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**HONDA
XR500**

125 MX SHOOTOUT!

DIRT BIKE

AUGUST 1979 • \$1.25 UK60p

**WIDOW-
MAKER!
THE BIG
ONE**

**RM250N:
SUZUKI'S
SLINGSHOT!**

**SPARK
WARS
HOW
TO**

**WEIRD
WHEELS:
HONDA ATC
& ODYSSEY**



BATTLE OF THE BULLETS!



ISSN 0384-1546

Yamaha/Kawasaki/Honda

125 MX SH

Who won and lost
By the Staff



Honda/Suzuki Meet, Head-On

HOOTOUT!

lost... and why
of Dirt Bike





KAWASAKI KX125 A-5



YAMAHA YZ125F



SUZUKI RM125N



HONDA CR125R

Shootout! My, but that word has a snap to it. It rings with overtones of confrontations, infighting, winners and losers. We've been testing the Big Four 125 racers for months. You've read individual tests on them as the time has gone by. You may have pre-formed opinions already about which machine is the one for you.

However, time has a way of changing things. That's why we rode the bikes for such a long period of time. We wanted to see how they held up when ridden and abused. While we took reasonable care of the 125 MXers, we also whipped them, hammer and thong. We kept notes on what broke, or loosened. Some of the machines were modified after the initial few months of riding and picture-taking were completed.

During the testing, we asked owners of the various machines how they liked *their* bikes. We also asked them what sort of troubles they may (or may not) have had since they first purchased their 125.

Since this is a DIRT BIKE shootout, you will get an actual ranking of the bikes as to their virtues, or lack of same. But, we'd like to pull a little switcheroo on you and do the shootout in two parts.

We'll break each bike down into pure statistics in the various categories of interest to everyone, like travel, weight, etc. We'll assign points to the bikes, based on how they do with the numbers. Naturally, we'll have a winner and some losers.

Then, after all the smoke clears, we'll add in the intangibles: how we actually *liked* the various machines and how they held up over a period of use and abuse.

Set-up and preparation

We found the 125s to be very, very sensitive to minor changes in jetting and even the gas/oil ratio that we ran. All of the bikes recommend a 20:1 premix; however, many riders run 40 or even 50 to 1. The reasons for this are clear. Some of the bikes tend to stick rings at the factory-recommended 20:1 mixture.

Now, ideally, if the top end of the bike was removed frequently, this would not be a problem. By frequently, we mean after every two or three races. Frankly, most riders will not bother to do this. We know this from our experience in the field. As long as their bike is running OK and doesn't sound too loose or rattly, they'll leave that top end alone.

Hence, the popularity of the leaner gas/oil mixtures. Additionally, we've found that (as a rule) the bikes were faster with less oil in the gas. Temperature checks on dynos have shown that a 20:1 mixture of Castrol R ran cooler



than a 12:1 mixture, and that a 32:1 mixture ran far cooler than the 20:1. At 40:1, we pulled more ponies than at 20:1.

During the testing of our 125s, we ran Yamalube R at a 40:1 ratio, usually in Mobil premium gasoline. When we did this, we found that each and every test bike ran slightly rich at the bottom end or in the mid-range. All of the bikes were comparatively easy to dial in, with usually no more than a quarter-turn on the air screw for the very bottom rpm and leaning out the needle position one or two notches for the transition to mid-range. All main jets, with the exception of the Honda, were leaned one size after the low end and the mid-range corrections were made.

By the end of the test, we had the bikes running as well as they were going to run, in stock condition. The Honda and the Suzuki proved to be the most sensitive to minor jetting changes. Whenever we hear a rider complain that his RM doesn't pull hard at the mid-range, most often it can be traced to the jetting being off just enough to make the engine hesitate, yet not enough to make it burp and stumble.

That sensitivity of carburetion in the Elsinore can be a genuine problem if major jetting changes at the mid-range are required. There is no replaceable needle jet. What you get is what you're stuck with. The limitations of jetting are restricted to moving the needle up and down, and changing the main and the pilot jet.

Fortunately, the DB offices and testing grounds are not in Denver, so we were able to get the Elsinore running cleanly on the 40:1. Still, we found out something very interesting

from Senior Tester Jim Connolly. Jim runs an experimental machine shop and, after a number of modifications, found out that the taper of the needle was way off for best results at mid-range. He took the stock needle and turned it down in a lathe to a new taper and the engine came alive. It was almost as if the Honda was a different engine with his needle. We'd recommend this as the single most effective modification you can make to your bike. You must send Jim your needle (taped to a sturdy piece of cardboard in a stamped, self-addressed envelope), and he'll shape it. Allow 2½ weeks for the job.

CONNOLLY PRODUCTS
1851 A Torrance Blvd.
Torrance, California 90501
Cost: \$10.00

Suspension detailing

We did not change the oil that came in any of the forks for the first month of riding. Then, we used fresh quality fork oil, as directed in the manuals. We achieved good fork action on the Suzuki, Yamaha and Kawasaki, just by playing with the air pressure. The Honda had no provisions for air adjustability, but there should be caps on the market even as we write this. If none are available, check out the May issue of DB (Cheap Fork Tricks) and find out how you can make your own.

At the rear, we found that the conventional Kawasaki and Suzuki KYB shocks were adjustable at preload without any major problem. Changing the rebound damping on the Suzuki shocks demanded removal and partial disassembly.

The Yamaha had a large range of ad-

justability on the mono, but was a bit short on usable travel. We also encountered some fade on the mono at about the 20-minute mark.

Adjusting the rear suspension on the Elsinore was vexing. No matter what spring rate we played with, the compression stroke consistently felt too heavy on damping. We never could get pleased with the Honda shocks. They're Showa units and, unfortunately, poor in operation.

