EXCLUSIVE: YAMAHA'S MONO-SHOCKING IT250

DIRT BIKE

IND

MAY 1977

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125 MXers SHOT OUT: YAMAHA vs. HONDA vs. SUZUKI

CRASHIN' IN FASHION: GIANT COLOR RIDING GEAR SECTION

Retailers: See Page 85 for Special Display Allowance Plan

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HONDA'S MR175: TEST AND TIPS

DESERT BLASTIN' AND SHORT TRACKIN': PARKER DAM 400 AND HOUSTON'S ASTRODOME

DIRT BIKE

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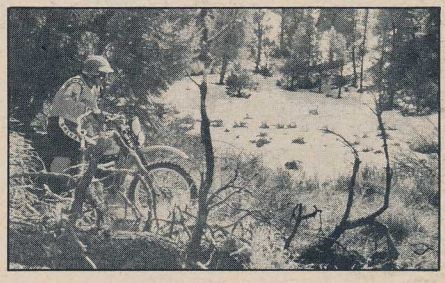

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ON THE COVER: Yamaha ISDT Gold Medalist John Fero baptizes the DIRT BIKE IT250. Woods got the wet lens.

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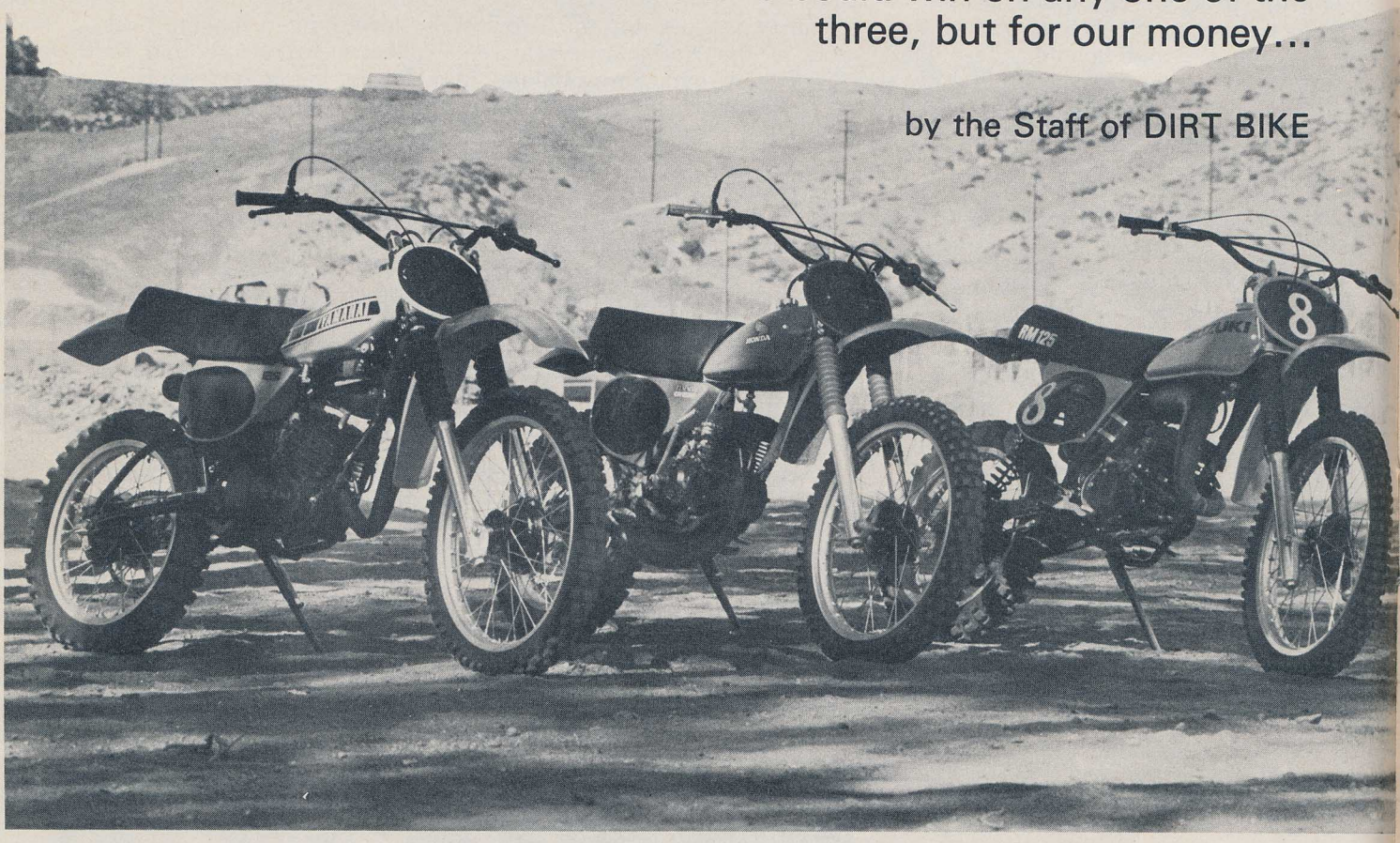
RISING SUN SHOWDOWN

