

CYCLE RIDER

Colossal 125MX Showdown And Shootout SEVEN OF THE MOST POPULAR 125's

YAMAHA YZ 125 • HONDA CR 125M
RICKMAN 125MX • CAN AM 'WORKS' 125GP • SUZUKI TM 125
YAMAHA 125MX • CAN AM 125MX



DAYTONA-COMPLETE COVERAGE AND PHOTOS

RECENTLY, THE 125cc CLASS has emerged from "second class" status to challenge spectator interest in the larger displacement events. Last year the FIM sanctioned international competition for the 125s and recognized a world champion, Andre Malherbe. On any given course these lightweights can travel almost as fast, and sometimes faster than the 250s and 500s. The spectator probably sees a greater variety of riding styles and heroics as the riders flick their knobby featherweights about with great audacity.

The class has its benefits for the riders, too. Often the 125 doesn't require as much effort to traverse a given course. If the rider unloads there is a lighter mass chasing his body during endo or high side maneuvers. And besides, a 125 gives you something to do waiting for 27 motos to be run off before your next 250 or 500 event. Economically speaking, it's the easiest class to break into. The bikes cost less.

One thing that should be kept in mind is the machines themselves. Regardless of what anyone says (even us), there are very few machines available in any class that can be literally considered out of the box racers—at least racers that are capable of winning when the going gets serious. This is true of the 125s too. Perhaps the 125s are more economical as far as maintenance too. There is less weight pounding away at things and the engines do not produce as great amounts of frame-bending, wheel spinning power as the power plants of the larger bikes.

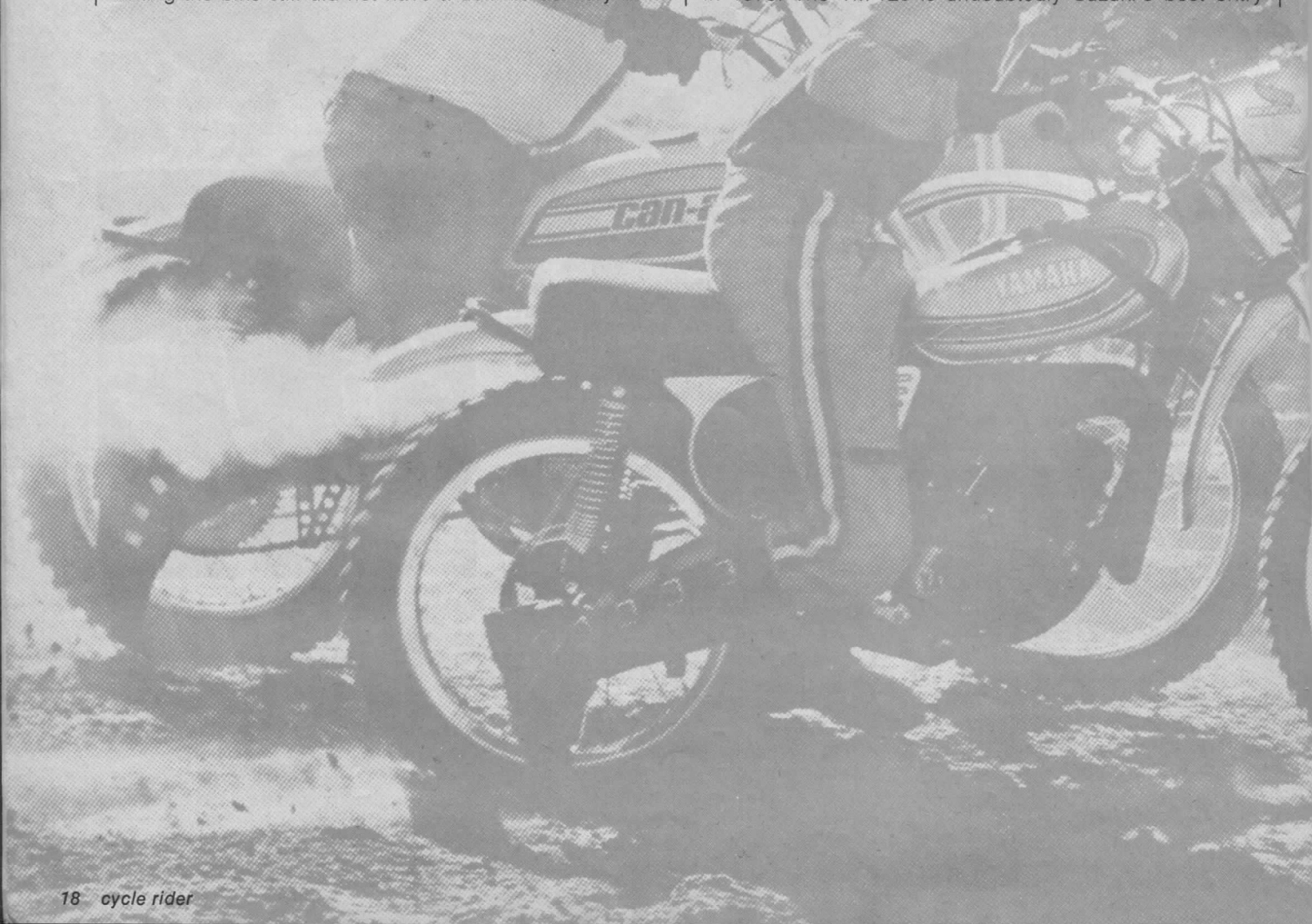
Because of the rapid growth and interest in the 125 we decided to compare a handful of 125 motocrossers. Also, because they are so much fun to ride. We were unable to include the new Kawasaki KX 125 because its shipment to the U.S. was delayed. At the time of this writing the bike still did not have a definite delivery date.

COMPARISON TEST:

THE 125 RACERS

The new 125 Bultaco was not yet in the distributor's hands at testing time so we had to pass on that bike also. We also requested a Penton, but did not receive one for testing. We still came up with seven interesting approaches from five different manufacturers. From Europe we had a Zundapp powered Rickman, marketed in this country by Norton-Villiers-Triumph.

From across the other ocean, we received the popular Honda CR 125 Elsinore, which is possibly the most talked about, most successful and one of the most underpriced racers on the market today. Suzuki was represented with their TM 125, which was also introduced in 1973. The TM 125 is undoubtedly Suzuki's best entry



among their motocross models.

Yamaha supplied two bikes, the MX and the YZ models. The YZ is offered for more serious racing applications. The last two entries came from our neighbors to the north in Canada. The Can-Am bikes are made by Bombardier, in Valcourt, Quebec. The name Bombardier and Ski-Doo have been synonymous with snowmobile sales and competition across the world for quite a few years. They just recently entered the motorcycle market. Bombardier supplied us with their production motocross racer and a limited production "factory replica." Gary Jones delivered the two Can-Ams to us. Unless you are very new to the motocross scene you already know that Gary won the number one plate in the 250 class in 1972 and 1973, riding for Yamaha and Honda. This year he's aboard Can-Am. The whole family is in the act actually. DeWayne will also be racing the white tankers and the senior Jones, Don, is heading a testing facility for the Canadian company on the West Coast.

The Rickman is a hybrid, combining the radial Zundapp power plant from Germany with the frame and running gear manufactured by the Rickman brothers in England. The Rickmans still put out frame kits for various other power plants. Rickman-Triumphs have been popular for years. The package, once assembled, is marketed by Triumph in this country.

