

**SUZUKI
AMA400C TEST**

250 MX SHOOTOUT: RED, GREEN & YELLOW

DIRT BIKE

MAY 1978 • \$1.00 UK60p

**SUPER CROSSER
YAMAHA YZ250E**

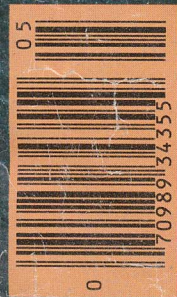
**BULTACO 350
SHERPA T**

**YAMAHA
XS400E**



Bob Hannah

**YAMAHA IT175 TIPS
GO FASTER WITH BRAKES**



DIRT BIKE

VOLUME EIGHT NUMBER FIVE
MAY 1978

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ON THE COVER:
Bob Hannah stylin' at Indian Dunes.
Can you tell if he's wearing underwear?
Photo by Len Weed

NEXT ISSUE ON SALE MAY 18



SUZUKI



More muscle for the yellow blitz

By the Staff of DIRT BIKE

□ Today, to have a truly up-to-date machine, it would be necessary to make major improvements to the machines every few months rather than each year, if that often. This is exactly what Suzuki has been doing for the past couple of years. If improvements could be made, they made them. Even to the point of approaching the market with new models when many of the models they replaced were still on the dealers' floors.

In a class that claims less than 15 percent of all motocrossers sold, Suzuki has seen fit to market an RM370A, a B model, and now, the RM400C, all within a period of less than two years. The idea is to give the people what they want when they want it.

The engineers at Suzuki started at the middle and worked their way out in both directions, leaving very few parts untouched.

Going from 372cc to 402 was accomplished by squaring the engine — upping the 77mm bore to match the 80mm stroke. A single ring replaces the two rings found on the smaller 370 piston. The exhaust timing has been retarded slightly by raising the port two millimeters. From the outside, the only obvious change is the small indent in the right rear of the cylinder and head to allow more clearance for the starter pedal. The head was also changed internally to match the larger bore.

The changes were made to gain more bottom-end and mid-range torque and to smooth the transition between each range. Suzuki also played with the exhaust system. It now has a longer and narrower belly, a larger-radius bend and new taper in the head pipe and a new secondary silencer.

As you can see by our dyno chart, their work was not in vain. They came up with more torque and ponies just where they wanted them. Those who are even more power-hungry get detailed specifications on how to modify the 402 to get a crazier top end and a full-on rocketship effect by contacting their local dealer.

Up front you'll find forks similar to those found on the C-model 250, but

with stiffer spring rates for a tad more resistance on initial compression. In addition, the new forks have more rebound dampening and a greater oil capacity than those on the 370B. Axle travel has increased from 219mm to 243; nearly an inch. Another degree of adjustability is added by the air filler valves. The fork caps are quite tall to allow more air volume.

Suzuki has followed in the footsteps of Maico and Husky by changing to rubber-mounted handlebars — something their works machines have had for some time. The rubber cones absorb much of the vibration and shock that is normally transmitted to the bars. This design also provides a backsweep to the bars to "slow down" the steering and allows you to work on the forks without loosening the bars.

One of the more visually significant changes to the 400 is the new box section aluminum alloy swingarm. It looks considerably trickier, if not stronger as well, than the 370's. As before, it pivots on caged needle bearings, but they are now larger in diameter. The 400 swingarm is the same length as the 370's and is interchangeable with earlier open-classes.

You'll find a rear brake torque arm mount on the swingarm's underside. On the 400, the torque arm mounts directly to the frame with rubber bushings to get maximum suspension and braking performance by separating the two forces. The full-floating rear backing plate pivots around the axle on a double row of ball bearings for maximum smoothness and durability.

Two-stage Kayaba gas shocks are standard equipment on the 400. By simply rotating the bottom eyelet 180 degrees, an additional lighter rebound dampening setting can be had. The two settings available bracket the rebound dampening rate found on the 370 (which was a sort of happy medium). A smooth course with small bumps would probably call for the lighter setting. A rough course like Carlsbad would be easier to ride with the shocks set on firm rebound. They come stock set on

RM400C

SUZUKI RM400C

"firm." A 180-degree turn clockwise will give you "light." It's as simple as that.

The new shocks are 20mm (from 375 to 395) longer and have a 10mm-longer (120 to 130) stroke. At the rear wheel this translates to an additional 24mm of axle travel, which gives you 243mm, or just over 9.5 inches. New spring rates which start out lighter and end heavier than the 370's are also a part of the new rear-end package. The idea here is to give better performance over a wider range of track conditions.

