

# CYCLE WORLD<sup>®</sup>

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## 125 MOTOCROSS COMPARISON

**Honda vs Kawasaki vs Suzuki vs Yamaha. Which Is Best?**  
**Exclusive: Riding Karsmakers' Monoshock**



**Plus: Rickman's Potent 750 Cafe Racer And  
Kawasaki's 400 Four-stroke Commuter**



**T**HERE'S NO doubt about it. The Japanese have been the most instrumental power in bringing the world of small-bore off-road racing to its present level in the United States. Even way back when Yamaha Trailmaster 80s and Honda S90s were bouncing their semi-modified selves around the boonies, things were beginning to take shape. The adage that there is strength in numbers held true once again when, due to the enormous number of these trail bikes showing up at a given race, it wasn't rare to see both an 80cc class and one for the 90s.

Then along came the Hodakas. First a four-speed 90 and then a five-speed 100. It wasn't long before the bigger Japanese manufacturers bored their bikes out to 100 and added another gear in the transmission. As these little screamers buzzed their over-stressed guts out weekend after weekend, the European distributors took notice of the tremendous market that was being created. The

European machinery was better. It was not much more reliable than the Oriental stuff, but was faster and handled better. So, the Japanese improved their products. Then the Europeans did. And then the Japanese. And the battle was on.

## CYCLE WORLD COMPARISON TEST

The Europeans banked on their years of knowledge and background, while the Orientals banked on their stupendous R&D budgets. The Japanese easily won the battle of the 100s, but the Europeans weren't really upset. Their particular strength was not 100s, but 125s. And, when the 125s hit the market, the surge in demand for these faster, more reliable bikes almost exceeded the supply. Not to be outdone, the Japanese kept on with their 100cc production and began a full-scale assault on the 125 market.

This assault, a European counter-assault, and then various other counter-counter assaults bring us to where we are today: An American 125cc off-road market, wherein a prospective buyer has his choice of more than 20 different makes.

There is no clear leader in this market. If anyone has a lead at all, it again must be the Japanese, although by a very small margin. There are simply too many good bikes on both sides for there >

# MOTOCROSS COMPARISON 125s From The Big Four



**Honda's  
Fabulous CR  
Has Met Its Match.  
Is Nothing  
Invincible?**

# 125 MX COMPARISON

to be one best side. Husqvarnas, Hondas, Bultacos, Yamahas, Pentons, Suzukis, Monarks, Rickmans, DKWs, and the new Kawasaki.

CYCLE WORLD decided that it would be interesting to take one side of this battle (the Japanese) and make the participants compete amongst themselves for the title of "Best Japanese 125." We corraled for this test a Honda CR125 Elsinore, a Suzuki TM125, a Yamaha YZ125 and the new Kawasaki KX125. Unfortunately, at the time of our test, Hodaka was not yet ready

waterproofing.

After our first outing, the bikes were cleaned off, the air filters serviced, and the chains cleaned and lubed. Then, after a day of rest, we took the bikes to Valley Cycle Park.

Here we ran only lap times and timed runs from the starting line to the first turn. Walt Fulton Jr. joined us for this part of the test. Randy Riggs was only able to be with us half the day because he had to get back to L.A. to catch a flight to England for the Anglo-American Match Races.

Once again the bikes were cleaned and serviced and then carted off to our final test track at Escape Country. Only lap times and starting-line-to-first-turn times were run here, as well. After our outing at Escape Country, the bikes



to introduce its brand new Combat Wombat.

## ABOUT THE PROCEDURE

Once all of the machines had been gathered in the CYCLE WORLD garage, measurements were taken for the data panels, the bikes were weighed and then readied for their first outing at the Shadow Glen motocross course at Indian Dunes. Once there, everyone took some practice laps to accustom themselves to the individual characteristics of the machines.

Bob Atkinson, D. Randy Riggs and Fernando Belair were test riders, and Randy Papke manned the stopwatch. Since Indian Dunes also has a large sand area and a shallow river running through it, we decided to try timed runs over a 150-yard section of the nastiest whoop-de-doo we could find. Also, each bike would make four passes through the stream to check for proper

were evaluated for bonus and penalty points. Our test ended with a session on the Webco Dyno, where the machines' horsepower and torque outputs were recorded.

After tabulating the results, we sat down with the data we had and tried to figure out why the machines performed as they had. Why the good ones were good and the bad ones bad. This is explained in the "Performance: How and Why" section of the comparison.

## THE MACHINES

### HONDA CR125

Powered by a piston-port, two-stroke Single, the Honda was one of the first "new breed" dirt bikes from Japan. A no-nonsense motocrosser, the Elsinore features a chrome moly frame and handlebars, a six-speed transmission and excellent suspension. It is also very light.

The Honda abounds in minute fine >

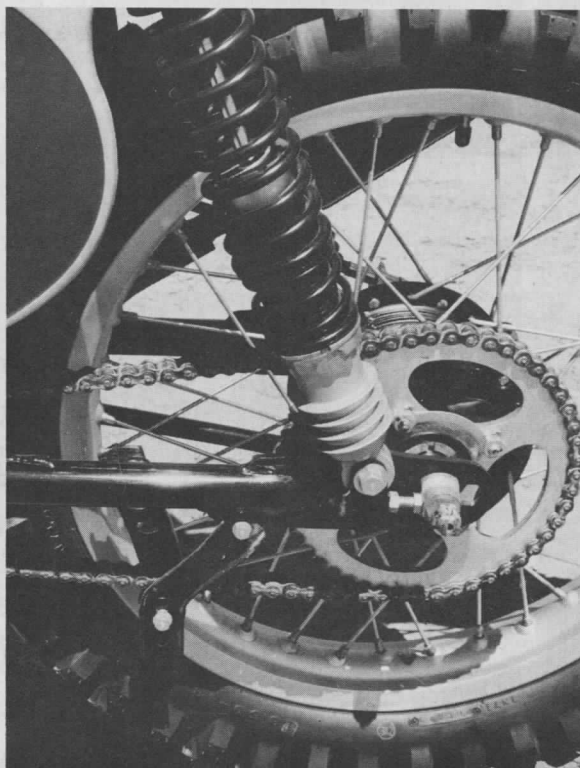
Photography: Fernando Belair, Virginia De Moss, Randy Papke, D. Randy Riggs



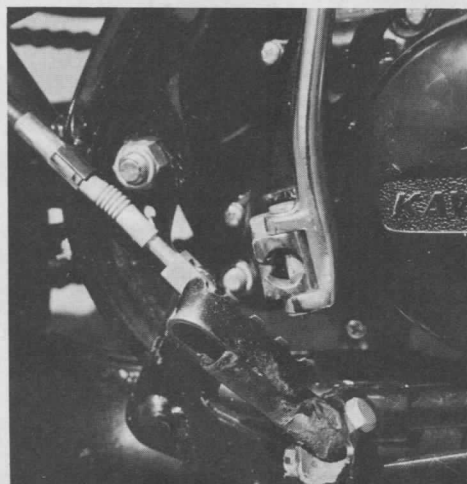
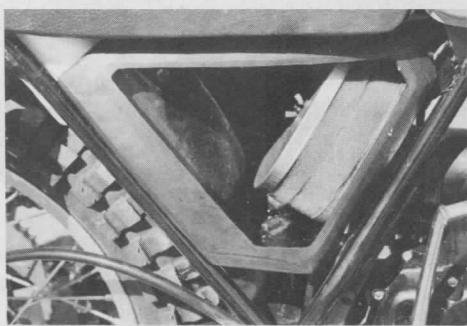




