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**HOLESHOT  
SECRETS**

**125 SHOOTOUT: KX, RM & YZ  
YAMAHA YZ400E & SUZUKI PE175**

# **DIRT BIKE**

SEPTEMBER 1978 • \$1.25 UK60p

## **CHAIN PAINS 500 U.S.G.P.**



**PLUS: HOW TO  
DIAL IN YOUR  
SHOCKS and U.S.  
WORLD TRIAL**



# DIRT BIKE

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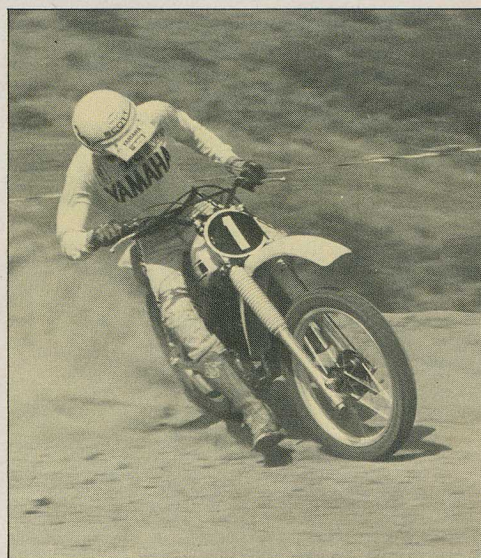
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**ON THE COVER:**  
Roger DeCoster and Mike Bell  
at the Carlsbad Grand Prix.  
Photo by Bill Masho

**NEXT ISSUE ON SALE SEPTEMBER 19**

□ Shoot 'em up at the Sit Low and Rev High Corral. Who's the King Ankle Biter? We looked at the Yamaha in April, the Suzuki in June and the Kawasaki in July. You can find all the details about complexion, zits as well as beauty marks, in those individual tests.

#### Eyeballin' the spec sheets

Note that the KX is the lowest geared (highest overall ratio) of the three through every gear.

The YZ is the only bike using beefier 520 chain. The other two use 428.

The Yamaha uses helical gears in the primary drive while the other two bikes use straight cuts. Generally, straight cuts are considered to transfer a hair more power to the rear wheel while being noisier.

All three bikes have needle bearing aluminum alloy swingarms.

The KX is the lightest bike by a dozen pounds. Porker of the trio is the RM at 204.5 pounds, ready for gas, but that's relative pork rather than overt avoirdupois.

Both the Suzuki and Kawasaki have full-floating rear brakes which tend to offer better performance and require more maintenance.

The Kawasaki offers a new molybdenum and carbon electrofusion cylinder process which factory testing indicates yields both better durability and more heat dissipation. The cylinder cannot be rebored if something goes amiss. Cylinder liners for the RM and YZ are cast iron and can be over-bored.

The KX is the only bike with remote reservoirs for the shocks. The RM offers two external easy-to-set rebound dampening rates. The Yamaha monoshock offers 13 different dampening adjustments.

A word about the comparative dyno chart. Dyno runs are handy tools, but should not be relied upon as offering the ultimate answer regarding engine performance. We do feel that the charts are quite demonstrative of the performance of the capabilities of these particular three test bikes, however.

Right away the chart reveals: the meatier response of the RM from 7500 to 9500 rpm, the more rapid burst of the KX from 8500 to its higher sign-off point of 10,150 rpm, and the higher rev performance of the YZ. The Yamaha we tested made less on the bottom and mid-range, revved the highest (11,000 rpm), yet made the least amount of peak power. Also notice the smoother curve of the RM as it approaches its high power point, peaks and drops off compared to the KX's fast climb to a sudden sign-off.

#### The Dirty Dozen versus The High Rev Trio

This treatise concerns itself with the impressions garnered over several outings with all three bikes while plopping one rider after another aboard. An even dirty dozen participated: all three staffers, Jim and Zeal, a local Novice racer, the former 125 national champion of Norway and five pros. With 12 riders we didn't come up with a unanimous winner, but an interesting pattern developed, based on level of rider ability. So, gentlemen, start your motors, engage your mouths and give us the dope.