Honda, after many years of officially denying the existence (or racing supremacy) of the two-stroke engine design, broke loose last year with their 250cc Elsinore. Shortly thereafter, they popped up with the Son of Elsinore, the CR 125. With a price under \$750, a chassis that handled, and a tiger for an engine, the 125 enjoyed rapid success. As Mark Twain once remarked, rumors of its death are greatly exaggerated. The bike still is in production, although the fuel crisis may slow down

manufacture and delivery of enough units to fill the dealers' back orders as quickly as desired.

At first we suspected the Suzuki TM 125 was just another one of the many motocrossers for sale. Its bigger brothers hadn't done much to distinguish themselves. However, a close inspection and a short ride quickly suggest that it is better than most. Unlike the 400, which has a notorious reputation for doing evil things, the TM 125 is both docile and fast.


Yamaha is the first manufacturer to offer two different bikes in the same class. They have a habit of doing things early on. They made a GYT kit for their DT1 and then offered one of the first motocrossers from Japan. They came up with the first 250 trials bike this year, and the first mini-cycle several years ago. Their motocross line now ranges from 80cc units to 360s and includes a new 175 MXer. The obvious question is how do the bikes compare, and how do they differ.

The Can-Am models have been developed under the direction of Gary Robison. Jeff Smith, a former two-time world champion in the 500cc class of motocross racing, is also an important member of the development team. Can-Am offers racing and street/trail versions in both 125 and 175 configuration, with 250s due soon. In addition to the street legal and motocross versions, there is also a very limited production run of factory racers available that are claimed to be identical to the unit ridden by Gary Jones, aside from personal preference modifications.

There you have your rundown on the seven machines gathered together for this comparison test. Some of our findings were surprising while others conformed to expectations. What follows is an amalgam of opinions and facts, as well as a technical rundown regarding the operation and features of the seven motorcycles. ■

A Comparative Evaluation of Seven Likely Candidates.

BY THE EDITORS OF CYCLE RIDER



DRAWING CONCLUSIONS FROM A test of this type is not quite as easy as it would appear on the surface. The reason being, a number of opinions and observations have to be gathered through objective efforts. Lap times, data figures, and other methods of measurement only tell a small part of the story. True, lap times are a strong indicator of what a particular machine is capable of. But unfortunately, this is not always the determining factor.

For instance, suppose we take a hypothetical machine which produces more power than any of the others. But, on the other hand, suppose it is difficult to handle the bike because of the chassis layout. Consider another bike with less power, but one that handles superbly. Lap times for the two would probably be similar. Perhaps the "slower" bike would be faster over the long pull.

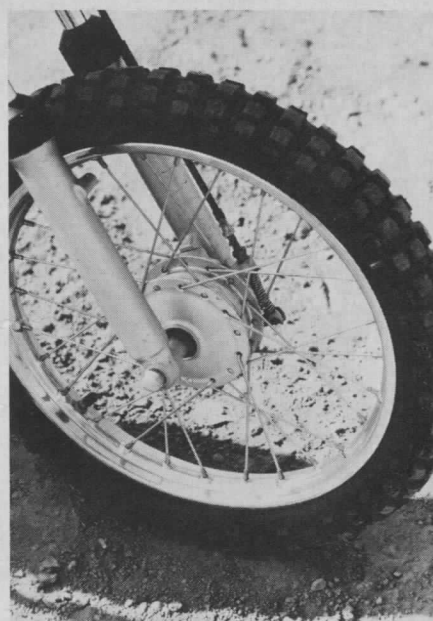
On the surface, it would appear that all we would have to do is convert a high horsepower unit into a really good handling motorcycle. Unfortunately, this is not easy. We have learned all too often that upping horsepower does not always automatically improve lap times. Additional horsepower does not always automatically improve lap times. Additional horsepower changes the handling characteristics of any machine. You can take any motorcycle now being sold, increase the power by 10%, and you will suddenly find the handling and steering characteristics completely changed. So in evaluating motorcycles, it is imperative that one keep in mind all of the factors contributing to the overall performance.

Each bike in the test had its good and weak points. We found none of them were perfect. Yes, some are better than others, but none of the bikes are truly ready to race right out of the box. Read on, and you'll find out why.

STABILITY

This is probably the one area that varied the greatest from one machine to another. Stability, of course, is a function of many factors. Weight, suspension, wheelbase, weight distribution, horsepower, size and type of tires, etc.

From a high-speed stability standpoint, we found the Honda was the steadiest in rough going at a higher velocity. Next in line was the Suzuki TM 125. We should hasten to mention here that the Suzuki could only be ridden hard until the bumps became overbearing and we started to bottom the rear suspension. At that point, the back wheel spent most of its time off the ground. Needless to say, its stability deteriorated. With stiffer springs



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it would undoubtedly prove to be a match for the CR 125. The Honda is pretty competitive right out of the box. Unfortunately, the Grand Prix version of the Can-Am was not an out-of-the-box edition. Because of this, we are not exactly sure just how Gary Jones's practice bike would stack up to a purely stock GP model. There is no question, Gary's bike was extremely fast and equally stable. As a matter of fact, we would place the Jones practice bike even up with the Honda.

The standard Can-Am was right behind the Suzuki for straight ahead stability. In the really gnarly and bumpy sections of the course, it was actually better than the TM 125. As long as it wasn't too lumpy, the Suzuki could keep ahead of the Can-Am, but when things really got tough, the Canadian charger was definitely more stable.

Next in line was the Rickman. The basic chassis was quite steady. Some of the human engineering problems made it difficult for all the riders to ride it effectively. More about this later. Right behind the bright red Rickman was the Yamaha 125MX. Perhaps we should interject a comment here, about a diversity of opinion that arose between the Yamaha and the Rickman. Some felt the Rickman was better than the Yamaha, while others reversed the decision. In all fairness, we should place both of these machines on a heads-up basis.

Bringing up the rear was the faster Yamaha, the YZ. It had a lock on last place mainly because of the rear dampers and rear tire. The shocks on the YZ are far too stiff for a light to medium weight rider. Even our 200 pounders didn't like them. Most of the testers were in the 140- to 150-pound range. The stability over the really choppy stuff was poor. It was difficult to keep directional stability under control.

We found the only way to make the standard suspension work at all was to ride the bike just as fast as possible, thereby subjecting the springs to the most severe pounding we were capable of. By doing this, we found the stability was not all bad. But it's impossible to ride the bike like that all the time because of track conditions and traffic. Back off a little and the back end misbehaves.

HORSEPOWER

There was no question that the Honda was by far the fastest machine we had. The power potential for a 125 borders on being incredible. Our friend Russ Darnell, who happened to show up during the first series of our testing program, commented that if we could have had a bike of that caliber five years ago it is quite conceivable



we could have won the 250 world championship. And what's more, he's probably right. It really thumps out the ponies. While horsepower is certainly important, there are other considerations that should be kept in mind.

Next, believe it or not, the TM 125 and the YZ were about equal. We say surprisingly because we assumed, like most other people, that the YZ put out more power, but it doesn't. The YZ rear damper problems make things difficult getting the power to the ground. Everybody liked the Suzuki. The power range was fairly wide, the throttle response was good, and the horsepower was adequate, at least for a short course machine. On a longer and faster track, the TM might be hurting, but here again we know from experience you can get more power out of anything.

We do not mean to imply that the Yamaha was not competitive, it was. Unfortunately, compounding the problem with the suspension, the factory has chosen to fit a countershaft sprocket which should really have at least one more tooth. We had an opportunity of riding just such a machine. With a 15-tooth cog, the YZ was considerably faster than the TM, and as fast as the Honda. However, we were testing the bikes the way they

came out of the box. And, of course, we could then modify the Suzuki, and then. . . . In any event, we found the YZ lacking as far as speed was concerned. We ran out of gear three different times around the track (a short tight one at that) with the stock gearing on the YZ.