HONDA CR125M vs. YAMAHA YZ125D vs. SUZUKI RM125B

There are some who could win on any one of the three, but for our money...

by the Staff of DIRT BIKE



Good evening, ladies and gentlemen. Tonight, I am proud to present to you, live from Desconzo Hexagonal Gardens, the world's first three-way tag team sumo wrestling match.

What makes this match so unique is that since there are three contenders, in reality, there are no teams. An opponent in distress need only to reach the ropes and tag the wrestler waiting there to bring a temporary end to his misery while sending a fresh warrior in to do battle. By and by, you will see first one, then another, scored against until, in the end, one contestant will stand alone as the new Japanese Lightweight Champion.

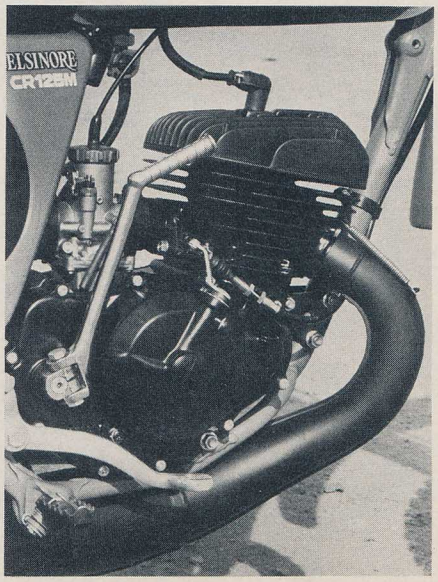
In this corner, weighing in at 89.1 kilos, from Kumamoto, Japan, the recently dethroned long-time champion in the lightweight category, C.R. Honda.

In this corner, hitting the scales at 88.6 kilos, hailing from Iwata, Japan, a new challenger who has shown some great potential, Y.Z. Yamaha.

And in this corner, at 90.2 kilos, all the way from Hamamatsu, Japan, one who needs no introduction, the current reigning World Lightweight Champion, R.M. Suzuki.

In just a moment, the beginning of round one...

First into the ring is the Honda, stylishly dressed in racer red. The CR is in virtually the same form as it was in last year's competition, with the exception of its new red fork boots to protect the seals and tubes from dirt and stones, flashy



The featherweight that started the 125 rocketship era.

red grips to further complement the color scheme, and gray painted rather than polished fork legs, no doubt to offset the cost of the new red items. Not to be scoffed at, the CR (usually in a much modified form) still handles itself very well in the ring and continues to chalk up victories.

The CR's heart is basically the same mill first introduced in '73 with updated breathing and a sixth gear thrown in. Its power peak is reached at 11,000 rpm where it pumps out a full 22.3 horsepower. There is a bit less mid-range power when compared to its opponents in this match (as if you can consider 8000 to 9500 a mid-range), but what's there is easy to get used to and a touch at the clutch will quickly bring you into the power range you desire.

The clutch, with its typically Japanese light and positive feel, has proven to be more than enough to tackle even the most challenging motocross courses.

Moving the shift lever through its very short throw provides quick and positive shifts to six well-spaced ratios. Handling, overall, is very good. Just what you'd expect from Honda's best motocrosser. The CR chassis combines quick and precise steering, good straight-line stability, slideability, and comfort.