**HONDA**







# 125 MX COMPARISON

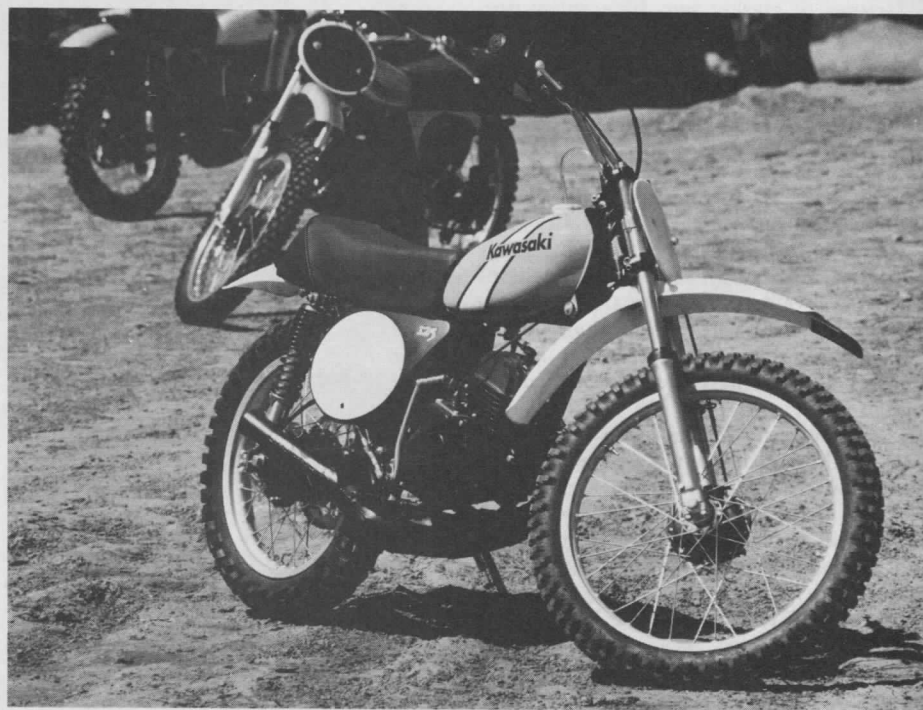
touches; small things like a grease fitting on the brake pedal pivot, cooling fins on the rear shocks and a main jet protected from surging fuel by a thimble-like enclosure. The Elsinore was the first machine from Japan that could be said to be the equal of European machinery in both power and handling.

## KAWASAKI KX125

Japan's newest offering in the 125cc

motocross market comes from Kawasaki and promises to be among the leaders at any motocross. Unique in the fact that it is powered by a rotary-valve engine, the Kawasaki is nevertheless a spirited competitor, thanks to its D.I.D. alloy rims, chrome moly chassis, six-speed transmission and superb brakes.

Styled in traditional Kawasaki green, with white striping running diagonally across its fuel tank, the little 125 is difficult to recognize from a distance, since it looks so much like its big brother, the KX250 (CW, June 1974). Aluminum-bodied shock absorbers handle the bumps at the rear, while Kawasaki's own slim forks take care of



the front end.

On the rear you'll find a tire that we've never seen before. Designed around the profile of the Dunlop 4.60, the new 4.10 x 18 knobby proved to be an absolutely superb choice.

The Kawasaki is also lightweight. Although not as light as either the Honda or the Yamaha YZ, it still weighs far less than many of its European counterparts.

## SUZUKI TM125

A colorful and popular mount, the bright yellow TM is a machine that, because of its mild manner, can be a beginner's bike or, with some additional work, a winning expert's bike. Smooth low and mid-range performance make it an easy motorcycle to master.

The five-speed transmission is operated from the left side—as was true of all of the test bikes—with a down-for-low pattern. Takasago makes D.I.D.-copy rims for the Suzuki. And, Suzuki's own suspension, improved this year with >



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extra fork travel and better-damping rear shocks, handles surface irregularities with surprising control.

As the least expensive of the four bikes tested, the Suzuki TM125 remains an attractive machine for both the novice and the backyard-tuning-whiz expert.

## YAMAHA YZ125

Yamaha is the only Japanese manufacturer to market two different motorcycles, with identical displacements, designed for the same market. Along with their regular motocrossers, Yamaha also has the YZ line for the experienced competitor.

The YZ125 does not sport a chrome moly frame as the Kawasaki and Honda do. Instead, it utilizes high-quality thin-wall steel tubing which, although slightly heavier, is also a bit stronger. The engine is a reed-valve two-stroke that is highly modified and more potent than that of the standard motocrosser. Also, several internal parts have been modified for lightness.

Akront rims are laced to lightweight hubs. Yamaha's own suspension units provide the cushion between rider and track; telescopic forks up front and Thermal-Flow shocks at the rear. The shock absorbers feature a finned oil reservoir to insure oil cooling and maintained viscosity during long motos. The silver and red fuel tank is held in place by nylon straps, with a large Velcro strip for security.

## SCORING

Since there were four bikes involved in this test, it was simplest to utilize a 4-3-2-1 scoring system. For the starting-line-to-the-first-turn times, points were awarded on the 4-3-2-1 basis for the machines as they performed with each rider aboard. For the whoop-de-doo section, symbolic of the rougher track sections and potholed straights where most of the passing occurs in motocross, the scoring system was multiplied by a factor of two, yielding an 8-6-4-2 set of points. And finally, for the motocross lap times, the most important of all the tests, the scores were multiplied by a factor of three, thereby giving point values of 12-9-6-3.

Bonus points were awarded after the test for items or features that we feel are necessary on competitive motocross machinery. Penalty points were awarded for individual failures on the part of either machines or manufacturers. Points were awarded on a 4-3-2-1 scale for weight. For the water-proofing test, one point was awarded a

machine for each successful pass through the water crossing.

## PERFORMANCE: HOW AND WHY

### HONDA CR125

The machine that last year took the 125 class by storm in this country is not, unfortunately, going to do the same this year. Everyone was zapped and wowed by the performance of the 125 Elsinore a year ago when there was

almost nothing that would stay with one on a rough motocross track. The same might still hold true today if it weren't for the Kawasaki KX125. Let's take a look at the dyno chart and try to understand why the Honda behaves in the manner it does.

First, the engine is pipey. You can tell that without ever putting the bike on the dyno. In fact, all of the 125s in this comparison were pipey. But how they pulled when they were off the

### CATEGORY ONE MANUFACTURER'S SUGGESTED RETAIL PRICE

Suzuki.....	\$795 .....	4
Kawasaki....	840 .....	3
Honda.....	880 .....	2
Yamaha.....	967 .....	1

### CATEGORY TWO WEIGHT (WITH HALF-TANK FUEL)

Honda.....	183.6 lb. ....	4
Yamaha.....	189.7.....	3
Kawasaki....	193.5.....	2
Suzuki.....	200.1.....	1

### CATEGORY THREE TIMED MOTOCROSS LAPS (INDIAN DUNES)

Bob:	Suzuki	Yamaha	Honda	Kawasaki
	1:36.0	1:36.8	1:33.7	1:32.1
	1:35.7	1:36.2	1:31.6	1:32.0
	1:35.0	1:35.5	1:32.4	1:33.3
	1:35.56 avg.	1:36.16	1:32.56	1:32.46

Kawasaki .....	12
Honda .....	9
Suzuki .....	6
Yamaha .....	3

Randy:	Suzuki	Yamaha	Honda	Kawasaki
	1:36.5	1:36.2	1:32.6	1:32.6
	1:34.0	1:33.0	1:31.4	1:34.2
	1:33.0	1:33.9	1:31.5	1:34.2
	1:34.50 avg.	1:34.36	1:31.83	1:33.67

Honda .....	12
Kawasaki .....	9
Yamaha .....	6
Suzuki .....	3

Fernando:	Suzuki	Yamaha	Honda	Kawasaki
	1:28.0	1:29.2	1:30.0	1:27.5
	1:28.8	1:30.0	1:29.9	1:29.5
	1:27.8	1:28.6	1:30.0	1:27.6
	1:28.20 avg.	1:29.26	1:29.96	1:28.20

Suzuki .....	12
Kawasaki .....	12 (Tie)
Yamaha .....	6
Honda .....	3

### INDIAN DUNES TOTALS

Kawasaki .....	33
Honda .....	24
Suzuki .....	21
Yamaha .....	15

pipe is where some interesting facts come into play.

When it was off the pipe, the Honda went nowhere. If you stabbed the throttle open and the engine was not revving high enough, the Elsinore just sat there and blubbered. When it did come on the pipe, it literally exploded. The dyno chart shows how, in the mere 1500 rpm spread between 5500 and 7000, the horsepower nearly tripled itself.

On the track, this meant one of two things. If you were on a straight, it meant bullet-like acceleration, spewing dirt and wild wheelies. Certainly an exciting bike to ride under these circumstances. But if you were in a turn, trying to come out hard and fast, when the power surge hit, it meant an instant slide or slide out. This wasted time. It was best to wait until the bike was straightened out before giving it full throttle.

While on the subject of cornering, the Elsinore, which we *had* felt was a good-steering bike, has a few things to learn from the other Japanese makes. Steering is imprecise, and the front wheel likes to fold under the bike slightly when cornering hard.

