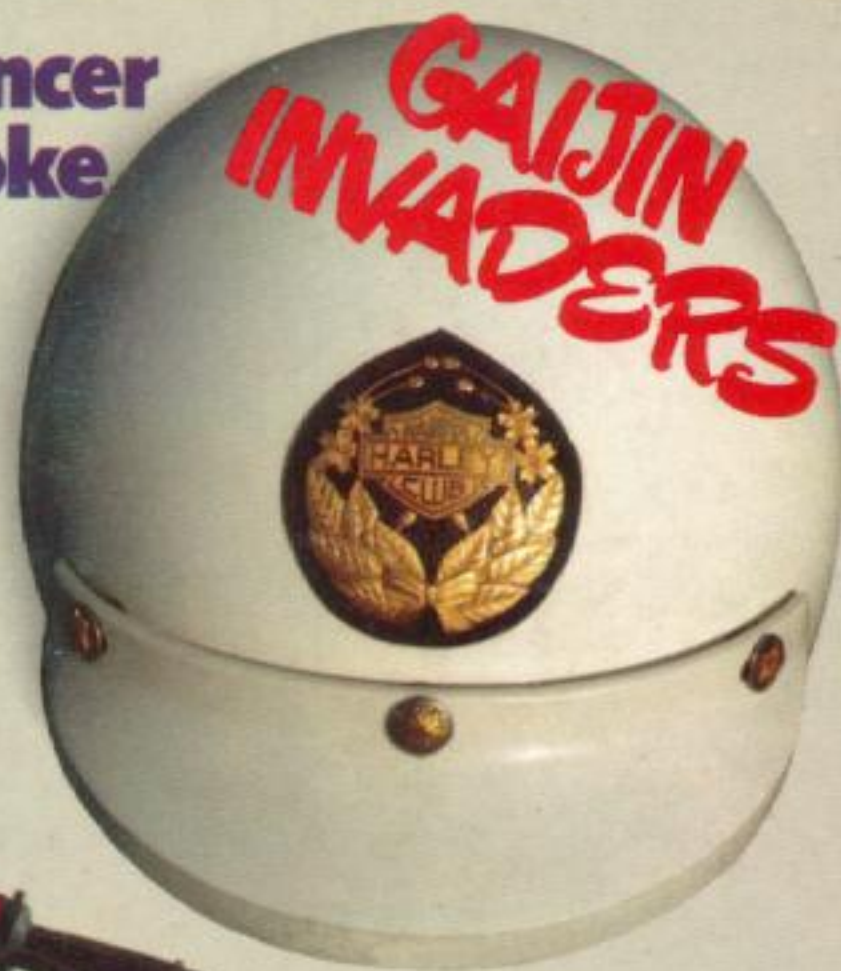


Tests: Kawasaki Voyager, Honda CR500
How the World Was Won: Roberts vs. Spencer
Yamaha Resurrects the Sporting Two-Stroke

CYCLE WORLD

DECEMBER 1983

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**YAMAHA
'84**

**HIT 'EM
WHERE
THEY
EXPECT
IT...**

**AND
WHERE
THEY
DON'T...**



FJ1100



RZ350



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12



WHAT'S IN STORE FOR '84

At last Yamaha has an 1100cc road burner to match the competition. It has four air-cooled cylinders, 16 valves and chain drive.

Remember those clichés about making opportunities out of problems and who does what when the going gets tough?

For 1984, Yamaha has taken this wisdom and gone to work.

Things surely were tough in 1983. Optimism caused Yamaha to increase production capacity and fill the pipeline with lots of models, while getting into a battle with Honda over who was going to be the biggest. The worldwide recession plus perhaps plain lack of interest caused motorcycle sales to decline. Yamaha was badly hurt in the resulting crunch.

In 1984, Yamaha will fight back. Their weapons will be:

A conventional challenger to the rivals' superbikes.

An unconventional, as in they-said-it-couldn't-

be-done, challenger to the middleweight sports bikes.

