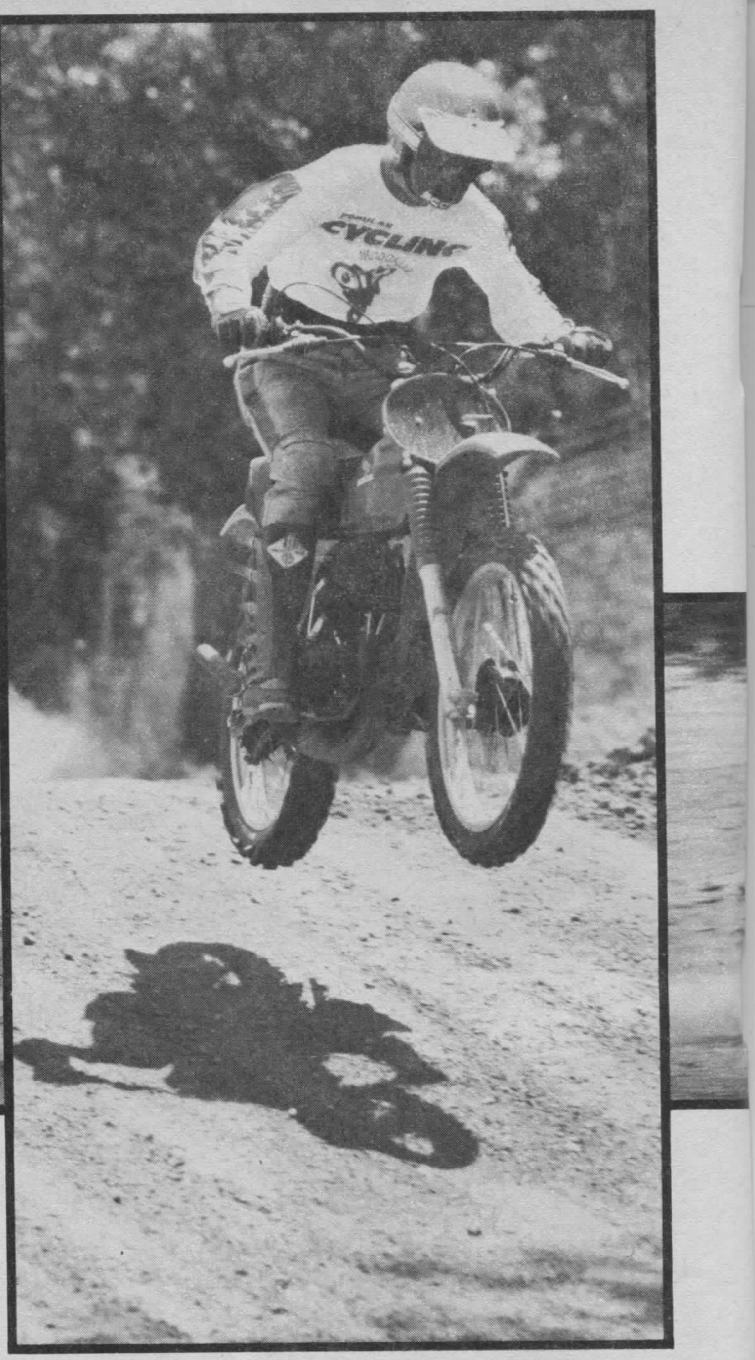
THE JAPANESE 125 MOTOCROSS BIKES

Suzuki RM125B



In the last few months, we at *Pop Cycle* have had the chance to test three top Japanese-built 125cc motocross machines: the Yamaha YZ125D, Suzuki RM125B and the Honda CR125M. These three models represent the very latest production efforts from the three major manufacturers.

Of course, full-blown tests on each bike have appeared in the pages of *Popular Cycling*. But for this special 125cc motocross issue, we thought it might be helpful to take a look back at these bikes and do a sort of mental comparison.

Amongst them, the Yamaha, Suzuki and Honda mx'ers account for the bulk of race entries in 125cc motos around the country. Usually, there are more of one or the other than of everything else put together. Other bikes, notably the European entries in the class, are usually overshadowed on the starting line by the YZ, RM and CR bikes.

