

NAT'L MX OPENER / WHAT'S WORKS FOR '77

# DIRT BIKE

JULY 1977

34355

\$1.00  
UK60p

**175cc ENDUROS**

**YAMAHA**

**CAN-AM**

**PENTON**

**WHICH  
IS KING?**

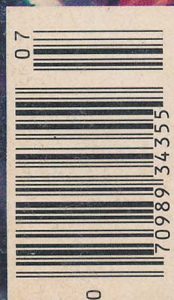
**CAN-AM 250**

**MX3-**

**WONDER IN**

**ELLIS**

**LAND?**





# DIRT BIKE

JULY 1977 VOLUME SEVEN NUMBER SEVEN

## TESTS

### 32 CAN AM 250 MX3

*If you race it on a dyno it'll never lose.*

### 46 175cc ENDURO/ET SHOOTOUT

*Penton, Yamaha, and Can Am take the time test.*

## FEATURES

### 36 BERNIE SCHREIBER PROFILE

*In England they're calling him "Barging Bernie".*

### 54 WORKS BIKES FOR 1977

*Hangtown brings out the 125 and 250cc factory efforts.*

### 58 SCOTT AUTREY

*Some left-handed compliments from the Speedway star.*

## COMPETITION

### 24 GRAND NATIONAL CHAMPIONSHIP MOTOCROSS FINALS

*Amateurs get their day at the Astrodome.*

### 40 THE CALIFORNIA CITY QUALIFIER

*Five hundred miles in two days.*

### 50 THE HANGTOWN 125 AND 250cc MOTOCROSS NATIONALS

*The Honda steamroller and Danny LaPorte.*

### 62 ALABAMA 10-4

*Dirt Bike CBs across the country, Burleson beats the best.*

## TECHNICAL

### 66 SHOPRAG

*How to run over people with less than fatal consequences.*

## DEPARTMENTS

### 4 WOODS

*Pot luck and leftovers.*

### 6 BITS AND PIECES

*Hot news from Len "Jimson" Weed.*

### 8 RIDERS WRITE

*Soon to be called "Advice to the lovelorn."*

### 10 ASK THE EXPERT

*A Petty for your thoughts.*

### 12 HOT SET UPS

*Come on, troops, you can do better.*

### 14 BURLESON ON ENDUROS

*King Richard checks in with us.*

### 80 NEW PRODUCTS

*Lots of things you'll wish you had.*

### 84 LAST LAP

*Who won what around the world.*

### 90 CRASH AND BURN

*The misfortune of our friends does not displease us ...*



Rock rockets ... Pg. 46



Ankles provide excellent traction ... Pg. 66



Bet you can't beat one ... Pg. 54

DIRT BIKE (July 1977) is published monthly (semi-monthly in Feb., Aug., Nov.) by Hi-Torque Publications, Inc., with editorial offices at 16200 Ventura Blvd., Encino, California 91436. Subscriptions \$9.00 for 12 issues (one year). Foreign subscriptions add \$2 per year and Canada \$1 per year for additional postage. Copyright © 1977 by Hi-Torque Publications, Inc. All rights reserved. Nothing in this magazine may be reprinted in whole or in part without the express permission of the publisher. CONTRIBUTORS: Photographic submissions must be 5x7 or 8x10 glossy black and white, or 35mm and larger color slides. Please mark each photo with owner's name and address. Manuscripts should be typewritten. Unsolicited contributions must be accompanied by a stamped, self-addressed envelope. Unless special arrangements are made in advance, all published material becomes the sole property of Hi-Torque Publications, Inc. The publisher does not assume responsibility for unsolicited material. Second class postage paid at Van Nuys, California 91408, and at additional mailing offices. DIRT BIKE, P.O. Box 317, Encino, California 91316.

### ON THE COVER:

Pomeroy is back! Wegner shot the Hangtown photo.

NEXT ISSUE ON SALE JULY 19







# DIRT BIKE test



A 250 with  
36 horsepower  
should get some  
holeshots ...