An interesting side note on the Honda. Later on, when we changed the rear shocks, the forks felt much better. It's a known fact that the action at the rear affects the front, and vice versa.

Our changes in preload and air pressure gave the various machines different handling traits, as can be expected. One can take a bike that turns sluggishly, and by increasing the preload at the rear, raising the fork tubes up in the triple clamps a bit and lowering the air pressure in the forks a few pounds, make a bike turn worlds better.

The ratings

Our first chart is one that gives a rating based on the hard, cold numbers. The bike with the most (or least, if it's weight or price), gets the most points. We assigned a mandatory 10 point must system. The winner gets 10 points and every other bike gets proportionally less, depending on its numbers. Ties are acceptable.

As you can see from the chart, taking just the statistics as a guideline, the Yamaha emerges as the winner. However, there's far more to a shootout than stats. We included this chart to show you how "facts and figures" can be distorted.

Of particular interest is the availability of parts. We arrived at this rating in a reasonably rational manner. We called 10 major cities throughout the U.S. and, without giving our names, asked them if they had a certain number of common parts in stock, and if not, how soon they could get them. We chose the same parts for all bikes, and asked for pistons, rings, etc.

Based on the feedback we got from the various parts departments, we can safely say that it shouldn't be too hard to find Yamaha parts almost anywhere, and Suzuki parts would be almost as easy to acquire. Honda dealers either were totally stocked, or showed a marked disinterest in dirt parts. It would probably depend on whether the Honda dealer in an area was primarily a street- or a dirt-oriented shop.

We had the most "Sorry. We don't have any" replies from the Kawasaki dealers, but found a few genuinely enthused dealers. It would pay to check out your local Kawasaki dealer in advance, if you're considering a KX.

SPECIFICATION POINT RATING CHART.
NOTE: — Points are from 1 to 10, with 10 being the highest.
The highest rated bike will get 10 points, with the others downrated in order.

	Honda	Kawasaki	Suzuki	Yamaha	Points
Travel, Front End	10.0 in.	9.8 in.	11.2 in.	9.8 in.	H- 9.8 K- 9.2 S-10.0
	9.8 pts.	9.2 pts.	10.0 pts.	9.2 pts.	Y- 9.2
Travel, Rear End	11.0 in.	9.8 in.	11.0 in.	9.06 in.	H-10.0 K- 9.2 S-10.0
	10.0 pts.	9.2 pts.	10.0 pts.	8.8 pts.	Y- 8.8
Weight, Dry	201 lbs.	190 lbs.	187 lbs.	194 lbs.	H- 8.9 K- 9.8 S-10.0
	8.9 pts.	9.8 pts.	10.0 pts.	9.5 pts.	Y- 9.5
Price, Suggested Retail (or Approximate Normal Retail)	\$1275	\$1275 to \$1295	\$1259	\$1257	H- 9.5 K- 9.0 S- 9.9 Y-10.0
	9.5 pts.	9.0 pts.	9.9 pts.	10.0 pts.	
Horsepower, Actual (Maximum)	20.9 at 10,000 rpm	20.2 at 10,000 rpm	21.0 at 10,200 rpm	21.4 at 10,600 rpm	H- 9.6 K- 9.2 S- 9.7 Y-10.0
	9.6 pts.	9.2 pts.	9.7 pts.	10.0 pts.	
Parts Prices (Based On Dealer Queries)	7.9	8.3	8.3	10.0	H- 7.9 K- 8.3 S- 8.3 Y-10.0
Availability of Parts (Based on 10 Random Calls Placed to Major Cities Throughout U.S.)	9.2	7.0	9.4	10.0	H- 9.2 K- 7.0 S- 9.4 Y-10.0
Totals	64.9	61.7	67.3	67.5	

Many Kawasaki shops seem to be mostly into Zs and touring, or high-performance street. Of course, with the emergence of the new KX line, this could improve dramatically. After all, Kawasaki is relatively new at this game and this is only their second serious effort at a motocrosser.

To get a ballpark figure of the average parts price situation, we added up the prices of all parts and ended up with another Yamaha winner. This tends to indicate that it will be cheaper to own and operate a YZ125 over a long period of time, all other things being equal. Some of the disparities between parts was eye-opening. One example would be the countershaft sprocket for the Kawasaki going for over \$16, while the Yamaha c/s sprocket retails for a mere \$5.50.

To give you an idea of some basic

parts differential, we've included a comparison chart of some of the more common items a dealer would normally stock on his shelf. Try as we might, we could get no official prices for the KX125A-5 version. Those prices listed are for the A-4, which is the '78 model. Some dealers stuck to the '78 prices, while others were a bit higher.

Once we got past the collection of statistics, we got heavily into personal evaluations. Our ratings on the TESTERS' EVALUATION SCALE are, we feel, the most critical. This is what our riders actually *thought* about the machines.

We've broken the evaluations down into various categories, based on many hours of riding time. In addition to questioning our own testers, we also talked to many riders at various tracks about their experiences with their own

PARTS PRICES—APPROXIMATE RETAIL

Part	Honda	Kawasaki	Suzuki	Yamaha
Piston Assembly, Complete	36.50	*26.42	31.94	22.62
Rings Only	6.50	*11.52	10.30	6.00
Cylinder Barrel	119.25	*87.00	83.33	82.77
Shift Lever	9.70	*18.05	7.86	4.92
Brake Pedal	19.10	*19.10	9.27	7.28
Front Sprocket	10.20	*16.80	7.95	5.50
Crankshaft Assembly, Complete	89.68	*77.96	94.18	69.00
Most Expensive Gear In Transmission	26.82	*16.10	14.89	16.50
Rod, Connecting	14.73 (rod only)	*27.78 (complete)	13.03 (rod only)	13.12 (rod only)
Head	35.19	*32.76	39.79	24.00

*1974 A-4 Price.

particular bikes. More often than not, they matched our opinions closely.