The question posed in the headline of this article is a good one: ARE Japanese bikes better? Or are they just more popular?

Let's take a look . . .

First of all, if you're in the market for a new 125cc racer, we think you'll find the answer to your search on these pages. We liked the Japanese bikes over any European machines we've ridden. That, of course, is subject to change, if and when the "Yurpeens" come out with new models and improvements. But at present, one of the three Japanese bikes is your best bet.

That sort of answers one of the questions. In our opinion, yes, the Japanese bikes are better, for a wide variety of reasons (which we'll get into later).

At the same time, the Japanese machines are also a lot more popular. This is for the same reason why Honda street bikes are more popular than Triumphs or Ducatis. Some would argue that those more exotic "breeds" are "better" than any Honda street bike. If so, why do you see so many Hondas?

It's the old supermarket approach. If you haven't already, make the rounds of the bike dealers in your town. Bet you that the Husky, Bultaco, Can-Am or Maico dealer was either a little bitty shop somewhere off the main drag or the bikes take up one small corner of a big shop, which makes most of its money selling Hondas, Suzukis or Yamahas.

On the other hand, you probably saw a lineup of RM, YZ and CR models on the floor of the appropriate dealership. You just can't beat the saturation approach to sales, especially since you're often selling to people who have to carefully consider exactly how they spend their recreation dollar. Such consumers are pleased, satisfied and comforted by row after row of brand-new shiny bikes and shelf after shelf of parts for when (if) they do break something.

Bigger shops usually can afford wider, more elaborate displays of accessory items as well, and that's a big plus when the buying public strolls through the door.

Those are reasons why the Japanese bikes are more popular.

The best? Or just the most popular?

It's also a domino principle: A few guys buy these bikes, show up at the local track, outnumber the European entries two-to-one, win, and the next week, there are even more Japanese bikes on the starting line. That's the way it happens, folks.

But as we said, we personally think that the Japanese bikes are a better buy than most of the European competitors. Apparently a lot of other people do too, because you should see the latest comparative sales figures.

Yamaha YZ125D

Honda CR125M

That's enough of the generalities, though; let's get down to the specifics of the Yamaha YZ125D, Suzuki RM125B and Honda CR125M.

To begin, all three of the bikes have a fairly lengthy development background. The Honda is a fourth generation machine and has won a couple of 125cc National Championship titles in the hands of Marty Smith. The CR, more commonly referred to as the Elsinore, started life as the silver-tank, black-frame version that was largely responsible for getting the boom in 125cc racers off the ground. It was just about the first time that "Johnny Everybody" could go down his local dealership (after all, doesn't every town have a Honda dealer?) and buy a "race-ready" motorcycle.

The Suzuki's history starts out with the old TM models, which were far from the present RM, but nevertheless a capable race machine, right off the dealer's floor. Suzuki has had one of the most active race/development programs, and it's easy to see the direct link between the RM125B (latest of the breed) and the machines that the team riders have ridden in previous seasons.

Yamaha, of course, has been years in development of their 125cc racer. They've had a machine that they've called a racer for some time, but only in the last couple of seasons has that statement been 100-percent accurate. Works 125cc racers have won the 125cc National Championship two years in a row, and much of that winning technology has been poured straight into the latest YZ production racer.

The prime area of development on all three bikes has been the suspension. The engines have undergone only relatively minor changes and improvements, but the suspensions have really progressed. Honda has forward-mounted gas-charged shocks of their own manufacture, Suzuki uses Kayaba remote reservoir gas units and Yamaha has improved their patented monoshock system until nearly all the bugs are gone from it.

On the front, the Honda uses fairly long-travel oil/spring forks. They give 7.9 inches of travel, which is plenty, but our test article was critical of the Honda forks. We felt that they were too fast-acting—that compression and rebound was too quick, at least for our liking.

One of the most pleasant improvements on the newest Suzuki was the addition of air forks, which we simply loved. They're primarily air units, but have light springs to handle the first bit of compression. They're great forks.