#### Mini and 125 speedster, 120 pounds

I'm used to the Yamaha. I can set the suspension up for my weight. I think it has the smoothest powerband. And the forks don't wiggle in the sand; the other bikes did. I thought the Suzuki handled great, but it comes on a little faster than the Yamaha. I think it's peakier. I'm used to revving it out rather than shifting so soon, that's why the Yamaha suits me.

The Kaw was too peaky for me. I couldn't muscle it around like the other bikes, maybe that was because the forks were too stiff for me. (*Editor's note: fiddling at subsequent sessions brought a noticeable improvement in fork performance. This rider participated during the first outing only.*) I had trouble adjusting to both the shift lever and the brake pedal. My foot slipped off the shift lever. I think the Kaw would be great if it had a smoother powerband like the Yamaha or Suzuki.

I'd rank the bikes: Yamaha, Suzuki, Kawasaki.

#### Local shop-sponsored racer, 155 pounds

The Suzuki had the best powerband. There's more torque there all the way through. It doesn't turn or take the bumps as nice as the Kawasaki.

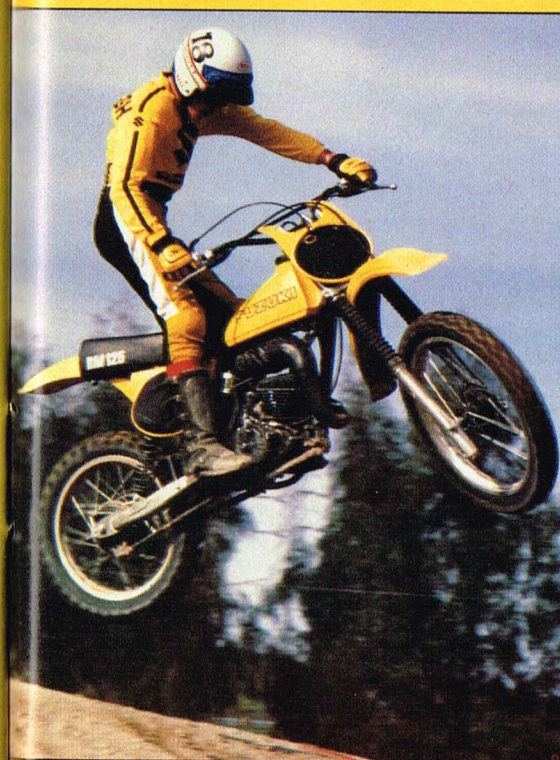
The Yamaha has the worst powerband, but it sits the best for me. The forks were harsh and it seems shorter than the other two bikes.

The Kaw has the shortest powerband but it comes on sooner than the Yamaha. It handles the best, though. I really liked the way you were able to dial the suspension in. It was the most comfortable to ride, but the power was harder to use if you didn't hold it wide open.

I'd rate them: Kawasaki, Suzuki, Yamaha.