## CAN-AM'S 250 MX-3 TESTS US

by The Staff of DIRT BIKE

No matter how exciting your friends may think your profession is, you must admit (if only to yourself) that there are certain time periods wherein your enthusiasm hits definite lows, when the only real excitement in your job comes from daydreaming about the ladies who work nearby.

For doctors, this level of boredom bordering on depression probably comes when no one new is getting ill, and they have not made enough mistakes to complicate the conditions of the patients they do have.

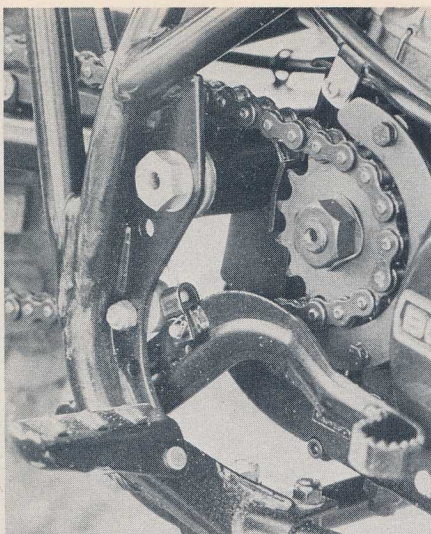
Similarly, astronauts may reach this state when they know the equipment in their space capsules like the backs of their hands, and know also that their

next flight is scheduled for late December of the following year.

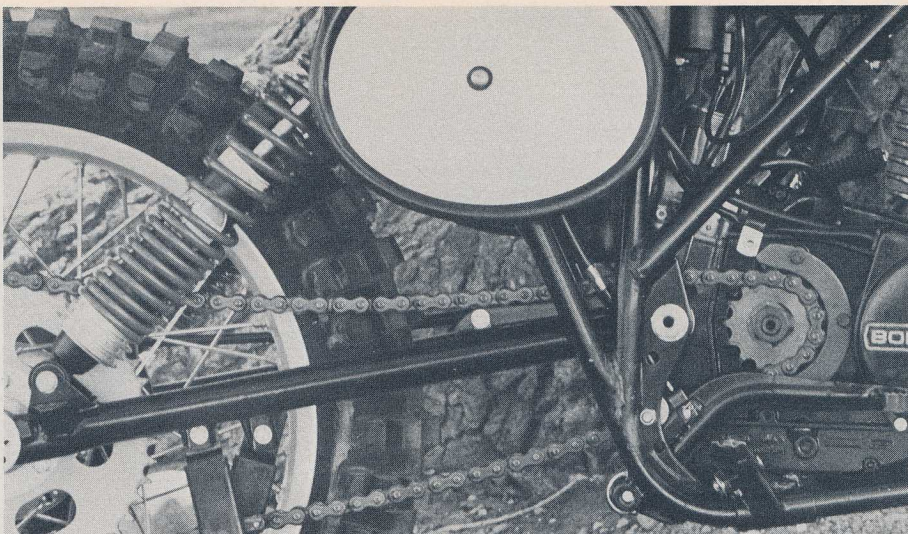
In the case of photojournalists working on the staffs of dirt motorcycle magazines, this phase of dampened enthusiasm and diminishing excitement comes when all of the hot new equipment that will be available for a while has been tested, or when the qualities of the machines they are about to test can be easily and precisely anticipated.

The latter of these conditions, our presumption of our next test bike's capabilities, initiated a certain lack of enthusiasm and created a generally lackadaisical atmosphere which instantly enveloped the motocrossers

