

SIX BIG BORES TAKE THE MX TASTE TEST

34355

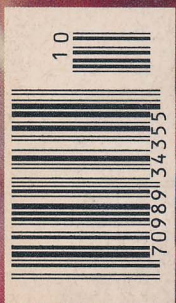
# **DIRT BIKE**

**USGP:  
WOLSINK WINS**

OCTOBER 1976  
\$1.00  
UK 50p

**YZ175C  
NEITHER FISH  
NOR FOUL**

**WOMEN'S  
NATIONALS**



**ALL DAYS OF TWO DAYS  
250 NATIONAL MOTOCROSS WRAP**

# DIRT BIKE

VOLUME SIX NUMBER TEN OCTOBER 1976

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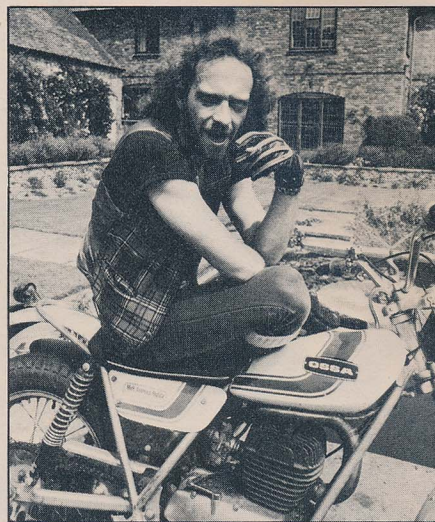
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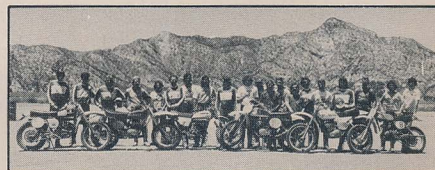
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ON THE COVER: Gary Jones shows the results of an afternoon of open class testing.  
Photo by Bruce Woods.

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## MONTE'S PYTHON...

No doubt there are countless Montesa freaks out there who have been helplessly hoping, year after year, that an open class machine by their favorite manufacturer would eventually be unleashed upon the dirt-pounding public. In fact, we have heard stories of LaCross owners who had camped out in front of their favorite dealers ever since the first rumor of the big-bore blasters' existence first hit our shores back in '66, all in order to be first in line and thus assured of a chance to own one of these rare beasts.

Your waiting is at last over. They are here. Maybe not as many as would have been in demand in '66, but perhaps enough.

As do most bike builders, Montesa uses the same chassis for both the 250 and open models. The new VA (as opposed to the old VR) has undergone a general updating in the suspension department, something that seems to have become a necessity from one model year to the next, improvements come so quickly these days. Basically, you get a fine new set of Montesa/Betor forks up front and low-pressure, adjustable gas shocks by the same name out back.

The one thing that sets this bike apart from its contemporaries is the crankshaft-mounted clutch. The main advantage to this is the elimination of a big and heavy clutch on the mainshaft for a smaller, lighter, half-the-size clutch on the crankshaft. Design problems arise when attempting to keep critical balance to avoid excessive stress on the crankshaft. Consequently, Jawa-CZ is the only other big-bore manufacturer which has had previous success with this design. While it was a bit sticky when cold, the clutch performed excellently once warmed up.

