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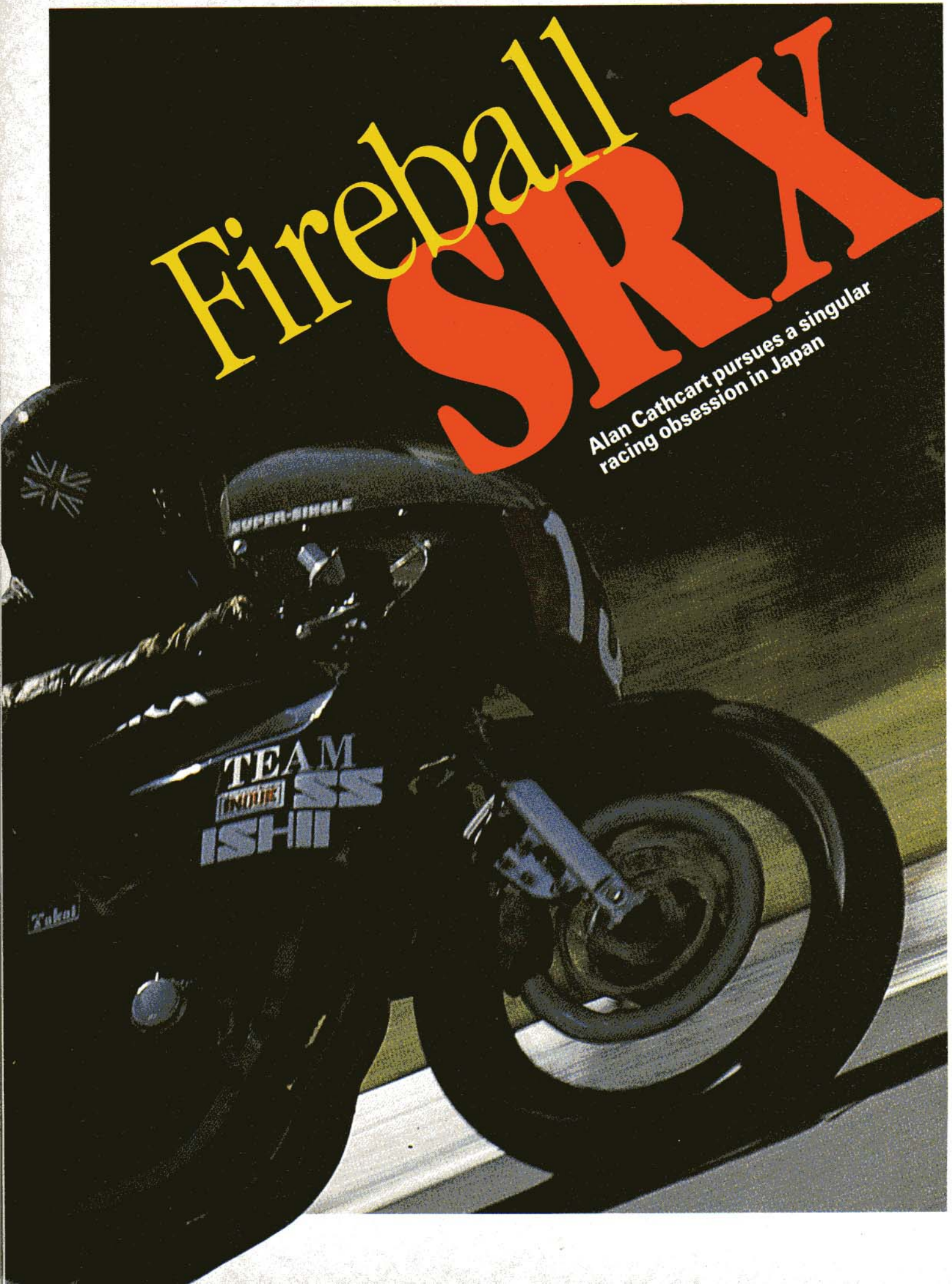
Fireball SRX