Watching the Elsinore being put through its paces on a high-speed sweeper, we noticed that the front end shook its head much more than any of the other bikes did theirs. The rider,

## HONDA CR 125

### SPECIFICATIONS

List price	.....\$880
Suspension, front	..... telescopic fork
Suspension, rear	..... swinging arm
Tire, front	..... 2.75-21
Tire, rear	..... 3.50-18
Engine, type	..... two-stroke, piston-port Single
Bore x stroke, in., mm	..... 2.21 x 1.97, 56 x 50
Piston displacement, cu. in., cc	..... 7.5, 123
Compression ratio	..... 7.6:1
Claimed bhp @ rpm	..... N.A. @ 9500
Claimed torque @ rpm lb.-ft.	..... N.A. @ 9250
Piston speed @ rpm ft./min.	..... 3119 @ 9500
Carburetion	..... 28mm Keihin
Ignition	..... magneto CDI
Oil system	..... oil mist
Oil capacity, pt.	..... oil in fuel
Fuel capacity, U.S. gal.	..... 1.6
Recommended fuel	..... premium
Starting system	..... primary kick
Air filtration	..... oil-wetted fuzz/foam

### POWER TRANSMISSION

Clutch	..... wet, multi-plate
Primary drive	..... straight-cut gear
Final drive	..... single-row chain
Gear ratios, overall:1	
6th	..... 11.51
5th	..... 12.53
4th	..... 14.26
3rd	..... 17.00
2nd	..... 21.06
1st	..... 27.86

### DIMENSIONS

Wheelbase, in.	..... 53.5
Seat height, in.	..... 32.0
Seat width, in.	..... 8.5
Handlebar width, in.	..... 33.2
Footpeg height, in.	..... 11.5
Ground clearance, in.	..... 7.5
Front fork rake angle, degrees	..... 31
Trail, in.	..... 5.5
Curb weight (w/half-tank fuel), lb.	..... 183.6
Weight bias, front/rear, percent	..... 44/56

## KAWASAKI KX 125

### SPECIFICATIONS

List price	.....\$840
Suspension, front	..... telescopic fork
Suspension, rear	..... swinging arm
Tire, front	..... 3.00-21
Tire, rear	..... 4.10-18
Engine, type	..... two-stroke, rotary-valve Single
Bore x stroke, in., mm	..... 2.20 x 1.99, 56.0 x 50.6
Piston displacement, cu. in., cc	..... 7.62, 124.8
Compression ratio	..... 8.0:1
Claimed bhp @ rpm	..... 22 @ 9750
Claimed torque @ rpm lb.-ft.	..... 12.6 @ 9000
Piston speed @ rpm ft./min.	..... 3234 @ 9750
Carburetion	..... Mikuni VM26SC
Ignition	..... magneto CDI
Oil system	..... oil mist
Oil capacity, pt.	..... oil in fuel
Fuel capacity, U.S. gal.	..... 1.7
Recommended fuel	..... premium
Starting system	..... primary kick
Air filtration	..... oil-wetted fuzz/foam

### POWER TRANSMISSION

Clutch	..... wet, multi-disc
Primary drive	..... gear
Final drive	..... single-row chain
Gear ratios, overall:1	
6th	..... 12.883
5th	..... 14.475
4th	..... 16.502
3rd	..... 19.252
2nd	..... 24.463
1st	..... 32.858

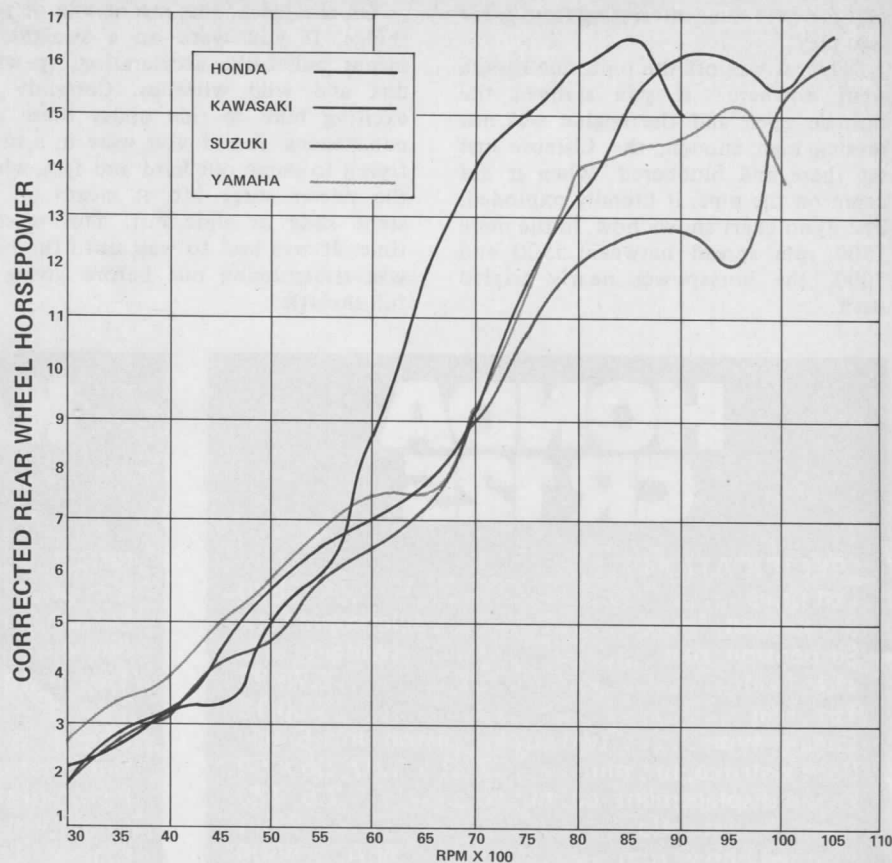
### DIMENSIONS

Wheelbase, in.	..... 53.3
Seat height, in.	..... 32.0
Seat width, in.	..... 7.5
Handlebar width, in.	..... 34.0
Footpeg height, in.	..... 11.5
Ground clearance, in.	..... 6.8
Front fork rake angle, degrees	..... 31
Trail, in.	..... 5.09
Curb weight (w/half-tank fuel), lb.	..... 193.5
Weight bias, front/rear, percent	..... 43.9/56.1



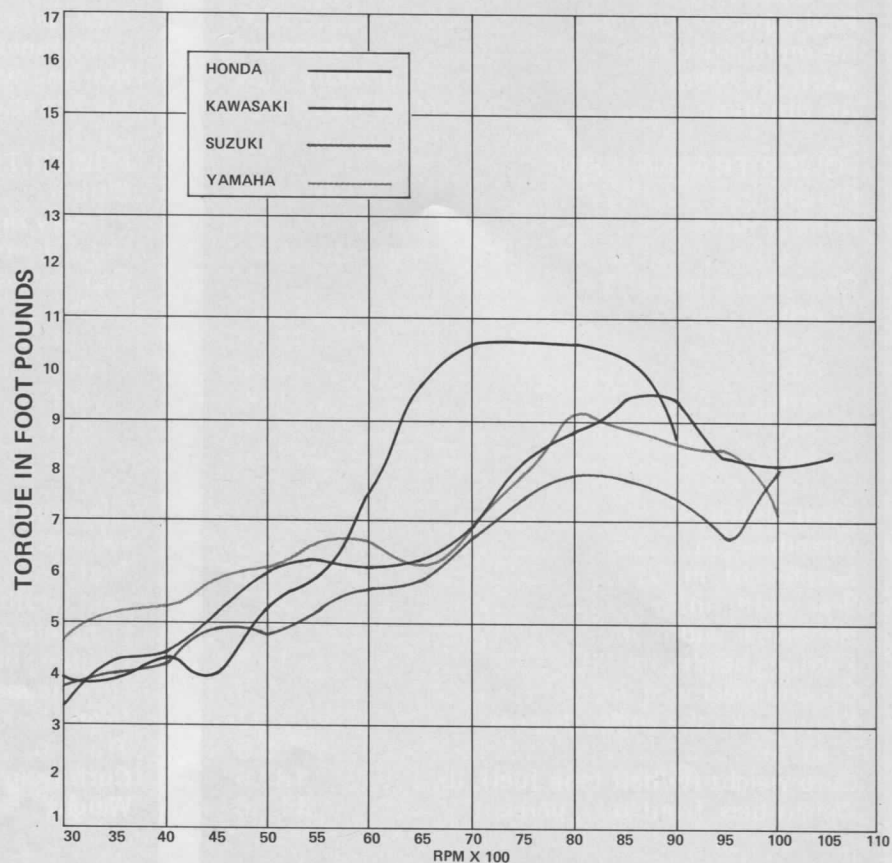
# DYNAMOMETER TESTS HORSEPOWER AND TORQUE