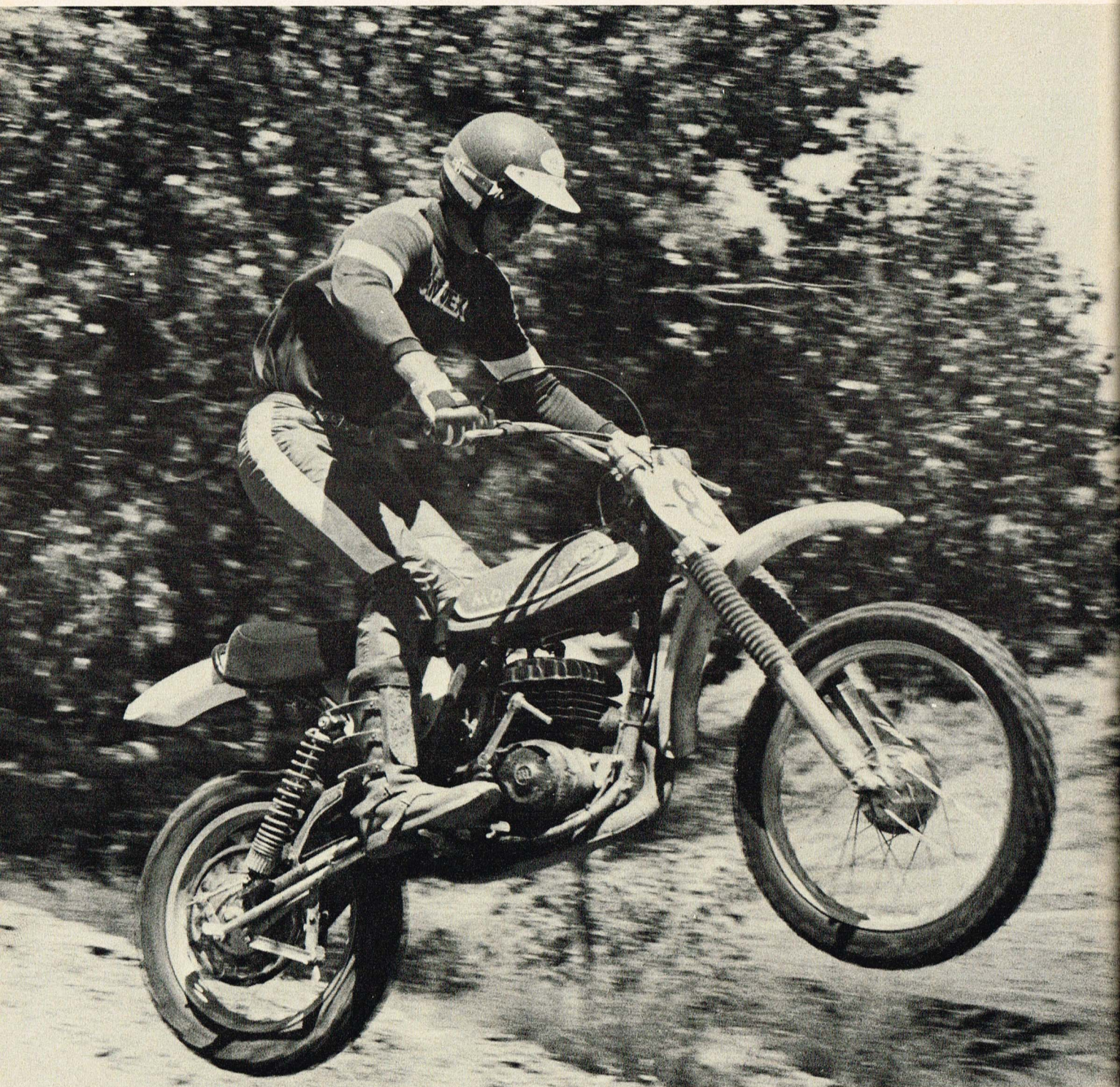
Another oddity is the bore/stroke ratio, which remains 83.5mm/64mm. A 64mm stroke is common to most 250s and quite short for a big boomer.



The misadventures of Captain Cappra . . .

# MONTESA 360 VA

by the DIRT BIKE Staff



#### CASTING AN EYE . . .

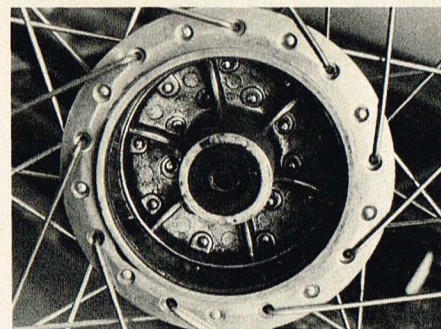
Wheel assemblies front and rear are as sturdy as they are light. Green label ridgeless, shoulderless Akronts, such as those found on Husky, Ossa and Bultaco, protect the Montesa from rock abuse (similar to but not the same as the Blue Oyster Cult). These green label rims stand up much better than the yellow label items which are normally designated for trials use. We suffered no broken spokes or dings.

