



In the recent years Spanish motocross bikes have been overshadowed by Japanese and German machines in the world championships. Development at both Bultaco and Montesa factories lagged well behind the prognostics of Messrs Yamaha, Suzuki and Maico who were gathering large armfuls of gold both in Europe and America. It must've been rather galling for these Spanish thoroughbreds to find their thunder being stolen from them, but in motocross more than in any other bike sport, nothing is sacred. . . as the British, Swedish and Czechoslovakian manufacturers have all learnt to their cost.

However things started looking up for Montesa when they began seriously redesigning their engines some three years ago, one of the major changes being the dumping of the crankshaft mounted clutch in favour of a layshaft operated item with geared primary drive. Things improved even further in 1978 when Cappra-mounted Andy Robertson took third place in the British Championship and it's this engine which powers the vanguard of Montesa's 1979 off-road fleet.

We took both the Cappra 414VE and its smaller 250VE stablemate down to a very, very greasy motocross course cut into prime Sussex clay, braving the bitter sleet and rain of early February to do our testing. These conditions were perhaps not ideally suited to bikes built in sunny, sandy Spain, but wet weather is no stranger to British motocross, so impressions gained under the circumstances must bode well for the occasional bursts of sunshine we're told we might expect later this year. . . possibly!

The 414's barrel has seven fins, the 250's six which are serrated to improve cooling. In all other respects the engines are similar externally and are comfortably narrow at just eleven inches. Final transmission is protected by a sprung tensioner just aft of the Silentbloc swinging arm bush and a large alloy 'n' rubber guide nearer the rear sprocket. As might be expected, cog sizes differ widely between the two bikes; the 250 has eleven teeth at the

MONTESA CAPPRA 250VE

414 VE, COTA 247



MEAN, MIGHTY AND MONTESA

New versions of old favourites from the Spanish off-road specialist represent a serious threat to the Japanese and West German heavies.

Mark Williams and Charlie Harris test Montesa's new motocrossers. Photography by Ian Dobbie.

gearbox end and 50 at the back end, whilst the corresponding figures for the 414 are 12 and 52. Both crankshafts rest in big roller bearings, with the big and small ends running in needle rollers. The alloy cylinder has a cast iron liner shrunk into it and the pistons have a single dykes ring.

By increasing both the bore and stroke of last year's 360cc Cappra, Montesa have produced a still slightly over-square engine which utilises a hefty 14:1 compression,

conventional aspiration and the increasingly popular Bing type 54 carb to produce an undisclosed bhp figure which, to paraphrase Rolls-Royce's rather coy assertion, is more than adequate. Montesa obviously reckon that both power and torque are so abundant that four gears are sufficient for their 414VE, whereas the 250 has five. Both Charlie Harris (himself an ex-works Montesa rider) and myself would dispute this, for not only is first gear so high as to preclude

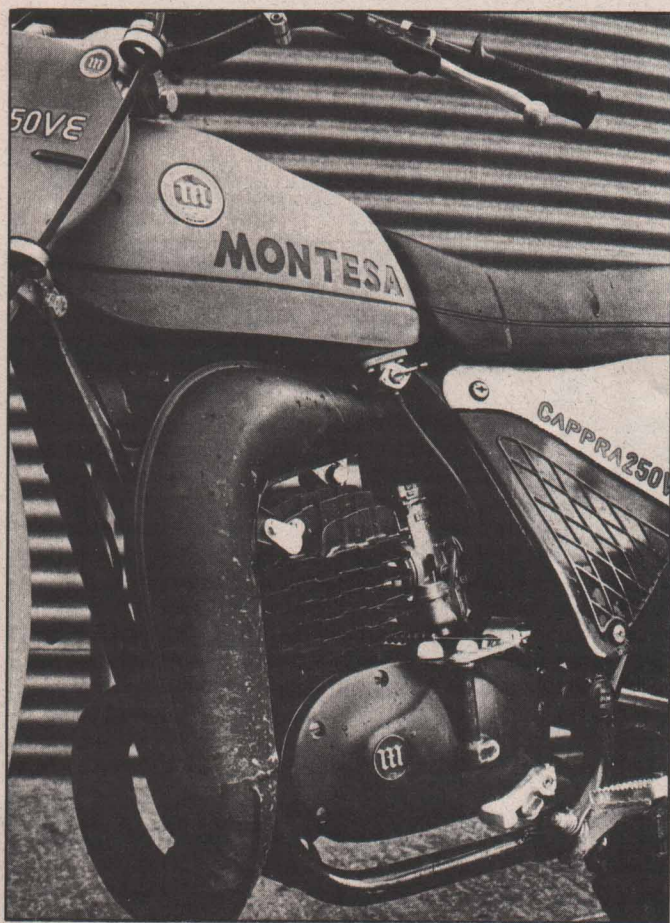
instant grip and consequently a smooth take-off on our soft, wet test track, but top gear, on the admittedly rare occasions when we had enough straight to indulge it, would appear to leave the bike with less top speed than several of its competitors.

