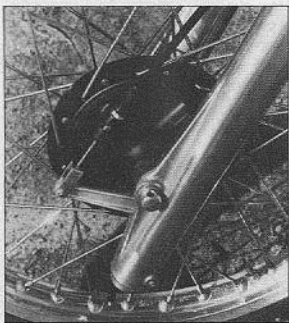


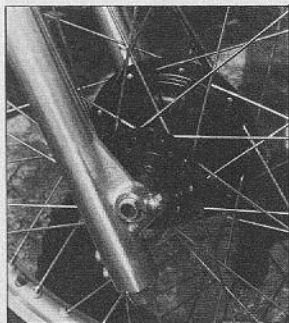
YAMAHA YZ400E versus SUZUKI RM400C

and the use of a Teflon bushing inside the monoshock. The Teflon bushing improves the feel of the shock over last year. The Suzuki's shorter rear wheel travel, by almost an inch, makes the rear of the RM sit lower.

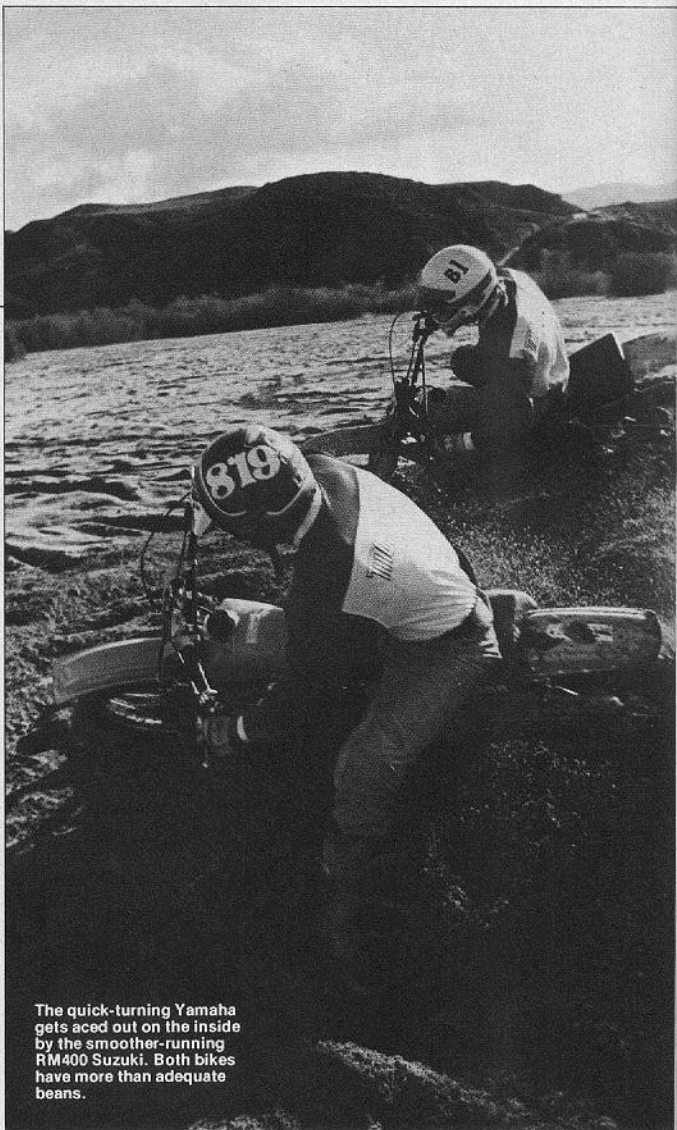
The front forks on both bikes are equal. Kayaba makes the forks for both companies. There are differences in design, but these intricacies work out to achieve the same result. The lower slider of the YZ400E front fork has been increased 20mm. This additional slider improves the fork overlap and also increases the air/oil volume for



The Suzuki and Yamaha share the same basic front forks. Only the cosmetics have been changed to protect the Innocent.



The Yamaha front forks have two drain plugs machined to the legs. One is blank but is left over from last year's forks which were 20mm shorter.



The quick-turning Yamaha gets aced out on the inside by the smoother-running RM400 Suzuki. Both bikes have more than adequate beans.

more adjustability. Suzuki had extensions added to the upper legs of last year's RM250C front forks to increase the air/oil volume and topped it off with a totally new set of triple clamps.

