
RM125

GOOD GETS BETTER

It's new, it's different, it's one year faster.

SUZUKI RM125A

by the Staff of DIRT BIKE

Only last spring the potent Suzuki RM series was unleashed with the introduction of the RM125M. It was a well thought out, good handling, fast and reliable race-ready package. Definitely the hottest 125cc motocrosser available at that time. Now, less than a year later, a new RM125 has emerged: a completely redesigned motorcycle reborn as the RM125A. The changes are not just cutting and welding, along with some new parts, as were those on the first RM (which was basically a much-modified TS model street/trailer). The RM125A is practically a whole new bike. The only components utilized from last year's model are the wheels, hubs and fork assembly.

The new A model is basically a

scaled-down version of the larger RMs, with their proven reed intake system and a gracefully tapering, through the frame up-pipe which enabled the center of gravity to be lowered slightly, while still allowing enough clearance for the long travel suspension.

WHAT'S NEW, WHAT'S BETTER AND WHY

The addition of a sixth gear and the power reed necessitated the design of an entirely new engine. About the only resemblance to last year's 125 is the 56mm by 50mm bore and stroke configuration.

The purpose behind the power reed is to feed the mixture into the crankcase at high rpm. Inlet port timing is slightly mild, in order to produce a greater torque output in the low to mid-range area and to minimize the chance of mixture blow-back through that range. At high rpm, the reed takes over to give an extra boost. The end result is more power spread throughout a wider rpm range. And that power is easier to use because it builds more smoothly.

Six studs are used to secure the head to the cylinder as with the 125M, but they have been rotated 30 degrees so that the space directly in front of and behind the plug is clear and the cooling airflow is not disrupted. A smaller copper head gasket is now used to improve heat transfer to the head, ensure a better seal, and provide a better centering of the squash dome. Compression ratio is up slightly, from 7.4:1 to 7.6:1.

As in the larger RMs, two small holes are drilled through the exhaust side of the piston, allowing the mixture through to cool and lubricate the exhaust port rib. To beef up the top end still further, the piston pin hole has been increased from 14mm to 16mm to allow for larger needle bearings. A little higher up, the two Keystone rings have been reduced from 1.5mm to 1.2mm, reducing weight and sliding friction against the cylinder walls. Hanging off the back of the intake manifold is a 32mm Mikuni that replaces the 28mm unit on the old M.

Burnt exhaust gasses, flame and smoke make their exit through the new upswept expansion chamber. It fits closely, just as do those on the larger RMs. Antiquated, crumpled downpipes are rapidly finding their place as garage and race shop ornaments throughout the world.

A little more here and a little less there. It all adds up to 24.1 horsepower. That's over five-and-a-half horses more than the RM125M we tested last year, and a new production 125 record. The most we had gotten out of an eighth-liter screamer before this was 22.3 — out of the new CR125M Honda. Although their powerbands are similar in that both are peaky, the Suzuki has a usable mid-range in which you can turn it on and be pulled into the real powerband, a feature not found in the Honda.

Shifting gears is smoother and easier now, due to the switch from the old pin actuated shift drum to the gear actuated design found in the larger RMs. To finish off the engine changes, Suzuki added an extra gear (a total of six) and a couple of extra clutch plates to give more area and added durability.

On to the chassis. The old standard carbon steel frame tubes have been replaced by racy chrome moly stuff. Formed sections of high-tensile strength steel plate now make up a very rigid swingarm. Keeping track of that beefed-up swingarm is a new set of nitrogen gas/oil Kayaba shocks with 40mm diameter bodies (compared to 30mm on the 125M). The idea here, of course, is to minimize dampening loss due to heat. In addition, five air slots are molded into the side number plates to allow further cooling of the shock bodies and the oil within. Actual shaft travel is up a bit, and by the time it gets to the rear axle you're talking about an additional 12mm of travel over and above last year's 200mm. Three spring preload positions are available by relocating a snap ring.

In the front suspension department Suzuki has retained the conventional inline axle arrangement, with a set of forks identical to last year's — except that the left leg no longer has a clamping arrangement like the right leg has. The axle merely passes through the leg and is tightened on the other side. Fewer studs, nuts, washers, parts and weight.