Both brakes offer the correct combination of strength and predictability to get your speed down with a minimum of effort and thought.

It is mostly in the suspension department that the CR may find itself slightly outclassed when put face to face with its competitors. The Showa forks and air/spring shocks do a commendable job of absorbing the bumps and keeping the tires planted firmly on the earth. It's just that the other two machines have nearly a year of development on the CR and considerably more suspension travel both front and rear. Surely its trainer is aware of these drawbacks, but is still confident enough to send their boy in there to wrestle it out with the best of them.

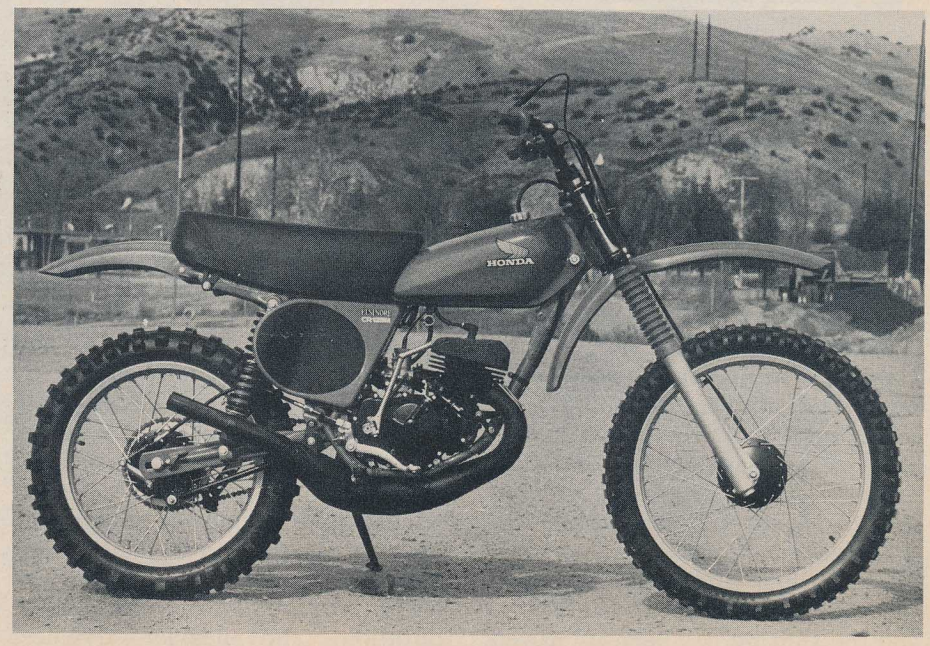
Next into the ring is the newcomer, YZ. It's obvious by the looks of him that he means business. A regular Hannah replica, that Yamaha. If you read our pre-production preview in the February issue, surely you realize what we have here. From the tip of its new wide plastic front fender to its revamped monocross system in the rear, about the only components the YZD shares with the old model are the hub and brake assemblies.

Kayaba air/spring, leading axle forks grace the front end of the '77 YZ. The hefty 36mm tubes pivot on tapered roller bearings and contain light springs with 14 psi of air.