Aside from relocating the upper shock mounts a tad higher and forward for the longer shocks, the chassis is the same fine chrome moly unit as found on the 370B. The footpegs have been beefed up a bit for added durability, and the right peg now extends out a few millimeters farther than it did before for better grip.

Although the new plastic fuel tank is surely much more durable than the old super-light aluminum unit, it is definitely not as trick. It looks like an accessory add-on. We prefer the flowing designs we have come to expect from Suzuki. Whatever. It holds plenty of fuel and is easier to fill because of the larger-diameter filler hole. At least you won't be denting it every time you kiss it with your knees. That's progress.

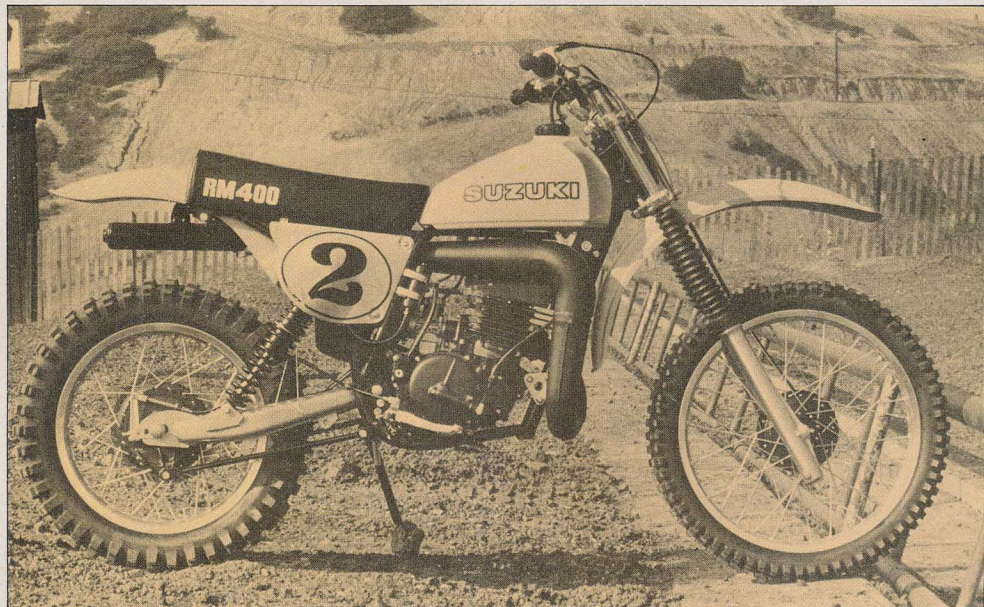
Also new in yellow plastics this year are the fenders and front number plate. The plate design is right off of the works bikes, right down to its screw mounting to the crowns. Integral flaps reach up and loop around the crossbar to ensure smooth front brake cable operation. Deep ribs are now found in both the front and rear fenders to minimize flex when they are loaded down with sticky glop.

Turning the yellow streak into a golden blur

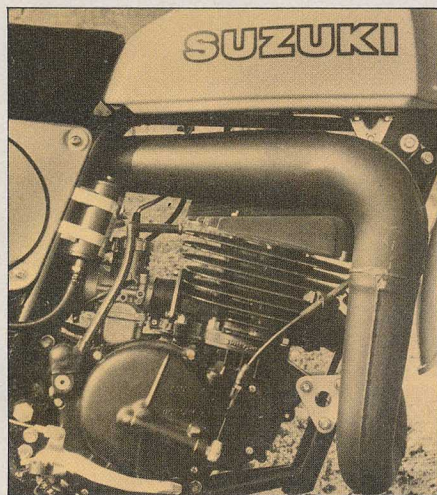
The 400 is a very quick motorcycle. Anyone who checks with his dealer to get the hop-up specs must surely be a serious speed freak. There is much more bottom-end and mid-range. So the best-powered open class engine we have ever run is now even healthier. It's the kind of smooth, predictably building power that dreams are made of. And there's so much of it! You are never caught in a situation where you wish you had more, or where the engine is not pulling the way you wish it would. It's there. If you blow it in a corner, you can surely make it up on the next straight-away.

After some break-in time and some adjustments, the suspension systems at both ends were working as well as we had come to expect from Suzuki.