Under the fork cap bolts are a pair of spring adjusting spacers which can be inverted to add about a centimeter of preload to the springs. The caps are conveniently located far enough forward so that you can remove them for oil changes without

Check it out. Shock body diameter is up from 30mm to 40mm to increase oil capacity; there are breather holes in the side to aid shock cooling; rear axle travel is up 12mm, making it 212mm; the engine is all-new, with an extra gear (sixth) and a power reed; horsepower is up to 24.1: there's an up-pipe now; the tank is lightweight aluminum; new fenders; new tires; new air box and filter; new swingarm and chain guide; and a chrome moly frame. Quite a difference between this and. . .

. . .last year's.

loosening or removing the bars.

Upon close inspection of the RM125A, you notice that there are many parts which are either very similar to, or interchangeable with, those on the 250 and 370. For instance: the front wheel, front fender, pipe mount, throttle, clutch and brake controls, chain guide, footpegs, kickstarter, gas cap and petcock, seat and fork protectors are directly interchangeable with those of the 250 and 370 RM. Even the bars are the same, except for being 45mm narrower. The air box is much larger now, and is made of high-grade plastic. Along with the bigger box, you get a larger oiled foam filter which measures 163mm in diameter and 79mm in width — as opposed to 154mm by 62mm on the 125M. A large slip pin replaces the wing nut and small slip pin used before. This new setup takes one-third the time and effort.

The seat is actually a bit better than that of the big bikes because its base is made of a strong, lightweight plastic. Threads are riveted to the base to secure the front and side seat mounts — four bolts up front and two each on the sides. On the old sheetmetal base, these mounts were spot welded and occasionally broke off. These new seats will hopefully be standard on all RMs soon. The fuel tank is now made of lightweight aluminum alloy, and, like the 250 and 370, looks as though it's the same unit found on the factory bikes.

OUT THROWIN' IT AROUND

The first thing we all noticed and agreed on was that the 125A handled exactly like a 250 RM with about 13 kilos knocked off its weight. Turns are made with the same precision, more thought than action. The motorcycle does the work. Although the front axle isn't mounted forward of the forks, it feels as though it is. The front end always stuck, never playing any funny tricks. It also did a fine job of absorbing the shocks, large and small, while keeping the front tire in contact with the earth.

We did notice one slight front end deficiency when landing from anything larger than a medium-sized jump. The springs were maybe just a tad soft for our heavyweights,

Magnesium side cases; new brake pedal; new footpegs; 32mm Mikuni; slick pipe; and still more breather holes.

SINCE YOU ASKED. . .

Now that you know the changes and good qualities of the new RM125, we thought that you would like to know how it stacks up against the other top brands in its class.

All of the top brands are getting so good these days, and their qualities so similar, that it is often just personal preference that helps you decide which bike to buy.

In the case of the new RM, there are some obvious points that made us choose it over the new Honda, but only by a small margin. Things like better rear suspension, a more usable powerband and more precise steering. The Honda slides and shifts a little better than the RM. If you're really into mono-shocks the YZ is the way to go for you.

What we are trying to say here is that the differences between the YZ, RM and CR are so small and related to personal taste that anyone trying to say that one is better than the other is making a serious mistake. They are that close. It's like choosing between calling Raquel Welch, Ann Margret or Ali McGraw. If you know what we mean.

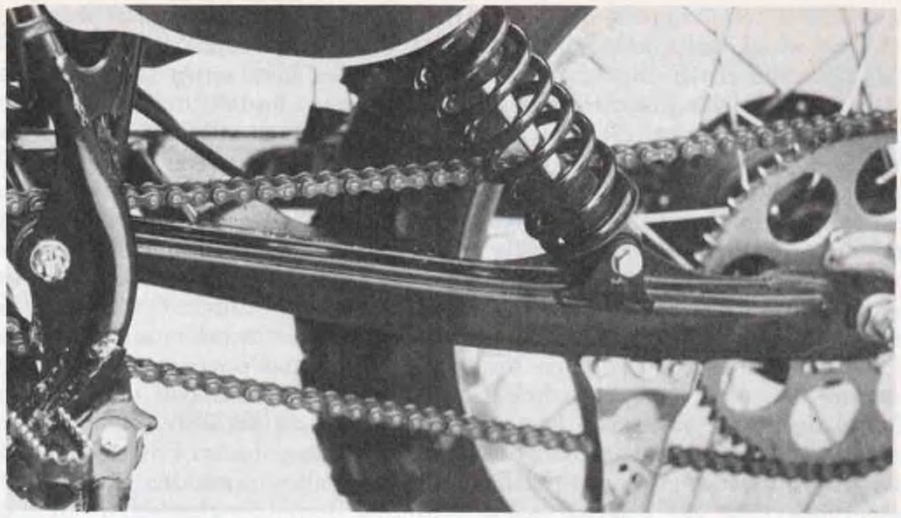
The only other 125 we can think of, that we have tested, that comes close to these bikes is the Husky 125 CR that impressed us a lot, but then we are talking an entirely different price range.