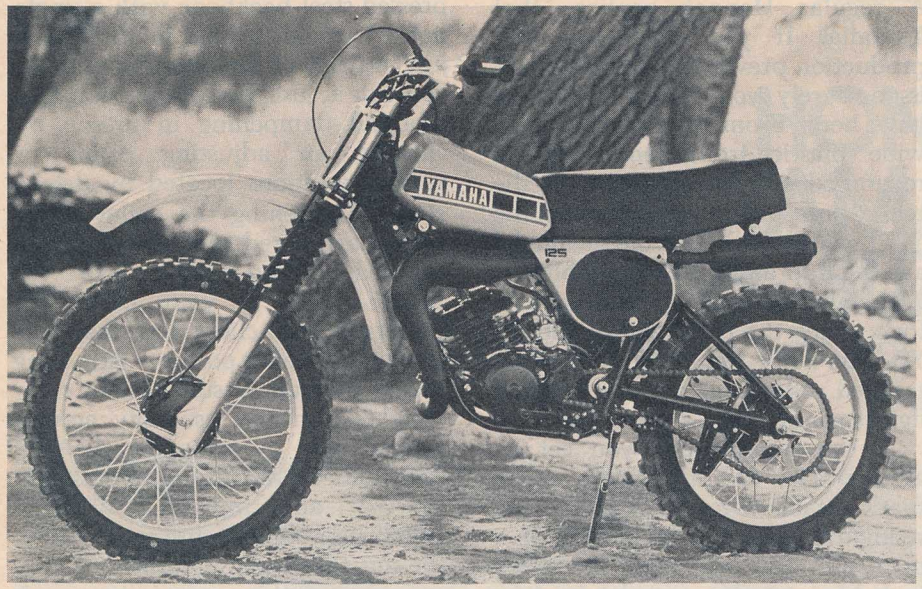
At the opposite end you get an all-new Dr. DeCarbon gas shock that's attached to an equally new swingarm assembly by means of a pivot pin. The top end of the shock is held into the completely new frame within the large-diameter pressed steel backbone with a single bolt. Through a hole in the frame just in front of the plastic fuel tank, you can adjust the compression and rebound dampening in unison by clicking an adjusting collar to various positions located by detent stops. Tightening the collar down moves a tapered pin farther into a tapered orifice much like the needle setup in your carb. We preferred two clicks less than the stock dampening position. Adjusting spring preload to suit various rider weights is nearly as easily accomplished now by removing the bolt and pin, sliding the shock unit out the rear, adjusting the position of the spring retainer, and retightening the nut that locks against it.

Overall, this new design is lighter, much easier to work on,

Zeal makes like Marty Smith.



This is last year's Elsie with new red grips and fork boots. They're loafing now but surely they're up to something.



You might call it a Hannah Replica. Everything's new but the hubs and it's all very adjustable.

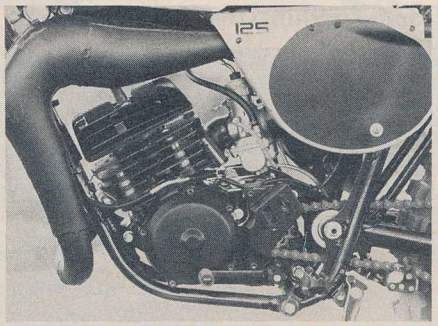
and has a much more conventional feel to it than the unit it replaces.

In an attempt to gain a little more mid-range, they've gone to a 32mm Mikuni (down from 34mm) which angles off into a single, more efficient air filter. Although it's easier to service than the old dual filter setup, it looks a little on the small side.

Within the blackness of the engine you'll find wider intake and exhaust ports and a new trenched head design that couples with the smaller carb and all-new exhaust system to help mellow out the YZ's inherent peakiness. Something which may or may not be a hint of things to come is the presence of water-cooling passages cast into the engine cases around the bottom of the cylinder. Exotic? You bet. Maybe someday...(always ask for more).

In the gearbox there is now less undercut on the engaging dogs to help make shifting with the power on easier, and a whole new shifting mechanism to make sure you get what you went after.

All in all, the YZD boasts many improvements over last year's Yamaha. The machine is now much easier and simpler to maintain. It comes with lots of nice hardware, like a spring-loaded chain tensioner, tapered roller bearings in the steering head and an air gauge suitable for both the forks and tires. There's nearly three more inches of suspension travel front and rear, and the shifting has been improved



This, the lightest of the bunch, features holes in its holes, lots of plastic goodies, and many moves toward a minimum of maintenance. Zootness abounds.

by over 100 percent.

And now, with the sound of bugles blaring, our current World Champion enters the ring. In all its glory, your basic Rahier replica. As you should know by now from the RM preview we gave you last month, this is not just a modified A model, but a whole new ankle-biter. Those boys at Suzuki have, as of late, made a habit of introducing new models every six months or so that make their previous new models virtually obsolete. Whatever... You can't stop progress.

In order to get more mid-range, the basic engine specifications have changed completely. A new rod and piston are used as the bore and stroke are now a square 54mm by 54mm. This smaller diameter piston is lighter in itself and has a lighter and smaller wristpin so that the revs will now build quicker. The longer stroke helps compensate for the longer duration of the taller, narrower transfer and exhaust ports, while slightly less intake duration, and heavier flywheel weights contribute to smoothing things out. And of course, there's a new pipe and reed block to go with all this. It all adds up to a little more torque a bit sooner and about a half a horse extra on top. To make full use of this extra bit of zap, the primary and final reduction ratios have been upped ten percent.