The Rickman and the Yamaha MX were about equal, with perhaps the Yamaha getting a slight edge in the acceleration department. This is probably attributable to the reed valve (Torque Induction) arrangement which widens out the power range and makes riding the bike easier. Of all the bikes in the test, from a power flexibility standpoint, we liked the Can-Ams the best. Those bikes, and the Yamaha MX, although classified as racers could be used as trail bikes quite easily. Perhaps not for a ripe novice, but for someone with just a little bit of experience.

POWER RANGE

The Can-Am utilizes a rotary valve induction system. There is no doubt that this permits a noticeable improvement in low end engine power. Both Can-Ams pulled surprisingly strong from the bottom, and the GP version had a surprisingly wide power band for a higher performance engine. We felt that the standard Can-Am had the widest power range. The GP version had as wide a range as the Yamaha 125MX, which, as far as we're concerned, is saying quite a bit. The YZ was probably the peakiest engine tested, with the Honda right behind it. This is not to say that they could not be ridden slowly. But while the bike can be ridden at slower speeds, there is very little horsepower available out of either one of these motorcycles. When either the YZ or the Honda comes on the pipe, however, you had best be hanging on. Both of these machines really scoot. The Rickman power range is very limited and, unfortunately, it doesn't make all that much horsepower. In all fairness we should say here that the Zundapp engine can be improved to the point that it is competitive with anything on the market, but as it comes out of the box, the Rickman definitely needs more beans.

TRANSMISSION

Except for one bike, all of the machines offered basically similar transmissions. They were all fairly close ratio gear boxes. The Honda and Can-Ams are six speeders. The Honda probably offered the closest ratios with the YZ running a close second. Al-



YAMAHA YZ 125

Engine type	single cylinder, air cooled 2 stroke
Bore and stroke	56 x 50mm
Displacement	123cc
Compression ratio	8.0:1
Claimed horsepower	18.4 hp @ 10,500 rpm
Claimed torque	11.9 ft./lbs. @ 9500 rpm
Engine red lines @	10,500 rpm
Ignition	CDI
Starting system	kick, in any gear
Carburetion	(1) 28mm Mikuni
Lubrication	premix 16:1
Type of transmission	constant mesh 5-speed
Clutch	wet multi-plate
Internal gear ratios	(1) 2.833, (2) 2.066, (3) 1.611, (4) 1.315, (5) 1.142
Final ratio	14.93
Countershaft sprocket	14
Rear wheel sprocket	47
Length	79.3 in.
Seat height	32.1 in.
Wheelbase	53.0 in.
Ground clearance	10.2 in.
Listed dry weight	176 lbs.
Actual weight, full tank of gas	187 lbs.
Front tire size	2.75 x 21 in.
Front brake type	internal expanding
Front brake size	4.3 in.
Rear tire size	3.50 x 18 in.
Rear brake type	internal expanding
Rear brake size	5.1 in.
Air filtration	washable foam
Fuel tank capacity	1.5 gal.
Gear box capacity	650cc
Front suspension	telescopic double damping
Rear suspension	5-way adjustable spring over shock
Frame type	tubular double cradle
Colors	silver with red trim
Retail price, Los Angeles	\$820
Distributor	

Yamaha International
6600 Orangethorpe Ave.
Buena Park, Calif. 90620



though the Honda is a six-speeder, fifth and sixth are so close together that quite a few times, until the rider becomes familiar with the machine, he is not really sure whether he has made the transition from fifth to sixth. That does say something for gearbox smoothness.

We must say that the Honda, beyond a doubt, has the smoothest and most positive transmission of any of the units. Lever travel between each gear change is very minimal and each and every shift was extremely positive. The amount of pressure required to select another gear was also minimal. In fact, it is possible to accidentally touch the lever and select the next higher or lower gear. This was our only criticism of this gearbox. With a six-speed box a rider is kept very busy shifting gears. Because of the six ratios Honda is able to pump a considerable amount of horsepower out of the CR and still make the unit rideable with the relatively narrow powerband. The Honda seemed to be geared well for both of the different courses we tested on.

The Can-Ams shifted rather easily, but did require more effort and had more lever travel than the Honda. Unlike the Honda, the shift lever is routed above the footpeg to help protect it in the event of a fall. This positioning allows the rider's boot to accidentally come in contact with the loop of the lever. We found ourselves kicking the transmission into neutral or the next lower gear, depending upon the pressure of contact. This problem can be averted once the rider becomes aware of the cause and pays particular attention to keeping his foot slightly out from the casing. It was not necessary to shift the Can-Am nearly as much as with the CR.

We were disappointed with the gearbox on the Rickman. If the unit was shifted slowly, with a positive motion, each gear could be selected with-

out any problems. But in racing this is not always possible, and certainly isn't desirable. When shifting normally, as we did with any of the other 125s, the Rickman had a very annoying habit of showing us a gearbox full of neutrals. The lever travel is also greater than most. The gearing spread with the Rickman wasn't bad, but it did allow a considerable gap between first and second gear. For optimum performance the ratios could be somewhat closer together. While at a stand still neutral was just as easy to find as it was on the race track.

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The TM 125 has one of the better gearboxes from the standpoint of both ratios and operation. This five-speed unit was extremely well suited for a tight course. Some riders felt the spread between second and third was too far. Because of wide power output and good ratios it wasn't necessary to play a tune with the gearbox. Each and every shift was positive and easily accomplished.

The gearboxes on the two Yamahas worked as expected. The throw of the lever was short and required little effort. Both of these units are five speeders, but the ratios of the two machines are different. The MX has a wider ratio gearbox than the YZ. The ratios of the YZ are closer together. Because the overall gear ratio was so low it was not necessary to shift the YZ as much as the Honda, but we feel the YZ would get busier if geared more realistically.

The clutches on all the machines performed admirably. None of the bikes gave any hint of trouble.

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The Honda had the longest amount of clutch lever travel before the clutch was engaged. This is typical of the Honda product, but it is not as pronounced on their motocrossers. Once one becomes used to this action it presents no problem.

The Can-Am was another unit that had longer than average lever travel before clutch engagement.

The Rickman clutch required the least amount of pressure to engage and disengage. Actually it felt somewhat on the fragile side, but after repeated starts it was obvious to us that it would hold up with no problems. We feel that the Suzuki and the two Yamahas had perhaps the most positive clutch action of all. A minimal amount of travel was necessary.

APPEARANCE

Although it doesn't mean a whole lot, perhaps some mention should be made here of the sparkle and paint department. Two out of three staffers picked the Rickman as the flashiest machine in the appearance department. It showed the greatest effort in detailing and clean workmanship. All of the welding, paint work, and other finishing details were top notch. Everything was spit-polished. Next was a toss-up between the Suzuki and the Honda. Behind these two were the two Yamahas. On the surface, the YZ was perhaps a little flashier looking than some of the others, but on close inspection we found that some of the detail work was not all that red hot. The castings were not all that smooth, and the welding was third rate. Two staffers definitely liked the Can-Am appearance, a third rated it in the middle. We must admit we feel better throwing our leg over a bike that looks sharp and is detailed out with a fair amount of effort. Probably, we subconsciously assumed that if the small details are done nicely then the big things are probably just as well done. Unfortunately, this is not true in every case, but at least it shows that the manufacturer is interested enough in his product to put an extra effort in it.

FRAME AND COMPONENTS

The Rickman utilizes no plastic parts with the exception of a small mud guard fitted to the front down tubes. The front fender and side panels are made from fiberglass. The gas tank is manufactured out of steel. Every other testbike utilized plastic fenders front and rear. The Can-Ams had memory tempered virtually inde-

structible high density polyethylene gas tanks. At least that's what the brochure said. In lay terms, the gas tank material is break-resistant plastic.