Take a look at the TESTERS' EVALUATION CHART and compare numbers, remembering that 10 is the highest. After that, we'll go over each area and explain just why we assigned the numbers that we did.

FORKS: QUALITY OF OPERATION

—We chose the RM as the clear winner here, because of the superior action of the fork stroke, both in compression and rebound. While the Honda had very long travel, the Elsinore forks proved harsh on stutter-bumps and flexed a great deal. Too, there is no provision for air adjustment on the Honda, which gave it a lower rating than the Kawasaki and the Yamaha. Both of those bikes had decent forks and were adjustable over a wide range of conditions.

REAR SUSPENSION: QUALITY OF OPERATION—Again, the nod must go to the Suzuki. Most riders will be able to race the RM, as is, without purchasing accessory shocks. Riders who automatically take them off and stick 'em on the shelf are making a mistake.

We felt that the action of the rear end of the KX was excellent. Some of the very first KXs that dribbled into the U.S. had KYB shocks that were sprung too heavily and had excessive rebound damping, but the ones out now are in the ballpark. A change of shocks will only be required if the rider *must* have more travel. Actually, on most 125 tracks around (except at the National level), the shocks on the KX would do nicely. Both the KX and the RM have handsomely crafted aluminum swing-arms and will not require an accessory arm of any sort, unless the rider desires to change the handling characteristics radically.

We felt that the YZ could use a bit more travel *and* a heavier mono spring for most riders, most of the time. There are more than a few kits and reservoirs available at fairly low prices.

With the Honda, the rider is going to have to think about not only accessory shocks, but a stronger swingarm as well. Even though the stock swingarm is a heavy piece of steel, it twists badly under side loads and encourages tossed chains. There are a few accessory arms on the market, with the DG brand coming readily to mind.

Those Honda shocks must be replaced. Ohlins are favored by riders on the National circuit, as well as the popular Fox Air units. Either way, though, you're looking at a \$300-plus investment. A lower-cost choice for the rider on a budget might be a set of gas Girlings, or Girlings with reservoirs.

ACCELERATION: BASIC DRAG RACE TO FIRST TURN—Most of the times, with most of the riders, the RM

TESTERS' EVALUATION CHART				
Point Rating Chart, Based on Testers' Evaluation Scale: 1 to 10, With 10 Being the Highest				
	Honda	Kawasaki	Suzuki	Yamaha
Forks: Quality Of Operation	8.2	9.0	10.0	8.8
Rear Suspension: Quality of Operation	6.0	9.4	10.0	8.2
Acceleration: Basic Drag Race To First Turn	8.5	9.8	10.0	8.5
Usable Power/Flexibility of Powerband	9.0	10.0	9.4	9.6
Turning Capabilities	7.4	10.0	9.2	9.7
Stability At High Speed Over Rough Ground	6.2	9.2	10.0	8.8
Shifting Quality/Ease Of Shifting	10.0	7.0	10.0	10.0
Durability/Based On Problems Encountered	9.9	7.8	9.5	10.0
Chassis And Suspension Flex	7.0	10.0	10.0	9.5
Ease of Maintenance, Includes Basic Filter Cleaning, Etc.	9.0	10.0	9.0	10.0
Attention To Detail	9.3	9.6	10.0	9.3
Comfort And Layout Of Controls	10.0	8.8	10.0	10.0
Starting Ease	10.0	9.3	8.0	9.0
Tires: Quality of Performance Over Varying Conditions	7.0	10.0	9.0	8.0
Ease of Riding, Includes Fatigue Factor And Skill Level Required To Ride	9.2	9.8	9.4	10.0
Braking: Quality of Performance	10.0	9.2	9.0	9.0
Effectiveness, Stone Stock	7.1	9.4	10.0	9.0
TOTAL POINTS	143.80	158.30	162.50	157.40

was first into the first turn. Surprisingly, not very far behind was the Kawasaki. In fact, in deep sand, the Kaw will run right along with the RM.

It was a trade-off between the YZ and the CR, depending on rider skill and the condition of the terrain. The rear tire on the Yamaha was a poor piece of rubber and let the YZ spend most of its time spinning wildly. The Elsinore was hard to get cleanly off the line, but seemed to hook up better than the YZ.

USABLE POWER/FLEXIBILITY OF POWERBAND—This means the broadness of the engine's power output. Here, we gave the Kawasaki the nod, simply because it pulled harder and earlier than the rest of the field. You could short-shift the KX and it would pull the next higher gear clean and hard.

While the Suzuki had more correct power than the YZ, the YZ got a slightly higher rating because it was easier to use the power it did have. You just dialed it to the max and shifted your brains out, over-revving the YZ without losing time, whenever necessary.

Our Honda didn't have any sudden surges in the power buildup and did actually have a very flexible and broad curve. However, there was just too much time required for the power to build up to where the bike would pull strongly and, often, riders would experience a slight lag between gears.

TURNING CAPABILITIES—How they worked in the turns. Here, we gave the nod once again to the green KX. It was low-slung (perhaps too low

for dangling feet), and the front end bit nicely. The KX worked well on tight, twisty turns *and* high-speed sweepers.

We would have rated the YZ higher, if the bike had come stock with a better rear tire. With that stock tire, the rear end would often swing wildly out when under power. We cured this later with a massive 4.75x18 Goodyear. Front-end bite on the YZ was excellent and line-picking accuracy in the turns was high.

