

Britain's Top Selling Off-Road Magazine

DIRT BIKE RIDER

October '84 85p US \$2.75

'85 MODELS

TESTS FOUR BIG THUMPERS

MUGEN CR250

SHOCK SERVICING

D.I.Y. TY175

SPENCE POSTER INSIDE



SUZUKI RM250



HONDA CR80



YAMAHA YZ125

SCOOP
PLUS

'85 KX250
IMPRESSION

KTM250





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MOTOCROSS, TRIALS, ENDURO...WE'VE GOT THE LOT!

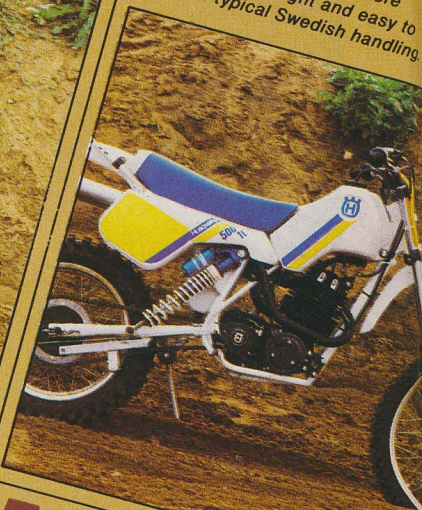
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BELOW: Steve How's Armstrong CMX. Don't be deceived by the looks - there's 560cc of power in that engine.



BELOW: Husqvarna's big bore offering. Lightweight and easy to ride with typical Swedish handling.



RIGHT: Vic Allan's much modified Yamaha TT600. Plenty of power and a chassis capable of getting it to the ground.



FAR RIGHT: The KTM 600 Dave Tomasik has been running in the Haynes series with much success. He's leading it!

A SPOT OF GBH

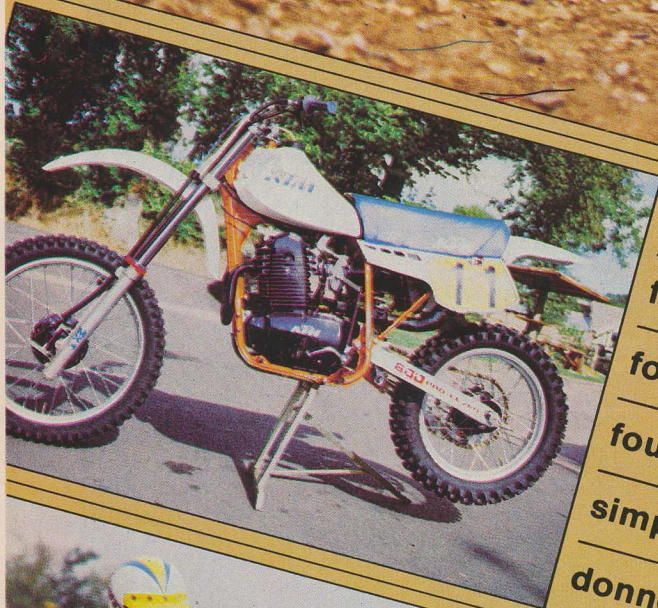


GET the three purpose built four-stroke motocross bikes - one each from Husqvarna, KTM and Armstrong - a modified TT600 Yamaha, take them all to the DBR track in sunny Cambridgeshire, ask Steve Daniels, Steve How, Dave Tomasik and Vic Allan to come along for a ride and there is a situation pregnant with possibilities.

Come to think of it, we could have sold tickets to watch the fun! Just to keep things in order we decided to take Chris "Pacman" Maindonald along to ride each of the bikes (well, there's an Happy Eater just around the corner so he could always test the hamburgers if the bikes weren't to his taste! - Ed).