The 250 also had gearing problems; mainly that it was too highly geared and so here too, grip was a problem when accelerating away from low speeds. However the selector is more positive than on the 414 as it employs the rotating drum mechanism favoured by the Japs, whilst the bigger engine's transmission is effected via a ratchet and pawl system. Whilst I have no doubts as to the sturdiness of the latter set-up, selection is notchier and neutral harder to find when the engine's running. Like most Southern European bikes, the Montesa had no primary kickstart gearing, which means you have to find neutral before you can kick the engine over.

This had the additional drawback of the rider having to locate his boot on the kickstart which is high and, having done so, he'll find the lever's throw disappointingly short as it fouls the footrest after just a few inches. This unfortunate combination hampers starting both bikes, although the bigger displacement Cappra obviously came off worst.

Once ignited, though, both the engines run cleanly and eagerly with a muted crack emitting from their upward swept exhaust systems that's surprisingly easy on the ear. Clutch action is reasonably light but engagement and disengagement all takes place in the last half inch or so of lever travel, which only exacerbates the high gearing when moving from stationary or trying to feather the clutch. The 414's usable powerband is plenty wide, with no sudden jolt when the horses start to bolt. The same can more or less be said of the 250, although there is a point at which the urge really starts to get *urgent*, about halfway through the range, but it's predictable and certainly not an all-or-nothing affair. The 250 also revs to a much higher point than the 414, as one might expect.

In putting the power to



250VE's engine is similar to its big brother, and nicely finished. Note alloy gear lever, foot-pegs located way back and sturdy frame.

the ground, Montesa have followed Husqvarna's lead and fitted a 17 inch rear wheel to the 414, (but not the 250), shod with a 5 inch Pirelli Pentacross rubber. The Akront rims of the 250 are similarly shod, but it retains the more common 18 inch rear, and this has necessitated slightly different swinging arm dimensions to keep the overall geometry the same as the 414's.

In fact Montesa have eschewed the current fashion for longer wheelbases than of yore, staying with 56 inches and a fairly narrow fork angle. Of course appearances can be deceptive in the case of off-road chassis with long travel suspension which alter steering geometry significantly when the rider is sitting on the bike driving hard into a corner.

In this respect the 414 seems better equipped for stability in tight corners, traversing sweeping berms or simple fast runs across rutted surfaces. With gaitered, 38mm diameter fork legs compared to the unprotected 35mm items found on the 250, and a combination of lighter oil and softer springs than the 54 April Which Bike?

250 (although both are fitted with air caps for variable fine tuning), the bike sits lower on the deck and thus the trail is reduced. I found the 250 more skittish in finite terms, although with five gears it was easier for both myself (a novice) and C. Harris (something else we won't go into) to get around fast on. The 414VE actually lowered in its unladen 38 inch seat height to something Mr. Harris could live with more easily than when he was lifted onto the 250!

The Marzocchi forks are as responsive as ever to sudden changes in terrain and Montesa have thankfully divested themselves of the unhappily stiff Betor rear shocks in favour of Italian Corte & Cosso units which match the front suspension most efficiently. These Italian products are the remote gas reservoir variety and the access to the 'tanks' is effected by undoing three screws from each of the plastic side panels — a somewhat laborious business.

The reason why screws are used rather than poppers, is down to the fact that the off-side panels on both bikes act

as sidewalls for the air-filter compartment. This is a less than satisfactory arrangement in my opinion, as removing said panels after an hour or so's riding revealed considerable quantities of mud, grit and water lying in the base of the box and spattered all over the oiled foam filter. Admittedly we've no evidence to suggest that any of it got through to the carb, but surely external sealing could be made more reassuring?

The brakes are also due for a bit of criticism, I'm afraid, or perhaps it's just that there was too much stretch in the cable for although they seemed to halt the bike effectively and suffered only average fading after repeated stops from medium to high speeds, they lacked adequate sensitivity — too soggy rather than too sharp.