ENGINE SPEED	BHP				
	Honda	Kawasaki	Suzuki	Yamaha	
3000	2.24	1.96	2.17	2.71	
3500	2.64	2.88	2.72	3.48	
4000	3.33	3.36	3.27	4.01	
4500	3.44	4.47	4.23	5.01	
5000	5.07	5.71	4.60	5.84	
5500	5.97	6.57	5.85	6.91	
6000	8.76	7.03	6.51	7.54	
6500	11.98	7.72	7.24	7.59	
7000	14.06	9.26	9.01	9.30	
7500	15.08	11.73	10.76	11.45	
8000	16.00	13.48	12.14	14.00	
8500	16.56	15.33	12.71	14.41	
9000	15.03	16.25	12.83	14.64	
9500	—	16.17	12.07	15.32	
10,000	—	15.50	15.22	13.81	
10,500	—	16.58	16.16	—	



Test Conditions	Hon	Kaw	Suz	Yam
Barometer	30.04	30.04	30.05	30.02
Temperature: Dry	71f	66f	70f	69f
Wet	61f	58f	60f	60f
Correction factor	1.030	1.024	1.028	1.028

ENGINE SPEED	TORQUE				
	Honda	Kawasaki	Suzuki	Yamaha	
3000	3.92	3.45	3.82	4.75	
3500	3.97	4.34	4.08	5.23	
4000	4.38	4.42	4.30	5.28	
4500	4.01	5.23	4.94	5.85	
5000	5.33	6.00	4.84	6.14	
5500	5.97	6.27	5.32	6.61	
6000	7.67	6.16	5.70	6.61	
6500	9.68	6.23	5.84	6.13	
7000	10.55	6.95	6.76	6.98	
7500	10.55	8.21	7.53	8.00	
8000	10.50	8.84	7.96	9.19	
8500	10.23	9.48	7.85	8.90	
9000	8.77	9.48	7.49	8.54	
9500	—	8.48	6.67	8.47	
10,000	—	8.14	7.99	7.24	
10,500	—	8.29	8.08	—	



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however, did not notice the actual amount of shaking and searching that the front end did. He usually felt that the steering was merely imprecise.

Cornering was the trickiest in the lower three gears. When the engine comes on the pipe in any of these gears, there is a sudden breaking loose of the rear wheel. The best way to corner the Honda was to use one gear higher than necessary and to ride the torque curve just below the point at which the engine lights up. Then, when the bike is straightened up enough, grab a handful of throttle, and at the same time, whip in and then release the clutch lever. This will allow the lightly-fly-wheeled engine to rev freely for a split second.

When the clutch is re-engaged, the rear wheel will spin slightly, allowing the engine's rpm to drop back to a level a little higher than that at which you cornered (i.e. on the pipe). Then, all the rider has to do is keep the throttle open and row through the gears until it's time for the next corner.

That procedure proved most useful through tight corners where the lower gears in the transmission were used. On high-speed sweepers, just gas it and hang on. The rear end will track true and straight. The front end will hunt and peck, but the bike won't pitch you off. That's one thing about the Honda; it is a forgiving motorcycle. You really have to make a boo-boo to get spit on your ear.

On the roughest straightaways we could find, the Honda was the handling king. Stability over these sections was second to none. The beautiful front forks, utilizing more than seven inches of perfectly-damped travel, absorbed just about anything we dared race over. And, when it came time to slow down, well, it did that well too. A strong brake up front and zero rear wheel hop helped keep the excellent Bridgestone tires on the ground; and things came to a controllable halt quickly.

The Honda did not gain any time over the other bikes on the straights, because what it had over the YZ and the Suzuki in acceleration, it had to use to make up the time it lost coming out of the corners, and getting its explosive power hooked up to the ground. The Honda did make up some time getting into the turns because of its suspension and brakes, which allowed it to take the best line into the turns regardless of the menacing braking bumps that had formed on this line. The Honda lost time going through turns that were not bermed, or that had berms way off the best line.

## KAWASAKI KX125

The Kawasaki was the undisputed winner of our comparison test. If you haven't already looked over the point charts, then we've ruined the surprise for you. Sorry, but you'd have guessed it by the time you finished reading this summary anyway.

Normally, when people think of a motocross power plant, they conjure up visions of piston-port or reed-valve two-strokes; or even of a four-stroke like

the Cheney BSA. But rarely does one think of a rotary-valve engine as the hot set-up for high-speed off-roading. Kawasaki did, though, and they not only thought about it, but they produced one, and a darned good one at that.

The KX shares many components with its dual-purpose predecessor, the KS125 (CW, May 1974). But where extra strength is needed for motocross, new components have been fabricated. The rotary-valve carburetor bulge rides >

### CATEGORY FOUR TIMED MOTOCROSS LAPS (VALLEY CYCLE PARK)

Bob:	Suzuki	Yamaha	Honda	Kawasaki
	1:51.0	1:47.6	1:47.0	1:48.8
	1:55.4	1:47.0	1:50.6	1:49.6
	1:52.4	1:49.0	1:50.4	1:50.7
	1:52.93 avg.	1:47.87	1:49.33	1:49.70

Yamaha	.12
Honda	.9
Kawasaki	.6
Suzuki	.3

Randy:	Suzuki	Yamaha	Honda	Kawasaki
	1:51.0	1:50.1	1:53.0	1:50.1
	1:50.9	1:54.0	1:51.8	1:51.0
	1:51.0	1:55.4	1:49.8	1:52.0
	1:50.97 avg.	1:53.17	1:51.53	1:51.03

Suzuki	.12
Kawasaki	.9
Honda	.6
Yamaha	.3

Walt:	Suzuki	Yamaha	Honda	Kawasaki
	1:46.2	1:42.0	1:45.4	1:45.6
	1:48.0	1:44.3	1:46.0	1:44.8
	1:47.0	1:44.3	1:44.6	1:44.6
	1:47.07 avg.	1:43.53	1:45.33	1:45.00

Yamaha	.12
Kawasaki	.9
Honda	.6
Suzuki	.3

Fernando:	Suzuki	Yamaha	Honda	Kawasaki
	1:49.6	1:44.1	1:47.6	1:43.4
	1:48.6	1:45.1	1:47.4	1:44.6
	1:47.2	1:43.4	1:46.0	1:44.6
	1:48.47 avg.	1:44.20	1:47.30	1:44.20

Kawasaki	.12
Yamaha	.12 (Tie)
Honda	.6
Suzuki	.3

### VALLEY CYCLE PARK TOTALS

Yamaha	.39
Kawasaki	.36
Honda	.27
Suzuki	.21



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high up on the right side of the engine. While it may be possible to damage the intake case cover in a spill, in its present location it would require landing on a rock or smashing into a tree to puncture the cover. In fact, the entire power plant is surprisingly well-protected by the frame.

The Kawasaki is fast; it has a very smooth, broad power band, and its transmission is every bit as slick in operation as the Honda's is. The Kaw is also pipey; almost as pipey as the Elsinore. But when it is off the pipe, it

story is found. The shocks on the Kaw are by far the best of those on any of the bikes tested. They delivered a soft, plush ride at low speeds, and firmer, more secure action when the bike was pushed to its limits.

The KX doesn't let you down when it comes to cornering, either. A combination of good steering geometry and smooth power make for easily-controlled line holding. Occasionally the front end would skate a bit. Not much, and you could recover from it easily, but it was there. We feel that the blame here goes to the Dunlop Sports front tire. While such a tire would probably work well in the East, where the track surfaces are loamier, it can easily be pushed beyond its tractive capabilities on the hard-surfaced courses that abound in California.



does something that the Honda does not. It pulls.