The Yamaha YZ and the Honda CR are both fitted with aluminum tanks. This reduces the overall weight of the machines. The Suzuki TM and Yamaha MX, along with the Rickman, have steel gas tanks. The gas caps are all the threaded type with the exception of the Rickman. It is a bayonet type push and turn unit.

The only bikes that had any gas leakage problems were the Can-Ams. It wasn't enough to soak your leathers, but it was noticeable. The Rickman and the Can-Ams were the only bikes that didn't use rubber hoses attached to a breather in the gas cap.

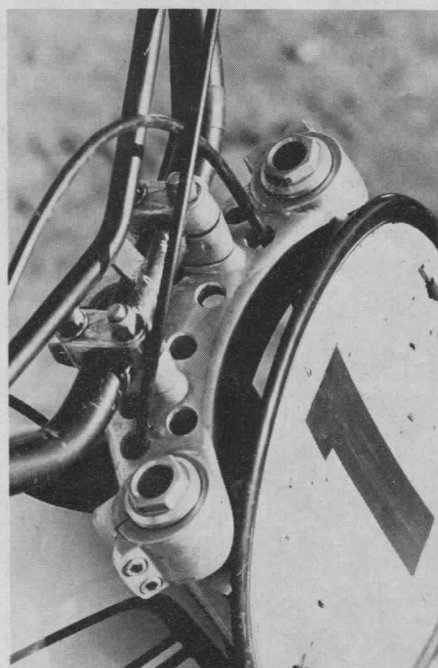
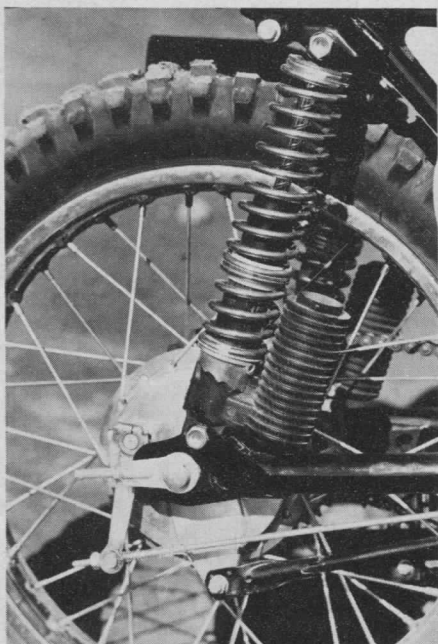
Both front and rear fenders on everything except the Rickman are made from a break-resistant plastic. This type of plastic's durability and resistance to bending or breaking is exceptional. The Rickman has a fiberglass fender up front. The fiberglass body also doubles as a fender at the rear. Fiberglass will not hold up as long or withstand as much abuse as the plastic parts will. Of course this may give the operator more incentive to stay on two wheels.

All seven bikes utilize a cradle type frame. Suzuki and Honda decided to stick with a single down tube. In some ways, this makes accessibility to the top end easier. The other five machines have double down tubes. Many feel this type of frame offers more support for the engine and rigidity for the frame. This, however, is not always the case as can be pointed out by the good handling characteristics of both the single down tubers.

The Can-Am frame is rather unique in that the large diameter backbone tube of the frame also doubles as an oil reservoir. The tube is sponge-lined to prevent oil leakage. Unlike most frames that are put together by means of electrical welding, Bombardier uses a method called TIG (tungsten inert gas). The Honda frame is made from a Japanese version of chrome-moly. This is both lighter and stronger than the material used in the majority of motorcycles produced today. The Suzuki frame is also manufactured from a high carbon content steel. The Rickman frame is not welded, but rather brazed together. After the workout we gave the machine, it seems obvious that this approach to assembly is acceptable. The assembled frame is given an acid bath and finally nickel-plated to give it a bright shiny appearance. It is much easier to keep this type of finish looking sharp.

The Yamaha MX is manufactured from the typical mild steel "water pipe" tubing. The YZ material is the lighter stronger chrome-moly.





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MECHANICAL

We wish we could say something smart and revealing here, but unfortunately, such is not the case. At the completion of our testing program, the bikes were torn down and inspected for defects and possible discrepancies in specifications. (In plain English, we were checking for cheaters. There weren't any.) All of the bikes looked absolutely perfect. It's certainly reassuring to know since most of the bikes had about 10 hours of race track time. (Keep in mind that it was wide open throttle time.) The wear on all of the engines was minimal. As a matter of fact, none of them exhibited any hints of trouble. To illustrate just how bullet-proof these diminutive mounts were, not even one spark plug required replacement.

The Rickman and YZ come standard with chrome-plated bores. Upon disassembly, we found both engines in perfect condition. As a matter of fact, we wouldn't even bother changing piston rings. We merely bolted everything back together and then went out and rode them some more.

As might be expected, the intake area in the two reed valved Yamaha's was relatively large. This might be an excellent time to dispel any old wives' tales about micro-polishing ports. If you have an urge about wanting to put a super finish on your various two-stroke ports you might take a look at the CR 125. All of these inlet, transfer and exhaust passages are quite large. But they had, without a doubt, the roughest finish of any of the bikes we dismantled. As a matter of fact, we were amazed at the rather crude appearance of the transfer ports, and yet this bike was probably the

fastest out there. So here again, this proves that the smoothest is not always the best. The size and shape is what's important.

All of the bikes are quite conventional with the exception of the Rickman. The lower end rod bearing does not use thrust washers, but instead the top end of the rod is trapped between the bosses on the inside of the piston, thus limiting connecting rods side play. The rod is free-floating on the big end needle bearing. It is extremely critical to get the crank shaft into the crank cases properly. Once this is done, the rod maintains its position on the needles due to the close fit between the small end of the rod and the piston bosses.

We were rather disappointed that we did not have any opportunity to take apart the two Can-Am machines. We feel it would have been interesting to see just how these Canadian power plants had fared during our testing program. Unfortunately, there seemed to be a communications problem with the Can-Am people.

When tearing into the bikes assembled for tear-down, we found that some were easier than others to work on. The Rickman was perhaps the most involved, but by no means was it difficult. We feel that the Honda and the YZ were the two easiest and least complicated to get into. The only problem that the Honda and the Suzuki presented centered around reassembly of the top end. The Honda's cylinder is attached to the crank cases by four eight-millimeter nuts. The Suzuki has one eight-millimeter nut located to the left of the cylinder. To properly torque these to factory specifications, it is necessary to do a little cutting and welding on a 12-millimeter wrench so that it can be attached to a torque wrench.

When we disassembled the top end of the Honda, we noticed something that, as yet, Honda has not been able to answer. The exhaust port on a great number of machines is usually bridged. This is done to prevent the piston rings from getting caught in the port. This is the case with the CR 125. This bridge has been ground down so that there's no actual contact between the rings and the bridge. Honda has taken the most effort to prevent cylinder distortion caused by heat. This is the primary reason why they have attached the cylinder to the crankcase with nuts. The remainder of the machines, with the exception of the Suzuki, which utilizes one base bolt, rely on studs that hold both the cylinder and cylinder head in place. The top of Honda's two-ring system indicates an extremely efficient burn pattern. We noticed light scuff marks on either side of the piston skirts near the exhaust port. We feel this is attributable to taking a new machine out of the box and running it too hard, too soon.

