

MOTOR CYCLE MECHANICS

SEPTEMBER 1977 40p

Win
A YAMAHA XS
250

GRANT'S GREAT TT RIDE



KAWASAKI
KE125: Mixing
business with pleasure

TOMORROW'S WHEELS? SPX 500/QUASAR

MOTOR CYCLE MECHANICS
SEPTEMBER

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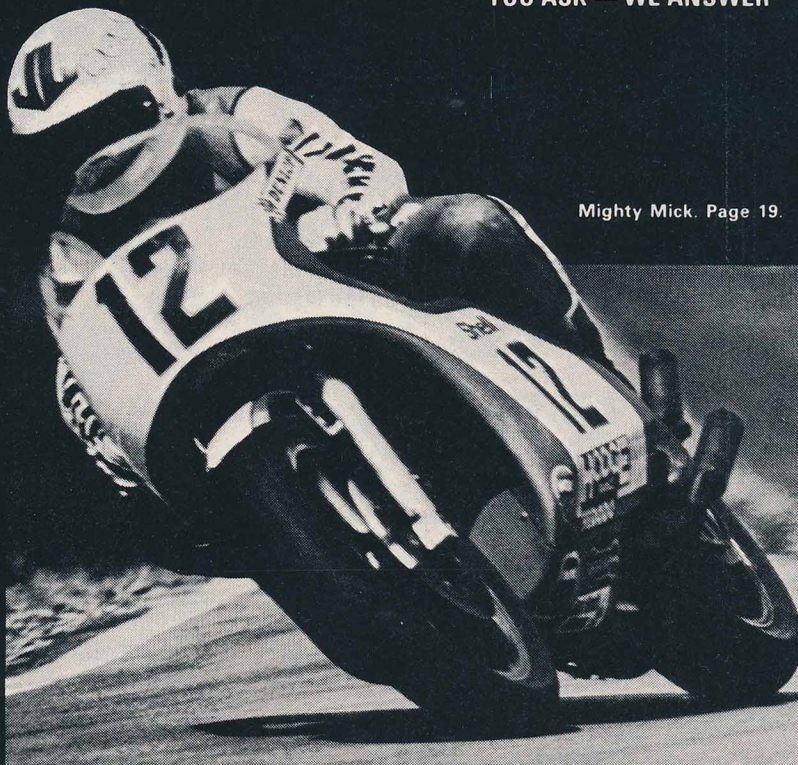
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WHILE Montesa have had a stranglehold on the international trials scene for some years, no-one has ever taken their moto-cross bikes to be anything other than good clubmen's mounts. Even with the forceful Bob Wright in the saddle and latterly, the equally determined Andy Robertson, the bikes never produced the results.

Then, to the surprise of most pundits, Andy suddenly started to hit the headlines with a series of rides which hoisted him to fifth in the British Championship after two rounds. Obviously, his 350 Cappa VB was a most competitive motorcycle.

In fact, the 360 is not the one-day wonder which many people have been suggesting it is. On the contrary, the project was initiated when Bob Wright was riding for the firm and the first 360 I rode was his factory bike, some three years ago. This was a real beast, with violent power and no flywheels worth mentioning which meant that the bike was perpetually trying to tie itself into knots. The chassis, consisting mainly of hacked about 250 parts, also left something to be desired.

A year later, Bob allowed me to try his latest works mount and this impressed me as a very nice racing bike. The power delivery was soft and smooth, so much so that a 4-speed gearbox was used instead of the normal 5-speeder. However, the handling was still rather wayward.

Which brings me to the very latest 360 which as I write this is leading the AMCA Superclass Championship in the hands of Dick Clayton. Our test bike is owned by Paul Ludlam, who runs one of the biggest Montesa agencies in Britain from Broadstone Road, Reddish, Stockport. Paul is a regular and successful competitor in both moto-cross and enduro events and like all his machines, the 360 was immaculately prepared.

Ludlam replaces the original front Pirelli MX tyre with a Trelleborg but leaves the Italian tyre on the rear — more of that later. He also fits the new wide Preston Petty front mudguard and Renthal alloy braced bars, which are lighter and stronger than the original steel ones. Otherwise, the machine is absolutely standard.