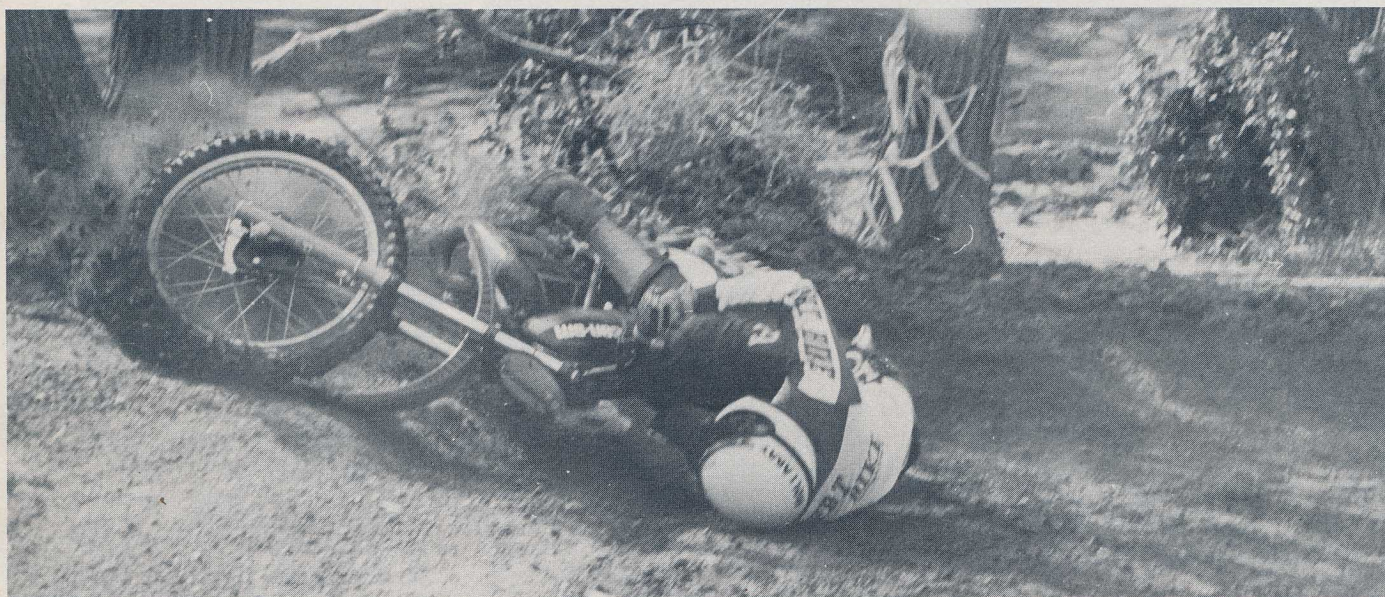




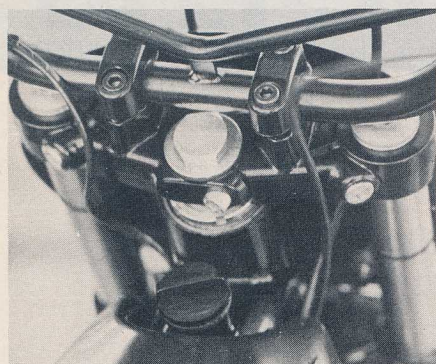
An additional 10mm of material should be welded to the top of the brake pedal where the eccentric cam adjuster hits it, as the pedal is still 25mm too high at its lowest position. Steel plate around front of sprocket helps prevent case damage if chain should snap or derail.



Rubber pad on top of swingarm is designed to help prevent damage from chain while taking up some of the slack when the arm extends to below center as illustrated here.



As even Jimmy Ellis can verify, the Can-Am's handling is sometimes surprising.



Engine oil is carried in the large-diameter top frame tube and is filled through a plug just behind the steering head. A metered amount of lubrication is injected directly into the inlet port as well as being pumped through the crank to lube the bearings and cylinder walls.

and soon spread to the entire staff. Some said nothing. Others said, "What are we getting after that?"

All of which brings us to the test of the MX-3 model Can-Am 250. At first thought, a bike with unconventional looks, gobs of horsepower and not much in the way of suspension and handling comes to mind. But these first assumptions are not totally correct. Actually, the MX-3 250 handles a little better than the MX-2 because it has taken on some changes in the suspension department. Namely, Marzocchi magnesium, long-travel forks are now standard equipment on the 250, and replace the Betor units found on previous models. Longer gas-bag Gabriels are now found in the rear, attached to a lengthened swingarm. In addition, the

MX-3 comes with lighter magnesium wheel components, an up-pipe, and a new color scheme. But let's look her over from end to end and see what exactly Canada has to offer to the world of motocross.