When we pulled apart the Yamaha YZ, we noticed signs of a very minor head gasket leak. This wasn't critical, and was probably caused by not torquing the cylinder head's bolt after its initial break-in period. The burn pattern on the YZ is second only to that of Honda. Here, as with the Rickman, the YZ utilizes only one piston ring. However, it is the more conventional type and not a dykes ring. We also noticed that the rear skirt of the piston showed signs of excessive wear. This seems to be a common problem of most Yamaha dirt machines. This is also evident with the MX. There were signs of score marks on the exhaust side of the skirt of the MX pistons, indicating that the machine was run too hard, too soon. The MX also uses a single piston ring.

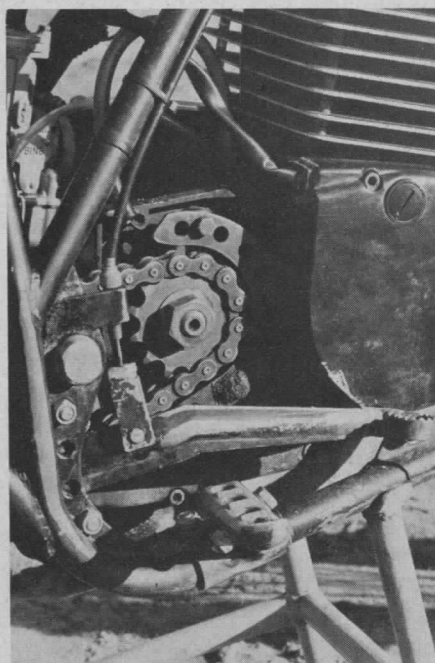
The Suzuki employs a bridge in the exhaust port. We feel that the port on this unit borders on the verge of being too large. A slight amount of blow-by and the thrust taken up by the piston on the bridge of the exhaust port indicated this. Aside from this one noticeable point, the inside of the Suzuki was in very reasonable condition. When reassembling the top end of the Suzuki, we found that it was necessary to remove the exhaust pipe collar from the cylinder to reinstall the exhaust pipe. Aside from this slight inconvenience, the machine went together without any excessive effort.

A quick check of the specifications indicate that the majority of the bikes have one thing in common: the ratio of the bore to the stroke. Four of the machines, the two Yamahas, the Honda and the Suzuki, have an identical bore and stroke of 56 x 50mm. Even so, each of these machines offered considerably different power bands



RICKMAN 125

Engine type	single cylinder, air cooled 2 stroke
Bore and stroke	54 x 54mm
Displacement	123cc
Compression ratio	13.0:1
Engine red lines @	7000 rpm
Ignition	CDI
Starting system	kick, in neutral only
Carburetion	(1) 27mm Bing
Lubrication	premix
Type of transmission	constant mesh 5-speed
Clutch	wet multi-plate
Internal gear ratios	(1) 3.40, (2) 2.16, (3) 1.53, (4) 1.20, (5) 0.95
Final ratio	10.64
Countershaft sprocket	14
Rear wheel sprocket	56
Length	80.5 in.
Seat height	31.5 in.
Wheelbase	53.0 in.
Ground clearance	10.0 in.
Listed dry weight	199 lbs.
Actual weight, full tank of gas	220 lbs.
Front tire size	2.75 x 21 in.
Front brake type	internal expanding
Front brake size	5.5 in.
Rear tire size	4.00 x 18 in.
Rear brake type	internal expanding
Rear brake size	5.5 in.
Air filtration	paper
Fuel tank capacity	2.0 gal.
Gear box capacity	450cc
Front suspension	telescopic double damping
Rear suspension	3-way adjustable spring over shock
Frame type	tubular double cradle
Color	bright red
Retail price, Los Angeles	\$1079
Distributor	Norton-Villiers-Triumph Inc. P.O. Box 275 Duarte, Calif. 91010



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and performance. The Rickman and Can-Ams measured in at 54×54mm. The Can-Ams are the only bikes that use a rotary valve induction system. The most common practice for this type of induction is to mount the carburetor adjacent to the disc valve. For a dirt bike in particular, this poses a problem. Positioning the mixer either to the left or right of the crankcases increased the overall width of the engine. Can-Am has taken a different tack to maintain a reasonable engine width while simultaneously protecting the carb to some extent. They positioned it behind the cylinder on the left side of the machine.

The Honda, Rickman, and Suzuki engines are all the conventional piston port induction type. The two Yamahas utilize a reed valve in conjunction with the piston port set up.

The cooling area on all machines seems up to par. The Can-Am, however, exhibited the greatest area of all. At first glance, one would surmise that the Can-Am was surely a 250, at least. The Rickman also had large cooling surfaces. The Honda, Suzuki, and Yamaha MX all use what we would consider more or less conventional type of cylinders. In other words, the fin area is made from cast aluminum with a steel liner cast into it. This seems to be more or less a common practice among the majority of manufacturers. The Yamaha YZ and the Rickman employ an all aluminum cylinder with a plated hard chrome bore. The purpose is to improve the heat and cylinder dissipation and cylinder distortion problems. Perhaps the only drawback to this approach is that it is impossible to bore the cylinders over size. If the piston damages the bore, it is necessary to replace not only the piston but also the cylinder as well. If you're willing to pay the price, fine. However, it is much cheaper to bore out a liner and replace just the piston when maximum limits are reached.

The Rickman and the YZ had the best finished ports. The Rickman was the best looking of the two. The YZ wasn't far behind. The rest of the bikes were rated: Suzuki, Yamaha and the Honda. The Honda actually needed some grinding work done to line up the part and the cylinder.

When inspecting the air cleaners we found that the Suzuki appeared to offer the most efficient of the bunch. The outside was relatively dirty, but we did not find one speck of dirt inside. The Honda, on the other hand, which admittedly was ridden more than the other bikes, had the dirtiest air cleaner. Not only that, we found traces of dirt that were allowed to pass through it into the intake tract. The two Yamahas also showed signs of dirt in the intake tract, but it amounted to only

a speck here and there.

The Rickman was the only unit equipped with a replaceable paper filter rather than a washable foam element. When delving into the Rickman we found that the filter element did not form an efficient shield for the intake tract. This was due to lack of grease between these two pieces. There were signs of grit in the intake tract. We did find a very interesting piece of plastic tube that was rattling around loose between the air cleaner and carburetor. Obviously, this piece had been inserted in the intake tract to reduce intake noise. However, there is no visible means of retaining this piece in place. Therefore, after a few bumps, it tends to fall out and rattle around inside the air box.

STARTING

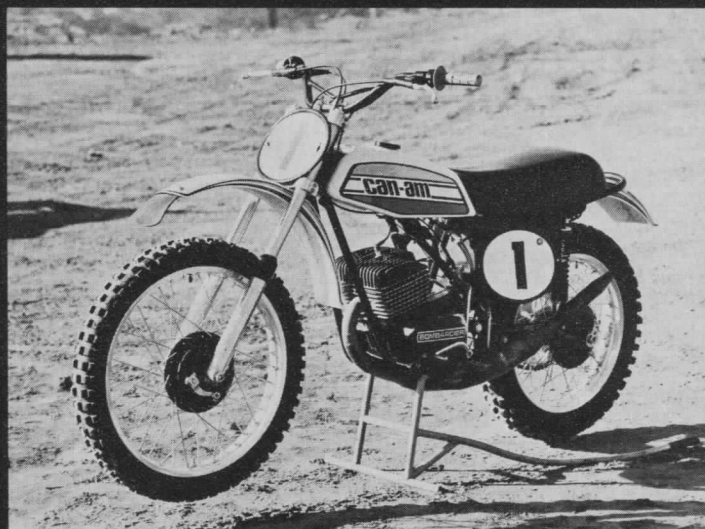
The only machine that took more than just a couple of kicks was the MX 125. We have found that almost all of the Yamaha enduro or MX models that utilize reed induction generally take a few kicks when the engine is cold. When warm things revert to a more natural situation. None of the engines seemed to have a heating problem. No matter how long or hard the bikes were ridden, there was never a noticeable drop off in power due to heat buildup. There was no hint of a seizure on any of the bikes. The longer we rode the bikes the more surprised we were at the reliability each one embodied.