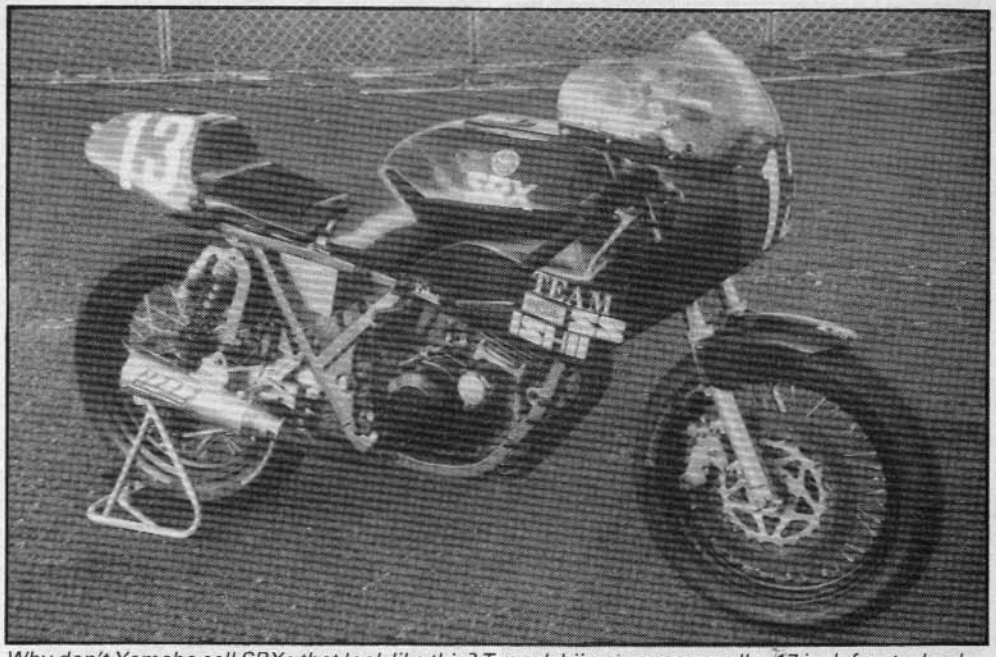
Alan Cathcart pursues a singular racing obsession in Japan



Sooner or later it was inevitable that the conflict between Honda and Yamaha would spill over on to such unlikely battlefields as single-cylinder racing, but now it's happened and the fight for supremacy is every bit as cut-throat and bitter as it is in Grand Prix 500cc racing. It's also hardly less spectacular, a fact which I was able to confirm for myself at close quarters when I rode in one of the Japanese Sound of Singles championship rounds at Sugo Raceway last year.

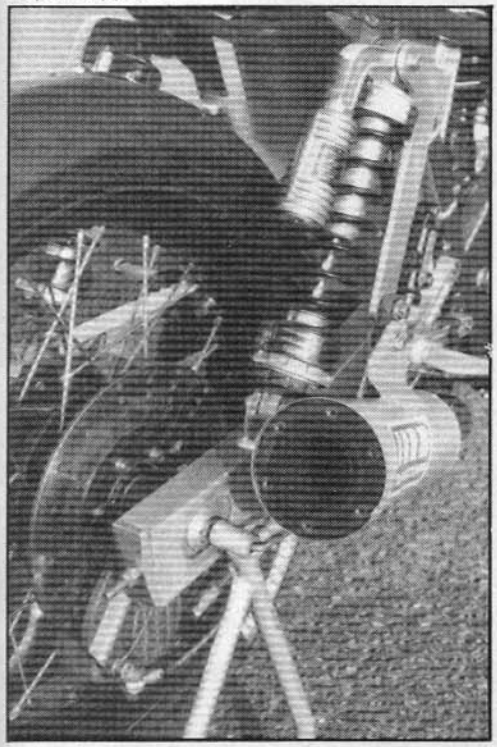
As in other, more mainstream forms of motorcycle sport, the two Japanese giants act out their duel under the cloak of carefully-selected, factory-backed, private teams. Honda's mantle falls on Team Ikuzawa, the ultra-professional equipe run by former car racer turned motorcycle dealer Tetsu Ikuzawa, whose close links with HRC permit him to act as exclusive worldwide distributor for the 628cc road race versions of the four-valve XBR engine used in American dirt track races. Slotted in a race version of the good-looking, taut-handling, British-made, Harris frame he sells for high-profile street use, Ikuzawa's big Honda single is beginning to dent the hitherto unrivalled supremacy enjoyed by the SR/SRX Yamaha engines in the Sound of Singles, one of Japan's best-supported racing classes which attracts over 200 bikes to each of the half-dozen races run for the category every year.