Due to a misunderstanding, the KTM and Dave Tomasik didn't turn-up on the day, and so we had to try that machine on another occasion. And Steve Daniels, he of the broken ankle, sent along a substitute rider in Alan Brown. The rest was much as we had planned. The bikes all proved to be quite different, each having outstanding points - the Yamaha's suspension, the Armstrong's brute power, the Husqvarna's light feel, and the KTM's gutsy pulling grunt.

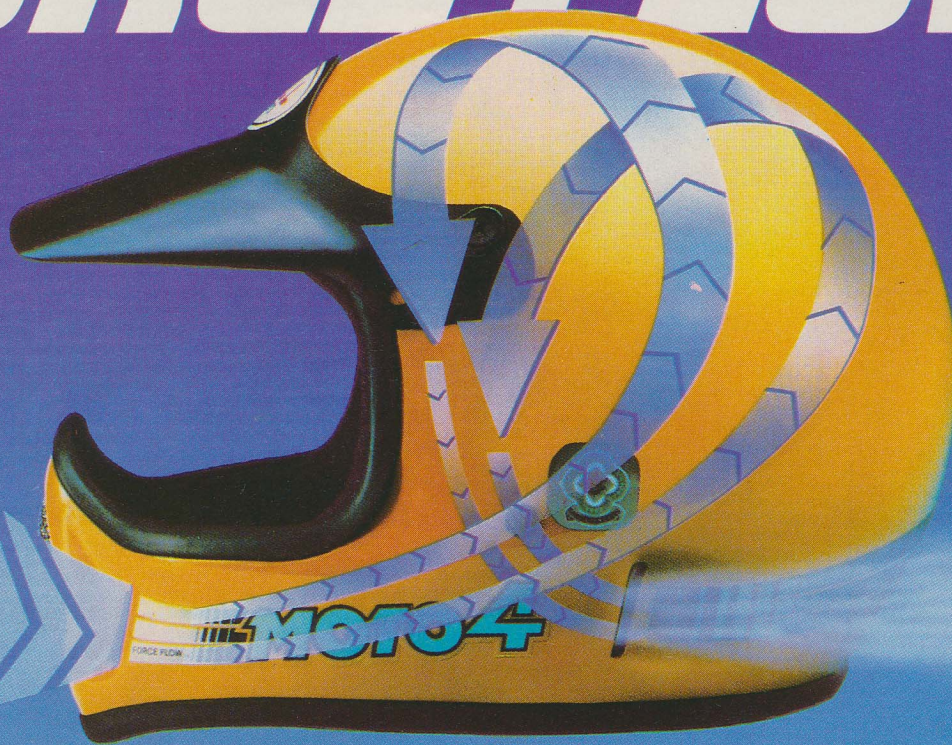
Oh yes, we did manage to get in a burger test, too!



Not many years ago engines of open class dirt bikes featured valves and camshafts. Two strokes were only for the smaller capacity classes. But what are today's four-strokes like. Are they serious race machines or simply playthings for gentlemen racers? Team DBR donned its strongest body armour to find out.



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KTM

WE rode two examples of the 600 KTM. The H.C. Cecil-prepared machine, currently being campaigned very successfully by Dave Tomasik, was given a very brief blast, while a privately-owned, unmodified, GS was more extensively tested.

The 600 feels quite similar to the 495cc two-stroke 'crosser. The bike has the same taught feel. The front and rear suspension, although progressive in their action, do not smooth out all the bumps. There is a degree of feed-back through the handlebars and the seat which, just like the 495, warn the rider not to take liberties.

Where the Yamaha is a smooth, almost wallowing ride, the KTM, like the Armstrong, is firmer. Lighter springs and compression damping settings, front and rear, would, of course, make the ride softer but this is not really desirable because once you get used to it, the taught feel is easy to respond to.

Rapid responses from the rider to transfer his body weight over the back of the bike to improve traction or over the handlebars to alleviate the machine's mono-wheeling tendencies are essential for fast forward progress to be maintained.