The RMB has also received considerable modifications to its suspension systems. Actually, the forks are entirely new Kayaba air/spring units similar to the YZ numbers, but with different internals and more travel. Although they come stock with 24 psi, we found that 12 to 14 was a much more desirable pressure for the tracks we tested and raced on. Suzuki suggests 20 to 36 psi.

Remote reservoir Kayaba shocks are now found in the rear as on the larger RMs. The top shock mounts have been moved forward and down just a hair and the bottom tabs have been pushed up 16mm farther on the reinforced swingarm. The end result is more travel and shocks that last and last.

A new, lighter and stronger conical hub is bolted to the forks where the old full-width unit once lived. Attached to the small side of the hub is a little plate that makes replacing spokes a whiz should the need arise.

Suzuki's new dual-roller chain tensioner, as was found on our PE250, is bolted to the swingarm near the sprocket to help keep the chain where it belongs and your name in the results.

Aside from that, you get all the fine hardware and fittings that you've come to expect, including lots of light plastic goodies, a big and easy-to-service air filter, and high-zoot, vented number plates to help cool the shocks.

BASICS

Rider comfort: All three bikes offer a good to fine riding position. All the controls are where you'd expect them to be and were easy to use. However, most testers preferred the Yamaha or the Suzuki over the Honda.

Braking: It would be difficult to pick a winner in this department as all of the binders performed relatively equally when it came to feel and strength for basic MXing. The cable-operated rear units on

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HONDA CR125M vs. YAMAHA YZ125D vs. SUZUKI RM125B

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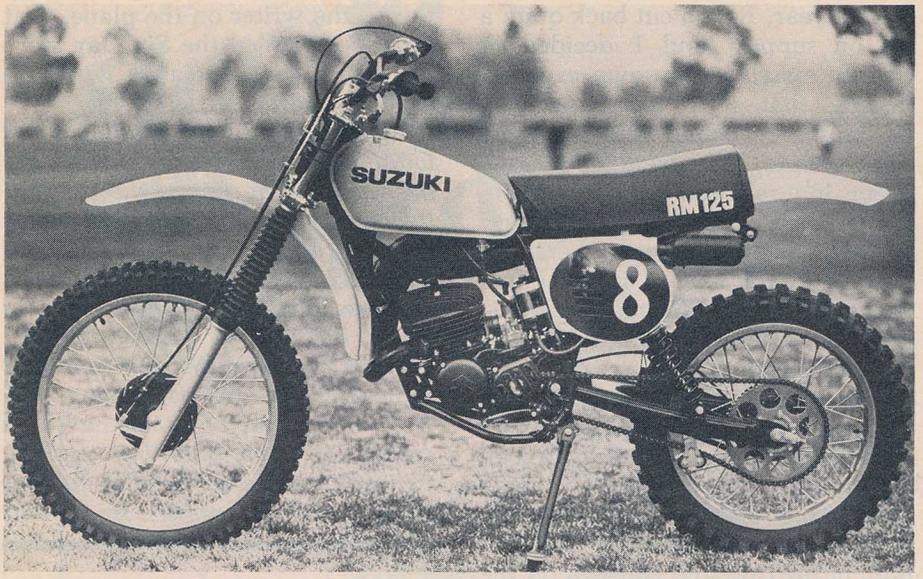


And you might call this one a Rahier Replica. You get more and better suspension, ditto for the motor, and the potential to fill your trophy cabinet.

Most and best power comes from right here. There's almost a horse less than we got out of our "A" model (24.1) at 23.2, but their major engine mods have netted actual mid-range power.

the Suzuki and the Honda actually had a slightly better link between the pedal and the drum when they got good and hot, but not by much.

Shifting: Most riders had a tendency to want to move the Elsinore's shifter farther than it would go so it took some getting used to. The CR also had a very short lever and an awkward shift shaft position that didn't help matters any. The Suzuki would not shift quite as well under power as the other two. You had to either clutch it or at least back off on the throttle some. No problems with any of the clutches. They were all light and progressive in their engagement.