#### Fast trail racer, 145 pounds

The Kawasaki would turn sharper and



# 125 SHOOTOUT

	KAWASAKI KX125A4	SUZUKI RM125C	YAMAHA YZ125E
<b>PRICE:</b> (approx. retail)	N/A	\$1089	\$1024
<b>ENGINE:</b>	Reed valve, two-stroke	Case reed, two-stroke	Reed valve, two-stroke
<b>DISPLACEMENT:</b>	124cc	123cc	123cc
<b>BORE &amp; STROKE:</b>	56 x 50.6mm	54 x 54mm	56 x 50mm
<b>COMPRESSION RATIO:</b>	7.5:1	8.0:1	7.7:1
<b>CARBURETION:</b>	32mm Mikuni	32mm Mikuni	32mm Mikuni
<b>HORSEPOWER:</b>	23.6 at 10,150 rpm	22.4 at 10,000 rpm	22 at 11,000 rpm
<b>PRIMARY DRIVE:</b>	3.55; straight cut	3.44; straight cut	3.28; helical gear
<b>TRANSMISSION RATIOS:</b>			
1)	2.25 (36.0 overall)	2.33 (33.7 overall)	2.46 (34.3 overall)
2)	1.71 (27.3)	1.75 (25.3)	1.88 (26.2)
3)	1.38 (22.1)	1.41 (20.4)	1.50 (20.9)
4)	1.15 (18.4)	1.19 (17.2)	1.25 (17.4)
5)	1.00 (16.0)	1.05 (15.2)	1.09 (15.2)
6)	0.91 (14.5)	0.96 (13.9)	1.00 (13.9)
<b>FINAL DRIVE:</b>	14/63; 4.50 428 chain	14/59; 4.21 428 chain	12/51; 4.25 428 chain
<b>ELECTRICS:</b>	CDI	CDI	CDI
<b>STARTING:</b>	Primary kick	Primary kick	Primary kick
<b>FUEL TANK CAPACITY:</b>	1.8 gallons, plastic	1.6 gallons, plastic	1.5 gallons, steel
<b>FRAME:</b>	Semi-double cradle chrome moly	Double cradle chrome moly	Chrome moly
<b>SWINGARM:</b>	Aluminum needle bearing	Aluminum needle bearing	Aluminum needle bearing
<b>SUSPENSION:</b>	Front: KYB air/spring forks with 9.3 inches travel  Rear: KYB gas shocks with 8.9 inches axle travel	Front: Kayaba air/spring forks with 9.1 inches travel  Rear: Kayaba gas shock, remote reservoirs, two-stage rebound dampening with 8.8 inches axle travel	Front: Air forks with 9.0 inches travel  Rear: Gas monoshock with 9.3 inches axle travel
<b>WHEELS:</b>	D.I.D	Takasago	D.I.D
<b>TIRES:</b>	3.00 x 21 Dunlop Sports Senior 4.00 x 18 Dunlop K88	3.00 x 21 IRC 4.10 x 21 IRC	3.00 x 21 IRC 4.10 x 21 IRC
<b>DIMENSIONS:</b>			
Wheelbase:	55.4 inches	55.7 inches	56.0 inches
Swingarm length:	18.5 inches	19.7 inches	19.0 inches
Ground clearance:	11.8 inches	11.8 inches	11.6 inches
Bars, height:	45.0 inches	44.9 inches	43.7 inches
width:	35.0 inches	34.0 inches	34.0 inches
Pegs, height:	14.3 inches	14.6 inches	15.0 inches
width:	18.3 inches	17.3 inches	18.8 inches
Seat height:	36.7 inches	36.5 inches	35.0 inches
Fork angle:	30 degrees	30 degrees	30 degrees
Weight, ready for gas	185.9 pounds	204.5 pounds	197.5 pounds
<b>BRAKES:</b>	Front: Conical Rear: Full-floating, conical, rod-operated	Front: Conical Rear: Full-floating, full- width, cable-operated	Front: Conical Rear: Rod-operated, conical
<b>PARTS PRICES:</b>			
Cylinder:	\$87.00	\$78.51	\$82.77
Piston:	\$13.00	\$17.01	\$14.40
Rings:	\$10.00	\$9.72	\$6.00

more precisely, but I had to really get over the front end to keep it from getting squirrely. The YZ felt the most stable in the faster, sweeper-type turns. For comfort I'd choose between the Kawasaki and the Yamaha. The Kaw had a better tank/seat combination for moving around. The Yamaha seems to be set up for the Hannah forward-crouch style of riding. Out in the sand the Yamaha was the most stable; the Kaw front end got skittery on me.

The Suzuki has the best power. It runs clean all the way through. You can get out of trouble without having to shift down. On either of the other two bikes it's downshift city, maybe twice, to keep it boiling. The combination of very peaky power and crummy shifting on the Yamaha makes it difficult.

There isn't an overwhelming gap between any of the bikes, just a combination of little things that feel better. I'd rate them: Kawasaki, Suzuki, Yamaha.

**Local expert, 175 pounds**

The Suzuki has the motor, the Yamaha turns the best, the Kawasaki is too light for me. The Kawasaki with the Suzuki motor and different shocks would be dynamite. The Kawasaki has really nice power for a pro and it shifts quite quickly. As a package it's more sophisticated, put together just like a works bike. The Yamaha power is out to lunch. When it finally does come on, the punch is too narrow. I think for the average rider the Suzuki is the way to go because of the powerband, but if you're a pro it's definitely the Kawasaki.

**Local pro, 150 pounds**

The Suzuki and Kawasaki both cornered better than the Yamaha. I'd give the Suzuki a slight edge. Flat-out in fifth the green one gets a little wiggly compared to the other two. The Suzuki had the best front end for me, the Kaw was close. The Yamaha wasn't as good over the little stuff. It would take its own line at times, but in the fast, sweepy stuff it was right in there. I'd rate the RM front end best with the KX close. The Kaw shifted good, but you had to be fast about it. I had problems with the YZ and had to use the clutch.