However on the plus side, Montesa have wisely opted for a plastic tank with a useful 1.52 gallon capacity and a stubby shape which affords a longer, deeper and therefore more comfortable seat. The plastic rear fender is also designed to do its job well, but it's matched by a front one that's too short and allows mud and/or water to spray up into the rider's face. Home mods will easily avert this, but on a £1100-plus machine, why should they have to?

With basically the same duplex frame as they've been using for a couple of years now and sensible use of lightweight components, the Montesas are competitively light at 225 and 240lbs for the 250 and 414VE respectively. They also have plenty of power, good although not utopian handling and a slight price advantage over other

motocrossers in their two classes. The high gearing and imprecise brakes are potentially rectifiable, either (and preferably) by the factory or by the expert who — for the moment — is the only category of rider who is likely to be able to exploit the new Cappras' fullest potential. Potential which I look forward to seeing fulfilled in the coming season's results sheets!

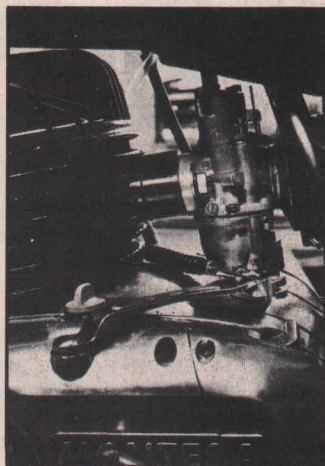
Mark Williams

COTA 247

Mention the name Montesa Cota to any clubman and most will say "oh yes, I had one of those once, great bikes aren't they?"

Bullet proof and never any trouble.

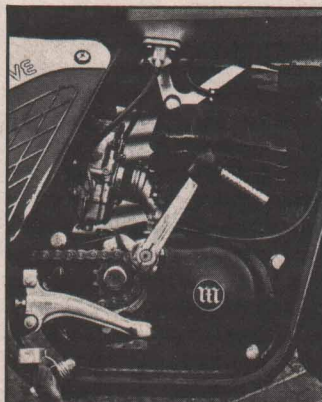
We tend to forget that this Spanish mountain goat has been with us for a decade and that its heritage goes back even further; in fact Senor Bulto himself was



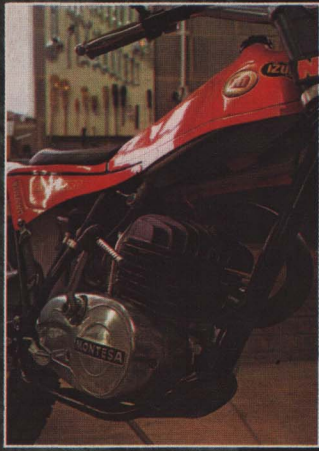
working in the design department for many years.

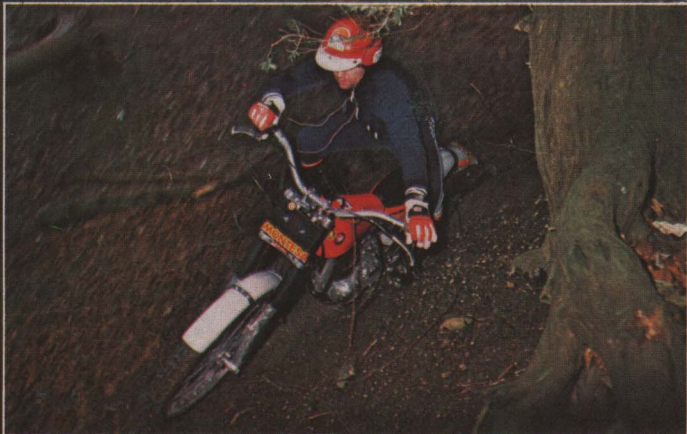
During the ten years that the Cota 247 has been with us, success has been its story, with people like Don Smith taking the European Crown (now the World Championship) and also the French, Belgian, Spanish, Dutch, German and British Championships. This is a truly European trials bike.

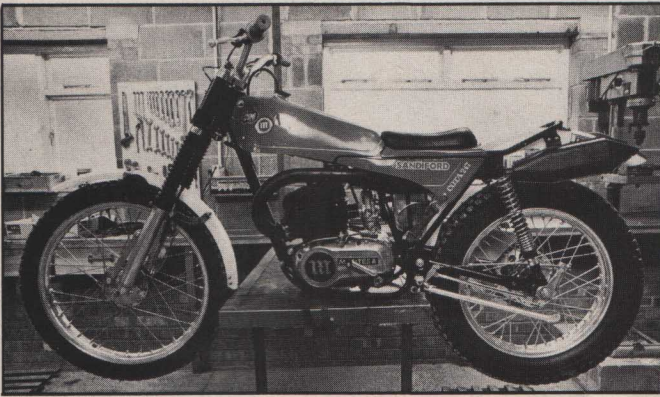
When Pedro Pi, Montesa's designer — cum — competition manager, finally put the last nut and bolt in the first Mk I Cota, did he have an inkling that this bike was going to be so right and have such success through to the Mk 5 version then on to the Ulf Karlson model and finally the 247C, each change being a sound and sensible improvement, no gimmicks or futile cosmetics?