Wrapped around those rims were

a set of Pirellis that we were none too fond of simply because they weren't well suited to the consistency of dirt we encountered.

Both hubs are highly polished alloy. The rear is conical and the sprocket that's attached has holes in its holes. The front is full width but has a built-in bumper potential. If a spoke breaks the end will fall into the hub and could cause the brake to lock.

The Montesa-designed Betors up front are all new with 204mm of



Should one of the front spokes break on the right-hand side, the head of that spoke will fall into the brakes.



travel and are the best Betors we have felt so far. That is, after straight 24-pound springs were substituted for the two-spring-per-leg setup by the manufacturer. Oil no longer spurts from the vented caps. Both legs and sliders are longer for more travel and adjustability, and a circlip now holds each seal in so they are suitable for air pressurizing. Both compression and rebound dampening are right on the money, for they never seem to do anything wrong. They follow the holes and bumps with precision. Seal drag is virtually nil.

Under the heading of "Strange But True" are the fork boot breathers. Up top the boots are clamped to the bottom of the bottom



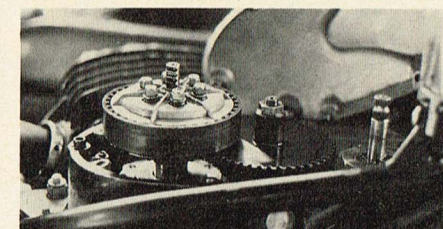
Giant-size Twin-Air in-a-box.



By pushing lightly with your finger you can leave a dent in the rubber air boot that will leave an opening into the air box.



Rear brake pedal provides no height adjustment and is only a finger away from the frame tubes when engaged before you start to ride.



The crankshaft-mounted clutch is installed some 20mm away from the nearest main bearing.

crowns with a breather tube coming up through the crown, looping up, and hidden behind the number plate. These tubes replace the small vent holes usually found in the back of most boots. Now, when pushing down on the forks, you hear a rush of air as it's forced through the tubing. Still, the boots pump up like balloons on fast fork movements. Neither seal leaked while we had the VA.

Out back, the gas Betors that come stock are way oversprung and the dampening, especially on compression, is much too heavy. Enough to give you a very rough ride and to cause the rear end to twitch about in any direction it desires, very quickly and with little warning. When you add this peculiar handling feature to the way the Pirellis refused to take hold of our Southern California adobe, along with the potent power punch and too low gearing with an eighth-turn throttle, you are instantly reacquainted with that old familiar feeling known as fear. No, make that terror. We opted for a pair of Boge/Mulholland LTGs offered to us by the distributor and soon to be available at Montesa dealers everywhere. Springs on the Boges are of a lighter wind and both compression and rebound damping are roughly half that found in the stockers.

A new air box surrounds a Twin-Air filter, which can be serviced by removing the left number plate. Air enters through a rather small hole in the rear of the box. The rear fender takes care of any splash problems. And we encountered the same difficulties with this 360 VR that we did with the 250 VR we tested some months ago. The rubber air boot is merely stuffed into the opening in the box and *does not provide an adequate seal*. In fact, the bike had already been looped once when we got it because of a stuck throttle and it stuck again once on us.

Before our test ended a penny-sized chunk of that pretty fiberglass tank broke away where a bubble had formed in molding. There are certainly hundreds of applications where fiberglass is a perfect material, but a dirt bike is not one of them.

Front and rear fenders are tough injection-molded plastic with that marvelous Montesa "M" molded in. They will hold up very well.