Like all current moto-cross machines, the 360 is high off the ground and the vast empty spaces beneath front and rear mudguards indicate that there is almost ten inches of movement, front and rear. Unloaded, the seat height is almost 39 inches at the lowest point but when the suspension compresses four or five inches with the rider's weight, the riding position becomes at least tolerable. Certainly, Andy Robertson who is considerably shorter in the leg than me, does not seem hindered by the high riding position.

Controlling the front end are a pair of magnesium Marzocchi forks. Very exotic, very expensive and very good. Not, perhaps, quite so good as those produced by Maico but so close a second as to make little difference. At the rear, remote reservoir Betors control the swinging arm.

The 360 engine is completely new but still shows that it owes some allegiance to Bob Wright's original fire-engine with the crankshaft mounted clutch — and the power output. Montesa are beginning to move with the times and show this by their choice of primary gear drive instead of the duplex chain used on earlier models.

Lubrication is still by petrol, in this case Bel-Ray MC1 at 40:1 and this seems the most reliable method of lubricating a racing

SPANISH FLYER

Frank Melling rides the latest 360 Montesa Cappa

two-stroke. Oil pumps are very convenient but as well as being heavy, they can also break with disastrous results for both bike and rider.

Montesa use a German Mahle piston with a single Dykes piston ring and a massive booster port at the rear. This arrangement gives excellent gas-sealing and also appears to wear very well since none of the Ludlam sponsored machines has shown any desire for excessive replacements. Feeding the engine is a 36mm carburettor from Bing and despite the lack of a reed valve the big motor could never be made to gas up through over-loading. Quite the contrary was the case with the instant, and impressive, power being available at any part of the rev. band.

Like all Montesas, the 360 had the now famous crinkly cylinder head and barrel finning. As well as looking distinctive, this arrangement has definite cooling advantages since the fins can be widely spaced, making them almost impossible to clog with mud whilst still maintaining a large surface area for cooling.

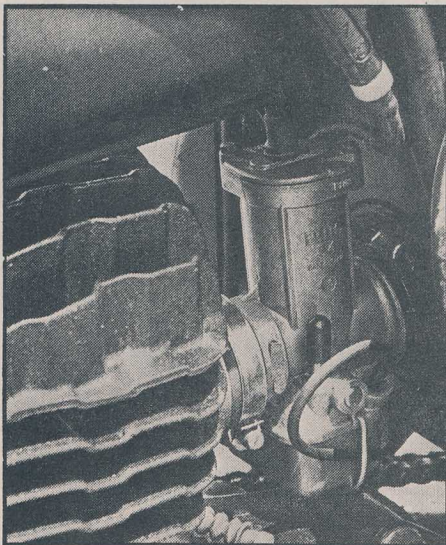
The frame is also of a new design, being of duplex construction to make use of the motor's central exhaust port. This frame was first tried at the back-end of last season and has now been perfected into a very

acceptable racing chassis. It is noticeable that by Spanish standards, the finish was excellent and compares favourably with most mass-produced racing machines. The welds were neat and accurate and there appeared to be little excess metal.

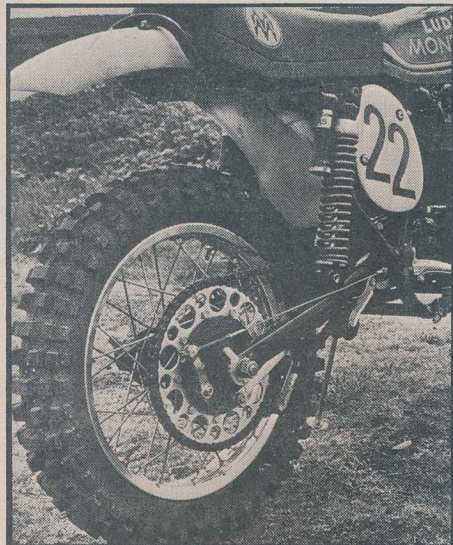
Neat touches abounded and I particularly liked the folding footrests fabricated from tubing. They were obviously light and strong and provided excellent grip. The use of hollow bolts to retain the rear dampers was also a delicate touch.

The running gear was as good as anything in current production with polythene mudguards being fitted as standard. The rear sprocket was drilled for lightness and a twin-air filter employed in the air-filter box. All minor details, but indicative that the manufacturer has sat down and really thought about producing a serious racing machine instead of just lashing up a bike to meet a specific selling price.