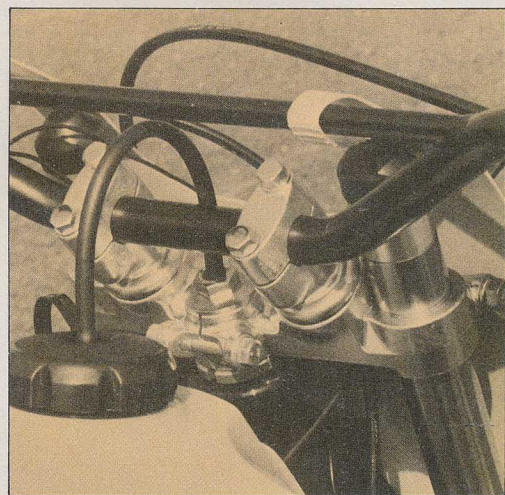
To dial in the front suspension we



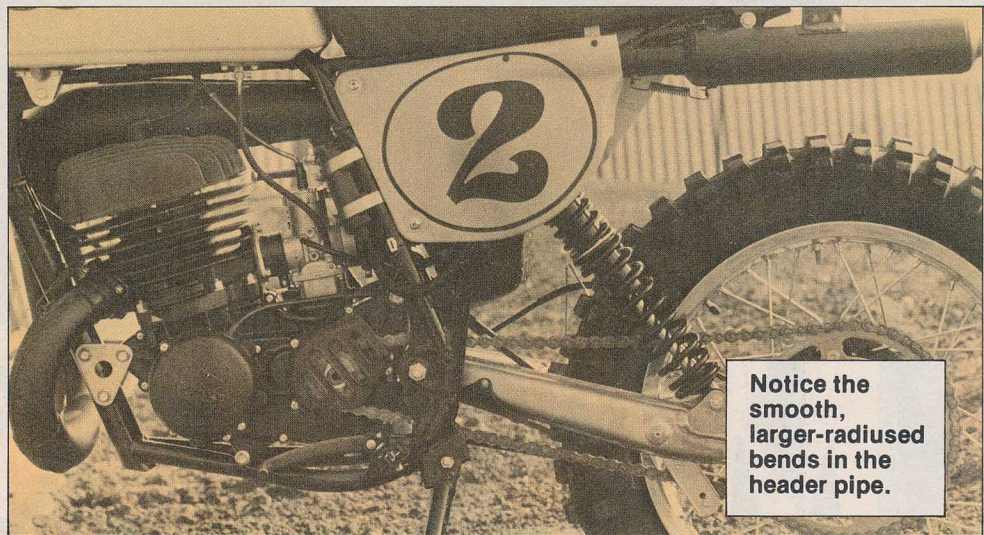
This baby could be launching you into turn one.



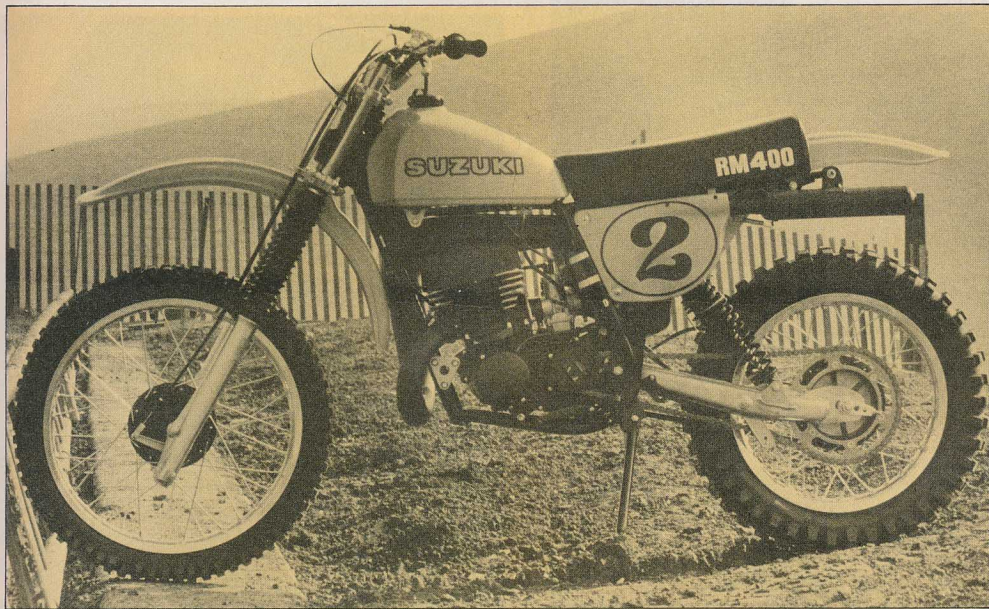
New clutch cable routing puts the cable behind the narrower-bellied pipe where it can't get snagged.