We encountered a number of difficulties with the rear brake pedal. Not only does the pedal have no adjustment for height, but the stock position is roughly five centimeters too high. The pedal also bows out in the center, forcing the rider's foot away from the pedal when returning the foot to the peg. Worse yet, even in one moto's time the rear brake itself will fade and wear enough to bottom against the frame tube, resulting in braking loss. Despite all the lightweight com-

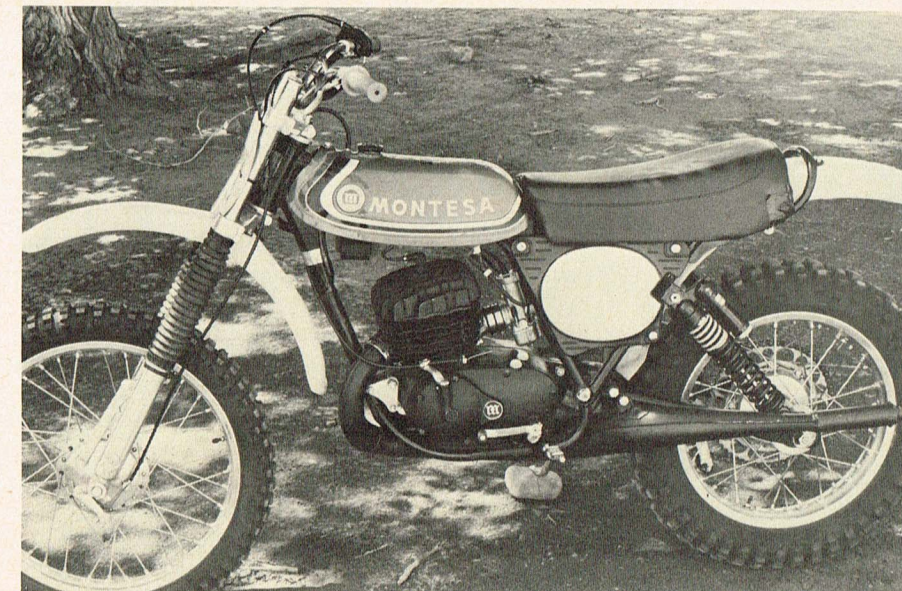
ponents, the 360 VA weighs in at a bit over 105 kilos (233 pounds) without any petrol.

#### OUT PLAYING RAYMOND BOVEN OR HAKAN ANDERSSON

In order of their dominance as outstanding features are the Montesa's forks and power. The forks are so excellent that a soul-searching effort is required to notice them at all. Simply top-line stuff.

Power delivery is extremely smooth and torquey, though it

becomes difficult to tell because of the way it is uncertainly transmitted to the ground. The engine comes on strong without being overpowering, but with the eighth-turn throttle, low gearing, slippery rear tire and stiff shocks, that warm feeling is elusive. Gone before you know it. The distributor switched to a 13-tooth countershaft sprocket from the stock 11-tooth and shod the Cappa with Metzlers for us. This helped considerably, but a quarter-turn throttle would have helped



even more.

After switching to the Boge/Mulhollands the rear end worked up to the limits of its design. Not top-notch, but working at least. Travel is limited to 160mm (about six inches) and only so much can be done.

Steering geometry is more or less neutral as equipped and can be changed to suit personal preference by sliding the tubes up or down in the fork clamps. With the Metzlers the front provides a fair amount of confidence and the rear end calms down considerably. A bit more rear suspension sorting might have removed that driving need to find a berm even when there wasn't one.

Because of its shape, the shift lever forces the rider to use the side of his boot rather than the toe. But, after a little custom-bending that problem is gone and you can settle down to dealing with the basic slow-shifting gearbox. Using the clutch helped and the lever needed to be lifted all the way to engage the next higher gear. During the big-bore shootout third gear came to grief on the Montesa. A piece was chipped away and the gear required replacement. Additionally, the shift shaft sticks out too far beyond the case and tends to catch boot soles between the shaft and the peg.