Both bikes are using aluminum swingarms in 1978. The Yamaha swingarm is a class construction compared to the Suzuki swingarm. Perhaps fears of breakage or liability reared their ugly heads in Hammamatsu, because the Suzuki swingarm is larger than the old steel

swingarm and perhaps the epitome of unattractiveness. The axle mounting plates are cut by hand out of aluminum stock on the Suzuki. Yamaha has the axle plates forged. In addition, the MIG welding on the Suzuki is sloppy. Suzuki's new shocks are an improvement. Kayaba has added adjustability into their previously over-dampened gas rear shocks. By removing the springs and turning the shaft, a *la* Koni, the damping can be adjusted three ways. The bikes come stock on the stiffest position.

ENGINES AND POWER

The Yamaha is faster. The Yamaha's power is more explosive and more direct. We are discussing 400cc motorcycles, so neither bike is slow, but Suzuki opted for a mellow powerband. The 80mm x 80mm bore and stroke of the RM400 delivers its power in a nice, steady dose. Again, Suzuki has served up a short-shifting motorcycle. There is little or no top-end power on the RM. The best riding technique is to shift, shift and shift again.



The Yamaha plastic tank is the epitome of style when new. Later on the decal will bubble up.

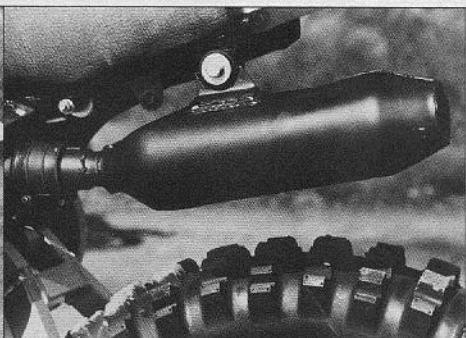
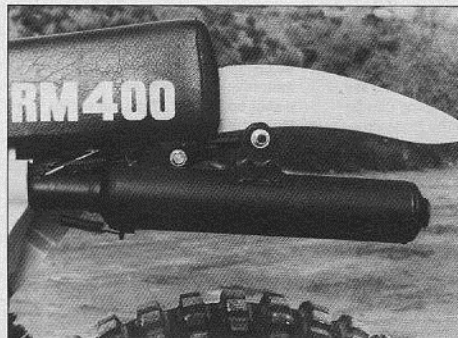


Suzuki has a better gas cap and is similar in shape to the Yamaha, but misses out on the graphics.



Any bike will work in a 100-percent traction situation, but how many will work in a 130-percent traction position? Not the RM400C.

YAMAHA YZ400E versus SUZUKI RM400C



The Suzuki silencer is long and thin while the Yamaha method of toning down the bark is short and fat. For all their size they could be a lot more effective.

RM400C SPECIFICATIONS

Make Suzuki
Model RM400C
Country of Manufacture Japan
Retail Price \$1699

ENGINE

Type Single-cylinder, two-stroke,
case reed valve
Bore and Stroke 80mm x 80mm
Displacement 402cc
Compression Ratio 6.7:1
Carburetion 36mm
Ignition CDI
Lubrication Pre-mix
Air Filter Oiled foam
Transmission Five-speed

CHASSIS DIMENSIONS

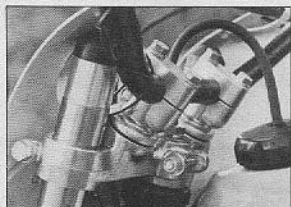
Overall Length 84.8 inches
Overall Width 34.6 inches
Overall Height 48.2 inches
Wheelbase 57.3 inches
Ground Clearance 12.2 inches
Dry Weight 238 pounds

CAPACITIES

Fuel 2.2 gallons

SUSPENSION

Front Air/spring telescopic fork,
Kayaba
Rear Kayaba gas shocks, three-way
adjustable



Suzuki's new triple clamps have rubber-mounted handlebars and bar-backs this year. The forks have their volume increased by a large, extended fork cap.