It is necessary to tickle the Rickman by means of a primer button located on the carburetor. Because of the narrow opening in the fiberglass covering it is difficult to reach this button, particularly with gloves on. Once the carburetor was overflowing with fuel, starting was easy.

Most of the bikes could be ridden at fairly slow speeds without endangering the spark plugs, although we made no attempt at any cowtrailing. We feel that it would take a fair amount of low speed running to load up the plug on any of our test machines. While on the subject of slow speed, the Can-Am probably was more comfortable at extremely low rpm than any of the other bikes.

STEERING

Here again there were a variety of opinions, but the variance basically centered around just two machines; the Yamaha YZ and the Suzuki. We felt the YZ, as far as steering is concerned, was probably the best of the bunch. It was always easier to turn



CAN AM 125 MX

Engine type	single cylinder, rotary valve 2 stroke
Bore and stroke	54 x 54mm
Displacement	123.7cc
Compression ratio	13.0:1 (uncorrected)
Claimed horsepower	20 hp @ 9500 rpm
Engine red lines @	9500 rpm
Ignition	CDI (pointless)
Starting system	kick, in any gear
Carburetion	(1) 32mm Bing
Lubrication	oil injection (twin port induction)
Type of transmission	constant mesh 6-speed
Clutch	wet multi-plate
Internal gear ratios	(1) 3.40, (2) 2.31, (3) 1.68, (4) 1.31, (5) 1.09, (6) 0.96
Final ratio	11.74
Countershaft sprocket	14
Rear wheel sprocket	50
Length	84.0 in.
Seat height	30.0 in.
Wheelbase	54.0 in.
Ground clearance	9.0 in.
Listed dry weight	216 lbs.
Actual weight, full tank of gas	233 lbs.
Front tire size	3.00 x 21 in.
Front brake type	internal expanding
Front brake size	6.0 in.
Rear tire size	4.00 x 18 in.
Rear brake type	internal expanding
Rear brake size	6.0 in.
Air filtration	washable foam
Fuel tank capacity	1.9 gal.
Oil tank capacity	2.3 qt.
Gear box capacity	1.2 qt.
Front suspension	telescopic double damping
Rear suspension	3-way adjustable spring over shock
Frame type	tubular double cradle
Colors	white with orange and yellow trim
Retail price, Los Angeles	\$945
Distributors	

Bombardier Ltd.

Can-Am Div.

Valcourt, Quebec, Canada

Bombardier Corp.

Bombardier Ave.

Idaho Falls, Idaho 83401



underneath the other riders and scoot around the tight turns on the YZ.

The only other machine that came close to the YZ and TM was the Yamaha MX. The MX worked well when driving or tracking around a corner, but it was more at home with the back skidding around.

The Rickman initially feels extremely heavy up front. It had a tendency to drive around the corner even when

it was necessary to slide the back end out slightly. Perhaps the biggest reason for this is the lack of power (relatively speaking) the engine produces. We feel that with more power the machine could be steered around the corner with the front wheel or driven around with the throttle.

The hardest bike to turn quickly was the Honda. With its longer wheelbase and slightly different geometry layout we found the Honda had to be ridden completely different than the Yamaha. We had to start our turning several feet before the corner and the riding technique closely followed that used with the CR 250. With lots of rake and trail and a fairly long wheelbase, any motorcycle is not going to want to turn quickly, regardless of what the ads say. However, it's impossible to be all things to all people, and the Honda, while it did not steer as quickly

as the Yamaha, did have other attributes that made up for it. It all depended on what the rider is looking for.

The CR 125 has a low center of gravity feel. The machine can be switched from side to side very easily and with very little effort. We found that the CR worked extremely well on faster corners with some cushion on the surface. The Honda felt right at home with the back end stepped out a foot or so and the power on. We felt as though the steering was very predictable. Also, provided there was something to get hold of, the Honda could be pivoted around on a point without effort. We did have a certain amount of difficulty when cornering the Honda on a hard dry surface, even with as much weight distributed forward as possible.

The TM 125 drew high ratings from

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the largest number of riders. We had a variety of riders with talents ranging from fairly inexperienced to professionally seasoned. Even some of the best riders felt the TM 125 was an excellent choice. One thing we have found in testing machines is that there is often a big difference between a good rider and a good tester. A good rider generally will be looking for one thing and a tester something else. Several of the riders who liked the TM 125 claimed they felt the power was competitive with the Honda, but we can't agree. There was not that much difference in handling between the CR 125 and the Suzuki, and the CR 125 was considerably faster. Also, the CR has far better suspension. But the Suzuki is very easy to ride and offers an extremely wide power range and excellent steering. This last mentioned quality is something that not too many riders give a lot of thought to. All they know is that the bike handles or it doesn't. The Suzuki's ability to turn as quickly and precisely as it does definitely makes up for having slightly less power than the Honda.

To further confuse you, we might mention here that both Can-Am's are definitely in the hunt also. Both bikes steered very well, but we found the heavy production model took more effort around the corners. The Can-Am seating position is somewhat higher than most. The center of gravity also seemed on the high side. Even with this high center of gravity the Can-Am could be steered or slid around a corner with little effort. The bike seemed better suited for steering around the corner rather than skidding around with the throttle on. Because of the front end weight the Can-Am did not exhibit any eagerness toward washing out up front on a hard slippery surface.

The fork angles were all very close. The MX 125 was $30\frac{1}{2}$ degrees. The Rickman was $31\frac{1}{2}$, the YZ was 31. The CR 125 was 30, and the TM 125 was $28\frac{1}{2}$.

In an effort to better understand why some of the machines handled better than others, an accurate layout was made of each machine after carefully measuring the complete chassis. Measurements were taken of the swinging arm length, the distance of the footpegs to the ground as well as to the rear axle, the overall wheelbase, the seat height, and fork angle. There were other measurements taken also. After all these layouts were made one could be set over another, permitting the observer to see what the designer had in mind when he laid out the chassis. Some engines are higher than others. The same thing with the footpegs and seat heights. One thing is for certain, one half to one full inch difference in engine





placement on a 125 is fairly critical. Because the bikes are as light as they are, a minute change in engine or rider placement is significant. For example, the CR 125 handled very much the same as the 250 in that some of the riding techniques have to take place on both motorcycles. For instance, the CR 125 has an inch longer wheelbase over the TM 125 and yet the distance from the rear axle to the footpegs on the TM is about the same as the Honda. This means the rider is placing more weight over the front end on the Suzuki.

A slight shift in weight on the 125 class machines will net you a greater change in control than on the big bikes. The 125s are far more skitterish and sensitive to weight placement and balance. To go really fast on a 125 the rider must display a definite finesse. Because of the very light weight, suspension requirements and riding techniques are important. The faster you go the more critical everything becomes. Perhaps this sounds obvious, but very few people give it that much thought. Handling is an intangible thing that is sometimes difficult to explain or describe, but when it's right the rider knows it. Our test machines not only had personalities of their own, but conveyed to the testers a definite preference for wanting to be ridden a certain way. This is one reason why some bikes were preferred by some riders, while others would rather climb on something else.