On power out of the hole, mid-range and top end the Kaw had it. Then the Suzuki and the Yamaha dead last. The Yamaha sits there and goes: ahhh, ahhh, ahhh and doesn't go anywhere. You have to ride the Kawasaki really hard before it will handle. The Suzuki feels good on low end and mid-range too.

All three of them could slide any way

you want. I had a few problems with the Yamaha, but I figure that's just because I'm not used to the monoshock. You can feel that the Suzuki has more travel, it takes the bigger bumps better.

Kawasaki or Suzuki, I'd take 'em both. I think the Kawasaki will sell. I was staying with Warren Reid out there on the track just now riding the KX. I couldn't have done that with the other two bikes. I might raise the gearing on the Kaw a little.

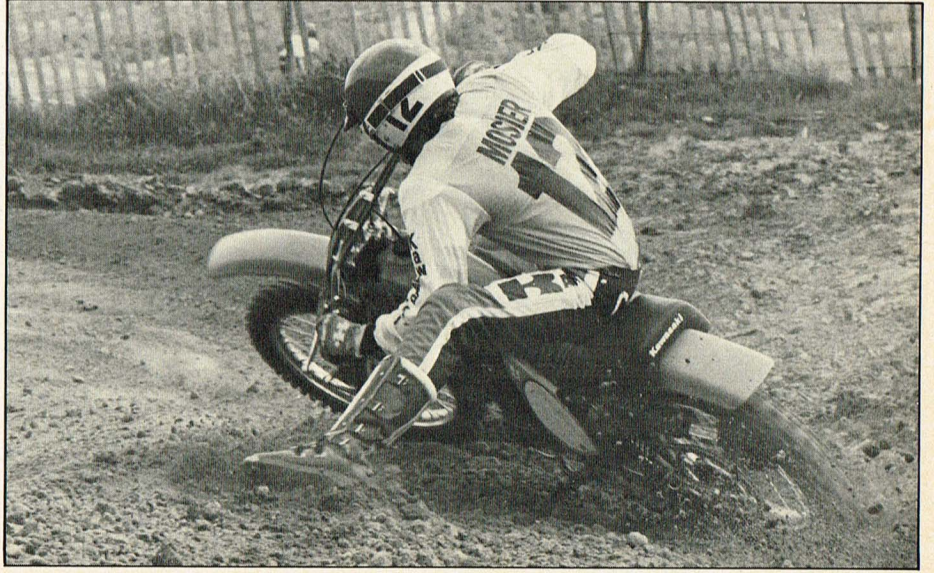
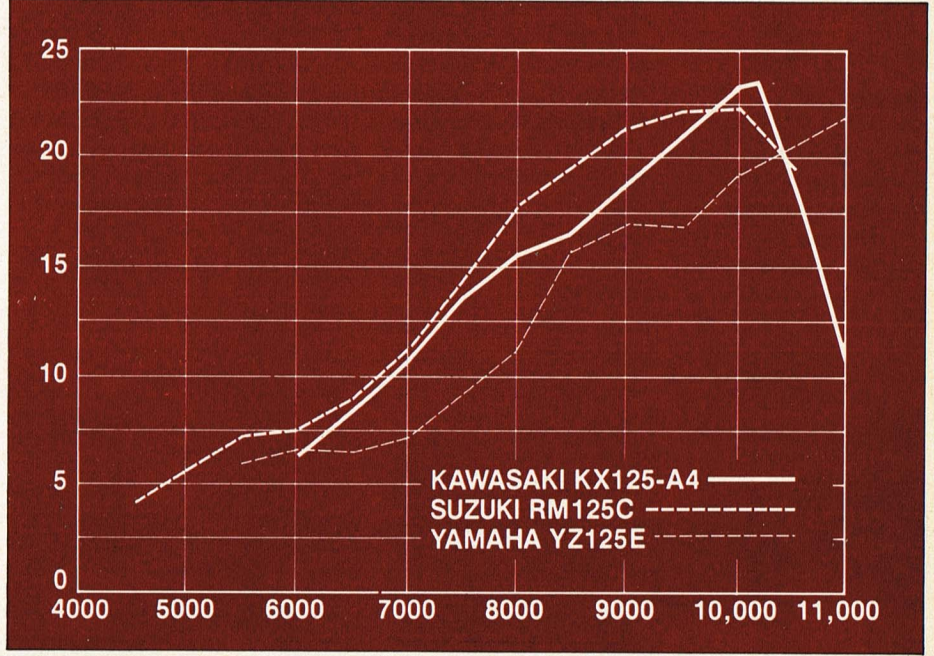
**Pro rider, 175 pounds**