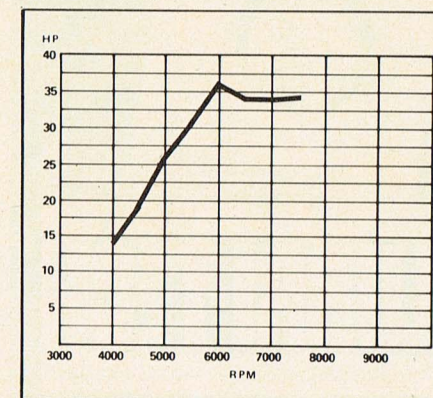
Bombing down the straight toward the first corner you'll soon find out that the front brake is weak and will require many fingers and much pull to slow your speed sufficiently. The rear brake also requires a firm toe, but does the job if, and only if, you pay close attention to its adjustment so that

the pedal doesn't encounter the frame. With such an uncertain rear brake the VA should certainly come with a kill button. Not so.

Slip into a tight left-hander and you'll be painfully aware that the kickstarter shaft is poorly located — as it bangs into the front of your shin with each ripple or bump.

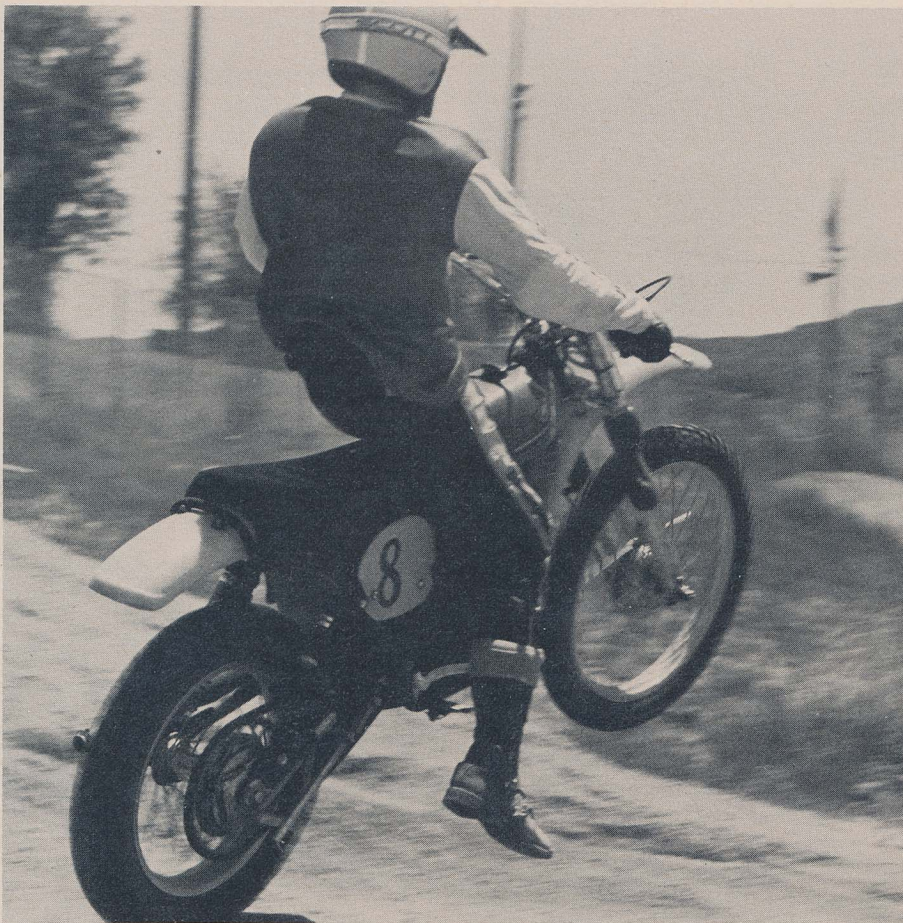
After a bit of rejettng the motor ran cleanly throughout its range. A Spanish Bing does the mixing and a huge head pipe and downpipe help the burnt stuff escape. The rear of the pipe runs parallel to the ground and drags on left-hand bermed corners where the bike is heeled well over. It picked up several good-sized dents. A hair under 36 hp is certainly a decent figure for a 500-class bike, but with the four-speed box the VA is definitely limited to motocross. Even there it will require some regearing. It is interesting to note, though, that only two out of our 11 experts felt that the VA needed a fifth gear.