Some might be surprised that we didn't rate the RM higher in this category. The RM *can* be made to turn, but the bike is so tall and long-legged, that a great deal of effort is required. The RM rider will be happier hunting berms, rather than trying to carve a tight, inside line.

Much of the blame for the low cornering score of the Honda must go to the selection of tires, front and rear, and the odd 23-inch front rim. Lateral traction was poor, in our opinion, and the Elsinore tended to wiggle out wide in the corners, when placed under power.

We had the opportunity to ride a CR with a 21-inch front wheel (Metzeler-shod), with slightly shorter shocks at the rear, and it was a cornering dream. Honda really should have taken this approach, we feel.

STABILITY AT HIGH SPEEDS OVER ROUGH GROUND—All we did for this category of the testing was to go as fast as we possibly could on the nastiest, bumpiest straight we could find... and then hang on to the bike and see what it did. (Continued)



Honda CR125R Elsinore

ENGINE TYPE . . . Single-cylinder, two-stroke, reed valve
BORE AND STROKE . . . 56mm x 50.7mm
DISPLACEMENT . . . 124cc
HORSEPOWER (CLAIMED BY FACTORY): . . . 24 at 9500 rpm

CARBURETION . . . 32mm Keihin
FACTORY RECOMMENDED JETTING:
 Main jet . . . 155
 Needle jet . . . Fixed, not adjustable
 Jet needle . . . Standard
 Pilot jet . . . 60
 Slide number . . . 2.5

RECOMMENDED GASOLINE . . . Premium —
 . . . 92 to 100 octane rating
RECOMMENDED OIL (MFR.) . . . Honda

FUEL TANK CAPACITY . . . two-cycle oil
 . . . 6.5 liters
 . . . (1.72 U.S. gallons)

FUEL TANK MATERIAL . . . Aluminum
GAS/OIL RATIO . . . 20:1
LUBRICATION . . . Pre-mix

OIL CAPACITY . . . N/A
AIR FILTRATION . . . Oiled foam
CLUTCH TYPE . . . Wet, multi-plate

TRANSMISSION . . . Six-speed, constant mesh
GEARBOX RATIOS

1	2.538:1
2	1.875:1
3	1.556:1
4	1.300:1
5	1.136:1
6	1.000:1

GEARING, FRONT/REAR . . . 13/51
IGNITION . . . CDI
PRIMARY KICK SYSTEM? . . . Yes

RECOMMENDED SPARK PLUG . . . NGK
 . . . B9EV, Champion N-59G

SILENCER/SPARK ARRESTOR/QUALITY:
 . . . Silencer only, average
EXHAUST SYSTEM . . . High-pipe, right side

FRAME, TYPE . . . Chrome moly, single
 . . . downtube, split cradle
WHEELBASE . . . 1420mm (55.9 inches)

GROUND CLEARANCE . . . 355mm
 . . . (14.0 inches)

SEAT HEIGHT AT TANK . . . 935mm
 . . . (36.8 inches)

STEERING HEAD ANGLE . . . 28 degrees
TRAIL . . . 133mm (5.2 inches)

WEIGHT WITH ONE GALLON GAS . . . 206.8 pounds
RIM MATERIAL . . . Aluminum

TIRE SIZES
 Front . . . 3.00x23 knobby (Claw Action
 . . . pattern lugs)
 Rear . . . 4.00x18 knobby (Claw Action
 . . . pattern lugs)

SUSPENSION
 Front, type and travel . . . Telescopic, forward
 . . . axle, 11.0 inches
 Rear, type and travel . . . Swingarm, slant
 . . . shocks, 11.0 inches

INTENDED USE, MFR . . . Motocross,
 . . . off-road racing

COUNTRY OF ORIGIN . . . Japan
PRICE, APPROX . . . \$1275

PARTS PRICES, HIGH-WEAR ITEMS
 Piston assembly, complete . . . \$36.50
 Rings only . . . \$6.70
 Cylinder . . . \$119.25 (Note: This is 1978 price.
 . . . 1979 price N/A.)

Shift lever . . . \$9.70
 Brake pedal . . . \$19.10
 Front sprocket . . . \$10.20

DISTRIBUTOR
 American Honda Motor Co., Inc.
 100 West Alondra Blvd.
 Gardena, California

**OVERALL RATING, FROM 0 TO 100,
 VARIOUS CATEGORIES, KEEPING
 INTENDED USE OF MACHINE IN MIND:**

Handling	40
Suspension	60
Power	80
Cost	94
Attention to detail	93
Effectiveness, stone stock	71



1979 Kawasaki KX125 A-5

ENGINE TYPE . . . Air-cooled, two-stroke
 . . . single, reed valve
BORE AND STROKE . . . 56.0mm x 50.6mm
DISPLACEMENT . . . 124cc
HORSEPOWER (CLAIMED BY FACTORY): . . . 26.9 at 10,500 rpm

CARBURETION . . . Mikuni VM32SS, 32mm
FACTORY RECOMMENDED JETTING:
 Main jet . . . 150
 Needle jet . . . 6H43
 Jet needle . . . PO
 Pilot jet . . . 25
 Slide number . . . 3

RECOMMENDED GASOLINE . . . Premium/95
 . . . octane plus
RECOMMENDED OIL (MFR.) . . . N/A

FUEL TANK CAPACITY: 8 liters (2.1 gallons)
FUEL TANK MATERIAL . . . Plastic
GAS/OIL RATIO . . . 20:1

LUBRICATION . . . Pre-mix, oil in gas
OIL CAPACITY . . . N/A
AIR FILTRATION . . . Oiled foam in still-air box

CLUTCH TYPE . . . Multi-disc, wet
TRANSMISSION . . . Six-speed, constant mesh
GEARBOX RATIOS