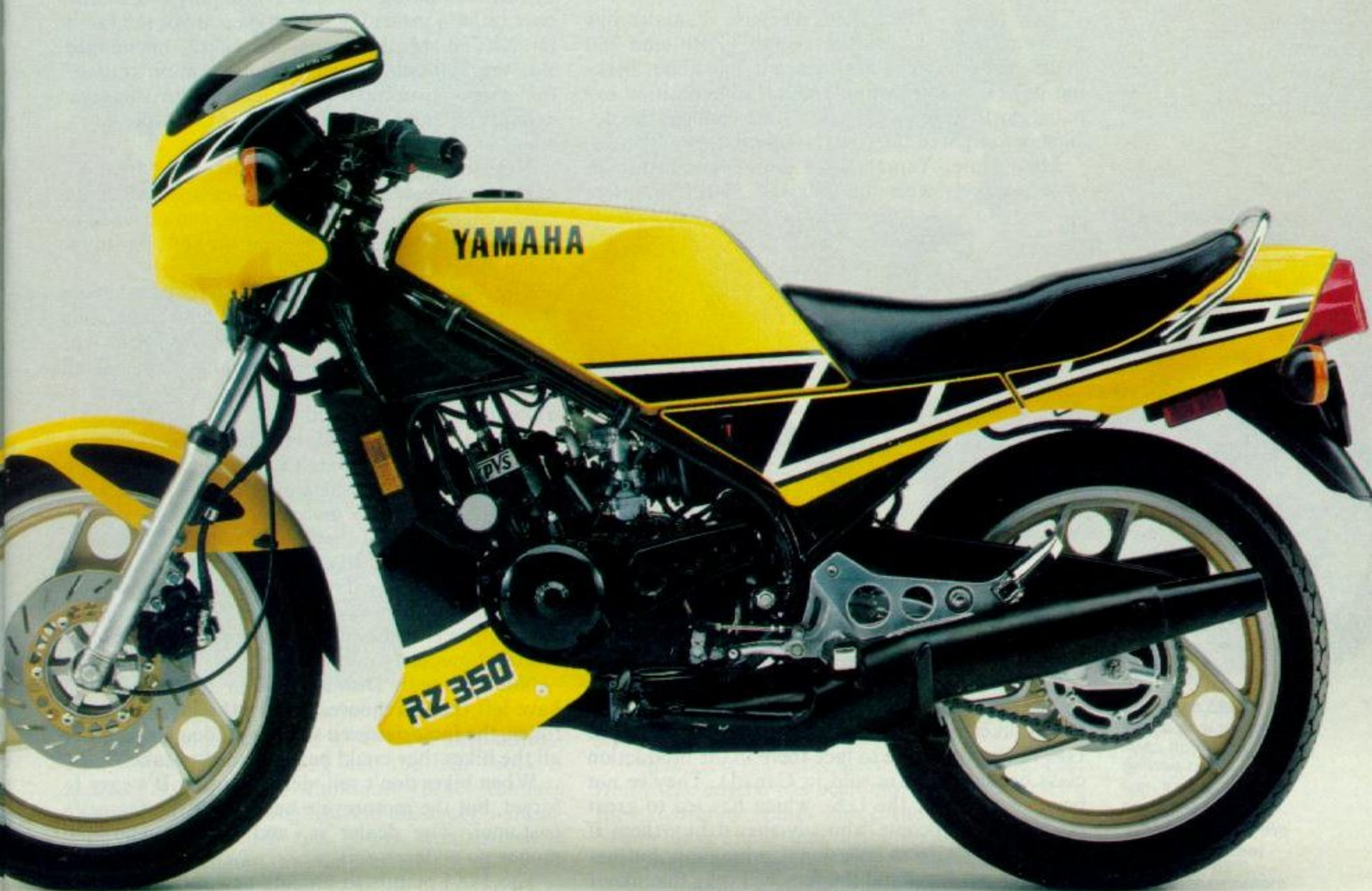
Fewer models overall.

And more fun.

Starting from the top, the superbike is right out of the textbook.

The model name is FJ1100. It's an 1100cc cross-frame Four, air-cooled, double overhead camshafts, four valves per cylinder. The FJ engine isn't a sporting version of the Venture V-Four, nor an update on the XS1100. Instead it's really new, the largest of the XJ family in that the alternator is mounted behind the cylinders and above the gearbox. The cams work directly on tappets over the valve springs, the ignition has electronic control for the optimum advance curve, an oil cooler is standard equipment, the four exhaust pipes feed an expansion chamber which then connects to two mufflers, in short, all

Yamaha to rivals: We'll match raise you a race-based



the features that have made the Honda, Kawasaki and Suzuki 1100 Fours so popular are provided here.

(Note. This and the following news arrives courtesy of the Paris Show. Because the FJ1100 and the other new Yamahas were unveiled there, the broad facts about these bikes were available months before the official U.S. introduction. Thus, we have the facts but not the figures, as in claimed weight, horsepower and so forth. They also admitted there's one more model to come, later in the year, but we haven't yet been able to learn anything about it.

In keeping with the sports theme, the FJ has chain final drive and a five-speed transmission. The steel frame has the wide-based four-corner look of a Grand Prix bike, square tubes and all. The top tubes/backbone extend in front of the steering head, to reduce flex and to mount the fairing.

Rear suspension is Monoshock, naturally, with an aluminum swing arm. The shock has adjustable preload and damping, with remote controls. The forks have anti-dive and a small brace, again competition features now virtually required for sporting road models.

Wheels are 16 inchers. Right, wheels. Not just the front, but both. Sizes are 120/80-16 front, 150/80-16 rear. The small, fat fronts have done well on sports bikes in 1983, and the 16-in. rear presumably is a way to lower the seat height and still leave room for enough wheel travel.

And now for something completely different.

A two-stroke for the road.

Ever since Yamaha stopped production of the RD400, there has been a popular misconception along the lines of the federal government banned two-strokes under the emissions regulations.

The two-stroke returns. It's called the Kenny Roberts Replica, and it uses a 350cc liquid-cooled two-stroke for 550-class performance. Yes, it meets the emissions rules.

your rockets and two-stroke.