The double-loop, double-cradle chassis is made of mild steel and is very well thought out in terms of strength and rigidity. Also, the rather longish 520mm swingarm pivots a mere 35mm from the center of the countershaft sprocket for minimal chain slack changes throughout the suspension arc. Another unique feature, as found on all Can-Ams, is that sets of variable angled cones can be purchased, depending on the type of riding you plan on doing, to change the steering angle anywhere from 28 to 31 degrees. Thirty degrees is standard for





**Bill Sherman performs one of his famous one-wheeled toe slides.**

this model.

Both sets of brake shoes, backing plates, and the front hub are made of magnesium, while the rear hub and D.I.D rims are of aluminum alloy. Yokohama Super Diggers came on both ends of our MX-3.

A special rubber-based plastic is used for the fenders, airbox and fuel tank. The tank capacity is a bit over seven liters, or just under two gallons. Two point three liters of oil are held in the frame for the oil injection. The seat is made of very firm foam on an aluminum base, and joins the rear of the tank nicely.

A Bosch CDI unit bolts to the frame above the carb and under the rear of the fuel tank. Its power is generated by a magneto within the right side cover.

The air filtering system consists of a

large still air box which breathes through a smallish oiled foam element that sits atop it, just underneath the seat.

Can-Am has just left the downpipe era with the introduction of the MX-3. What they have come up with may not be *the* answer, but it beats the heck out of what they had.

Certainly the most impressive thing about the Can-Am is its peak power figure. Try this on for size. **THIRTY FIVE AND NINE TENTHS HORSEPOWER!!!** Those are the numbers. You've read it right! 35.9 horses as measured through a chain off of the countershaft sprocket (which is virtually the same as horsepower to the rear tire). Think of it, 35.9 horsepower from a 99 kilo 250cc motocrosser. It comes on at 5500 and then jams right

on up to 9000 where it peaks and then drops off sharply. That is one steep powerband, and roughly four to six more horses than most other quarter-liter motocrossers. All of these ponies come alive inside of a unique oil-injected, rotary-valved engine. With nearly 36 horsepower, you should be able to get holeshots as easily as you can get parking tickets.

#### **WHAT'LL SHE DO, MISTER?**

Swinging a leg over will tell you that it's not an overly tall bike. The bars felt strange to everyone, so we just tried to accept them. As far as the bar/peg/seat relationship goes, the seat and bars felt on the low side. Standing or half-sitting was not as comfortable as you would like. More

*Continued on page 70*



# 250 MX-3

Continued from page 35

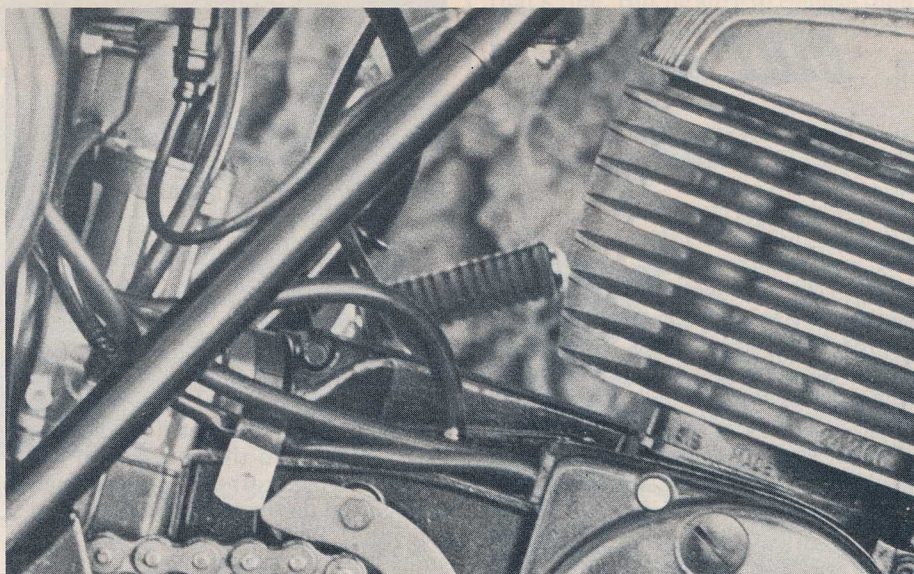
teeth are needed on the pegs for a sufficient amount of traction between them and your Hi-Points. The brake pedal has an eccentric adjusting cam for changing the pedal height, but it doesn't allow the pedal to go down far enough. As a result, you have to lift your foot onto and off of the pedal each time you use it. Your choice for the shifter is either too high or too low because of the coarse splines. We chose to leave it too high until we had a chance to bend it to the correct position.