YZ400E SPECIFICATIONS

Make Yamaha
Model YZ400E
Country of Manufacture Japan
Retail Price \$1598

ENGINE

Type Single-cylinder, two-stroke,
reed valve
Bore and Stroke 85mm x 70mm
Displacement 397cc
Compression Ratio 7.6:1
Carburetion 38mm Mikuni
Ignition CDI
Lubrication Pre-mix
Air Filter Oiled foam
Transmission Five-speed

CHASSIS DIMENSIONS

Overall Length 84.1 inches
Overall Width 35.8 inches
Overall Height 46.5 inches
Wheelbase 56.7 inches
Ground Clearance 11.4 inches
Dry Weight 227 pounds

CAPACITIES

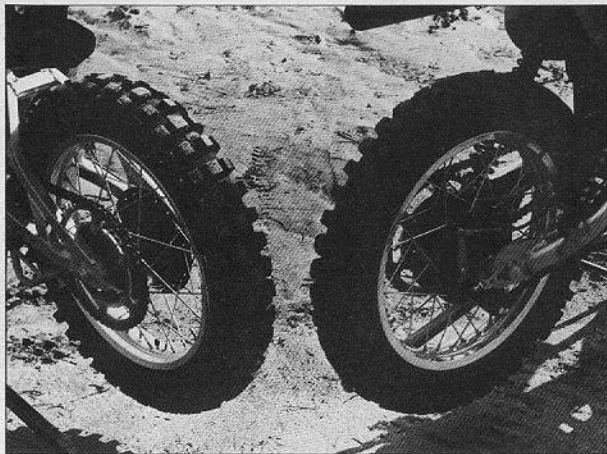
Fuel 2.1 gallons
Oil Tank N/A

SUSPENSION

Front Air/spring telescopic forks,
Kayaba
Rear Kayaba monoshock



If a winner had to be chosen in the handling category, the Suzuki RM400C was much more controllable and fun.



The business ends are shod with the same set of sneakers.



Coming over a straight-edged bump, both bikes hopped the same height. Both monoshock and Suzuki shocks are adjustable.



Yamaha utilizes an 85mm bore and 70mm stroke paired with a 38mm Mikuni that pumps through a conventional reed valve. Suzuki's long-stroke motor uses a 36mm Mikuni and case reeds. The bikes share the same ignition, but have a different philosophy of power. Yamaha gives you a goose and a half, while Suzuki gives the bike a mellow pull. In going for the holeshot the Yamaha would win every time if there was traction. Without traction, the Suzuki's smoother powerband should take the nod.

The engines also play an important part in the design of the frame and then ultimately in the handling of the bike. The Suzuki engine is small and compact. The RM400 engine is two inches shorter than the YZ400 engine. The RM400 swingarm is over one inch longer than the YZ400 swingarm. The longer swingarm accounts for the RM's steady feeling around the tracks. When you add the short wheelbase of the Yamaha with its quick handling and explosive power, you get wheelies. But you don't always get them when you want them. The Suzuki's longer wheelbase, lower weight and smoother power make it easy to handle.

RIDING STYLE

The Yamaha sits tall, turns sharp and has a healthy kick when the wick is turned up. To ride the Yamaha a rider has to get back and relax. Stay calm and supple. The YZ400 is best handled by staying over the rear wheel through the rough stuff and putting your fanny on the seat through the turns.

The Suzuki sits much lower thanks to a flat seat design. It requires the rider to move up on the tank in the turns, and to work the shifter whenever possible. The Suzuki will benefit from hard riding more than the Yamaha will.

Both bikes will hop through the rough stuff. We made repeated attempts to see which one would hop the highest, farthest or longest. When we tried to do it, neither bike was a standout in the out-of-control area. But when we weren't concentrating on trying to do it we found that the Yamaha had a slightly higher tendency to hop and swap.

DURABILITY AND SERVICEABILITY

These bikes are so much alike in design and components that trying to find the breaking point for either one is not easy. The tires are equal on both

(continued on page 68)



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YZ400E VS. RM400C

(continued from page 55)

bikes, the rims are equal, the forks are equal. Both bikes have rotten air cleaners that will shorten their lives considerably. Lately it seems that a good Japanese motocross bike, raced every week, will last a rider about eight months. After that the tolerances are so far out that servicing to bring it back to life is an expensive effort. If you don't race as much you can lengthen the figure, or if you don't take care of the bike very well you can shorten it. Putting good air filters (JT Racing Phase 2) and good oil into your bike will make it die gracefully somewhere farther down the road.

Surprisingly, we broke both bikes. The Yamaha has a new, stronger chrome moly frame which is much better than last year's. But we loosed the YZ400 and did the rear of the frame in. The bike wasn't totaled, but the seat did take on a new stylish angle. We hit the frame with a two-by-four and got the two frame tubes back in line, but the bike never felt the same. Then one day we sent it over to Yamaha to have new fenders put on it and when it came back it was a different and new bike (just like the one we started with).