Gear lever location is too high for short legs.







The latest Montesa 247C has all the modern sporting refinements such as air forks with oil damping, a super slim tank and seat assembly, unbreakable fenders, up-rated rear shocks with longer travel and a very smooth motor.

The engine has now been derated to 237cc having been done to appease continental tax and licenses legislation but Montesa have countered this by letting the Cota breathe easier through a larger air box and porting modifications. The carb is a Spanish made Amal of 27mm with a Mikuni type choke arrangement giving instant starting. Gearbox is a positive five-speed unit with constant mesh pinions, transmission is by helical gears of hardened steel and the clutch is unbreakable, with multiple steel discs in a bath of oil and ignition is by flywheel magneto.

I decided on taking the Montesa to a trials training ground where I thought that the Cota might just be out of its depth; that is, huge drops with little or no run to climb out, gasping climbs to be taken in third gear where second would spin to a halt, and clutch abuse that would make an onlooker cast his eyes away and mutter "bloody fool". I had to think again, the 247C took it all and was ready for more. My day of barnstorming was drawing to a close and seating myself on a bank I drew a deep breath then came to these conclusions:

The low centre of gravity gave exceedingly good stability but grounding the engine bash plate sometimes threw the bike off line.

Front forks were a little hard but a pound or two drop in pressure would soon put this to rights.

The engine's ability to rev-out in the gears was excellent and yet could be abused by running in too high a gear with the very minimum of snatch, and all this without a reed valve!

Steering was quick and precise and without the unnecessary hassle of tucking over when on full lock.

Seat height is very low, enabling my little legs to paddle when needed.

Front fender clogging was a bit of a problem, but only became apparent when I was up to my armpits in mud. Easy solution to this is four pieces of alloy 1½ inches long by ½ inch wide with holes either end which easily bolt on to the forks and fender, lifting it away from the wheel; hey presto, all okay.

Brakes were good but needed to be dried out after continuous stream riding.

The Montesa 247C is an excellent but underrated bike that would give good service over a long time with a minimum of maintenance.

Ideal for a novice, clubman, or open to centre expert competing in the 250cc capacity scene. *Charlie Harris*



One (strong) man can lift lissome Cota 247 (top left), Cappra's shortish wheelbase gives it a stubby, but purposeful profile.

	250VE	414VE	COTA 247
Price:	£1149	£1175	£830 + delivery £13.50
Engine:	2-stroke single	2-stroke single	2-stroke single
Capacity:	246cc	413cc	237.5cc
Bore & Stroke:	70x64mm	88x68mm	78x64mm
Compression Ratio:	14 to 1		11 to 1
Carburetion:	Bing 54	Bing 54	Amal
Maximum Power:	n/a	n/a	n/a
Primary Drive:	Gear	Gear	Gear
Clutch:	Wet multi plate	Wet multi plate	All metal, wet multi plate
Gearbox:	5-speed	4-speed	5-speed
Electrics:	Motoplac elec. ign.	Motoplac elec. ign.	6v Flywheel mag
Fuel Capacity:	1.5 gals	1.5 gals	1 gallon
Suspension:	Marzocchi oil/air (f) Corte & Cosso units (r)	Marzocchi oil/air (f) Corte & Cosso units (r)	Montesa (f) Betor (r)
Tyres:	Pirelli 3.00x21 (f) Pirelli 4.50x18 (r)	Pirelli 3.00x21 (f) Pirelli 5.00x17 (r)	Pirelli 4.00x18 (f) Pirelli 2.75x21 (r)
Brakes:	Drum (f) Drum (r)	Drum (f) Drum (r)	Drum (f & r)

DIMENSIONS

Wheelbase:	56.2ins	56.2ins	51.5ins
Seat Height:	38 ins	38 ins	31.2 ins
Ground Clearance:	13.7ins	13.7ins	11.7ins
Weight:	225lbs	240lbs	200lbs
Importer:	Jim Sandiford Ltd 38 Walmersley Road Bury, Lancs		