With the single-cylinder road market being big business in Japan, Yamaha were encouraged to get serious about race development of the four-valve SRX600 engine (actually 96 × 84mm, for a total capacity of 608cc). At the same time, they wanted to link their competition success closely to the SRX road bike, hence the fact that their chosen medium for Big Single confrontation, Team Ishii, use the Yamaha factory-developed race engine in a standard SRX frame, complete with twin-shock rear suspension, albeit considerably modified for the track. The formula has been successful: rider Tomohiko Kaneyashu won the Sugo round of the SoS in April, and again at Tsukuba last October. In between times, the heated rivalry between the two factories and their chosen teams erupted on to the race track in the race I competed in at Sugo, the Ikuzawa Honda and Ishii Yamaha riders colliding while fighting for the lead when neither would give way to the other for the tight bottom chicane, with the result that they both came off and victory was handed to a privateer — also riding an SRX600.



Why don't Yamaha sell SRXs that look like this? Team Ishii racer uses smaller 17 inch front wheel and TZR250 disc; wheelbase is a massive five inches overstock. Weight is down from stock 328lb to just 265lb

Yamaha's own 'De Carbon Style' shocks (actually from export model XJ600) control ex-monoshock FZ400 swingarm — albeit not very successfully — connected via a couple of welded tabs. Silencer is American-made SuperTrapp item



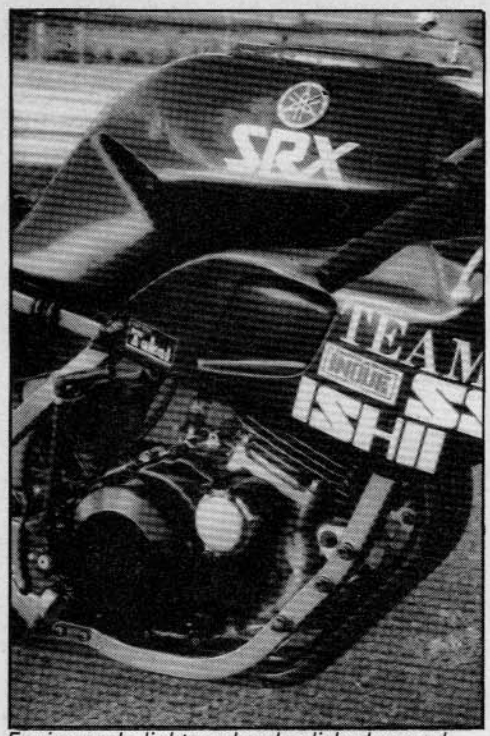
A couple of days after this junior version of Lawson v Spencer, the Team Ishii, semi-works Yamaha single was returned to Sugo for me to sample. True to the best factory GP traditions, efforts to discover the nature and extent of internal modifications resulted in the sort of disinformation you get when you try to discover the internal workings of Wayne Gardner's NSR500! Example: "What is the compression ratio, please?" "8.5:1". "But that's the same as the SRX600 road bike, which in street form produces 39 bhp at the rear wheel at 6500rpm. You claim 52bhp at 7000rpm for this bike, so surely you must be running a higher compression?" Polite smile, no response, next question please . . .

Determined investigation eventually yielded the nature at least of the modifications wrought to the SRX-R engine, which is supplied directly from the Yamaha race shop to Team Ishii, for them to bolt into their already prepared frame. The crankshaft-driven counterbalancer is retained, but the flywheels are lightened and polished, as is the standard conrod. A special piston (presumably giving a higher compression!) and oversize valves are fitted, with the ports opened out and flowed, though the standard twin Teikei 27mm carbs are retained (one for each inlet port, one guillotine and the other cylindrical slide), bored out 1mm oversize each. The chain-driven single overhead camshaft is a special racing profile, while the twin exhaust downpipes are the standard stainless steel items, but merging into a large diameter racing pipe ending in a US-made SuperTrapp silencer.

In order to keep the height of the long-stroke engine to a minumum, dry-sump lubrication is employed on the standard road bike, but here the oil tank under the seat has been remade in light alloy, as has the fuel tank, although externally, it resembles the stock steel item. The standard CDI ignition and wet clutch are retained, but a key feature is the special factory-developed, close-ratio, five-speed gearbox, with reversed-pattern, up-for-bottom, left foot change.

The square-section tubular steel frame of the standard roadster is employed, with the odd unused tab cut off and the addition of an alloy swingarm off the FZ400 street racer, which being a monoshock design has a couple of tabs welded back on the sides to fit the twin Yamaha 'DeCarbon System' (it says on the side) suspension units, which come from the XJ550/600 export model and offer just five choices of preload position by way of adjustment. Wheelbase is 5in longer than standard, at 54.9in, but head angle remains the same at 26-degrees thanks to the use of standard 36mm SRX600 forks made by Kayaba to Yamaha specification, and scorning the use of antidive or compressed air. Triple clamps are a selection from the Yamaha parts bin, with the upper clamp from an FZ400, the middle represented by the lower clamp off an XJ400, while the bottom fork brace incorporating the mudguard mount is a special race shop component. Trail is a conventional 4in.