The Yamaha also uses air forks, and they're a lot like those on the Suzuki. Last year, Yamaha tried air forks with a big accumulator on the top, and we were really glad to see them get away from those cumbersome, hard to "tune" things. Those early Yamaha air forks really turned us off, but we've come to appreciate the "new-style" units on both the YZ and RM racers.

In the chassis department, Honda has stuck with what they've had, with the shocks moved a little more forward on the swing arm. Yamaha and Suzuki, though, have done some significant changes. Yamaha has gone to a new DeCarbon-type single shock for the monoshock and they reworked the frame somewhat. The chassis works harmoniously with the front and rear suspension to make the Yamaha handle very well. Heretofore, the Yamaha had a tendency not to like going around tight corners. A great berm buster, but the slow, tight corners were a real handful.

Now, the YZ will take on any type of turn.

The Suzuki now has a lighter frame made of chrome-moly steel. Geometry is changed a little to work better with the long travel air forks and the equally long-travel, very forward-mounted, laid-down, remote-reservoir Kayaba shocks. (Boy, that's a long description of a pair of shock absorbers!) Wheelbase is an inch longer than last year's RM, and we can assure you, the RM125B handles good.

Of the three bikes, we felt that the Suzuki was probably the

easiest to ride fast. They've gone to a "square" configuration (54 x 54mm bore & stroke) which gives a very good powerband. The power combines with perfect gearbox ratios to make a 125cc racer that's very easy to keep on the pipe and hustling down the track.

The Yamaha wasn't far off, and we don't want to imply that the Suzuki is far superior. The YZ powerband was narrower than the Suzook and we had a hard time shifting the Yamaha under wide open throttle. Those two factors combined to knock the Yamaha just a little bit under the Suzuki in the gearbox/power department.

The Honda, we have to report, wasn't even in the same ballpark as the other two machines. It's pipey, has the narrowest powerband and the gear ratios were spaced just so inconveniently that we several times found ourselves in a situation where there was simply no usable power available. Took even more gear shifting and clutch feathering than a normal brisk ride on a 125cc bike.

All three of the bikes put out just over 21 horsepower, with peak rev point different for all three. The Suzuki has the lowest "boiling point" at an even 10,000 rpm. The Yamaha is in the middle at 10,500 and the Honda peaks out at 11,000.

The only thing that's changed over the years on the Honda CR engine is the basic cylinder porting specifications, to get the horsepower on up there. One good thing about the tried and proven Honda engine, though, it's for sure that all the bugs are long since worked out. Also, over the years, there have been more aftermarket hop-up goodies for the Elsinore engine than for the other two. Unfortunately, perhaps, the Honda needs such speed equipment more than the other two.

Yamaha's engine uses reed valve induction, as does the Suzuki. All three engines actually displace 123cc, but the Suzuki is different (as we told you) in that it has a "square" configuration of 54 x 54mm bore and stroke. The Yamaha and Honda engines are both 56 x 50mm.

Back to the suspension and handling department for a while . . .

The consensus of opinion around our place was that the Yamaha got the nod in the front fork department. The Suzuki was a very close third and the Honda was in right field, primarily because there just wasn't as much suspension to work with. And as we mentioned, we liked the easily adjustable air forks on the Yamaha and Suzuki. The Yamaha had excellent dampening traits and we seldom found ourselves at the end of travel. These things are really long travel.

The Suzuki forks ran a very, very close second, primarily because of the excellent spring action at the beginning of compression and on little bumps. The forks were a little bit stiff in that first three inches or so, but we liked it that way. Admittedly, though, the Yamaha forks were better over mildly rough stuff on straightaways. And as we mentioned, the Honda oil/spring forks were too quick and choppy. Tended to make the front wheel bounce along.

We were very nearly tossed up on the rear suspensions, although it was once again the Suzuki and Yamaha. In fact, we were divided. Part of the staff liked the Yamaha monoshock and and part liked the Suzuki Kayabas. Guess we'll have to put it this way: Both suspensions are excellent. Take your choice.