In order to gain necessary ground clearance for the low pipe the swingarm pivot is located relatively



#### MONTESA 360 VA

- Price (approx. retail, West Coast): \$1790
- Engine . . . Two-stroke, piston port single
- Displacement . . . . . 350.4cc
- Bore & Stroke . . . . . 83.5mm x 64.0mm
- Compression Ratio . . . . . 12:1
- Carburetion . . . . . 36mm Bing 54
- Standard Jetting:
  - 160 main jet, #3 needle, 40 pilot jet, needlejet 2.88, slide 0.
- Horsepower . . . . . 35.9 at 6000 rpm
- Clutch:
  - Multi-plate wet, mounted on crankshaft, all steel
- Primary Drive . . . . . 2.045:1
- Transmission Ratios:
  - 1) 1.846
  - 2) 1.466
  - 3) 1.176
  - 4) 0.947
- Final Drive . . . . . 520 Joresa
  - 11-tooth countershaft
  - 56-tooth rear sprocket
- Air Filtration . . . . . Wet foam
- Electrics . . . . . Motoplat (electronic)
- Starting . . . . . Non-primary kick
- Lubrication . . . . . Pre-mix
- Recommended Fuel . . . . . Premium
- Recommended Oil . . . . . None
- Fuel Tank Capacity 6.5 liters (1.7 gallons)
- Frame:
  - Chrome moly seamless drawn steel tubing, semi-double cradle
- Suspension:
  - Front: Montesa telescopic fork with 204mm travel measured
  - Rear: Gas Betor shocks with dual springs and 160mm travel measured
- Wheels & Spokes:
  - Front . . . . . Shoulderless Akront WM1
  - Rear . . . . . Shoulderless Akront WM2
- Tires:
  - Front 3.00 x 21 Pirelli Motocross MT07
  - Rear . . 4.50x18 Pirelli Motocross MT16
- Dimensions:
  - Wheelbase . . 144.1 + 2.3cm (56.7 inches)
  - Swingarm length . . . . . 47.0 + 2.3cm (18.5 inches)
  - Ground clearance . . 30.0cm (11.8 inches)
  - Bars, height . . . . . 114.3cm (45.25 inches)
  - width . . . . . 85.3cm (33.75 inches)
  - Pegs, height . . . . . 37.0cm (14.6 inches)
  - width . . . . . 48.5cm (17.2 inches)
  - Seat Height . . . . . 87.5cm (34.5 inches)
  - Fork angle . . . . . 29.5 degrees measured
- Weight:
  - 105.6 kilos (233 pounds) without fuel;
  - 44.4% on front, 55.6% on rear
- Brakes:
  - Front: 130mm cable-operated conical drum
  - Rear: 150mm cable-operated conical drum
- Instruments . . . . . None
- Lights . . . . . None
- Silencer . . . . . Yes, but MX only
- Spark Arrestor . . . . . None
- Warranty . . . . . None
- Parts Prices:
  - Piston: \$49.00
  - Ring: \$10.90
  - Clutch cable: \$2.00 inner cable only; \$3.00 complete
  - Brake pedal: \$18.00

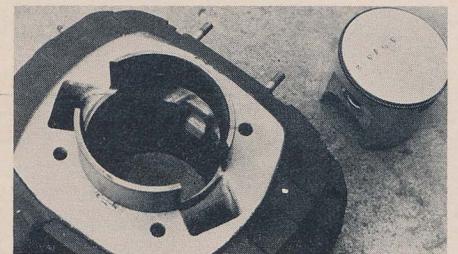


high. This results in high engine weight, which isn't awfully disturbing, and high peg location, which is rather annoying. Add to this a rather low seat height and you get discomfort. This is one of the worst seat/peg relationships going. Your legs are bent much too far to make standing or squatting anything but difficult. When you're standing you feel like Jaak van Velthoven. Unless your feet are absolutely parallel with their surface, the pegs are too slippery around the edges and become downright dangerous when wet.