Instead of the roadster's 18-inch front wheel, the racer carries a 17-inch front, still with an 18-inch rear, though, both with three inch rims and shod with Bridgestone slicks. A successful neo-classic touch is the use of wire wheels rather than the road bike's cast numbers, which probably also saves some useful weight. The bike scales 265lb with oil but no fuel, compared to the street bike's 328lb with lights and so forth. The replacement of the roadster's twin front discs by a single large 12.2in number off the TZR250 road racer helps account for this, gripped by a genuine four-pot Brembo caliper, rather than Yamaha's own lookalike item. The rear 8.7in disc is matched to a factory caliper as fitted to almost all Yamaha works racers in the 1970s. A



Engine packs lightened and polished conrod and flywheel, high comp piston, big valves, ported head, race cam, bored-out carbs plus a few secret mods — apart from that, it's bog standard!

steering damper is fitted on the left beside the fuel tank.

Expecting to have to help shove the beast into life, I was pleasantly surprised when the mechanic in charge of the bike promptly leapt on the kickstart which is retained even with the close ratio gearbox and lit 'er up first kick. If I did that to my G50 Matchless it would have a fit of the sulks, and if you tried it on the Team Obsolete bike that Dave Roper rides, you'd break your leg: the compression on that is so high Dave can't even bump-start it cleanly on the line. From that, I'd guess the Yamaha's special piston to give about 10.5:1 compression — quite enough with a four-valve head and centrally-located spark plug to give good combustion, especially since I expect Yamaha's engineers did a good deal more head-work while they were in there than just flow the ports. More disinformation was supplied when I asked what I was supposed to rev it to. Told 7000rpm, I was surprised to find the engine eager to run on past that mark down the fast Sugo straight in top gear. Presuming that they know by now which gearing to pull on a circuit they've already won a race on, I'd have to say that I reckon the true redline is more like 8000rpm, by no means excessive with an 84mm stroke in this day and age. The engine certainly willed itself to head that high up the rev scale, though the vibration which was otherwise almost completely absent from the well-balanced engine — definitely the hallmark of a factory special, I'd say — did start to send the tingles through the fingers above 6500rpm.

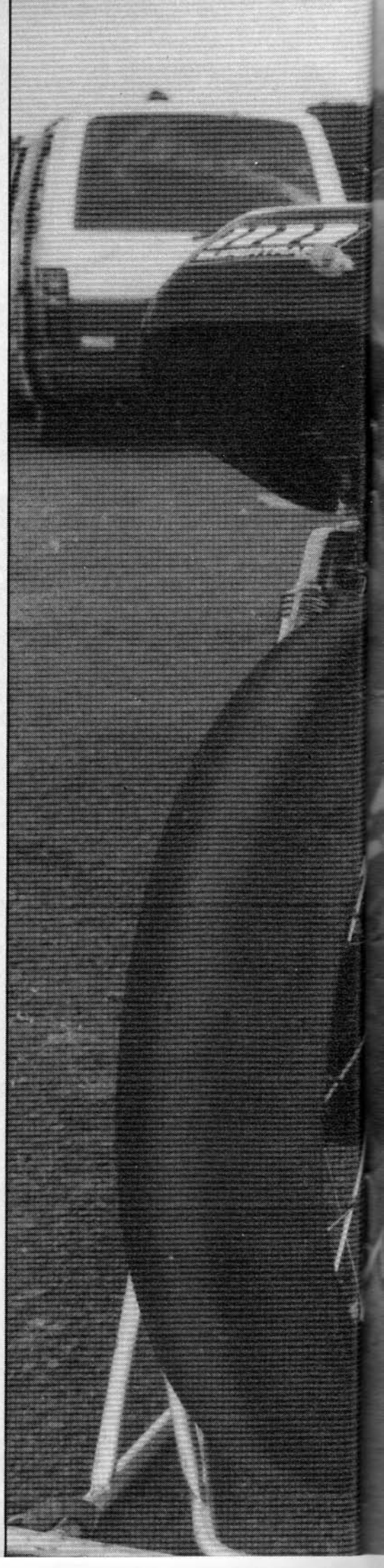
The SRX-R will pull from as low as 4000rpm, with strong power on tap from 5000rpm upwards, coupled with tremendous reserves of torque. The advance this engine represents over even a well-tuned SR500 unit was amply demonstrated to me in practice at Sugo, when Kaneyasu came steaming past me on the Orange Boulevard team's Camier-framed SR500 as we climbed the hill from the bottom chicane to the start line. The SRX-R is a punchy, torquey thumper of an engine that isn't afraid to get struck in and come out slugging, and the result is impressive acceleration even by multi-cylinder, four-stroke standards, and especially uphill. Would make a nice bike for the Mountain Mile on the TT Course, and it even outperformed the Ducati 600 V-twins I was riding the same day, thanks mainly to its better choice of gear ratios on the factory cluster. Bottom gear is actually high enough to use on the overrun into the chicane without locking the back wheel, though I found the fact that the idle was set at about 1200rpm rather disconcerting, because it made the bike run on in the chicane when all I wanted to do was trickle through the slow corners on the pilot. It's probably set like that to stop the back wheel locking and reduce transmission snatch. What was the compression ratio, again?