Rugged rubber-mounted rear-set bar clamps absorb vibration and shock while offering easy access to forks.



Notice the smooth, larger-radius bends in the header pipe.



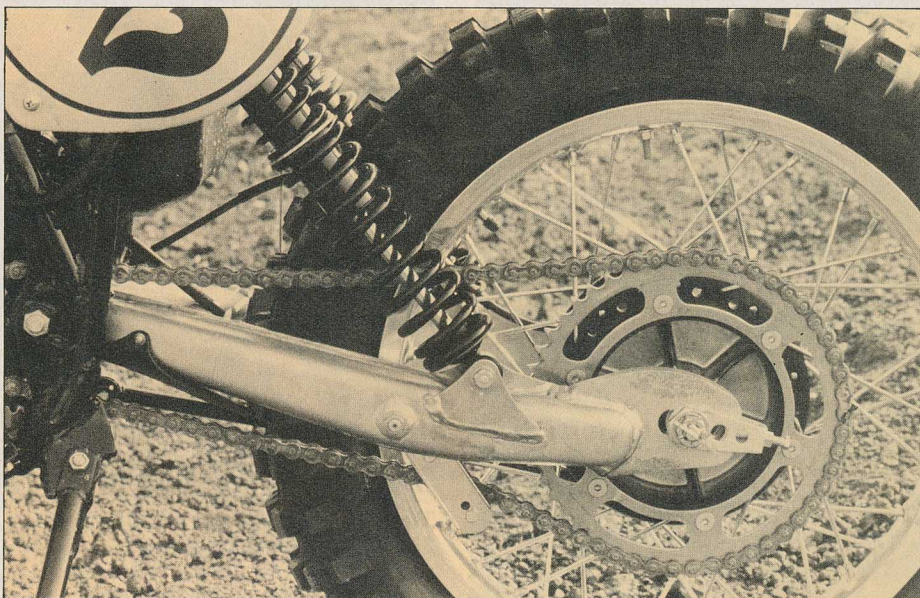
Rocketship RM400 on the launch pad.



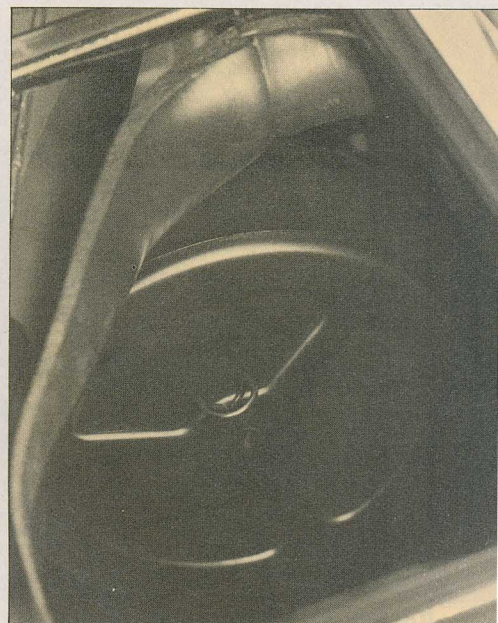
The C's long legs are similar to the 250C's, but have improved dampening and spring rates, and more air volume with the tall aluminum air caps.



SUZUKI RM400C



Hefty looking pressed aluminum alloy swingarm is patterned after the works unit. Two stages of rebound dampening can be had with a twist of the wrist.



Where the air goes.

SUZUKI RM400C

PRICE: (approx. retail, West Coast) \$1699

ENGINE: Two-stroke single, piston-port with case reed

DISPLACEMENT: 402cc

BORE & STROKE: 80.0mm x 80.0mm

COMPRESSION RATIO:

6.7:1 (corrected)

CARBURETION: Mikuni VM36SS

CLUTCH: Wet, multi-plate

PRIMARY DRIVE: Straight-cut gears, 2.384:1

TRANSMISSION RATIOS:

- 1) 2.071
- 2) 1.625
- 3) 1.263
- 4) 1.000
- 5) 0.869

FINAL DRIVE: Daido #520TR, 3.846:1

13-tooth countershaft

50-tooth rear sprocket

AIR FILTRATION:

Oiled polyurethane foam

ELECTRICS: Suzuki PEI (Pointless

Electronic Ignition)

LUBRICATION: Pre-mix, 20:1

RECOMMENDED OIL: Suzuki CCI

Super 2-cycle

FUEL TANK CAPACITY:

8.5 liters (2.2 gallons)

FRAME: Chrome mol, semi-double cradle

SUSPENSION:

Front: Kayaba air/spring forks, 250mm (9.9 inches) travel

Rear: Kayaba/Dr. DeCarbon nitrogen gas shocks, 243mm (9.5 inches) travel

WHEELS & SPOKES:

Front: Takasago rims with cross-2 spokes

Rear: Takasago rims with cross-2 spokes

TIRES:

Front: 3.00x21 IRC GS-45F

Rear: 4.50x18 IRC GS-56F

DIMENSIONS:

Wheelbase: 145.5cm (57.3 inches) + 3.5cm

Swingarm length: 49.3cm (19.4 inches)

Ground clearance: 31.0cm (12.2 inches)

Bars, height: 122.5cm (48.2 inches)

width: 88.0cm (34.6 inches)

Pegs, height: 38.6cm (15.2 inches)

width: 45.8cm (18.0 inches)

Seat height: 92.1cm (36.2 inches)

Fork angle: 30 degrees

Weight: 108.8 kilos (239.5 pounds)

without fuel; 45.5 percent on front, 54.5 percent on rear

BRAKES:

Front: Cable-operated, conical

Rear: Cable-operated

PARTS PRICES:

Rings: \$7.29

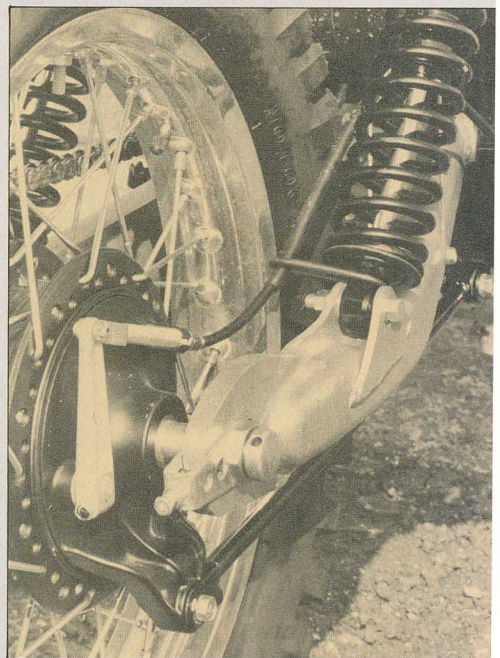
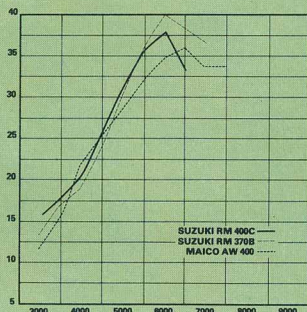
Piston: \$26.73

Cylinder: \$122.06

Clutch lever: \$3.81

Clutch cable: \$5.66

Brake pedal: \$13.27



Full-floating brake uses dual ball bearings on the axle for smoothness of operation, and rubber bushings at each end of the torque arm for ease of maintenance.

switched from the stock 20-weight Kayaba oil to Bel-Ray LT-100 shock oil. This is a bit expensive, but it gave us great results. You can get similar dampening by mixing half five-weight and half ten-weight Bel-Ray fork oil. The standard oil level worked fine. The front end was then very absorbent and the spring rate right on the money. Next, adjustments for personal preferences were made by varying the air pressure. Most of us felt that 12 to 15 pounds was about right.

We came to appreciate the adjustable rebound dampening feature fully when moving from the sand track we were on to a gnarly, chopped-up surface. The lighter rebound lets you run on the lighter part of the spring because the shocks extend more quickly. This setting works great on sandy tracks with small to medium-sized bumps. On rougher tracks where the bumps and holes are larger and deeper, the shocks extend less quickly, so that you are running more on the heavier part of the spring. It is a nice feature and very easy to adjust.

In changing from a 370 to a 400 the big Suzuki has not lost its ability to turn. The steering is just as precise as before, if not better, and you can still modify your line a bit if you feel the need.