The Suzuki engine has always been one of the strongest and most reliable units around. Engine life on the Suzuki is longer than on the Yamaha, normally. We blew the top end on the RM400. It was a rainy and muddy race day at Saddleback Saturday and a ring snapped halfway through the first moto. The bike didn't stop running. It just lost all its power. But it was so muddy that everyone else was crashing. Dennis on the Yamaha 400 was running second and Jody was running third on the Suzuki. Too much power on slippery mud is worse than no power, so Dennis finally spun the YZ out and Jody got by, but he killed it in a mud puddle and the race was over. The Suzuki had zero compression, but kept on running anyway.

DETAILS

The Yamaha is a better looking and much more striking motorcycle. The Suzuki looks a lot like a PE250 enduro bike. Both bikes have mediocre handlebars. Yamaha used to have the weakest handlebars in the industry, but this year they increased the crossbar from 10mm to 12mm. Both bikes have

large silencers that don't work as well as their size would indicate. The Yamaha has an excellent chain tensioner and several nylon rollers placed around the frame to guide the chain. The Suzuki chain tensioner is not nearly as zoot-capri. The Yamaha tank decals bubble up and get pretty grotesque looking. The Suzuki decals aren't as stylish, but they stay put. Yamaha has not yet improved the cheesy little middle-of-the-seat mounting system for holding the saddle in place. Suzuki maintains its old reliable method. Both bikes have new front number plates. The Suzuki plate has built-in cable guards, and mounts directly to the triple clamps. Bravo! Yamaha has a new two-sided plate that can be flipped over, but it still mounts to the fork legs with rubber bands. Suzuki stole the snazzy-looking cable guides from Yamaha to direct the front brake cable down the fork leg. Yamaha has the old-fashioned choke lever, while Suzuki still uses the newfangled pull pin. But Mikuni finally added a plastic handle to it. Suzuki has a better gas cap. It even has a little strap on it to keep it from falling in the dirt.

THE SHOCKER

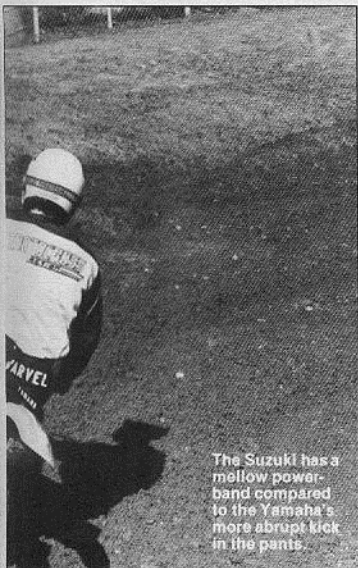
We knew that the Yamaha YZ400D



was a porker. When you fill it up with gas and head for the starting line it will go about 245 pounds. The aluminum swingarm has made the E-model only two pounds lighter than the D-model. The shocker of the whole test was that the Suzuki RM400 weighs more than the Yamaha!

The average open class rider is several years older than the 250 or 125 rider. When an open class rider buys a new bike he normally gets involved in the details and maintenance of the bike more than any other rider. The open class bike doesn't break as often and thus it allows the rider to spend more time riding and analyzing.

The Yamaha YZ400 and Suzuki RM400 are worth analyzing. And after careful consideration, finding the right machine will not become a matter of which bike is better, but which philosophy of riding is more suited to the individual. Get a test ride on both machines and, most importantly, talk to your friendly local dealer. When machines are this close to each other in competitiveness it means that the peripheral items become more important than ever. Neither of these two bikes is the best open class motorcycle made, but you could beat the best on either one.



The Suzuki has a mellow power-band compared to the Yamaha's more abrupt kick in the pants.



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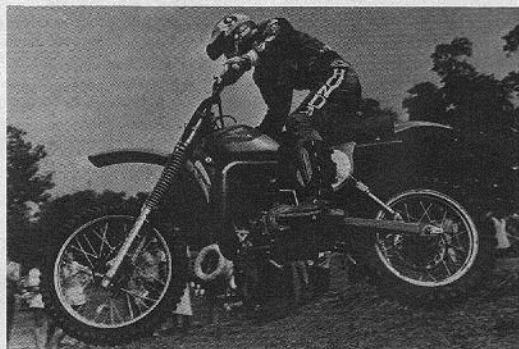
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