1	2:00 (32/16)
2	1.63 (26/16)
3	1.33 (24/18)
4	1.15 (23/20)
5	1.00 (21/21)
6	0.91 (20/22)

GEARING, FRONT/REAR . . . 14/60
IGNITION . . . Electronic CDI
PRIMARY KICK SYSTEM? . . . Yes

RECOMMENDED SPARK PLUG: NGK B9EV
SILENCER/SPARK ARRESTOR/QUALITY:
 . . . Silencer only, a bit loud

EXHAUST SYSTEM . . . High-pipe, through
 . . . frame
FRAME, TYPE . . . Single downtube, split
 . . . cradle

WHEELBASE . . . 1435mm (56.8 inches)
GROUND CLEARANCE: 325mm (12.8 inches)

SEAT HEIGHT AT TANK . . . 36 inches
STEERING HEAD ANGLE . . . 29 degrees
TRAIL . . . 125mm (4.9 inches)

WEIGHT WITH ONE GALLON GAS . . . 198 pounds/190 pounds dry
RIM MATERIAL . . . Aluminum alloy

TIRE SIZES
 Front . . . 3.00x21 knobby
 Rear . . . 4.00x18 knobby

SUSPENSION
 Front, type and travel . . . Telescopic, forward
 . . . axle, air/oil, 9.8 inches
 Rear, type and travel . . . Swingarm, laydown
 . . . gas/oil shocks, 9.8 inches

INTENDED USE, MFR . . . Motocross, off-road
 . . . racing

COUNTRY OF ORIGIN . . . Japan
PRICE, APPROX . . . N/A

PARTS PRICES, HIGH-WEAR ITEMS
 Note: prices are for the A-4. No prices
 available yet on the A-5.
 Piston assembly, complete . . . \$26.42
 Rings only . . . \$11.52
 Cylinder . . . \$87.00
 Shift lever . . . \$18.05
 Brake pedal . . . \$20.34
 Front sprocket . . . \$16.80

DISTRIBUTOR
 Kawasaki Motor Corp.
 1062 McGaw
 Santa Ana, California 92705

**OVERALL RATING, FROM 0 TO 100,
 VARIOUS CATEGORIES, KEEPING
 INTENDED USE OF MACHINE IN MIND:**

Handling	92
Suspension	90
Power	93
Cost	N/A
Attention to detail	96
Effectiveness, stone stock	94

Not surprisingly, the RM125 absolutely thrived on this. Mostly because of the superior suspension, riders were able to ignore the bumps and concentrate on picking the most efficient lines. In deep whoopies, the RM would be a very hard bike to beat, riding skills being equal.

The KX also did an admirable job here, but the odd forward location of the pegs made the rider assume a standing position . . . one that was not relaxing. At speed, the suspension worked well, with no surprises. The slightly shorter travel of the KX over the RM did not appear to be much of a handicap.

If the YZ had a bit more travel (and a higher spring rate), it might have fared better in this category. As it was, the YZ tended to hunt and wiggle a bit as it made forward progress. Occasionally, the rear end would take a nasty hop when the maximum travel was used.

We rated the Honda last because it had a nasty habit of shaking its head when coming down off power, after a high-speed run. It was a bad enough shake to demand that the rider hold on with all his might to prevent the quiver from turning into a full-fledged tank-slapper.

On rolling bumps, the rear end of the Elsinore took the bumps in a reasonable fashion, but the square-edged ruts kicked the rear end harshly up and buried the forks badly. Weight had to be kept well back to maintain control of the CR in a true banzai run.

SHIFTING QUALITY/EASE OF SHIFTING—Three bikes gathered maximum points from the testers here, with the Kawasaki being downgraded severely for a reluctance to upshift under power and an increasingly sticky shifting problem. It just didn't want to change gears without punching it hard with the boot tip.

If we had to nit-pick, we'd have to give the Honda a slight edge in shifting ease over the Suzuki and the YZ, but no one cared for the short, stubby lever on the Honda. It had a tendency to dig into a rider's foot. A cure is simple, though, as any number of other levers will slip over the existing shift shaft.

We received reports from no less than a half-dozen KX owners, that they had gearbox problems on their Kawasakis. Kawasaki seems to be aware of the need to upgrade the gearbox and is working on improvements at this moment.

DURABILITY, BASED ON PROBLEMS ENCOUNTERED—A perfect 10.0 was given to the YZ because it just ran and ran and ran. All we did was put gas in it and ride it. Not even one spoke broke during the testing/riding period.

The Honda was also a pillar of virtue, with the exception of a chain guide

that fatigue-cracked late in the test. Spokes loosened up in the 23-inch front wheel with regularity, but none broke.

We placed the Suzuki third because of the fragile nature of the deeply valenced fenders. They cracked easily, possibly because they were too strong. Where the Honda plastic flexed, the Suzuki plastic stayed rigid and broke. We also bent both footpeg pins during normal use and cracked and lost the nylon roller on top of the swingarm.

The kickstarter showed deep gouges where it made contact with the right-side peg. We constantly lost the side panel screws, even though we tightened them until they squeaked. Loctite is a must here. One motor mount bolt broke during a routine tightening session. Decals looked scruffy very quickly.

Our test KX was rated fourth strictly because of the increased difficulty in shifting. Decals fell off almost immediately. Other than that, the KX gave us no problems at all.

CHASSIS AND SUSPENSION FLEX—The bike with the most massive fork tubes proved to be the winner in this category: the RM sported 38mm legs from the sturdy triple clamps. No flex was felt in the nifty extruded aluminum swingarm. The entire package felt tight and taut.