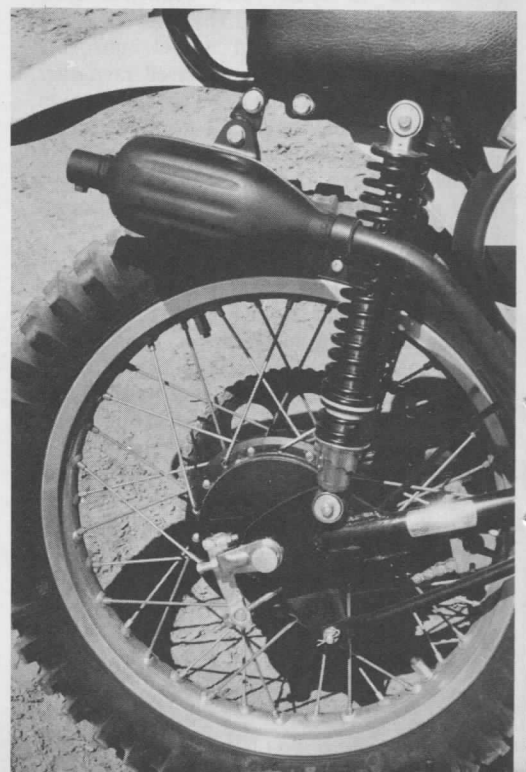
From 2500 rpm up to 5500, the KX has both more horsepower and more torque than the CR. And when the power increase does come, it is much smoother and more controllable. It also lasts 2000 rpm longer. Because of this broader spread of power, the KX can get away with transmission ratios that are more widely spaced than the Honda's. Beginning with closely-matched lower-gear performances, the Kawasaki begins to slowly pull the Honda in the upper gears until both bikes are flat-out in sixth. At which point the rotary-valve leaves the Elsie in the dust.

The Kawasaki is also an outstanding handler. While the front forks fall short of the Honda's, they are still among the finest to be found. Damping is perfect, but the forks offer only six inches of travel, as opposed to 7.1 for the CR. On the other end of the bikes, a different

If you read the test on the KS125, you'll recall that, while the front brake on the bike worked as well as we hoped, the rear unit was a miserable fiasco. The KX utilizes the same binders on both ends, but these work like no other brakes have ever worked. The conical front unit is a mere one-finger affair, while the rear anchor's sensitivity and progressive decelerative power has been improved a hundred-fold over the KS's.

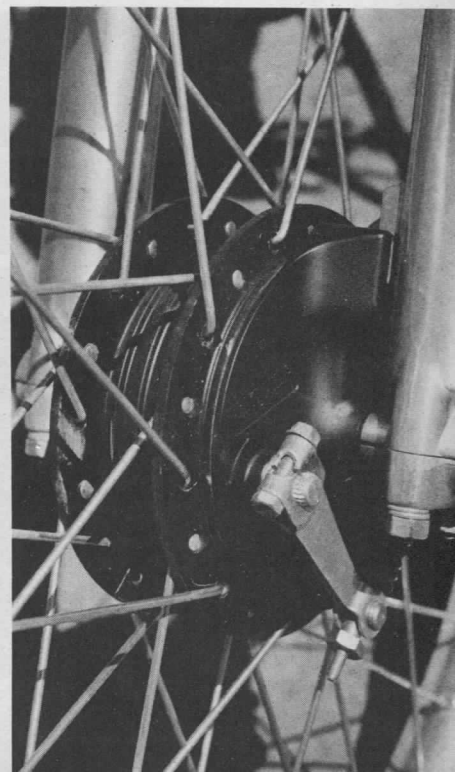
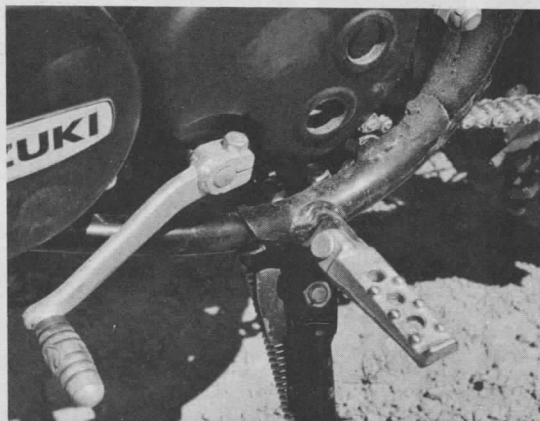
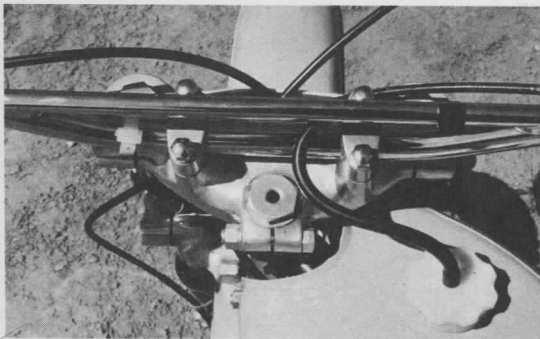
When we were taking our practice laps at the various tracks on the Kaw, braking points had to be relearned or we'd find ourselves slowed down to our desired cornering speed long before the corner had to be executed. This was especially true if you had just stepped off of the Suzuki. If you used the TM's braking points and started braking the Kaw there, you could easily find yourself completely stopped 20 feet before the turn.

Another problem was that because >





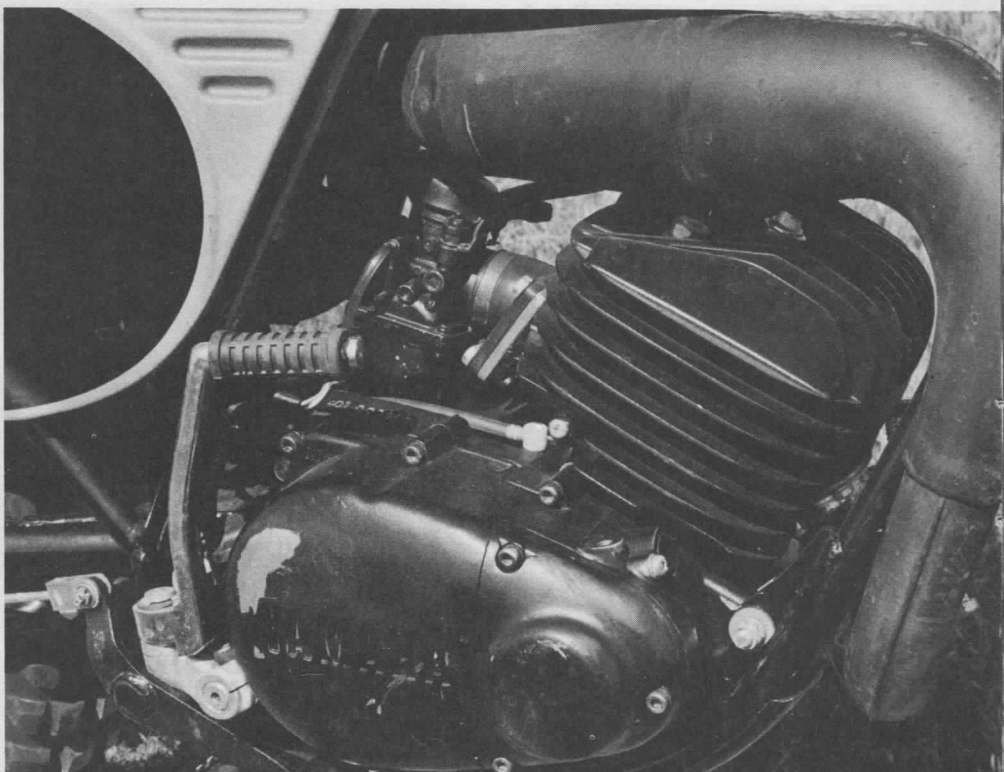
**SUZUKI**







**YAMAHA**



# 125 MX COMPARISON

of the extraordinarily fierce front brake, the forks were near full compression when braking. Therefore, the rider received a good percentage of the shocks from the braking bumps before the turns.

The Kawasaki made up time on all of the bikes except the Yamaha *through* the turns. It made up time on everything going *into* the turns because of its brakes. In fact, the Kawasaki won the comparison test on three basic points. One: It corners well. Two: It stops best. And three: It stomped the snot out of the other bikes going down the straights.

## SUZUKI TM125

The Suzuki lost. We know that this

to a standstill. There are no Rs left. So you shift into the next gear, which puts you right back in the middle of that flat spot again. If you're trying to pull a hill, this means that the bike will hesitate somewhat before it can climb onto those last 1000 rpm again. Time is lost. If the next gear can't be pulled by the engine, then you will bog down and have to shift back a gear, which by now has fallen off the last few rpm and is sitting right in the middle of the flat spot.

