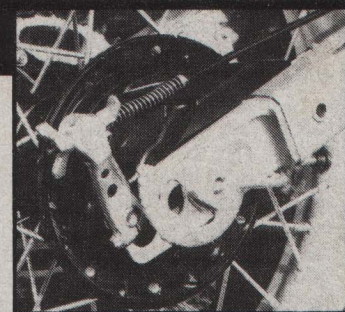
Brief Specifications

Engine: 4-str single, sohc, 4 valves
Bore & stroke: 84 x 61.3mm
Capacity: 339cc
Ignition: CDI
Lubrication: Wet sump
Gearbox: 6 speed



Above: Front brake is barely adequate for XR's bulk and speed. Note rear damper adjuster knob behind carb.

Wheelbase:	1405mm		
Seat height:	930mm	Rear:	280mm travel
Ground clearance:	310mm		Pro-Link, adjustable damping,
Dry weight:	113kg	Tyres:	265mm travel
Fuel capacity:	10.5 litres	Front:	Bridgestone
Suspension		Rear:	3.00 x 21in
Front:	41mm diameter, air-assist,	Brakes:	5.10 x 17in
		Price:	SLS drums
			£1445 inc VAT



Above: Fast action chain adjuster.



Above: Minimal instruments.