The stock bike's power feels strong, while the engine revs cleanly and starting from cold is not too difficult. It is not as reliable a starter as the Husqvarna, however, but is better than the Yamaha.

Having said that, the Tomasik race iron decided to bite back at its rider, prompting an unprintable comment followed by an assurance – which we do believe – that "it's never done that before, illegitimate thing!"

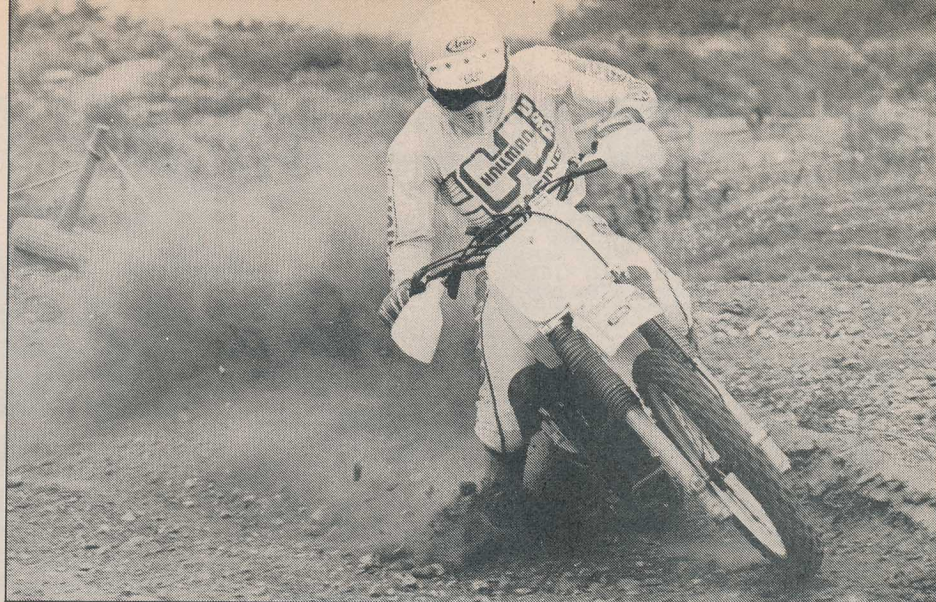
Provided the correct procedure is followed – gently prodding the left mounted kickstart lever and using the decompressor to ease the piston into the ideal position – hot and cold starting can be relied upon. Dave's bike has an Amal carburettor fitted instead of the Dell'Orto one, fitted as standard. Amal spares are cheaper and Gordon, of H.C. Cecil's, has plenty of setting experience with the Birmingham firm's instruments.

The first of the five gear ratios is too low to be useful when racing. Use it and the bike is quite likely to flip over backwards. Third gear can easily be used for pulling away from stationary, as long as the rider biases his weight forward to allow the rear tyre to spin.

The engine comes to the boil quite rapidly, but it is not as sharp as a two-stroke, although the revs rise sufficiently quickly to allow the bike to be ridden out of tight turns without dropping down a gear or feathering the clutch.

Brakes are good; the rear one does lock the wheel quite easily so care has to be exercised to avoid any worry about stalling the engine with the brake. Being a four-stroke, the engine does afford a degree of braking and it's as well to place most of your trust in the front brake, keeping the rear as a steadying device.

The Tomasik machine has a special exhaust and an extensively worked cylinder head, otherwise it's "pretty standard" to quote Dave. It revs more



than the stock bike and does seem quicker but because the bike makes more noise than the stock model it's easy to think it is more powerful.

The bike has been used with inverted White Power forks and with 40mm Marzochis. On certain tracks the White Power units are much better, although overall the bike is probably best with the Marzocchis.

HUSQVARNA

THE four-stroke Husky is quite a looker. It's the white, yellow and blue colour scheme and plastics which do it. From a rear-on view it is hard to decide if the bike is a 500 two-stroke or four-stroke. Only the dual exhaust mufflers give the game away.