Once again you wait for it to climb up to where the engine begins to really sing, and you simply hold it there, screaming its way up the hill while just about everything in sight scurries past. In addition, the TM's brakes were not up to snuff. The rear brake was insensitive but strong, while the front brake's ineffectiveness can be traced to a weak brake cable. The cable stretched so much during brake application that it required readjustment before every timed run.



isn't going to make very many Suzuki owners happy; particularly if they compete successfully on their TMs. But that's the way it goes. Somebody had to lose. There is hope, however. The Suzuki lost for several reasons, the most important of which is its power band: wide and smooth, but with a big fat flat spot in the hp curve right after its torque peak.

The Suzuki pulled within .42 hp of the most powerful engine, so you can't really say that it is down on power. But let's analyze what that slump in the power curve means. When the Honda or the Kawasaki come on the pipe, they pull well over 16 hp before they begin to taper off. The TM tapers off at below 13 hp. That's a difference of more than 3 hp on a 125cc motocrosser. Critical! And when the Suzuki's engine perks up during the last 1000 rpm, what you've got is lots of horsepower and no place more to go with it.

Your rate of acceleration has come

The Suzuki could be a great cornering motorcycle, if it only had some decent tires. The poor knobbies that it is fitted with as standard items, must have been chosen in line with Suzuki's "budget racer" attitude toward TM purchasers.

These weenies slipped and slid all over the place. The only time they worked well at all was at Indian Dunes, right after the water truck had dumped its load onto the track. Then they could find traction; but they certainly weren't capable of creating any when it wasn't already there.

We said that there is hope for the TM, and here it is. Since it is the least expensive of the bikes, it attracts many first-time racers. As just such a machine it is an excellent purchase. But with a mild cleaning up of the ports, or an extra bit of porting work, the TM could easily overcome its irregular power characteristics.

Of course, new tires and a thicker >



# 125 MX COMPARISON

front brake cable would also have to be purchased in order to make the Suzi truly competitive. It already has the suspension sorted out, so there're no hassles there. As a matter of fact, the only handling difficulty that we encountered (apart from the skittery tires), was the occasional topping of the forks.

The Suzuki was the softest-landing of all of the bikes. Over every jump the TM landed in control. Even if we got it a little sideways, it straightened right up and didn't even wiggle. With that much in its favor, and a little work on the owners' parts, TMs could easily be the machines to beat.

## YAMAHA YZ125

The YZ is a quick-steering motorcycle that can scoot around turns on an inside line at about the same rate of speed as the other bikes that were taking wider lines. The results were that no bike could get through the corners during our test as quickly and effortlessly as the YZ.

And for those corners where squaring off was the order of the day, well, the YZ could plant its front wheel like it had roots, pivot, and blast away. One, two, three. Just like that. The YZ did suffer a bit from the same tire malady as the Suzuki, but it held its lines in spite of the rubber it carries. The main tire problem appeared on acceleration out of corners.

The YZ has the most ideal power band of all the bikes, although it was 1.26 hp down on the Kawasaki at the top end. This progressive application of its power production prevented the tire problem from being worse than it

actually was. Had the Elsinore been equipped with either the TM's or the YZ's tires, its power eruption would have made control of the bike a near impossibility.

The YZ is geared low. So low, in fact, that our lighter test riders were able to successfully bring the YZ off the starting line in second gear. The bike could use an extra tooth on the countershaft sprocket and an extra cog in the transmission. We don't mean stuffing another gear between the existing high and low gears. Heaven knows the ratios are spaced closely enough already; but a sixth gear above the current fifth gear ratio would give the bike a little more versatility.

Handling on the YZ can be described in various terms; most of which are not printable. The machine is sprung so stiffly, that even our 210-lb. staffer complained. And the rest of us, we welcomed the chance to step off the machine and hand it over to the next poor slob.

The most severe problem occurred while braking. The YZ has a great front brake and a toggle switch for a rear brake. It's either full on or full off. And when it's on, the rear end pogos all over the place, even on perfectly flat ground. Combine this pogoing tendency with the touchy brake, oversprung suspension and a set of pre-corner braking bumps, and you come up with a whole gutfull of eye-widening tank slappers.

To prevent this confidence-shaking experience, it was necessary to enter corners on either the extreme inside or outside line. This avoided the bumps and ruts, but it was the slowest way in. A person who purchases a YZ had better resign himself right now to doing a few weeks of suspension work before he is going to be able to dust off anyone for an extended period of time.

Fortunately the YZ is light. A machine weighing in at 220 lb., with proportionately stiff suspension, would be unridable. The 189-lb. YZ made up all of its time in the turns and going up hills, where the closely-spaced transmission ratios and the strong power kept it constantly accelerating. It lost time in the rough, going into turns that were rutted and on downhills that were less than glass smooth.

Riding a YZ, a person has to lean his butt way back over the rear fender and pull back heavily on the bars. This forces the rear shocks to work a little bit more, but they, in return, force you to work a whole lot more. We got around our test tracks pretty darned quick on the YZ, but we only did three WFO laps per rider. If we had had to hang onto the YZ for three full 20-minute motos against CRs, KXs and TMs, we doubt that we could have maintained the rapid pace. And, there's no way that any of us could have finished

### CATEGORY FIVE TIMED MOTOCROSS LAPS (ESCAPE COUNTRY)

Bob:	Suzuki	Yamaha	Honda	Kawasaki
	1:39.4	1:37.8	1:38.2	1:36.6
	1:43.6	1:37.4	1:38.6	1:39.4
	1:37.2	1:34.7	1:38.4	1:38.5
	1:40.07 avg.	1:36.63	1:38.40	1:38.17

Yamaha	.12
Kawasaki	.9
Honda	.6
Suzuki	.3

Walt:	Suzuki	Yamaha	Honda	Kawasaki
	1:38.8	1:35.7	1:35.4	1:34.2
	1:36.4	1:33.5	1:35.8	1:34.8
	1:38.2	1:34.0	1:36.2	1:36.4
	1:37.80 avg.	1:34.40	1:35.80	1:35.13

Yamaha	.12
Kawasaki	.9
Honda	.6
Suzuki	.3

Fernando:	Suzuki	Yamaha	Honda	Kawasaki
	1:36.6	1:33.4	1:36.2	1:34.0
	1:36.0	1:32.8	1:35.2	1:34.0
	1:38.4	1:33.2	1:36.6	1:33.0
	1:37.00 avg.	1:33.13	1:36.00	1:33.67

Yamaha	.12
Kawasaki	.9
Honda	.6
Suzuki	.3

### ESCAPE COUNTRY TOTALS

Yamaha	.36
Kawasaki	.27
Honda	.18
Suzuki	.9

two 45-minute motos aboard this high-speed boinger.

Pierre Karsmakers is said to have been instrumental in setting up the YZ's suspension. It may be set up well for Pierre, who hits bumps and potholes two gears higher than Mr. Average Motocrosser, but in the end it's the Mr. Averages who buy the bikes, and they want something that is not so difficult to control.

If Yamaha retains the same steering

geometry in the future, and softens up the suspension a bunch, they're going to have a real bullet on their hands.

#### NOTES

There were a few problems encountered during our test period that should be of interest to every potential 125 MX buyer.

The Honda's kill button is a piece of junk. To begin with, it is placed on the wrong side of the handlebar, and after

about ten minutes riding time, it became totally inoperative.

Another thing about the Honda is that the front and rear brake cable adjusters vibrate themselves loose and require a constant eye. The front one is particularly susceptible to loosening and must be tightened up with pliers if it is to stay put. And watch the spokes on the CR's front wheel closely. After the first two hours on the bike, they were all as loose as can be.