Because most of the 125s we tested were so good, it is our feeling that the rider could handle one of these bikes for a considerably longer period of time than a larger displacement racer without giving away much if anything in the way of lap times. Naturally we are talking about a shorter course where you don't have quarter-mile straightaways. As long as the emphasis is placed on handling, stability, and steering, a good 125 is going to be hard to beat. Riding a 125 that handles well and goes fast with little effort lets you forget how much more work it can sometimes be on a bigger bike. There is no question that handling is the 125's long suit. With current technology able to extract large amounts of power the 125 class is probably the most rapidly expanding division in the motocross ranks.

SUSPENSION

The forks on the Honda were about equal to the Can-Am bikes and the Suzuki TM 125. The Suzie's forks worked fine, but after one hard work out we found ourselves with very little if any damping in the shock department.



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The springs are too light, the exact opposite of the YZ.

The front and rear end of the Rickman worked quite nicely at keeping both tires in contact with the ground under most conditions. Right behind the Rickman was the MX 125, which surprisingly had better rear dampers than the YZ. Considerably better. But the front end of the YZ performed better than the MX model.

We picked the YZ as the bike most in need of suspension work. We took off the Thermal Flows and replaced them with a set of Arnacos equipped with 60-pound springs. The difference was incredible. The rear end no longer leaped about in the lumpy stuff. It was also possible to sit more often without getting bucked around. The bike tracked straight as a string all the way around the race track, even in the cobby stuff. A further indicator of improved handling was the fact that we ran out of gear much sooner



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than we did before. After changing the shocks on the Yamaha we feel that the YZ, with a gearing change, would post lap times fairly equal to that of the CR 125 (or better). Although the Honda is a hair faster, the suspension modified Yamaha handles a bit better. With the replacement shocks on the Yamaha, we found ourselves putting less effort into riding than with most of the others.

One thing that changing the shocks often does is point out that the forks aren't as good as you thought they were. After draining off the dubious liquid from each YZ fork tube we replaced it with plain 20-weight fork oil. This made a very measured difference in the performance of the front end. Finally we felt we could honestly say the YZ would be truly competitive, once the gearing was changed. With the modifications noted, Yamaha's deluxe racer model took on a whole new personality. This was our only departure from testing the bikes as they came out of the crate. It should be remembered that the YZ got the special attention because its suspension was the worst of the lot. Any of our test units could have been improved with the same amount of attention.

NOISE

If there was one thing all the bikes had in common, it was their excessive noise. Probably the quietest one of the bunch was the Can-Am. The rest of them made far more noise than we felt was acceptable. The type of sound created by the 125 is different from its larger brothers. It is more piercingly shrill. We would certainly like to see a serious effort put into quieting



it down. We have found that a quieter muffler does not necessarily mean a loss in performance. We had an opportunity to ride a Yamaha YZ with a Skyway expansion chamber and silencer attached and the bike was both faster and quieter. So, here again, we can blow that old myth about "noise is horsepower" into the weeds. There have been some great strides made in the field of two stroke silencing and it would certainly behoove the factories to take advantage of this information in the area of competition machinery. It's less tiring for the rider if the exhaust noise is subdued. The two most irritating machines were the Honda CR 125 and the Yamaha YZ. The rest were only slightly quieter, with the exception of the production Can-Am.

BRAKES

The majority of the bikes tested had more than adequate brakes. From a feel standpoint our first choice was the TM 125. The bike that gave every-



body the most trouble was the Yamaha YZ. The rear brake was extremely sensitive. It took virtually zero effort to lock up the back. This coupled with the bouncing of the rear end did little to inspire the riders to try any harder. The problem is easily corrected by cutting grooves in the brake shoes or reducing the lining area. It's always better to have them too sensitive than not strong enough, but . . . The rest of the bikes seemed to have good stoppers that were predictable and didn't fade. As might be expected, the amount of braking force necessary on a dirt bike is considerably less than that needed on its road going counterpart. With brake design and lining technology being what it is, the manufacturers can provide super stoppers without adding size and weight.

TIRES

The two Can-Ams were the only machines fitted with a large 4.00 x 18-inch rear knobby tire. This we felt offered a satisfactory amount of traction for accelerating in a straight line and during cornering operations. We commend Can-Am for their choice of rubber. We know from experience that fitting a 4.00 to a CR 125 or YZ will make a very notable difference in the way the bike handles on a bumpy course. The more rubber in contact with the ground, the more traction you get. And in the case of the 125s, you need all the traction possible. Spraying dirt can be a lot of fun, but it generally adds precious time on each corner. The quicker the bike grabs hold of the ground, the faster and harder it drives off the turn. This is where the tires come in. The Honda, which produces the most power,



YAMAHA MX 125

Engine type	single cylinder, air cooled 2 stroke
Bore and stroke	56 x 50mm
Displacement	123cc
Compression ratio	8.0:1
Claimed horsepower	16.1 hp @ 8500 rpm
Claimed torque	11.5 ft./lbs. @ 9000 rpm
Engine red lines @	9000 rpm
Ignition	flywheel magneto
Starting system	kick, in any gear
Carburetion	(1) 28mm Mikuni
Lubrication	oil injection (Autolube)
Type of transmission	constant mesh 5-speed
Clutch	wet multi-plate
Internal gear ratios	(1) 2.83, (2) 1.87, (3) 1.37, (4) 1.09, (5) 0.96
Final ratio	11.66
Countershaft sprocket	15
Rear wheel sprocket	47
Length	78.7 in.
Seat height	31.5 in.
Wheelbase	53.0 in.
Ground clearance	9.8 in.
Actual weight, full tank of gas	201 lbs.
Front tire size	2.75 x 21 in.
Front brake type	internal expanding
Front brake size	4.3 in.
Rear tire size	3.50 x 18 in.
Rear brake type	internal expanding
Rear brake size	5.1 in.
Air filtration	washable foam
Fuel tank capacity	1.8 gal.
Oil tank capacity	0.48 qt.
Gear box capacity	1.4 pt.
Front suspension	telescopic double damping
Rear suspension	5-way adjustable spring over shock
Frame type	tubular double cradle
Colors	yellow with black trim
Retail price, Los Angeles	\$708

Distributor

Yamaha International
6600 Orangethorpe Ave.
Buena Park, Calif. 90620





comes fitted with only a 3.50 sized tire. The machine is quite capable of pulling a four incher, and this would help it hang in there more on the corners.

The Rickman, with a 3.50 rear, does have the proper size rubber because of the power output. It was made clear by Triumph when we picked up the Rickman that the tires fitted to this machine were not standard rubber, but were being used for evaluation only. We feel that the standard Dunlop fitted to the Rickman is by far superior to the rubber on our test bike, considering both traction and wear.

The general consensus was that the tire on the TM Suzuki was satisfactory, but it could be better. In a situation such as this, bigger is definitely better.

Considering the Yamaha YZ, we are



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again faced with a slightly undersized tire and definitely not enough width for hard cornering. Just this one change would make a big improvement in the capabilities of the YZ.

The MX was more or less in an in-between situation. Several of our testers felt that the traction and cornering ability could be improved with a larger tire, but others felt that the engine did not have the capacity to pull the larger tread. We would go for the wider rubber.

The front tires were all pretty good. We were surprised to find that tire pressure was not nearly as critical as we thought it would be. Pressures usually range from 12 to 18 pounds depending on the rider and situation.

RIDER COMFORT

It has long been our opinion that the 125 class of motorcycle was intended primarily for the younger or smaller rider. However, we discovered this isn't necessarily true. Seat height fell between 30 and 32 inches, which is neither too high for a smaller rider nor too low for a larger one. We found that the Honda and the Suzuki were the two most comfortable as far as seating position is concerned. The placement and shape of the handlebars agreed with most of our testers.