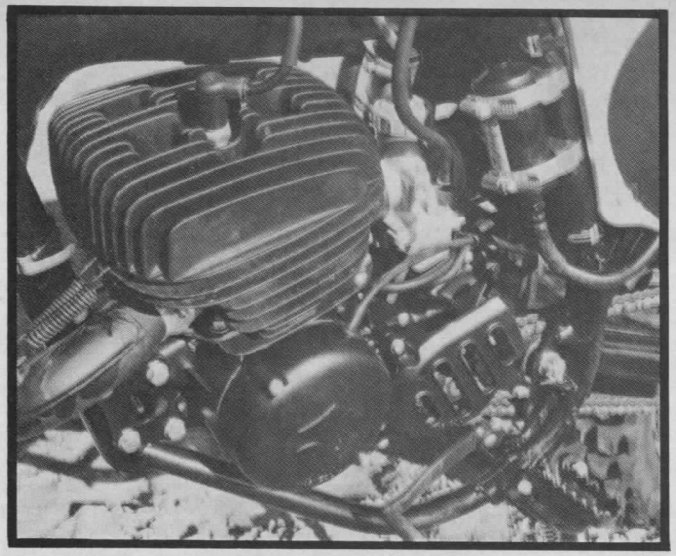
The Honda shocks are mounted nearly vertically and they just aren't as modern a unit as the Suzuki remote reservoirs. In this department again, the Honda takes a third place behind the other two machines.

IN SUMMATION . . .

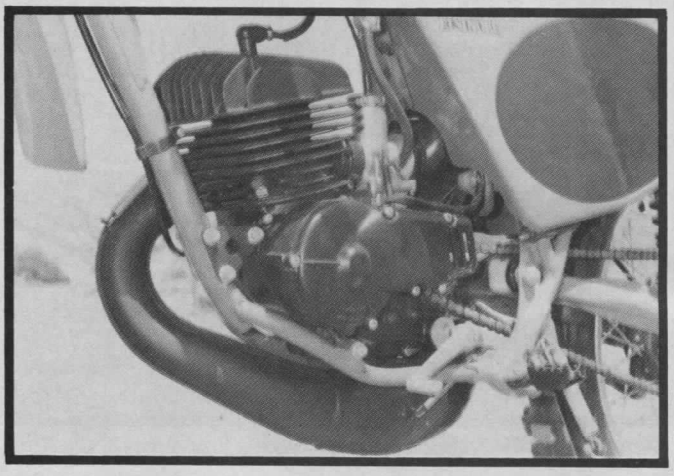
Okay, now, want a summary of the whole thing? You've got it.

It's a toss-up between the Yamaha YZ125D and Suzuki RM125B. The "tie-breaker" probably goes to the Suzuki, primarily because of the more pleasant powerband/gearbox/shifting characteristics. We sincerely liked both bikes and wouldn't hesitate to lay out cold cash for either one, were we shopping for a 125cc motocross machine.

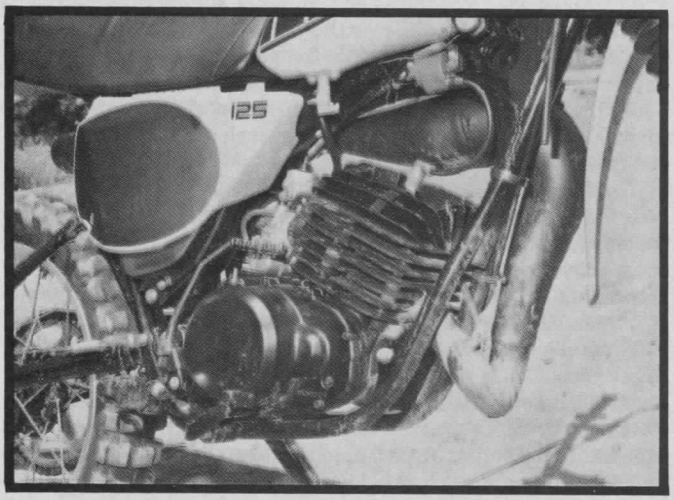
It'd have to come down to which dealer you prefer and which one might promise to give you a break on accessory items or parts, when you start winning races. Cost-wise, the Suzuki is the most expensive at $1025. Next comes the Yamaha YZ at $998



We felt that the Suzuki RM had the best all around engine/gearbox/power traits. That's the biggest reason why the Suzuki got the nod as the best of the three.