## SUZUKI TM 125

### SPECIFICATIONS

List price	.....\$795
Suspension, front	..... telescopic fork
Suspension, rear	..... swinging arm
Tire, front	..... 3.00-21
Tire, rear	..... 3.50-18
Engine, type	..... two-stroke, piston-port Single
Bore x stroke, in., mm	..... 2.20 x 1.97, 56 x 50
Piston displacement, cu. in., cc	..... 7.5, 123
Compression ratio	..... 7.5:1
Claimed bhp @ rpm	..... 17.5 @ 10,000
Claimed torque @ rpm lb.-ft.	..... 9.68 @ 8000
Piston speed @ rpm ft./min.	..... 3283 @ 10,000
Carburetion	..... Mikuni VM26SC
Ignition	..... pointless electronic
Oil system	..... automatic oil injection
Oil capacity, pt.	..... 1.2
Fuel capacity, U.S. gal.	..... 1.3
Recommended fuel	..... premium
Starting system	..... primary kick
Air filtration	..... oil-wetted foam

### POWER TRANSMISSION

Clutch	..... wet, multi-disc
Primary drive	..... helical gear
Final drive	..... single-row chain
Gear ratios, overall:1	
5th	..... 13.185
4th	..... 15.213
3rd	..... 18.111
2nd	..... 23.038
1st	..... 31.006

### DIMENSIONS

Wheelbase, in.	..... 53.3
Seat height, in.	..... 33.5
Seat width, in.	..... 8.5
Handlebar width, in.	..... 33.8
Footpeg height, in.	..... 12.5
Ground clearance, in.	..... 8.5
Front fork rake angle, degrees	..... 30
Trail, in.	..... 5.1
Curb weight (w/half-tank fuel), lb.	..... 200.1
Weight bias, front/rear, percent	..... 44.3/55.7

## YAMAHA YZ 125

### SPECIFICATIONS

List Price	..... \$967
Suspension, front	..... telescopic fork
Suspension, rear	..... swinging arm
Tire, front	..... 2.75-21
Tire, rear	..... 3.50-18
Engine, type	..... two-stroke, reed-valve Single
Bore x stroke, in., mm	..... 2.21 x 1.97, 56 x 50
Piston displacement, cu. in., cc	..... 7.5, 123
Compression ratio	..... 8.0:1
Claimed bhp @ rpm	..... N.A. @ 10,500
Claimed torque @ rpm lb.-ft.	..... 11.9 @ 9500
Piston speed @ rpm ft./min.	..... 3447 @ 10,500
Carburetion	..... Mikuni VM28SC
Ignition	..... CDI
Oil system	..... oil mist
Oil capacity, pt.	..... oil in fuel
Fuel capacity, U.S. gal.	..... 1.45
Recommended fuel	..... premium
Starting system	..... folding kick
Air filtration	..... oil-wetted fuzz/foam

### POWER TRANSMISSION

Clutch	..... wet, multi-plate
Primary drive	..... helical gears
Final drive	..... single-row chain
Gear ratios, overall:1	
5th	..... 15.273
4th	..... 17.587
3rd	..... 21.546
2nd	..... 27.631
1st	..... 37.889

### DIMENSIONS

Wheelbase, in.	..... 52.9
Seat height, in.	..... 31.5
Seat width, in.	..... 10.0
Handlebar width, in.	..... 34.0
Footpeg height, in.	..... 12.5
Ground clearance, in.	..... 10.7
Front fork rake angle, degrees	..... 30
Trail, in.	..... 5.51
Curb weight (w/half-tank fuel), lb.	..... 189.7
Weight bias, front/rear, percent	..... 44.4/55.6



**CATEGORY SIX  
AVERAGE OF THREE TIMED  
RUNS FROM STARTING GATE  
TO FIRST TURN**

**INDIAN DUNES**

Bob:	
Suzuki	.4
Honda	.4 (Tie)
Kawasaki	.2
Yamaha	.1
Randy:	
Kawasaki	.4
Suzuki	.3
Honda	.2
Yamaha	.1
Fernando:	
Kawasaki	.4
Yamaha	.3
Suzuki	.2
Honda	.1

**VALLEY CYCLE PARK**

Bob:	
Kawasaki	.4
Honda	.3
Yamaha	.2
Suzuki	.1
Walt:	
Yamaha	.4
Suzuki	.3
Kawasaki	.2
Honda	.1
Fernando:	
Yamaha	.4
Honda	.3
Suzuki	.3 (Tie)
Kawasaki	.1

**ESCAPE COUNTRY**

Bob:	
Kawasaki	.4
Yamaha	.3
Honda	.3 (Tie)
Suzuki	.1
Walt:	
Honda	.4
Kawasaki	.3
Yamaha	.2
Suzuki	.1
Fernando:	
Kawasaki	.4
Yamaha	.3
Suzuki	.2
Honda	.1

**TOTALS**

Kawasaki	.28
Yamaha	.23
Honda	.22
Suzuki	.20

# 125 MX COMPARISON

Even the winning Kawasaki was not entirely free of problems. Apart from the footpegs and the jetting difficulties that we deducted points for, we broke the arm in the shift mechanism that operates the shift drum. At first we thought that it might cost the Kaw as much as five points, but it was only a seven-dollar item which, by the way, was warrantied under the KX's 90-day warranty on all parts. So, all one would have to pay would be the labor charge for about 45 minutes work.

The most upsetting thing about the Suzuki was the broken footpeg. It wasn't broken in a fall, but rather while we were just cruising around a track getting some practice laps in. And it wasn't the peg that actually broke, but the pivot, welded to the frame, on which the peg folds. Inspection of the exposed metal at the point of fracture revealed that this metal is about as porous as an old Hodaka clutch lever. Had a rider been really flying when it broke, it could have sent him for a ride in a new Buick wagon with a screaming gum ball on top.

The Yamaha finally lost second place to the Honda as the penalty points began mounting up. We thought that the idea of using straps to hold the tank in place was neat. But the YZ lost its straps and almost pitched the tank off with its rough ride.

The footpegs, although spring-loaded, fold only 12 degrees, which is not enough to prevent injury in case of a fall. And complain as we might, it seems impossible to get Yamaha to change their terrible gas cap with the loose O-ring that is forever falling in

**CATEGORY SEVEN  
AVERAGE OF THREE TIMED  
RUNS DOWN A 150-YARD SEC-  
TION OF WHOOP-DE-DOOS  
(INDIAN DUNES ONLY)**

Bob:	
Honda	.8
Kawasaki	.6
Yamaha	.4
Suzuki	.4 (Tie)
Randy:	
Honda	.8
Kawasaki	.6
Yamaha	.4
Suzuki	.2
Fernando:	
Suzuki	.8
Honda	.6
Kawasaki	.4
Yamaha	.2

**CATEGORY EIGHT  
WATERPROOFING TEST  
FOUR PASSES THROUGH A  
SHALLOW STREAM  
(INDIAN DUNES ONLY)  
(ONE POINT FOR EACH  
SUCCESSFUL PASS)**

Honda	.4
Kawasaki	.4
Suzuki	.4
Yamaha	.2

**TOTALS**

Honda	.26
Kawasaki	.20
Suzuki	.18
Yamaha	.12



## PARTS PRICING ..... HONDA CR125

Cylinder .....	\$54.84
Cylinder Head .....	\$23.84
Piston .....	\$8.92
(1) Set Rings .....	\$6.72
Rear Shocks (each) .....	\$35.18
Front Hub .....	\$17.80
Rear Hub .....	\$36.92
Spokes (each) .....	\$.26
Wheel Rims (bare each) .....	\$36.00
Drive Chain (standard) .....	\$20.81
Front Fender .....	\$14.21
Rear Fender .....	\$28.31
Clutch & Brake Levers (each)	
Left .....	\$1.80
Right .....	\$2.70
Clutch Cable .....	\$3.70
Throttle Cable .....	\$3.70
Brake Cables	
Front .....	\$3.70
Rear .....	\$5.60
Ignition Parts	
Coil .....	\$14.47
Magneto Assembly .....	\$91.67
Sealed Unit Type .....	\$57.90
Carburetor .....	\$38.43
Crankshaft .....	\$51.80
Connecting Rod .....	N.A.
Shift Lever .....	\$14.68
Brake Pedal .....	\$12.95

## PARTS PRICING ..... KAWASAKI KX125

Cylinder .....	\$63.80
Cylinder Head .....	\$19.84
Piston .....	\$9.60
(1) Set Rings .....	\$9.60
Rear Shocks (each) .....	\$36.00
Front Hub .....	\$34.80
Rear Hub .....	\$40.60
Spokes (each) .....	\$.26
Wheel Rims (bare each) .....	\$36.00
Drive Chain (standard) .....	\$35.00
Front Fender .....	\$13.92
Rear Fender .....	\$24.30
Clutch & Brake Levers (each) .....	\$2.90
Clutch Cable .....	\$4.80
Throttle Cable .....	\$4.60
Brake Cables	
Front .....	\$4.50
Rear .....	\$4.00
Ignition Parts	
Coil .....	\$15.20
Magneto Assembly .....	\$104.10
Sealed Unit Type .....	\$41.50
Carburetor .....	\$38.28
Crankshaft .....	\$55.68
Connecting Rod .....	\$19.20
Shift Lever .....	\$6.70
Brake Pedal .....	\$6.00