Wheels and tires: Both the Bridgestones and late-model IRCs found on our test units were quite suitable for the slick to tacky surfaces we encountered. Wheels and spokes held up very well with the exception of the Honda's front wheel, which collapsed with barely more than 20 minutes on it. Despite the fact that we've broken four wheels and a set of forks now off of this particular drop-off, we feel that it is time for heftier spokes and nipples for little Elsie. The Suzuki and Yamaha seldom needed even the slightest bit of attention.

GETTING DOWN TO IT

Power: Off the line it's a tie between the RM and YZ, with the Honda coming in a close third. It's when you get into some turns, uphills with holes, and in the sweepers that the Suzuki comes out on top with the most usable power. It actually has some mid-range. If you should happen to shift a little too soon, the RM will quickly pull into the "fast zone" and rocket you away. When it does get into that power range, the pulses are smooth and predictable as well as potent.

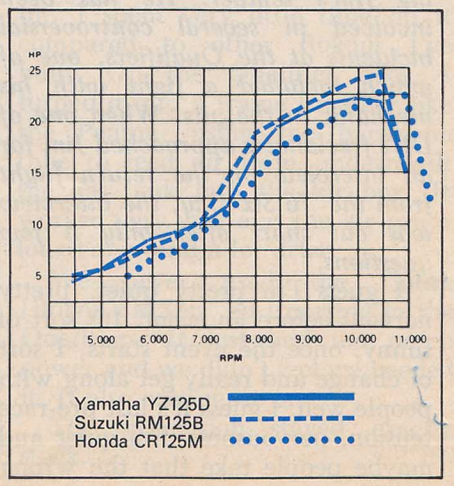
The YZ has just a taste of a mid-range, but not to the same degree. The lighter the rider, the quicker you'll be pulled into the powerband. Once you're there, it's not quite as usable as the RM's, because it comes in a burst (i.e. your basic YZ pipeyness, but to a lesser degree than in previous years).

Then there's the Honda. Its punch is not as great as the others, and it's a screamer. What's there is predictable in that you know its muscle is right on the tip-top and you've got to keep it there by feathering the clutch now and then.

Suspension: There's no way around it, hitting some holes and bumps on a good line is faster than going around them and creating an alternative line. That is, if your bike and bod are up to it. So, the more travel you've got and the better your suspension works, the quicker your laps will be (theoretically). Equally important is the dampening that controls the bouncing wheel out back. If that rear meat isn't hookin' up, even the world's best powerband isn't going to help you.

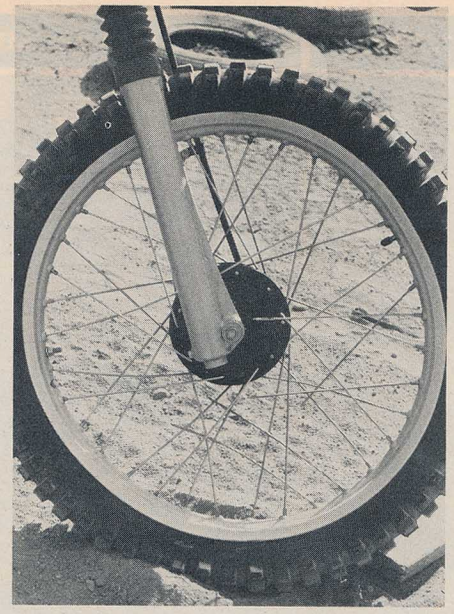
The Honda's combination of forks and shocks are well matched to the chassis. Very little of the shock from small ripple bumps to large holes is transmitted to the rider through the bars. In the rear, the combination of spring preload and air pressure is a nice touch, but the dampening is on the stiff side when cold and fades some when the heat's on. As the track gets more rutted and the holes deeper, the advantages of longer travel units, as on the Suzuki and Yamaha, become more apparent.

You couldn't ask for more than a set of forks like the ones that come on the RM. On a fairly smooth course with one killer drop-off, 16 psi and the stock oil does the trick. They absorb even the smallest of bumps without the slightest hesitation. Huge chasms are passed without a thought. Well, practically. The remote reservoir Kayaba shocks work as well as the forks.