Kickstarting is a left-side, right-footed operation which usually brought the engine to life in the first few kicks, although we did have to resort to pushing when it flooded a couple of times.

Shifts are had through a medium-length throw with a good feel. The clutch action was light and clutching was in addition to shutting down the throttle, for each, upshift. Still, shifts could be made fairly quickly, but took a noticeable amount of effort. Gear spacing was good. Some tracks may require higher gearing by taking a few teeth off in the rear.

Slip her into second and blaaast off the line. Even small bumps in the starting area will cause the underdampened rear end to go through a series of small swaps as the peak in each gear comes very quickly and the rear wheel spins violently. With moist dirt beneath you, first gear is fine and the Super Digger out back will occasionally hook up and loft the light front end toward the gray morning sun. Before you know it, the power-to-weight ratio will be quite evident and you'll be into fifth with turn one coming up fast.

Now what do you do? Well, you can start off by clicking down a gear or so and touching the brakes a tad. Easy on the brakes, though. You'll find yourself wondering what the wheels are doing in relation to the pressure you are applying for the longest time. It just takes some time to get to know them. Now, you don't really want to pitch it into a slide and gas it, because the MX-3 isn't much of a slider, high-speed or low. And you can't count on steering it through under power because the power comes on so violently. It's nearly identical to a light-flywheeled 125 with 36 horsepower, if you can imagine that. So, what you have to do in this high-speed cornering situation is to sort of walk it through, and keep your senses pegged to full-on capacity for any unexpected washing up front or



**As proof of the fact that a larger carburetor does not necessarily mean that you will get more peak horsepower, the 250 horsepower champion does it with a little 32mm Bing. But then, these are the peakiest bunch of horses you'll ever swing your leg over.**

sliding out in the rear. There's nothing to it. After several hours of practice on it you'll almost feel comfortable, but probably not confident.

The Marzocchis were on the stiff side at first until the bushings broke in a bit. Soon small bumps went by almost unnoticed. Larger bumps and drop-offs taught us that the springs could be a few pounds stiffer, especially on an all-out bumps-and-hills motocross course.

Our test unit came with Number One Products shocks attached which were originally way oversprung. We were told that the factory was experimenting with something similar so we could try some too. On receiving the stock Gabriels, which will come on the first several hundred MX-3s, we were told that if the shafts did not pull out of the bodies within the first five minutes, they would probably be OK. It seems that some of the nuts were not installed to the correct torque figures. Interesting. Well, the nuts are still attached to the shafts and we are all still well. If you've recently bought an MX-3, we hope you have the same luck.

The Gabriels (of Canada) had almost no compression or rebound dampening and were fitted with very light springs. To keep the rear end from bottoming, we clicked the preload adjusters all the way up. The result was a rear end that worked much like a pogo stick.

Under full acceleration on a smooth surface, the rear would squat and the front end would lift easily. If there was anything even resembling bumps, the rear wheel would dance and oscillate from side to side. One place that these light shocks did work well was over small braking bumps. Since the

dampening was so light, the wheel followed these shallow bumps closely and transmitted little shock to the rider. But this is a very minor consideration compared to their faults elsewhere.

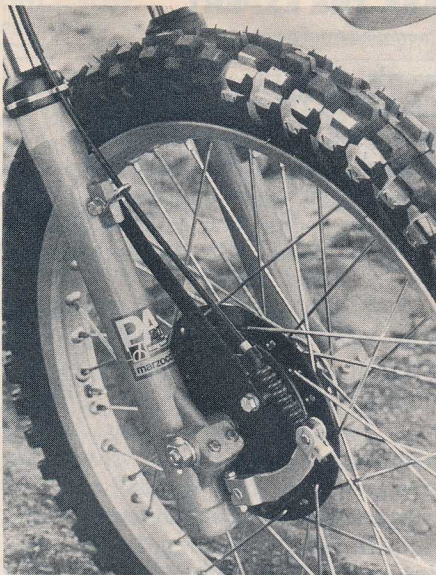
We never did get the Number One shocks dialed in so that everyone was happy with them, but in time ... several of our riders were pleased with the Gabriel 75/80 springs with lots of preload and the Number One Products shocks with light dampening. For our heavier riders they bottomed out, especially in deep sand whoops and when landing from jumps.