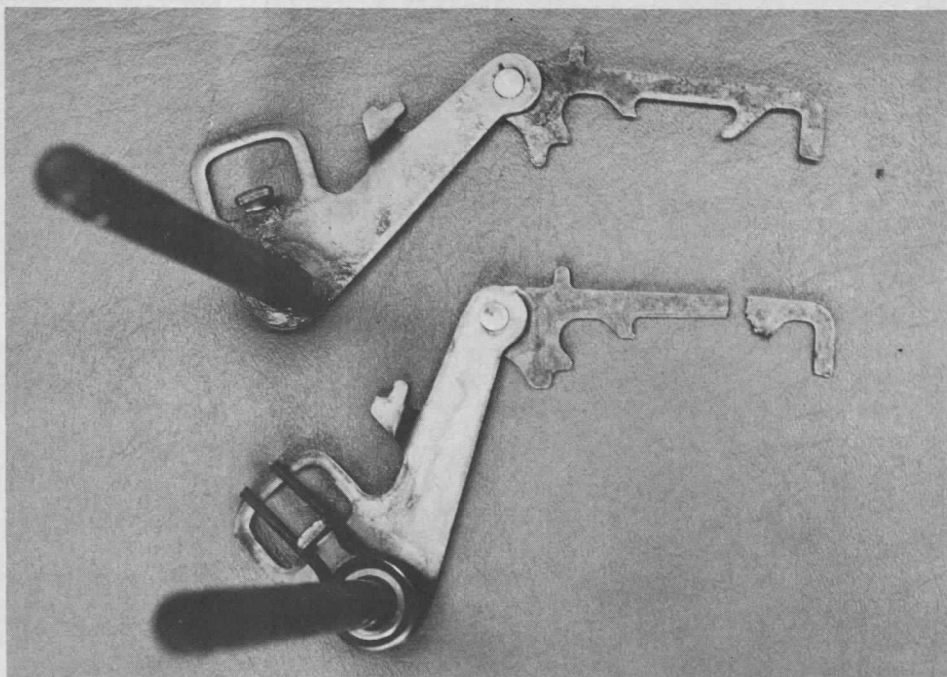
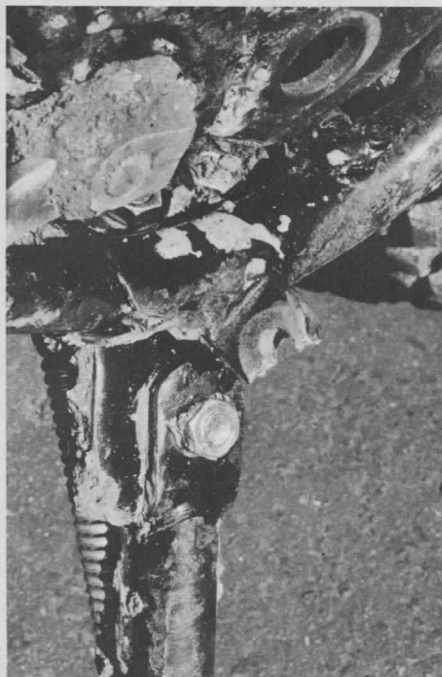
## PARTS PRICING ..... SUZUKI TM125

Cylinder .....	\$51.71
Cylinder Head .....	\$28.18
Piston .....	\$11.43
(1) Set Rings .....	\$4.62
Rear Shocks (each) .....	\$27.81
Front Hub .....	\$35.98
Rear Hub .....	\$46.15
Spokes (each) .....	\$.25
Wheel Rims (bare each)	
Front .....	\$47.34
Rear .....	\$49.18
Drive Chain (standard) .....	\$17.00
Front Fender .....	\$10.20
Rear Fender .....	\$10.20
Clutch & Brake Levers (each) .....	\$4.23
Clutch Cable .....	\$4.38
Throttle Cable .....	\$5.59
Brake Cables	
Front .....	\$2.96
Rear .....	\$5.34
Ignition Parts	
Coil .....	\$17.10
Magneto Assembly .....	\$138.80
Sealed Unit Type .....	\$62.05
Carburetor .....	\$27.81
Crankshaft .....	\$67.74
Connecting Rod .....	\$9.72
Shift Lever .....	\$5.57
Brake Pedal .....	\$6.30

## PARTS PRICING ..... YAMAHA YZ125

Cylinder .....	\$65.31
Cylinder Head .....	\$19.00
Piston .....	\$12.00
(1) Set Rings .....	\$2.92
Rear Shocks (each) .....	\$40.29
Front Hub .....	\$20.24
Rear Hub .....	\$29.12
Spokes (each) .....	\$.25
Wheel Rims (bare each)	
Front .....	\$42.53
Rear .....	\$35.92
Drive Chain (standard) .....	\$9.20
Front Fender .....	\$14.62
Rear Fender .....	\$10.08
Clutch & Brake Levers (each) .....	\$3.20
Clutch Cable .....	\$3.08
Throttle Cable .....	\$6.00
Brake Cables	
Front .....	\$3.12
Rear .....	\$1.10
Ignition Parts	
Coil .....	\$13.78
Magneto Assembly .....	\$101.64
Sealed Unit Type .....	\$55.59
Carburetor .....	\$26.55
Crankshaft .....	\$39.99
Connecting Rod .....	\$11.24
Shift Lever .....	\$3.88
Brake Pedal .....	\$5.28





Repairs on the Suzuki's footpeg and the Kawasaki's shift mechanism cost less than \$10 each.

### CATEGORY NINE BONUS POINTS

	Honda	Kawasaki	Suzuki	Yamaha
Non-mudding rims	1	1	1	
Front rim lock	1	1	1	1
Rear rim lock	1	1	1	1
Lever grit covers	1	1	1	1
Proper MX grips	1	1		
Chain guide	1	1	1	1
In-line fuel filter		1		
Self-cleaning pegs	1	1		
Foam air filter element	1	1	1	1
Malleable shift lever	1			
Malleable brake lever	1			
Rebuildable shocks	1			
	11	9	6	5

## 125 MX COMPARISON

the dirt. Also, be prepared to fork over about 15 extra bucks for a decent silencer. Yamaha claims internal baffling on the YZ pipe, but it doesn't cut it. It's loud!


### IN THE END

Suzuki is a bike with a lot of promise. It was fast on the straights, where its power problems were not being taxed by gravity as much as they were going uphill. It has a good transmission, although like the YZ it could use a six-speed. The TM would have performed better with some more appropriate tires and better-operating brake systems.

Yamaha's YZ125 is a lightning-quick steerer in desperate need of some sus-50 / CYCLE WORLD

pension work. It is also the most expensive of the bikes tested. If you run the local five-lap motos on a smooth TT-like track, you can win on a YZ. But don't expect to last much longer than five laps, especially without a good kidney belt. Some suspension and tire changes are in order for the YZ. With these simple alterations, look out!

Honda set the motocross world afire last year with their Elsinore series crossers, but they can't just sit back on their laurels. The competition is getting serious, and Honda had better too. Last year's 125 can't do it again this time around. It will be interesting to see what Honda comes up with for '75.

Kawasaki's KX125 is the best Japanese motocrosser in its class to date. The broad power spread also makes it an easy bike to trail with, although neither the low pipe nor the exhaust note is best suited to woodsy riding. This rocket will make headlines. 

### CATEGORY TEN PENALTY POINTS

#### HONDA-1

Kill Button Inoperative

#### SUZUKI-4

Broken Footpeg

Non-spring-loaded Pegs

Must Remove Seat to Service Air Filter

Exhaust Permanently Stains Rear Fender

#### KAWASAKI-3

Main Jet Difficult To Change

Non-spring-loaded Pegs

Broken Shift Mechanism

#### YAMAHA-6

Lost Tank-holding Straps

Footpegs Fold Only 12 Degrees

Must Remove Seat To Service Air Filter

Inadequate Silencing

Gas Cap W/Cork O-ring Is A Genuine Pain

Exhaust Permanently Stains Rear Fender

### OVERALL SCORES

KAWASAKI KX125	155
HONDA CR125	133
YAMAHA YZ125	128
SUZUKI TM125	96

74