Honda CR Elsinore engine is virtually unchanged since its inception several years ago. That's not a bad thing, though, for there are no bugs in this engine and there are probably more aftermarket goodies available for this bike than the other two.



Yamaha has built a strong motor for the D model YZ, but it was just edged out by the wonderful Suzuki engine/gearbox combo.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SUZUKI RM-125B

TECHNICAL SPECIFICATIONS

ENGINE

Engine type	2-stroke, single
Bore and stroke, mm	54x54
Displacement, cc	123
Horsepower/rpm (claimed)	n.a.
Torque/rpm (claimed)	n.a.
Compression ratio	8:1
Air filtration	oiled foam
Carburetion	32mm Mikuni
Lubrication	pre-mix (20:1)
Ignition	Suzuki CDI

DRIVE TRAIN

Transmission	6-speed
Clutch type	wet, multi-plate
Primary drive	gear
Final drive	#520 chain

CHASSIS

Chassis	single downtube
Overall length, in.	81.7
Ground clearance, in.	10.4
Wheelbase, in.	54.9
Weight as tested, lbs.	192
Tires, front	3.00x21
rear	4.10x18

Max. Pts.	NUMERICAL EVALUATION	
10	Power	10
10	Powerband	9
10	Acceleration	10
10	Transmission	
	(5) Ratios	5
	(5) Operation	4
10	Suspension	
	(5) Front	5
	(5) Rear	5
10	Brakes	
	(5) Front	5
	(5) Rear	5
10	General Handling	9
30	Miscellanea	
	(5) Starting	5
	(5) Rider comfort	5
	(5) Quality of craftsmanship	4
	(5) Riding maneuverability	5
	(5) Tires	4
	(5) Noise level	4

100 pts. Overall Rating 94 pts.

YAMAHA YZ125D

TECHNICAL SPECIFICATIONS

ENGINE

Engine type	2-stroke, single
Bore and stroke, mm	56 x 50
Displacement, cc	123
Horsepower/rpm (claimed)	18/11,000
Compression ratio	7.8:1
Air filtration	oiled foam
Carburetion	32mm Mikuni (reed valve)
Lubrication	pre-mix (32:1 Yamalube)
Ignition	CDI

DRIVE TRAIN

Transmission	6-speed
Clutch type	wet, multi-plate
Primary drive	gear
Final drive	chain #520

CHASSIS

Chassis type	Monoshock, double downtube
Overall length, in.	81.7
Seat height, in.	35.4
Peg height, in.	14
Ground clearance, in.	11.3
Wheelbase, in.	55.1
Weight as tested, lbs.	195
FR/RR wt. bias, lbs.	56%/44%
Tires, rear	Bridgestone 3.00 x 21
rear	IRC 4.10 x 18

Max Pts.	NUMERICAL EVALUATION	
10	Power	10
10	Powerband	9
10	Acceleration	10
10	Transmission	
	(5) Ratios	5
	(5) Operation	5
10	Suspension	
	(5) Front	5
	(5) Rear	4
10	Brakes	
	(5) Front	5
	(5) Rear	5
10	General Handling	4
30	Miscellanea	
	(5) Starting	4
	(5) Rider comfort	5
	(5) Quality of craftsmanship	4
	(5) Riding maneuverability	5
	(5) Tires	4
	(5) Noise level	4

100 pts. Overall Rating 93 pts.