	HONDA CR125M	YAMAHA YZ125B	SUZUKI RM125B
Price:	$896	$998	$1025
Engine:	Two-stroke single, piston port	Two-stroke single, piston port and reed valve	Two-stroke single, piston port and reed valve
Displacement:	123cc	123cc	123cc
Bore & Stroke:	56mmx50mm	56mmx50mm	54mmx54mm
Compression Ratio:	7.5:1	7.7:1	8.0:1
Carburetion:	30mm Keihin	32mm Mikuni VM32SS	32mm Mikuni VM32SS
Standard Jetting:	Pilot 45, slide 77, needle N/A, needle jet N/A, main 140	Pilot 60, slide 3.0, needle 6F22-3, needle jet P8, main 270	Pilot 30, slide 2.0, needle 6DT5-3, needle jet R-0, main 230
Horsepower:	22.3 at 11,000	21.4 at 10,000	23.2 at 10,500
Clutch:	Wet, multi-plate	Wet, multi-plate	Wet, multi-plate
Primary Drive:	Helical gears, 4.00:1	Straight-cut gears, 3.227:1	Straight-cut gears, 3.444:1
Transmission Ratios:			
1.	2.133	2.461	2.333
2.	1.611	1.875	1.750
3.	1.300	1.500	1.411
4.	1.091	1.250	1.190
5.	0.958	1.090	1.045
6.	0.880	1.000	0.956
Final Drive:	D.I.D 428 15/53	520 12/51	Daido 428TR 14/59
Air Filtration:	Oiled foam	Oiled foam	Oiled foam
Electrics:	CDI (Capacitor Discharge Ignition)	Hitachi internal rotor	PEI (Pointless Electronic Ignition)
Lubrication:	Pre-mix, 20:1	Pre-mix, 20:1	Pre-mix, 20:1
Recommended Fuel:	Low-lead (Research Octane No. 91 + or Pump Octane 86 +)	Premium	Premium
Recommended Oil:	N/A	N/A	(a) Bel-Ray MC-1 (b) Castrol R30 (c) B.P. Racing (d) Shell Super M (e) Golden Spectro Synthetic Blend
Fuel Tank Capacity:	6.8 liters (1.8 gallons)	5.6 liters (1.5 gallons)	6.0 liters (1.6 gallons)
Frame:	Semi-double cradle	Split downtube, double cradle	Chrome moly, semi-double cradle
Suspension:			
Front:	Showa forks offering 191mm axle travel	Kayaba air/spring forks, offering 230mm axle travel	Kayaba air/spring forks, offering 231mm axle travel
Rear:	Showa air/spring shocks offering 193mm axle travel	DeCarbon/Monocross system offering 230mm axle travel	Kayaba nitrogen gas shocks, offering 223mm axle travel
Starting:	Primary kick	Primary kick	Primary kick
Wheels & Spokes:			
Front:	D.I.D 1.60x21 with cross-3 spokes	D.I.D 1.60x21 with cross-3 spokes	Takasago 1.60x21 with cross-3 spokes
Rear:	D.I.D 1.85x18 with cross-2 spokes	D.I.D 1.85x18 with cross-2 spokes	Takasago 1.85x18 with cross-2 spokes
Tires:			
Front:	3.00x21 Bridgestone Motocross-7	3.00x21 Bridgestone Motocross-7	3.00x21 IRC Motocross
Rear:	4.10x18 Bridgestone Motocross-10	4.10x18 IRC Motocross	4.10x18 IRC Motocross
DIMENSIONS:			
Wheelbase:	139.2cm (54.8 inches) +2.8cm	139.5cm (54.9 inches) +2.8cm	140.6cm (55.3 inches) +2.8cm
Swingarm length:	44.3cm (17.4 inches)	44.3cm (17.4 inches)	50.2cm (19.75 inches)
Ground clearance:	21.5cm (8.5 inches)	29.3cm (11.5 inches)	29.9cm (11.75 inches)
Bars, height:	110.0cm (43.3 inches)	113.5cm (44.7 inches)	114.0cm (44.9 inches)
width:	85.1cm (33.5 inches)	86.8cm (34.2 inches)	86.3cm (34.0 inches)
Pegs, height:	32.6cm (12.8 inches)	36.1cm (14.2 inches)	37.0cm (14.6 inches)
width:	43.2cm (17.0 inches)	49.0cm (119.3 inches)	44.0cm (17.3 inches)
Seat height:	89.6cm (35.3 inches)	91.5cm (36.0 inches)	92.7cm (36.5 inches)
Fork angle:	30 degrees	31 degrees	30 degrees
Weight:	89.1 kilos (196.5 pounds) without fuel; 43.8 percent on front, 56.2 percent on rear	88.6 kilos (195.0 pounds) without fuel; 48.3 percent on front, 51.7 percent on rear	90.2 kilos (199 pounds) without fuel; 44.9 percent on front, 55.1 percent on rear
Brakes:			
Front:	Full-width cable-operated drum	Conical, cable-operated drum	Conical, cable-operated drum
Rear:	Full-width cable-operated drum	Conical, rod-operated drum	Conical, cable-operated drum
Silencer:	Yes, MX only	Yes, MX only	Yes, MX only
Spark Arrestor:	None	None	None
Warranty:	None	None	None
Parts Prices:			
Piston:	$11.70	$13.74	$15.59
Rings:	$6.40	$6.00	$6.02
Clutch cable:	$4.50	N/A	$5.34
Brake pedal:	$20.10	N/A	$7.66