#### WHAT ELSE?

Two screws thread into the swing-arm just above the bronze bushings and provide a method to lubricate the bushings with some convenient 40-weight oil.

Spark is provided by a convenient Motoplat electronic ignition. The Montesa is an easy starter.



Cylinder uses very basic porting and puts out a very usable powerband. Huge 83.5mm Spanish-made Mahle piston uses single Dykes ring.

Inside edges of the chain guide are lined with rubber to prevent wear and noise. Unfortunately, the guide is a bit too far away from the rear sprocket and the chain on our bike took a hike twice. When the rear suspension reached full compression, which was unlikely with stock shocks, the shock movement knocked the chain guard itself off.

All cables have lubing holes which are supposed to be covered by little plastic sleeves. The sleeves continually slide off, exposing the inner cable to the elements. Bare nekkid. Also, the clutch and brake cables have screw nipples rather than conventional soldered ball ends.

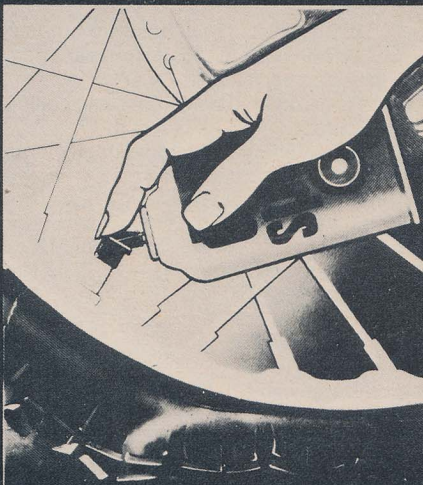
There is only one pipe mount. If it breaks, damage to the cylinder is possible.

Because of the exhaust pipe the sidestand must be on the right. Right side is chain side making sidestand side the wrong side.

*Continued on page 81*

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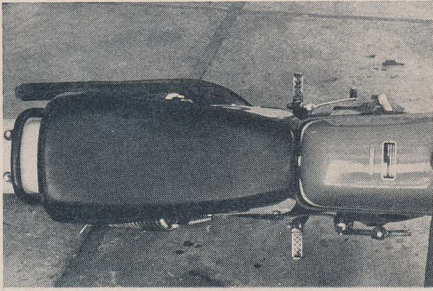


# LUBRI-TECH

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## MONTESA 360

Continued from page 66



A top view shows the wide rear end of the tank, the re-bent brake pedal, obtrusive kickstart pedal, the wide shift lever, slippery pegs and exhaust pipe that hits your left heel.

A wide hump at the rear of the tank can provide more pain than the worst deviant ever imagined, especially in conjunction with the slippery pegs.

Just above the countershaft sprocket there is a vent hole for the transmission which is wide-open to the elements.

We liked the grips.

Thankfully, the plastic throttle has been discarded in favor of a less dangerous aluminum one.

Because of its bend, the front brake lever is too far from the bars, making it hard to use.

Along with the previous grievances concerning the exhaust pipe, it also burns the clutch cable.

### ALL TOGETHER NOW

There are at least a couple of motorcycles which have passed through the DIRT BIKE starting gate which we have described as having the proper pieces, but suffering from internal revolution. They just aren't that happy together. The 360 VA is another one to add to the list. In stock form, the big VA takes three hands, perfect reactions and nerves of steel to get you around the course. If you've spent any time at all on a number of other stock bikes, you won't even want to bother. It takes gearing, shocks and tires to make it more than pure excitement.

Unless you're already sold on Montesas and have a very good dealer close by, we wouldn't recommend the VA. There are many bikes around for a similar price with similar motor performance that provide the added bonuses of sorted-out suspension and handling, an out-of-the-way pipe, overall good feel, versatility, better brakes, less things to fix, etc . . .

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