HONDA CR125M

TECHNICAL SPECIFICATIONS

ENGINE

Engine type	2-stroke single
Bore and stroke,mm	56x50
Displacement,cc	123
Horsepower/rpm (claimed)	21 at 11,000
Torque/rpm (claimed)	10.56 at 10,500
Compression ratio	7.5:1
Air filtration	Oiled foam
Carburetion	30mm Keihin
Lubrication	Pre-mix
Ignition	CDI

DRIVE TRAIN

Transmission	6-speed
Clutch type	wet, multi-plate
Primary drive	gear

CHASSIS

Chassis type	Single downtube
Overall length, in.	81.3
Seat height, in.	35
Peg height, in.	13.4
Ground clearance, in.	8.9
Wheelbase, in.	54.5
Weight as tested, lbs.	195
Tires, front	3.00x21
rear	4.10x18

SUSPENSION

Front	Telescopic fork
Travel	7.9 inches
Rear	Swingarm
Travel	7.1 inches

Max. Pts.	NUMERICAL EVALUATION	
10	Power	10
10	Powerband	8
10	Acceleration	9
10	Transmission	
	(5) Ratios	5
	(5) Operation	5
10	Suspension	
	(5) Front	4
	(5) Rear	4
10	Brakes	
	(5) Front	5
	(5) Rear	5
10	General Handling	9
30	Miscellanea	
	(5) Starting	5
	(5) Rider comfort	5
	(5) Quality of craftsmanship	4
	(5) Riding maneuverability	5
	(5) Tires	5
	(5) Noise level	4

100 pts. Overall Rating 92 pts.

and third the Honda, at a bargain $896.

The Suzuki would be the ideal bike for the junior-to-intermediate rider, because (again) of those power traits. The Yamaha would probably be a winner in the hands of an expert rider. The Honda would have to have some help from FMF or Moto-X Fox before it'd be a winner in either class.

That's it then. Talk to the local dealers and see which of them is the friendliest and give him your business. Our nod goes to the Suzuki RM, but by such a narrow margin over the Yamaha YZ that you could go either way and be satisfied. If you want to go with the all-red Honda CR, that's all right too. Just don't lose hope when you see yellow motorcycles in front of you.

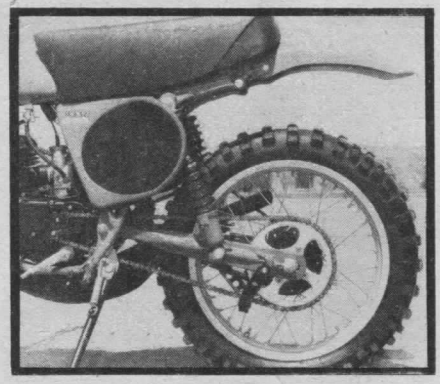
One thing about Honda we need to tell you. They've assured us that they have a couple of tricks up their 125cc motocross sleeve. By this time next year, the outcome of this type of article might be an entirely different story. We'll all wait and see.

To repeat what we said in the very beginning of this article, we think that everybody should own a Japanese 125cc motocross bike. We don't wish to see the Bultaco, Husky, Montesa, Maico and other models go away, but we do think that the Japanese machines have more to offer for the same amount of money or less.

Just to confuse things a little bit, and make us sound a little contradictory, why not read the test article on the new Husqvarna CR125 elsewhere in this issue.

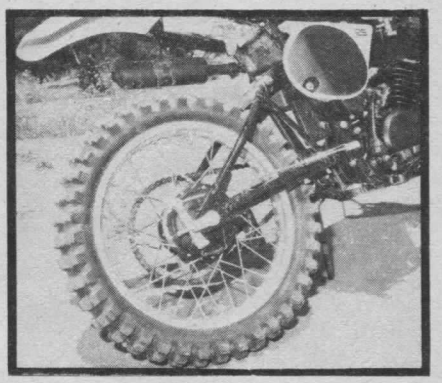
Make up your own mind, we've given you all the hints we're going to.

Have fun out there, all you up and coming 125cc motocross racers!



Honda had the most outdated rear suspension of the three, with nearly vertically mounted gas shocks. One of the first aftermarket items usually bought by Honda owners is an aluminum swing arm.

Suzuki's remote reservoir Kayaba suspension was the best of the three, but only by a tiny margin.



Half of the staff preferred the Yamaha monoshock suspension over the Suzook. One thing, it is about 95 percent better than last year's YZ. DeCarbon shock makes the big difference.