While discussing the turning properties of the 400 the conversation soon focused on its weight. While simultaneously jumping around from one 250 to another (weighing from 206 to 221 pounds without fuel), it seemed like a bit of extra work to get the 400 around the same course. Sure, the power and suspension were nice, but the bike was considerably heavier.

At 234.5 pounds without fuel, the 370B was not on the light side, but its performance as a package made the effort required quite tolerable. The 400 weighs in at 239.5 pounds less fuel, which suggests that it is approaching porkiness. More suspension, a floating brake and such have to cost you somewhere. In this case, it costs you five pounds.

Because the 400 has the same basic frame geometry as the 370, it shares many of its predecessor's fine handling qualities. Slides are very easily controlled, whether on the gas or on the brakes. Landing from jumps with the throttle on will give you a catapult-like action, straight as an arrow. The new suspension sucks up whoops like a champ and keeps you going in the direction you have chosen.

Funny thing about the 400 . . . although it's only five pounds heavier

(continued on page 74)

YAMAHA ADVERTISEMENT CORRECTION!

There were some errors in our YZ100 advertisement in the March issue of *Dirt Bike*.

The ad said the 100's leading axle front forks were the adjustable air/oil type. This is incorrect. The leading axle front forks are oil damped and not adjustable.

The ad also said the nitrogen

pressure in the YZ100's nitrogen/oil Monoshock was adjustable. This is incorrect. The spring pre-load is adjustable.

We sincerely regret any misunderstanding these mistakes may have caused.

A corrected version of the original ad appears in this issue.



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Hi-Point watch holders for handlebars or wrist. Many styles to choose from.

Hi-Point Nylon riding jacket. Lightweight, fully lined, storm flapped pockets.

Hi-Point route sheet holders. Several styles, clamps onto handlebars.

6-Day Glasses. Used by the ISDT and Enduro champions.

YOUR ENDURO/ISDT SPECIALISTS

HI-POINT G.P. GLOVES

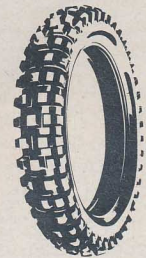
Used by the Champions. Made in Finland of the finest lambskin. Padded or unpadded palms.

Available in Red, White & Blue Black, Yellow & Blue Red & Yellow Blue & Yellow



HI-POINT M-X/ENDURO TIRES

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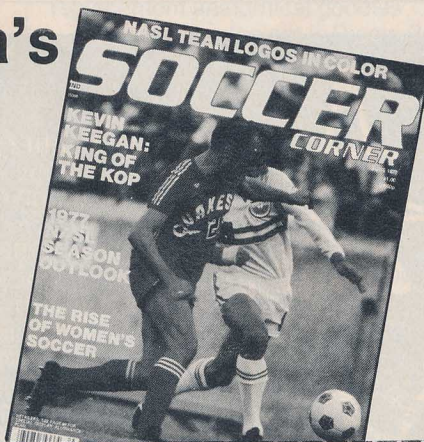
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SUZUKI RM400C

(continued from page 51)

than the 370, it feels like it must be more than ten pounds heavier. After much discussion with many who have ridden the bike we can only figure that this feeling is a product of the new bar positioning. Don't get us wrong. We think that the rubber-mounted swept-backs are a good idea, but it seems that the new bars don't give you the same good-feeling bar/peg/seat relationship the bike once had. Maybe a taller set of bars with a different bend would cure some of the heavy feel.

Along the way

The last couple of Suzukis we've tested have come equipped with strange little bolts with pre-rounded-off heads. Even a socket can swiftly take away what little protrudes from its corners. This was the case with the shift lever clamping bolt. The lever disappeared and is presumed dead; buried alive in the burning sands of the Valencia sandwash.



Eddie Cole gets it sideways.

One of the front tank mounts broke with not much more than an hour on the bike. Suzuki was aware of the problem and had already fabricated new mounts, but the first bikes in the country, including several test bikes, got out before the swap was made.

The chain derailed itself once soon after it was adjusted. But it happened out in the sand where any number of things could have caused it. Sand leeches, for one!

Everything else went very well. The wheels stayed round, no spokes broke, the engine never missed a beat and it always started easily.

So we say to you

Like some ladies we have known: Just because she's a bit overweight doesn't mean she can't have a great personality and be lots of fun. But let's face it, blubber is a bummer. The 400C has great power, above-average, easy-to-tune suspension, good basic geometry, and it's lots of fun to ride. It is still most definitely one of the best production open-classes in existence. ■