On the YZ the rebound dampening was too soft. I couldn't get in a comfortable stand-up position. The gearbox is crummy, in a word. I was missing shifts and you can't hold the throttle on when

you shift. I like the way it steers. It won't understeer on you. The power is competitive, but you have to use the clutch.

The Suzuki definitely has the best powerband. It's wider and there's more of it. There's always something there to use, and lots of places you don't have to use the clutch to keep the revs up. I found the RM the hardest to jam down into a corner. The gearbox is great. It wasn't as easy to move around on as the other two bikes were.

The KX had the best overall feel. It fit me best. It feels more European. It's lighter by a bunch and very nimble. The gearbox is beautiful. I like the way the front end responded to some fiddling. It was too stiff at first but it really got dialed in. The power is excellent up to



# 125 SHOOTOUT

the top rev range, then it flattens out. It finishes too soon. And if you press really hard for a long time it seems to lose a little power. It turns well, but the front tire seemed to skitter some in the hard, slick stuff. Knocking an inch off each end of the bars really helped.

I'd pick the Kawasaki first. It's a virtual works bike. There's no 15 pounds to take off. I'd put the Suzuki second. I like the range of adjustability of the suspension. Then the Yamaha.

## Zymrxk spelled backwards is . . .

By now you probably noticed the pattern. The pro riders leaned toward the Kawasaki. It's a virtual works bike, super-light and radical, and has to be ridden to the limit to get the most out of it.

All who expressed their preference for the KX were quick to point out that you really had to stay on it. Take it out for play and it's not the best package. But get down to some serious go-for-green ground-covering and it shines. The degree of ability needed to ride the Green Gasser successfully is proportional to the difficulty of terrain it's asked to tackle.

On smoother tracks the less-experienced rider probably won't have that much trouble keeping it on the petrol. But as the bumps and ruts and

cambers and climbs appear, so must additional riding talent to keep the KX up in its narrow powerband.

As delivered the KX's forks were not the best performers, but after fiddling (reported on in the July test), almost every rider called them the best or placed them side-by-side with the RM's.

Almost everyone gave the Suzuki the nod for having the widest, most usable powerband. It was this feature that made the bike attractive to our less-than-Expert riders, those who don't tach it up to 16,500, shift down seven times and cry: Kaaieeie into the next straight.

The RM forks worked best as delivered, so satisfactorily that we didn't need to play around with them.

No doubt for casual play or trail racing the RM is the best pick. It obviously has been getting the job done for the more serious competition racer over the past few years, for Novice and Expert alike, to become the most popular 125 around. Ever notice that the majority of the privateers on the National circuit choose the RM?

The new greenie now offers another alternative, but its limited production status right now and probable higher price may not make for a green swarm. The RM hasn't really been replaced on top, it's merely been asked to scoot

over some for a portion of the market capable of keeping the green bermshooter on the boil.

Same-day testing found the Yamaha least favored by our dirty dozen. The peakier factory porting in the E-model may appeal to some pros, but many riders are finding the narrower, raised-in-the-rev-range power burst harder to handle. The forks seem to be the least efficient. The seat/bars/pegs relationship turns off larger riders because it puts them in a "jockey" riding position. Conversely, this could appeal to a smaller rider.

During the shootout we experienced the same gearbox reluctance noted with another unit used for the individual test.

Obviously, the bike wins and it's fairly close to last year's factory scooter, but it was the least favored by our mount swappers. Yet one of our testers who had reservations about the bike put a couple of races on it and returned it with a satisfied smile.

So there you have it. We still see the RM as King Ankle Biter for the majority of riders while acknowledging the Green Meanie as the ono pick for the serious pro. But you've been warned. If you don't have the brass to make the green go, you may be blue for not going yellow. ■