Unlike the other bikes tested, the four-valve SOHC Husqvarna does not feature a coupled two-into-one exhaust system. Instead there are two separate exhaust pipes, one running down each side of the bike, and two tail pipe mufflers. By adopting this system Husqvarna is able to make its bike's exhaust note quieter than the opposition.

The reason is simple, by using twin mufflers the Husqvarna has twice the silencer volume. To be as quiet the other bikes would need much larger sized silencers than they feature as stock. Not that the Husky's exhaust noise is over-muffled; it's quite raspy and makes a very pleasant change from the screaming stokers we are more used to hearing.

The required riding technique for the thumpers is also different, and the Husky is no exception. Where a two-stroke allows you to dive hard into a berm with the gas well on, a high gear engaged and the engine just off the bottom edge of its power band, ready for a dab on the clutch, the thumper technique differs because there is no instant power rise available at the dab of the clutch lever.

Power increase is slower, not that the overall level of power output is that much less with a four-stroke engine. The difference exists in the overall weight of the power unit and hence the power-to-weight ratio of the bike and the rate of rise of the power curve. Where in a 500rpm increase in crankshaft speed a two-stroke might double the power output, a thumper's will – with the same relative crankshaft speeds – only increase

Above: When DBR goes testing the dirt flies! The Yamaha came out tops in the suspension department, but starting the bike is a different story.

by a relatively small percentage.

Riding thus demands that the required gear for a swift exit from a turn is selected prior to entry. To make life easier the clutch and gearbox need to be light and easy to operate. The Husqvarna's are both very workable.

We found the TC light and easy to ride, very easy to flick in the air when jumping and sufficiently powerful to be on a par with the other bikes.

While the twin-shock rear end tended to chop about over stutter whoops, it did allow all the power to be laid on the ground without the bike trying to tie itself in knots.

Front fork action is smooth and bearing in mind the fact the bike had only been built the day prior to the test session there were very few signs of initial stiffness in any part of it.

Braking and steering are good. In sand there is no tendency for the front wheel to washout and on harder terrain no evidence of tucking under.

Starting is a first prod on the lever affair when the engine is cold and a couple of hefty swings at it when hot. For a straight-out-of-the-crate machine the Husqvarna is very good.

YAMAHA

THE Vic Allan Mitsui supported 600cc Yamaha, currently holding third place in the Haynes series, is an extensively modified TT600 enduro machine.


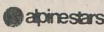











In the TT600, Yamaha makes use of the engine as a structural member of the frame. The lower frame rails are detachable, structural rigidity of the chassis being afforded by the crankcases, which tie the front down tube to the rear sub-frame/swingarm pivot area. Rear suspension is Yamaha's progressive rate Monocross which, in our opinion gives the bike the best feel of all the thumpers.

The way suspension and weight distribution combine to give traction is as important as any other design feature. There is little point in having more power than any of the opposition if the

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Above: Heavy metal in the air, Vic Allan flies "wheel-up," Steve How goes for the perfect landing while Brownie gets things crossed-up.

Left: The four-stroke Husqvarna is light, easy to start and easy to ride. The example we tried had only been built the day prior to the test.





We found the big Armstrong quite a handful in sand. Steve How seems to get on alright with it though; he's currently bidding for the lead in the Haynes championship riding a bored version of the bike.

suspension and weight distribution are incorrectly matched.

In stock form the TT600 is not as powerful as the other four-stroke motocross bikes on test here. However, the modified TT is equal in power, and with the uprated power level rear suspension and traction are excellent.

Handling, feel and braking are all good. The front forks are good, very good. The front brake is a TLS drum. It is possible to fit the disc set-up from the Tenere variant of the XT600, just to make between race maintenance easier. But there is little to complain about with the front drum.

In order to avoid stalling the engine the majority of the braking is done with the front brake. We did stall a couple of times, once due to excessive rear brake use. Then the reluctance to re-start, which has cost Vic a few race results, reared its ugly head.