If the Kawasaki had the same travel as the RM, it might have some flex problems with its 36mm fork tubes, but for the 9.8 inches of fork travel, the tubes do the job just fine. Like the RM, the KX has a very strong aluminum swingarm that appeared to be virtually flex-free.

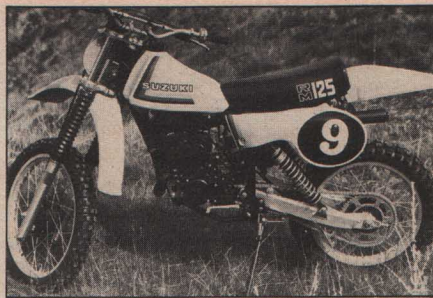
We downrated the YZ slightly from the RM and the KX, not because of any wiggle in the suspension, but rather because of an indefinable "give" in the frame that seems to be characteristic of the monoshock design. We had to tighten the steering head bearings on the YZ more than on any of the other bikes.

We have already mentioned the swingarm flex. Additional flex was felt from the long 37mm fork tubes. This might be what causes the head-shaking when decelerating on bumpy ground. The Elsinore would benefit greatly from 38mm fork tubes and heftier triple clamps.

EASE OF MAINTENANCE—Most common day-to-day wrenching and cleaning was taken into consideration. The Yamaha and the Kawasaki came out on top, mostly because of the ease of filter removal and reinstallation.

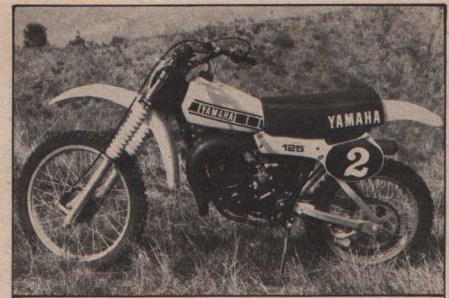
Even though the Honda and the Suzuki got the same points, we found the Honda fractionally easier to live with than the RM. With the Suzy, you have to wedge and jam the filter down into an air box, and making sure that

(Continued on page 58)



1979 Suzuki RM125N

ENGINE TYPE	Two-stroke, single-cylinder, power reed
BORE AND STROKE	54.0mm x 54.0mm
DISPLACEMENT	123cc
HORSEPOWER (CLAIMED BY FACTORY):	26.5 at 10,750 rpm
CARBURETION	Mikuni, VM32SS, 32mm
FACTORY RECOMMENDED JETTING:	
Main jet	250
Needle jet	R-8
Jet needle	6DP5-2
Pilot jet	30
Slide number	3.0
RECOMMENDED GASOLINE	Premium
RECOMMENDED OIL (MFR.):	Suzuki C.C.I.
FUEL TANK CAPACITY	6.5 liters (1.7 gallons)
FUEL TANK MATERIAL	Plastic
GAS/OIL RATIO	20:1
LUBRICATION	Pre-mix
OIL CAPACITY	N/A
AIR FILTRATION	Oiled polyurethane foam
CLUTCH TYPE	Wet, multi-plate
TRANSMISSION:	Six-speed, constant mesh
GEARBOX RATIOS	
1	2.333 (28/12)
2	1.750 (24/17)
3	1.411 (25/21)
4	1.190 (25/21)
5	1.045 (23/22)
6	0.956 (22/23)
IGNITION	Suzuki P.E.I. (Pointless Electronic Ignition)
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	NGK B9EV or Nippondenso W27ES-G
SILENCER/SPARK ARRESTOR/QUALITY:	Silencer only, average for racer
EXHAUST SYSTEM	High-pipe, right side
FRAME, TYPE	Single downtube, split cradle, chrome moly
WHEELBASE	1440mm (56.7 inches)
GROUND CLEARANCE:	320mm (12.6 inches)
SEAT HEIGHT AT TANK	920mm (36.2 inches)
STEERING HEAD ANGLE	30 degrees
TRAIL	133mm (5.24 inches)
WEIGHT WITH ONE GALLON GAS	89.5 kg. (197 pounds) — 85 kg dry (187 pounds)
RIM MATERIAL	Aluminum alloy
TIRE SIZES	
Front	3.00 x 21 Bridgestone knobby
Rear	4.10 x 18 Bridgestone knobby
SUSPENSION	
Front, type and travel	Telescopic, 38mm tubes, air/oil, 11.2 inches
Rear, type and travel	Aluminum swingarm, gas/oil KYB shocks, 11.0 inches
INTENDED USE, MFR	Motocross, off-road racing
COUNTRY OF ORIGIN	Japan
PRICE, APPROX	\$1279.00
PARTS PRICES, HIGH-WEAR ITEMS	
Piston assembly, complete	\$25.17
Rings only	\$10.30
Cylinder	\$83.33
Shift lever	\$7.86
Brake pedal	\$9.27
DISTRIBUTOR	
U.S.	Suzuki Motor Corp. 13767 Freeway Dr. Santa Fe Springs, California 90670
OVERALL RATING, FROM 0 TO 100.	
VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
Handling	93
Suspension	96
Power	95
Cost	85
Attention to detail	98
Effectiveness, stone stock	97