231mm of travel with ten-pound springs and air on top. We hope to see something very similar to these on the C model 250 and 370.



The only major malfunction among the three was the death of the Elsie's front wheel just 20 minutes into round one.

They provide a very comfortable ride while keeping the rear wienie close to the earth and driving. And, they don't fade.

The YZ's forks are very similar to the RM's in both looks and action. With a tad lighter viscosity oil in them, it would be hard to feel a noticeable difference over the type of terrain we covered. While the oil level is critical in the front ends of both of these bikes, the viscosity and amount of air pressure is up to you and your personal preferences. Spend some time with them and get it right. The forks are as easy to *tune* as is the DeCarbon shock unit. But, getting the dampening and spring preload settings in the ballpark is a different game from getting the bike to perform the way you want it to.

Handling: The Honda will perform very nearly as well as the Suzuki and the Yamaha on a fairly smooth and fast track. It steers, jumps and slides well. Well enough for last year. When you have to hit the holes and come off the jumps harder, you're going to wish that you had more travel.

If you combine the power and suspension section of this test, the YZ comes out pretty fine. But, there's more to a motocrosser than an engine and suspension. Our complaints with the Yamaha lie in basically two areas, traction and turning.

Although the Suzuki and Yamaha had identical rear tires, the YZ presented two consistent problems on varying riding surfaces. On a slick surface, it had a tendency to break the rear tire loose unpredictably. This is mostly due to its basic power characteristics. On a tacky surface, the front end clawed at the air, usually taking you off of your intended line. This brings up a more important factor. Swingarm flex.

During initial testing, keeping the YZ on a line through a turn was more a forced action than a graceful, fluid movement. Adjusting the forks down and finally back up in the crowns helped, but only slightly. After a while we could actually feel the swingarm assembly flex as we flopped it from side to side through "S" turns. This problem is greatly increased as the rider weight increases and/or with the degree to which the machine is pushed. It was because of this flexing that the bike would not track correctly through turns. When the arm flexes, it throws you out away from the radius of the turn. That's no fun at all. It put our riders on their heads a time or two because of it. For this same reason, it won't slide smoothly through a corner without trying to spit you off.

Surely the factory has seen the need for a more rigid unit, as they are currently testing an aluminum unit for possible sale if it proves worthy.

The RM, on the other hand, tucks in and rolls around a berm as if that were its only purpose in life. Slides are easy to come by and are as predictable as the power. You can slide the RM into a turn, point it where you want to go, dial on the power and suddenly be exactly where you were looking. That's the way it should be — thought and action. That's the RMB.

In truth, these bikes aren't very far from each other in a number of areas. We have tried to show you the differences, some minute and some very obvious, that we encountered during our test period. The choice is yours, but for our money...

* * *

He's done it, he's done it. The crowd has gone wild. Here, tonight, before your very eyes, you have seen R.M. Suzuki defeat both of his opponents and in short order, in this, the world's first teamless tag sumo wrestling match. Ladies and gentlemen, good evening... ⚙