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SUZUKI TM 125

Engine type	single cylinder, air cooled 2 stroke
Bore and stroke	55.8 x 50.0mm
Displacement	123cc
Compression ratio	7.5
Claimed horsepower	17.5 hp @ 10,000 rpm
Claimed torque	9.68 ft./lbs. @ 8000 rpm
Engine red lines @	10,000 rpm
Ignition	PEI (pointless)
Starting system	kick, in any gear
Carburetion	(1) 26mm
Lubrication	CCI (oil injection)
Type of transmission	constant mesh 5-speed
Clutch	wet multi-plate
Internal gear ratios	(1) 2.14, (2) 1.53, (3) 1.25, (4) 1.05, (5) 0.91
Final ratio	13.02
Countershaft sprocket	15
Rear wheel sprocket	64
Length	79.1 in.
Seat height	32.7 in.
Wheelbase	52.6 in.
Ground clearance	7.9 in.
Listed dry weight	189 lbs.
Actual weight, full tank of gas	202 lbs.
Front tire size	3.00 x 21 in.
Front brake type	internal expanding
Front brake size	5.0 in.
Rear tire size	3.50 x 18 in.
Rear brake type	internal expanding
Rear brake size	5.0 in.
Air filtration	washable foam
Fuel tank capacity	1.32 gal.
Oil tank capacity	1.2 pt.
Gear box capacity	1.2 pt.
Front suspension	telescopic double damping
Rear suspension	5-way adjustable spring over shock
Frame type	single down tube semi double cradle
Colors	yellow with green trim
Retail price, Los Angeles	\$720

Distributor

U.S. Suzuki Motor Corp.
13767 Freeway Dr.
Santa Fe Springs, Calif. 90670

Peg position allowed even a rider with long legs to stretch out comfortably and control the machine in either a sitting or standing position. The low backs on the tanks also allowed the riders to slide forward to put as much weight as possible on the front wheel when cornering while still maintaining good control of the machine.

Because of the relationship of the footpegs the YZ left some riders feeling cramped. The seat is low while the footpegs are high. The seat was firm, but soft enough to provide some comfort.

Yamaha's MX did not particularly impress us one way or the other in the comfort category. We feel that it is adequate for most riders. Control placement and seat padding are satisfactory.

The Can-Am has a slightly firmer seat than the other machines. Several riders had trouble keeping their feet on the pegs. The Can-Am uses several raised edges across the top of the peg instead of the serrated loop type pegs that are found on the other machines.

The Rickman would most definitely be our last choice for comfort, at least for the larger riders. The handlebars are narrow, and the distance between the seat and the bars is quite short. This cramps the rider, and is not the ideal setup for negotiating corners. The rear of the fuel tank is also extremely high, making sliding forward for weight control difficult. The machine has a good feel when it is stationary, but there is very little seat padding to absorb jolts on the track.

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HONDA CR 125M

Engine type	single cylinder, air cooled 2 stroke
Bore and stroke	56 x 50mm
Displacement	123cc
Compression ratio	7.6:1
Engine red lines @	8500 rpm
Ignition	magneto CDI
Starting system	kick, in any gear
Carburetion	28mm Keihin
Lubrication	premix: 25:1
Type of transmission	constant mesh 5-speed
Clutch	wet multi-plate
Internal gear ratios	(1) 2.13, (2) 1.61, (3) 1.30, (4) 1.09, (5) 0.95, (6) 0.88
Final ratio	11.51
Countershaft sprocket	15
Rear wheel sprocket	49
Length	80.3 in.
Seat height	32.3 in.
Wheelbase	53.5 in.
Ground clearance	7.7 in.
Listed dry weight	179 lbs.
Actual weight, full tank of gas	192.5 lbs.
Front tire size	2.75 x 21 in.
Front brake type	internal expanding
Front brake size	5.0 in.
Rear tire size	3.50 x 18 in.
Rear brake type	internal expanding
Rear brake size	5.0 in.
Air filtration	washable foam
Fuel tank capacity	1.6 gal.
Gear box capacity	1.1 qt.
Front suspension	telescopic double damping
Rear suspension	5-way adjustable spring over shock
Frame type	semi double cradle
Colors	silver with green trim
Retail price, Los Angeles	\$843
Distributor	

American Honda Motor Co.
100 W. Alondra Blvd.
Gardena, Calif. 90247

SUSPENSION

Can-Am GP	90	
Honda	90	
Can-Am MX	85	
Rickman	85	
Suzuki	85	
Yamaha MX	75	
Yamaha YZ	70	

NOISE

Can-Am MX	90	
Rickman	80	
Can-Am GP	70	
Honda	70	
Suzuki	70	
Yamaha MX	70	
Yamaha YZ	70	

BRAKING

Can-Am MX	95	
Can-Am GP	90	
Honda	90	
Suzuki	90	
Rickman	85	
Yamaha MX	85	
Yamaha YZ	50	

POWER RANGE

Can-Am GP	95	
Can-Am MX	95	
Yamaha MX	90	
Suzuki	80	
Rickman	75	
Honda	70	
Yamaha YZ	70	

HANDLING

Can-Am GP	90
Honda	90
Suzuki	90
Can-Am MX	80
Yamaha MX	75
Rickman	70
Yamaha YZ	65

WEIGHT

Yamaha YZ	187
Honda	192½
Yamaha MX	201
Suzuki	202
Rickman	220
Can-Am MX	233
Can-Am GP	N/A

PRICE

Yamaha MX	\$708
Suzuki	\$720
Yamaha YZ	\$820
Honda	\$843
Can-Am MX	\$945
Rickman	\$1079
Can-Am GP	\$1250 approx.

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CONCLUSION

This test has been an eyeopener for us because we had no idea of the degree of performance and reliability these little buggers are capable of delivering. In most situations they're just flat more fun to ride than the bigger bikes, and they do go god-awful fast, even in the hands of a novice. After our experience with modifying the suspension on the YZ, we realized how critical the rear dampers and front fork requirements are on the 125s. Probably, by now, you're looking for a winner in this contest. Taking all factors into consideration, we feel it is only fair that we break the winners down into two categories. In a moment you'll see why.

As the bike comes out of the crate, the TM 125 is probably the best dollar buy you can invest in. It gives the beginning motocrosser more for his money than anything else we've tested. This is saying a lot, but for a novice or intermediate rider our first choice would undoubtedly be the TM 125.

Once you have reached the point of being a fairly experienced rider, you can then utilize more performance. For an expert rider, we would strongly recommend the Honda CR 125M. It delivers more go and a better chassis for the experienced rider than any of the other six except for perhaps the Can-Am GP. The big difference between the CR 125M and the Can-Am GP bike is price. The Can-Am GP is approximately \$400 more expensive. The Honda is just about race-ready as it comes out of the crate. With a little additional work it can be made even faster, if horsepower is your problem. Honda also offers an optional high performance carburetor and cylinder. Unfortunately, most motocross riders place more emphasis on horsepower than they do on anything else. Most riders, however, can't handle what they have.

To confuse you further, we might mention that we feel a re-gear Yamaha YZ with some attention paid to the suspension will produce lap times equal to the Honda. But then if you modify the Honda . . . and so it goes. There's no end to what you can do with enough time, effort, and money. This exercise has been so much fun that one of the staff went out and bought a new 125 Honda for some local campaigning. If you're even remotely considering motocross, under no circumstances should you pass up the 125s without at least giving them a thorough once-over before making a decision. We know you'll sure be amazed at what they can do. We sure were. ■