1979 Yamaha YZ125F

ENGINE TYPE	Single-cylinder, two-stroke, reed induction
BORE AND STROKE	56 x 50mm (2.20 x 1.97 inches)
DISPLACEMENT	123cc (7.52 cubic inches)
HORSEPOWER (CLAIMED BY FACTORY):	N/A
CARBURETION	Mikuni 32mm (VM32SS)
FACTORY RECOMMENDED JETTING:	
Main jet	280
Needle jet	P8
Jet needle	6F 22-3
Pilot jet	60
Slide number	3.0
RECOMMENDED GASOLINE	Premium, 90+ octane rating
RECOMMENDED OIL (MFR.):	Yamalube "R"
FUEL TANK CAPACITY:	6.1 liters (1.6 gallons)
FUEL TANK MATERIAL	Plastic
GAS/OIL RATIO	20:1 recommended by factory (Note: we used 40:1)
LUBRICATION	Oil in gas, pre-mix
OIL CAPACITY	N/A
AIR FILTRATION	Oiled foam
CLUTCH TYPE	Wet, multi-disc
TRANSMISSION:	Six-speed, constant mesh
GEARBOX RATIOS	
1	32/13 (2.461)
2	30/16 (1.875)
3	27/18 (1.500)
4	25/20 (1.250)
5	24/22 (1.090)
6	23/23 (1.000)
GEARING, FRONT/REAR	12/43
IGNITION	Hitachi CDI
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	Champion N-59G
SILENCER/SPARK ARRESTOR/QUALITY:	Silencer, average, as noted
EXHAUST SYSTEM	High-pipe, through frame, right side
FRAME, TYPE	Semi-double cradle, chrome moly steel
WHEELBASE	1410mm (55.5 inches)
GROUND CLEARANCE:	290mm (11.4 inches)
SEAT HEIGHT AT TANK	900mm (35.4 inches)
STEERING HEAD ANGLE	29.5 degrees
TRAIL	128mm (5.0 inches)
WEIGHT WITH ONE GALLON GAS	202 pounds (194 pounds dry)
RIM MATERIAL	Aluminum
TIRE SIZES	
Front	3.00x21 knobby
Rear	4.10x18 knobby
SUSPENSION	
Front, type and travel	Telescopic, 250mm (9.8 inches) forward axle
Rear, type and travel	Monocross, 230mm (9.06 inches)
INTENDED USE, MFR	Motocross, off-road racing
COUNTRY OF ORIGIN	Japan
PRICE, APPROX	\$1279.00
PARTS PRICES, HIGH-WEAR ITEMS	
Piston assembly, complete	\$30.68
Rings only	\$6.00
Cylinder	\$82.77
Shift lever	\$4.92
Brake pedal	\$7.28
DISTRIBUTOR:	
Yamaha International	6600 Orangethorpe Buena Park, California 90670
OVERALL RATING, FROM 0 TO 100.	
VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
Handling	94
Suspension	88
Power	90
Cost	92
Attention to detail	97
Effectiveness, stone stock	90

125MX SHOOTOUT

(Continued from page 45)

you have an adequate seal is difficult.

Even though the Honda required more steps (and tools) to get to the filter, removal/reinstallation was simple.

ATTENTION TO DETAIL—This includes all the little things, like brackets, guides, etc. We rated the RM on top, with the only shortcomings being a too-short throttle and old-fashioned levers. All the rest of the bike was spot-on.

The beautifully finished Kawasaki drew looks whenever it was parked. Gold anodization complemented the green plastic. Grips drew complaints from all, fenders were too short and narrow to offer protection from mud and water, some of the welds were incredibly sloppy and a number of hanging brackets appeared frail.

While the Honda was a fine-looking machine, it didn't have the new FIM-style side plates. Too, no cable-protecting ears were on the front number plate. A very tiny hole in the gas tank makes filling a real chore. There's no interchangeable needle jet in the carb, fiddling being limited to raising and lowering the needle itself. Welds varied from clean and neat, to spattered and sloppy.

COMFORT AND LAYOUT OF CONTROLS—This includes all-around rider comfort, as well as operation and feel of controls. We rated the Honda, Suzuki and Yamaha all equal, with the difference in control feel being too minor to quibble about. However, the Kawasaki, we felt, had the pegs too far forward and the bars too far back for comfortable standing-up riding. Also, the transition from a seated position to a standing one was awkward, as it demanded a tug on the bars to get up quickly. An inch or two to the rear on the pegs would make all the difference in the world, here.

STARTING EASE—For some reason, the Honda was always a very willing starter. Not even a heavy prod was needed to get things stirring around in the engine. The stroke of the kick-starter was a natural, easy arc.

Second and third places, respectively, are relegated to Kawasaki and Yamaha. While the KX would start well most of the time, occasionally it'd balk and require a bunch of kicks. Same with the Yamaha, only it was a bit more fussy than the KX. Also, the YZ absolutely refused to be kick-started in gear with the clutch held in. We suspect too much clutch drag.

Our test RM would start within two or three kicks one time, then demand 20 kicks the next. It was very frustrating. No explanation is offered.

TIRES: QUALITY OF PERFORMANCE—The only reason we gave the

Kawasaki a 10.0 on tires, was because we had to give the winner a 10.0.

Otherwise, we weren't crazy about any of the tires that came on our bikes. For our money, we'd slip a Metzeler on the front and whatever decent piece of rubber we could afford on the back and live happily ever after. Except for the Honda, that is. You see, it has a 23-inch front tire and only Yokohama makes a replacement tire in that odd size. That particular Yokohama has never been one of our favorites. We hear that Metzeler may come out with a 23 in the next six months or so, but that is just a rumor. So far.

EASE OF RIDING—This is a category that demands explanation. While you can make almost any bike go fast, the amount of effort required to do so is often higher from one bike to another.

The YZ won first place here, because it was very low and easy to fling around. The rider didn't have to think while riding the Yamaha... just gas it and hang on! This is not necessarily the highest virtue in a racer, but it means that most riders, most of the time, will be able to hop on a YZ125F and go fairly close to their particular limit for a 125 class bike.

Because of the same low-slung virtues, we gave the Kawasaki a firm second. With the good low-end power, the KX is actually easier to ride than the YZ, but we already told you about the necessity to fully clutch when upshifting. This alone makes the KX rider work a bit harder than the YZ rider.