You didn't read that here because that's not what happened. Two-strokes disappeared from the American market because people didn't buy them. It's harder to make two-strokes meet the rules, but it's not impossible and until now it hasn't been worth it.

Two factors here. First, because Yamaha has been racing its TZ250 Twins and TZ500 and 750 Fours, the engineers have learned lots about making power. Watercooling and variable position exhaust ports have at the same time enabled the designers to tighten the controls on mixture.

Meanwhile, Yamaha has done wonderfully in other markets with the 250 and 350LCs, water-



YZ490 has more power with a new pipe, 40mm carb. and porting changes. Forks now have compression damping and rear suspension is revised. All '84 motocrossers have new Z-spokes.

cooled descendents of the RD line. The LCs are *the* sports bikes in Europe and Japan and the plague of U.S. racers who have to face them in the production class because they're sold in Canada. They've not been certified for the U.S., which has led to great clamors from people who say they'd buy them if they could. (Also to occasional smuggling, but because it's not legal and the feds will take the bike if they catch you, it's not recommended.)

Here, in the form of the Kenny Roberts Replica RZ350LC, is the chance to own a two-stroke 350 Twin expected to blow the valve covers off the 550 Fours.

For the U.S. market the RZ350 gets yellow and black paint, just like the bikes Kenny Roberts rode. Power comes from a reed-valve two-stroke, 64mm bore and 54mm stroke. An electronically controlled power valve changes exhaust port height according to engine rpm, and a chamber attached to the intake system further widens the useable powerband.

Oil injection is used to hold down hydrocarbon emissions while providing superior lubrication.

This is a sport bike, so there's no electric starting. There is also little weight, somewhere around 320 lb. dry, we expect. Things like the fiberglass reinforced plastic engine cover help here.

The frame is a wide-based steel tube affair, so the top tubes run outboard of the gas tank, where they make the RZ look like a TZ. Rear suspension is a progressive linkage single shock, but with a twist. Preload and damping are both easily adjustable because of remote controls. A tiny rubber belt is used to link the damping adjustment with the shock.

RZ350s sold elsewhere have produced a claimed 55 bhp at 9000 rpm. This is a little less than the best 550s are doing, but the weight is also 100 lb. lighter, so the performance should be comparable.

Yamaha's third direction is, uh, better call it traditional.

Shown is the XV700 Virago. Right, a 700, actual displacement 699cc. By no coincidence, the XV700 slides neatly beneath the 700cc barrier created by the tariff imposed in 1983. The engine is a smaller bore (80mm instead of 83mm) version of the familiar XV750. Mechanically, it's nearly unchanged. But the 700 gets spoked wheels, a more rounded fuel tank, an outboard air cleaner and staggered exhaust pipes, both on the right side just like guess-who.

Not shown is a similar model, the XV1000 Virago. This one is something of a surprise, since the larger engine is subject to the tariff, and thus will be more expensive in its class than the spitting-image 700 will be.

The Viragos look like Harleys, but the odds are they are designed to compete more with the Honda Shadow. That Harley-Inspired V-Twin was Honda's big seller in 1983, Yamaha wasn't at all pleased to have Honda take over a market that Yamaha in effect invented.

Thus, the big Vee. If Honda makes a similar model, Yamaha can match it. If Honda stays with the 750, Yamaha salesmen can offer more displacement and presumably more performance.

And that's it for Yamaha's new street bikes.

Hard to believe? Even the U.S. branch found it hard to believe. Years of scores of new-new-new bikes, or of swapping decals and paint choices annually have conditioned the biking public to expect scores of models.

Not this year. Dismal sales in 1982 and 1983 have left the warehouses full. In the fat and happy times, the factories used to push all dealers to order all the bikes they could be persuaded to take.

When bikes don't sell, dealers suffer. It's easy to forget, but the motorcycle buyer isn't the factory's customer. The dealer is, and dealers who lose money go under.

The 1984 plan is to provide new models only in selected markets, as in superbikes, middleweight sports and cruiser. Every other market will be offered the '82s and '83s now in stock. At generous price reductions.

Nothing wrong with that, just as there was nothing wrong with the 185s, 250s, 550s, etc.

The fourth part of the plan ties neatly into the price strategy.

American Yamaha has a new president, Ben Watanabe. He knows the market, having run Yamaha's Canadian branch and directed the home office's overseas operation. At his introduction to the U.S. press, Watanabe said, "I think even the most avid motorcycle enthusiast would like to see fewer dark helmets and more friendly faces."

Yamaha's advertising therefore will stress fun, and will be aimed at people who aren't now riding.

He added that Yamaha is presently studying the option of a U.S. assembly plant, not because of the tariff but because Yamaha intends to remain in the motorcycle business, and in the U.S.

The off-road model lineup follows the same idea. The 1984 motocrossers are basically '83s, with detail refinements and a few new parts.

The 490 has several worthwhile changes: engine power has been increased thanks to new porting, an eight-petal reed valve, 40mm Mikuni carburetor and new pipe. The new pipe is made of thinner but stronger steel to reduce weight. The silencer is alu-