Ease of starting is, arguably, the most important feature of any race bike. There is little point in having the most powerful engine, best frame, suspension and brakes if the bike is difficult to start.

In this area, the Yamaha is rather poor. Vic has the tickover set at quite a high speed to overcome any in-race stalling problems, but this does not make hot restarting any easier. The combined CV and slide carburettor system fitted to the TT seems to be to blame for the poor hot starting and some time spent curing the problem would be worthwhile.

The TT's gearbox is good and the cogs easy to select. The clutch is not too heavy to operate and the other controls and the ride position combine to make the bike easy to ride. More importantly, they combine to make the bike easy to ride fast!

Deviations from the stock specification TT600 include: Special hand-made exhaust system, tailored for length to augment the effect of the special profile camshaft and ported cylinder head. The rear frame tube loop has been removed and a YZ type rear guard fitted.

ARMSTRONG

THE Armstrong ridden by Steve How in the Haynes series is slightly different from the production version. We tried Steve's bike and, at a later date, had a ride on a "standard" model. The main differences are in the engine department. The How bike has been hogged out to give a swept cylinder volume of nearly 560cc. In addition the head has been worked. The specification is expected to be adopted as standard for next year's production models.

A 40mm Amal carburettor supplies fuel and air to the single cam four-valve engine. Transmission is five speed with fairly close ratios.

Marzocchi 40mm forks, with nearly 12 inches of travel, suspend the front end of the bike. We found the steering quite ponderous. However, if the rider's weight is kept well back, in sand particularly, the front end can be steered exactly where you want it to go. The rear suspension, Armstrong's own rising rate mechanism christened Quad Link, compresses a White Power suspension strut on the How piloted bike. The stock machine uses an Ohlins unit.

Our comparison testing of various suspension struts leads us to believe there to be little to choose between the two and thus the difference comes down to personal preference.

The bike has good traction – it's quite possible to hang the rear-end out speedway style and pull the two wheels back into line by applying full opposite lock and gently rolling the power off. There is no marked tendency for the bike to "high side" when you undertake this type of manoeuvre which, in itself, is praise for the Chrome-Moly (531) frame.

The exhaust note is just a tad on the deafening side of loud. Indeed, the noise at the start of a Haynes race is likely to shatter a window pane at 50 paces!

The Armstrong lives up to its name – well developed biceps are called for when trying to hold on to one of these flying missiles.

So what are the reasons for the popularity of the marque since a typical

Haynes round features twice as many Armstrong bikes than the next most popular, the KTM?

Perhaps it's the seeming indestructibility of the Armstrong coupled with the way it goes – fast.

We didn't think the braking was quite up to the standard of the Yamaha and the bike did not feel as light, particularly over jumps, as the Husqvarna. It's starting is reliable, but both models we tried had the idle speed set quite fast. The need to avoid stalling being given as the reason.

The power is good, the steering slightly different to the others, but for all that it's effective. The Haynes series proves that.

CONCLUSION

WHICH one would we buy? Each of the bikes has its own special feature which makes a definitive "Best Buy" impossible to specify. They all cost roughly the same, all in their stock condition seem to have much the same overall power.

The Yamaha comes out slightly in front in the suspension department but lags well behind when it comes to starting the engine, which is quite an important point!

The Armstrong is different to the KTM, even though they use very similar power units.

The Husqvarna feels lighter to ride, being slightly closer to the feel of a two-stroke than any of the others.

The decision probably comes down to brand loyalty. If you're a fan of any of the marques, or are used to riding and spanning any one of them, that'll be your choice.

But never dismiss them as "old softies". They represent a very different approach to the two-stroke concept of a dirt bike. While they might be almost as powerful and fast and, in certain conditions, rival a 'stroker, they'll never replace them. Thumpers are also more physically demanding and require a different riding technique. And like a good stroker, they're fun!

What time does the fracture clinic open?!