The reason the Honda rider has to work the hardest of all, is because the bike is so tall and has a harsh suspension. The RM gets rated above the CR, even though it, too, is tall, because it has a very supple set of legs. Still, an RM rider must pay attention to the powerband and shift early, to prevent falling off into useless revs. Lots of attention is required to ride and race the RM in an aggressive fashion.

BRAKING: QUALITY OF PERFORMANCE—All of the bikes had fine brakes, with the progressive feeling of the Honda binders coming out ahead of the pack.

EFFECTIVENESS, STONE STOCK—How do they work, as delivered? That's probably the most asked question. At the top of the heap, we rated the RM, simply because it had so many excellent features and did so many things right. Power, suspension and attention to detail mean a lot. It also means that you can buy the machine and go racing without spending another buck.

Second, stone stock, would be the green KX. It has such a good engine that we're willing to either overlook, or learn to live with, the other flaws.

Third is YZ country, and it's very close to the KX. Only a fraction more than a point separates the two bikes. And if cost is the biggest factor, that



Tallest of the Big Four test bikes, the Honda CR125R looked and felt more like a 250 than a 125.



Here's what it all boils down to: the start straight. More often than not, this was the scene repeated at tracks all over the world this year—



The KX125 A-5, only a second-year effort for Kawasaki, proved to be a worthy challenger for King of the Hill.



the RM125 Suzuki bolting into the lead, followed by the rest of the pack.

ranking could be reversed.

By looking at the numbers in the Honda column, one can see that the Elsinore needs some help to do the job. But, stone stock, the CR125R falls a large number of points behind the other three bikes.

The bottom line

Taking all things into consideration, here's the way we must rank the 125s. The overall winner is the Suzuki. Second place—the Kawasaki. A very close third place goes to the Yamaha and in fourth, we have the Elsinore.

Now, here's why we rated the bikes as we did.

With the RM Suzuki, you get more of everything, not only on a quality basis, but on a dollar-for-dollar basis. Not only did the Suzuki have state-of-the-art travel, it was also good, usable travel. Additionally, the RM was the lightest of the bunch and was usually the winner in a point-to-point drag race. The normal retail price was in line with the class price. Our only reservations were that the RM was not a particularly easy machine to ride. And it most assuredly demanded constant attention from the rider. This means that on a very tight and twisty track, the other machines, all things considered, will be easier to ride. We didn't say they'd beat the Suzie . . . it's just that it will take a rider with a fairly high skill level to make the RM work as it should under that condition. The bike is tall. Perhaps too tall for many 125 class riders. But, that seems to be the price one pays for long legs. Still, the question must be asked: Is all that travel needed by the average rider on the average track? No. Then again, we have never found anyone in the world who admits to being the mythical "average rider."

We chose the Kawasaki for second. It could have been a tie for first, if the Green Machine had a smoother, better-shifting gearbox and a superior peg/bar/saddle relationship. Also, a fraction more travel front and rear would have upped the numbers. We liked the KX because it turned well, had a dynamite engine with a super rush of power and because it was fun and easy to ride. Especially on the very common tight, teacup-sized tracks of today, in so many parts of the country. We liked the stock suspension, front and rear. In fact, it was the overall quality of the forks and shocks that gave it the nod over the Yamaha. Additionally, the attention to detail was truly amazing and the KX drew oohs and ahs at trackside. We weren't too thrilled with the parts situation, and many Kawasaki dealers are very much street-oriented. We feel that parts and service would be more of a snap with the Honda or the Yamaha.

Third—and almost second—is the

Yamaha. With a bit more bottom-end power and better suspension, the YZ would have edged the Kawasaki. As it was, the YZ proved to be a hassle-free piece of equipment to own and maintain. Parts proved no problem, and dirt-oriented dealers seem to be everywhere. There are plenty of hop-up goodies and shops available just about everywhere. Stock, the YZ did not have the stability that the KX exhibited in the turns, even though the front end bit as well as anything in the class. One important point: With modifications, the YZ leaps ahead of the KX in this shootout. However, effectiveness stone stock keeps the YZ fractionally behind the KZ.

Fourth spot in the rating goes to the Elsinore. The primary reason for the standing is too much unproven hardware. The RM and the YZ are the results of long and patient improvements on a successful design. The KX is rather orthodox in its approach and, by doing so, makes no big mistakes. The Elsinore has a 23-inch front wheel, unusual tires and the turning traits of a 1977 Husky. Too, the steering head shakes badly under deceleration, forcing the rider to hold on tightly to maintain control.

If Honda had chosen a more conventional 21-inch front wheel and retained current acceptable geometry, the bike would have undoubtedly worked in a more familiar manner. Additional grief for the Elsinore is created by the stock shocks. They simply do not work. Period.

In stock trim, the engine has a lag that's caused by a jetting flaw inherent to Kei'hin carbs. With a cure, the engine is as strong as any other motor in the 125 class.

We found fork flex and swingarm flex to be prominent, adding to the twitchy nature of the machine. At slightly over 200 pounds dry, the Honda also was the heaviest machine of the Big Four. For these reasons, we were forced to downgrade the Elsinore.

It's not that the bike cannot be made into a winner. It can. It's just that too much time and money must be invested to achieve this goal. With an accessory swingarm, shocks, new front wheel and two good tires, plus some carburetion work, the Honda can be made to run right alongside of the RM. However, the above-mentioned modifications will set the average rider back just about \$600.

We hope that the factory will make these modifications for the rider next year. If they do, the CR will be a match for the RM. But, as it stands right now, nothing on the market is a match for the RM.

Nothing.

Long live the King. At least till next year. □