because there was a slight bottoming accompanied by a clicking sound. It was by no means harsh, but it was there.

The rear end worked perfectly for everyone who rode it. We never even changed the preload from the soft position. You couldn't ask for more in shock action and keeping the rear tire hooked up through the holes and over the whoops. No one noticed a change in dampening no matter how long or hard we rode it. It worked fine for riders weighing 135 to 200 pounds.

Bridgestones come front and rear, and work well on a wide variety of surfaces from mud to hard-packed adobe.

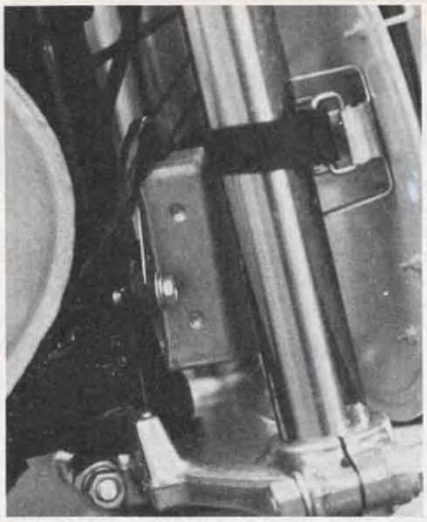
Although the Suzuki had almost two full horsepower more than the



High tensile strength steel plate swingarm, with RM250/370 chain guide, with roller.

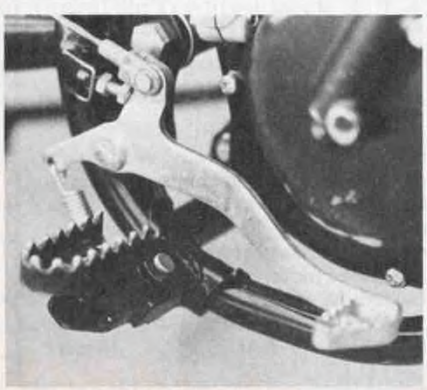
new Honda, it didn't feel like it. On a track they are very even. What's there is easier to use, though. The power reed gives it more on top, while it still has a bit of mid-range that comes in very handy at times. Still, you are shifting constantly. When accelerating hard, there's never more than a second and a half between shifts. When dragging the Suzook against the red Elsie, the Honda would pull away when you'd flip it into fifth, while the Suzuki was in sixth and soon tapped out. The RM is just geared a little too low for most tracks. It could easily pull an extra tooth on the countershaft, or, maybe better yet, you can replace the 57-tooth steel rear sprocket with an aluminum 53-toother. Then, the bikes would be approximately equal as far as top speed goes. First gear on the RM125A is a little too low anyway.

When we first got the bike, George took it to Saddleback on Saturday for a couple of 40-minute motos. About 15 minutes into each moto he experienced a slight power loss due to the heat buildup and a little pinging with the throttle in the mid-range. Since he didn't have any needle jets with him, he just kept it on the main jet, where it ran fine. No problem. Then towards the end of the first day of serious staff testing, Zeal came back pushing the RM with a seized piston. It was really our fault, because we hadn't spent enough time fine-tuning the bike in the mid-range, but basically had left the jetting stock, the way it came from Suzuki. It had an R-O needle jet, but with a new piston and bore, an R-3 (which is richer)



Pointless electronic ignition black box is now silver, and located on steering head — like the other RMs.

This is the same hub, brakes and backing plate as on the larger RMs, but with a different cable and actuating arm. We feel that these ridgeless, shoulderless Takasago rims are a tad stronger than the ridged, shoulderless numbers on the other RMs. Axle now slides through this side and is clamped only on the right side.