My first priority when testing racing machines is now noise. If the bike is going to risk losing what few moto-cross courses we have left then I don't want to know — not even if it is the fastest, best handling motorcycle ever built. The 360 is well-silenced in that the exhaust has the crack well and truly taken out of it but the actual noise level is still



The latest concentric Bing carburettor is fitted.



The swinging arm is box section and controlled by remote reservoir Betors.

on the high side. Bultaco have proved that moto-cross bikes can be as quiet as roadsters and I wish that everyone else would follow their example. Certainly Montesa have the knowledge since their 250 enduro machine is one of the quietest competition machines ever built.

The clutch action is very light and quite progressive for a crankshaft mounted design. In first gear, one is conscious both of the 12:1 compression ratio and the relatively light flywheels which make for a rough, jerky power delivery. But racing is not about pottering around in first gear and once the throttle is opened the 360 takes off at a pace which is breathtaking. The power delivery is instant and explosive and the acceleration will match any standard production machine on sale today.

The benefits of having a motor designed around a four-speed box cannot be over-rated. Changing gear is a time-wasting procedure and in moto-cross it has the added disadvantage of breaking traction. In practice, the Montesa can be raced using mainly second and third with top providing a top-speed potential far in excess of any track I have ever raced on.

At any engine speed above tick-over, the 360 will leap forward in a most impressive manner and this sort of instant urge should be particularly useful in corner to corner sprints.

Unfortunately, our test bike was ruined by the 4.50 Pirelli which is fitted as standard. This tyre is of ancient design and one of its major faults is that it is only of two-ply construction. Even on our bone-dry test track which had optimum drive, traction could be broken at will in every gear. Not only was there a lack of drive but the tyre could be felt distorting as I squirted the bike out of the corners and this led to quite unnecessary wallowing — not the most pleasant of sensations with the front wheel two feet in the air and a rate of acceleration about equal to that of Concorde.

Nowhere was this more apparent than on practice starts where the 360 snaked from side to side as the tyre struggled to get the power on the ground. Equally disturbing was the length of groove dug by the rear wheel after each gear change which showed quite clearly that the tyre could not deal with the engine's

power.

The bike was set up for Dick Clayton and he likes the rear-end very soft. I found this to be rather disturbing since as the torque wound up the rear suspension, the front end became very light. Again there was nothing fundamentally wrong with the bike but I felt that a little more could be got from the chassis. However, I suppose if you are as good as Dick Clayton, then there is little need to worry about the finer points.

The same might be said for the rear brake lever which has an inordinate amount of leverage and is also difficult for my size nine boots to reach. This meant that it was easy to lock up the rear wheel — a fault compounded with the help of the instant slide Pirelli. By contrast, the front anchor was superb and provided smooth easy stopping power which belied its 5 in size.

After ten minutes on the Montesa, I really felt at home. Everything worked out as it should on a racing bike and there were no peculiarities which were either dangerous or disuasive from trying hard. The power was ample and it was of the right sort for a dirt bike and the handling was good. In fact, tyres apart, the 360 Cappa was a very sound racing motorcycle and certainly the most competitive Montesa moto-cross machine I have ever ridden.

The price is ridiculous, as it is for all current moto-cross machines but at £1,113 it is below the top bracket. Spares are also relatively cheap, compared with some of the marques

and there is good availability. In fact, judged all round, there is every reason to choose this Montesa as a regular money-earner in British moto-cross.

TECH SPEC

Single-cylinder two-stroke lubricated by petrol.

Light alloy cylinder barrel and head with cast iron cylinder-liner which can be re-bored. Mahle piston with single Dykes piston ring. Bore and stroke: 83.5 x 64mm = 350.4cc. C.R.: 12:1.

MotoPlat electronic ignition timed at 3mm btdc.

36mm Bing carburettor.

Gear Ratios: 1st.: 1.833:1; 2nd.: 1.428:1; 3rd.: 1.125:1; 4th.: 0.941.

Fuel tank capacity: 1.52imp. galls.

Claimed weight: 218.2lbs.

Wheelbase: 56.2in.

Ground clearance: 13.7in.

Seat height: 38.9in.

Importers: Jim Sandiford, 32 Walmersley Road, Bury, Lancs.

Test bike supplied and prepared by Paul Ludlam Motorcycles, 57-59 Broadstone Road, Reddish, Stockport, Cheshire.

Price: £1,112.80.