So much for our limited time for experimenting with shocks. For sure, if you should happen to decide to buy an MX-3, you're going to find yourself doing quite a bit of experimenting of your own.

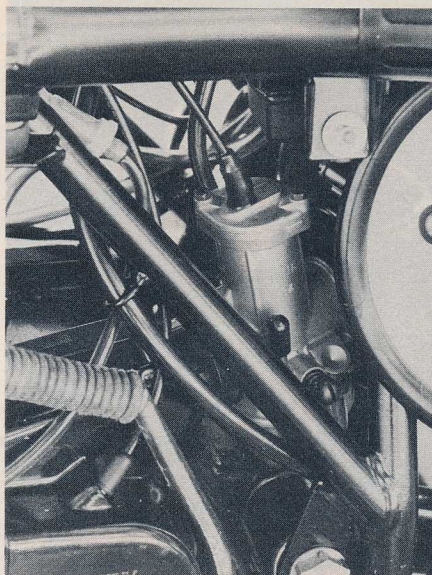
We made some jetting changes in order to get optimum use of its midrange, which included going from a 2.70 to a 2.73 needle jet with the needle clip two notches from the top. Switching from a 40 to a 30 pilot cleaned it up on the bottom.

After a few days of testing, the generating coil in the magneto went south and caused one very frustrating day for one of our test riders. After suiting up, he discovered that the sparks had gone away. He then went through the system completely to no avail and loaded up. Just before leaving, it fired up in the back of his truck, so he got his gear on again. When he was once more ready to ride, the Can-Am was again sparkless. Sigh! After replacing the mag unit, it's run fine ever since. It runs best with a .022-inch gap on a Champion N59-G. Be sure to pull off the mag cover after each washing, as a considerable

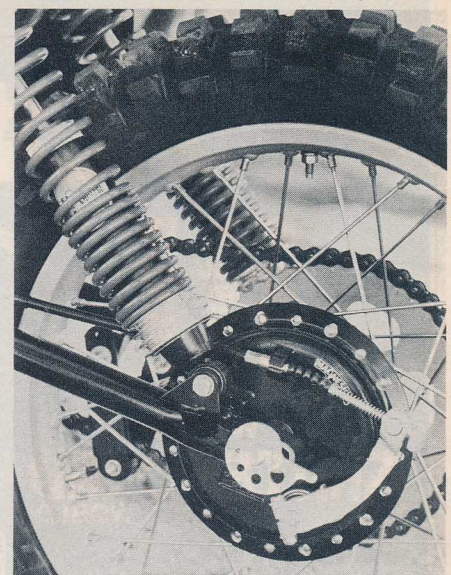




Magnesium Marzocchi forks perform suspension duties up front and offer 246mm of axle travel. Additional magnesium components include the brake shoes, conical hub and backing plate.



The carb sits in here below the Bosch CDI coil/black box and in amongst many fuel and oil lines, breather tubes, wires and cables. It breathes through a large still air box with an air horn built into the air boot for a ram air effect. The filtering system is inadequate and unacceptable.

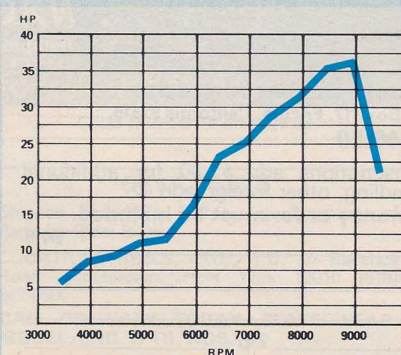


Rear binder is actuated via the longest brake cable in existence. While the cable is new and clean, pedal feel is surprisingly OK. Hub is aluminum alloy while shoes and backing plate are of magnesium.