Pegs and brake pedal are very nice in design and function.

cleared up both the overheating and most of the pinging problems. It still pings a little when pulling hard and not quite on wide-open throttle, so an R-4 is the way to go. We had no more problems after that

Every time it was necessary to stop, the brakes worked smoothly and progressively with a nice feel to them, the front a little bit better than the rear. The rear brake pedal is out of the way till you need it, then it's there.

MORE DETAILS

The bar, seat, peg relationship is excellent. If you are into sitting back and relaxing, the rear suspension and seat combination is very comfortable. The pegs are the same as those found on the 250 and 370 and do their job very well.

The RM125A always fired up right away and we never so much as broke a spoke or dinged a rim.

TAKING THE CHECKERED

Suzuki's got it wrapped up. Add a tooth up front or take four off the back and get an R-4 needle jet. That's all you'll need. As fast as those boys are, you might not even have to do that by the time you read this. It's got the combination of handling, power and suspension that you'll need to win. We liked it so much that we asked if we could keep it for a year, to see what shakes down and to have something to compare other 125s to. Suzuki said "yes." That's confidence. We'll keep you informed.

SUZUKI RM125A

Price:
(approx. retail, West Coast) $995
Engine:
Two-stroke single, piston port and reed valve
Displacement 123cc
Bore & Stroke ..... 56.0mm x 50.0mm
Compression Ratio ..... 7.6:1 (actual)
Carburetion ..... Mikuni VM32SS
Standard Jetting:
Main jet #280, pilot jet #30, jet needle 6DP5 — 3rd, slide cut 2.5, needle jet R-O, float level 31.8mm, air adjusting screw 1½ turns open
Horsepower ..... 24.1 at 10,000 rpm
Clutch:
Wet, multi-plate with aluminum and fiber discs
Primary Drive:
Straight-cut gears, 3.705:1
Transmission Ratios:
1) 2.333
2) 1.750
3) 1.411
4) 1.190
5) 1.045
6) 0.956
Final Drive:
Daido #428TM
14-tooth countershaft
57-tooth rear sprocket
Air Filtration:
Oiled polyurethane foam element
Electronics:
PEI (Pointless Electronic Ignition)
Starting ..... Primary kick
Lubrication ..... Pre-mix, 20:1
Recommended Fuel ..... Premium
Recommended Oil:
(a) B.P. Racing; (b) Shell Super M; (c) Castrol R30; (d) Golden Spectro Synthetic Blend; (e) Bel-Ray MC-1 Two-Cycle Racing Lubricant
Fuel Tank Capacity:
6.0 liters (1.6 gallons)
Frame:
Chromium molybdenum, semi-double cradle
Suspension:
Front: Kayaba telescopic forks, 200mm (7.87-inch) stroke claimed, 182mm measured;
Rear: Kayaba nitrogen gas shocks, offering 212mm (8.35-inch) axle travel
Wheels & Spokes:
Takasago ridgeless, shoulderless rims 1.60-inch front, 1.85-inch rear width; 3.5mm straight spokes
Tires:
Front: 3:00 x 21 Bridgestone Motocross 7
Rear: 4:10 x 18 Bridgestone Motocross 10
Dimensions:
Wheelbase ..... 140.6cm (55.3 inches)
Swingarm length ..... 50.9cm (20.7 inches)
Ground clearance ..... 27.0cm (10.4 inches)
Bars, height ..... 112.0cm (44.2 inches)
Bars, width ..... 84.5cm (33.3 inches)
Pegs, height ..... 33.5cm (13.2 inches)
Pegs, width ..... 44.0cm (17.3 inches)
Seat height ..... 88.6cm (34.8 inches)
Fork angle ..... 30 degrees claimed
Weight:
85.2 kilos (188 pounds) without petrol; 47.3% on front, 52.7% on rear
Brakes:
Front: Full width, cable-operated drum
Rear: Conical, cable-operated drum
Instruments ..... None
Lights ..... None
Silencer ..... Yes, but MX only
Spark Arrestor ..... No
Warranty ..... None
Parts Prices:
Piston $14.40
Rings $5.58
Clutch cable $5.34
Brake pedal $7.64