## CAN-AM 250 MX-3

Price: (approx. retail, West Coast) \$1845  
 Engine: Two-stroke single, rotary valve  
 Displacement: ..... 247cc  
 Bore & Stroke: .... 74.0mm x 57.5mm  
 Compression Ratio: ..... 13:1  
 Carburetion: ..... 32mm Bing V-84  
 Standard jetting: Main jet #155, needle jet #2.70, needle position 3rd, needle 4 groove, slide #1, pilot jet 40  
 Horsepower: ..... 35.9 at 9000 rpm  
 Clutch: ..... Wet, multi-plate  
 Primary Drive: 2.91, straight cut gears  
 Transmission Ratios:  
 1) 2.38  
 2) 1.75  
 3) 1.39  
 4) 1.095  
 5) 0.913  
 Final Drive: 520  
 13-tooth countershaft  
 47-tooth rear sprocket  
 Air Filtration: .... Can-Am oiled foam  
 Electrics: ..... Bosch CDI  
 Lubrication: ..... Oil injection  
 Recommended Fuel: ..... Premium  
 Recommended Oil: ..... Can-Am  
 Fuel Tank Capacity: ..... 7.19 liters (1.9 gallons)  
 Frame: Mild steel, double loop, double cradle  
 Front: Marzocchi forward axle forks 246mm travel  
 Suspension:  
 Front: Marzocchi forward axle forks with 246mm travel  
 Rear: Gas-bag Gabriels with 235mm of axle travel  
 Starting: ..... Primary kick  
 Wheels & Spokes:  
 Front: D.I.D WM-2 x 21 with cross-3 spokes  
 Rear: D.I.D WM-3 x 18 with cross-3 spokes

Tires:  
 Front: 3.00 x 21 Yokohama Super Digger 900  
 Rear: 4.60 x 18 Yokohama Super Digger 901  
 Dimensions:  
 Wheelbase: 142.7 cm (56.2 inches) + 2.5 cm  
 Swingarm length: .... 52.0 cm (20.5 inches)  
 Ground Clearance: 30.6 cm (12.1 inches)  
 Bars, height: 117.0 cm (46.1 inches) width: 86.0 cm (33.8 inches)  
 Pegs, height: 38.2 cm (15.0 inches) width 48.7 cm (19.2 inches)  
 Seat height: 93.5 cm (36.8 inches)  
 Fork angle: 30 degrees  
 Weight: 99.3 kilos (219.0 pounds) without fuel; 44.7 percent on front, 55.3 percent on rear  
 Brakes:  
 Front: Conical, cable-operated drum  
 Rear: Conical, cable-operated drum  
 Silencer: ..... Yes, loud, MX only  
 Spark Arrestor: ..... None  
 Warranty: ..... None



amount of water gets inside each time.

## OTHER INTERESTING TIDBITS

Both wheels stayed round and true throughout our testing and very few spokes loosened up. Quite surprising for a brand-new scooter. The Yokohama Super Diggers which came on our test unit are not our personal preference for hard, slick tracks.

Although the fork seals never leaked, enough oil to splatter the entire left side of the front wheel escaped from the bottom of the fork leg even though the bolt was tight. Hmm?

There are no fork stops, so the fork tubes merely slap against the plastic tank. It didn't turn tight enough to either side for comfortable pit work. Also, the gas cap leaked.

The Magura throttle and power levers were a nice touch, as were an abundance of nylon locknuts. No one complained about the grips.

## AS WE SEE IT FROM HERE

For \$1845 (or whatever you can get one for), plus a set of suitable shocks, you'll be getting a bike that has not yet had its research and development work completed to a satisfactory level. This is especially true in the handling and suspension departments, but the power could use some smoothing out as well. It has been said about Can-Ams in knowledgeable racing circles, "There is something that's just not right with those bikes." We agree. Can you imagine how well "Iron Man" Ellis could do if he had a bike with good power, suspension, and handling too?

And so you see, after reading this test, that you are just as excited about the MX-3 250 as we are.