If the engine was truly impressive, especially with the sweet-shifting factory gearbox averaging a 1200rpm drop each change to keep the unit on the boil, I was less impressed with the road-derived cycle parts, compared both to the Harris-Ikuzawa chassis and especially to the SR500 Camier: the SRX engine in this frame would make a killer SoS bike. On the Ishii SRX-R, the front forks pattered badly over the ripples round the fast left sweeper at the bottom of the hill at Sugo, sending the front wheel chattering and forcing you to back off the throttle. The twin-shock rear isn't bad, but the relative unsophistication of the suspension units tells in the chicane, where instead of following the tricky road contours as you rise and fall in and out of the dips through which the cleverly-designed circuit runs, the back wheel hops and skips rather than letting you feel the suspension smoothly compress before rebounding under control. It's harsh, not progressive — you just get bounced about, and I doubt if it would happen with a pair of twin-rate Konis fitted.

It was the first time I'd ridden on Bridgestone slicks, and they were certainly impressive, giving good grip everywhere. With such a light bike, I'd expected the braking to be pretty effective, but the single front disc was merely marginal. A couple of times I went in too deep and had to use the back brake a lot to slow down, and that *did* lock up the back wheel and send it chattering on the overrun. Maybe a different pad choice would be appropriate? Steering again was adequate though a bit vague — it has none of the Camier or Harris frame's pinpoint accuracy, but by the standards of mass-production, non-race replicas the Yamaha SRX chassis gets full marks. It's just the suspension that could be a lot better.

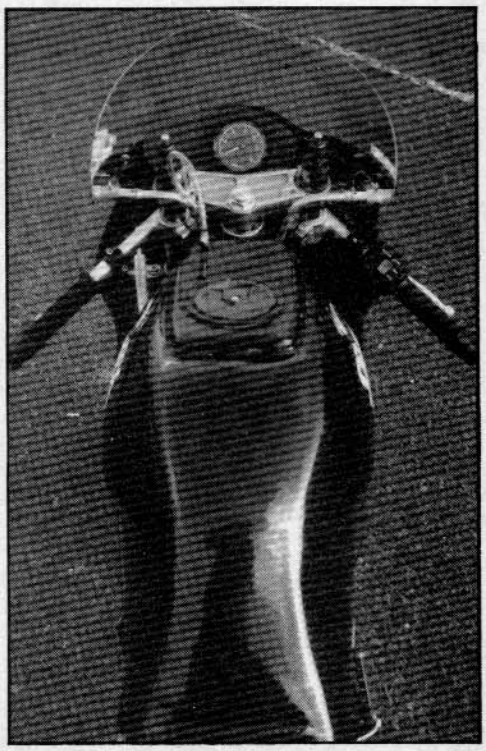
Whatever, in any confrontation what matters is the outcome, and no matter what quibbles I had after riding the semi-works Yamaha SRX-R, the fact is that so far it's done the job it was supposed to do, which is to continue to see off the Hondas. I noticed on the first lap of the race while I had them still in sight that the SRX pulled out about 10 yards from the Ikuzawa bike going up the hill out of the chicane, which would appear to indicate a handy advantage in low speed and midrange torque, doubtless explaining the Honda pilot's reluctance to avoid letting himself be outbraked into the chicane on the lap they both crashed. There was nothing between them on top speed, as far as I could see.

Whether Yamaha decide to market the tuning parts for the SRX they're developing



in the Ishii bike as a race kit remains to be seen. What is for sure is that single-cylinder racing in Japan now has the same ingredients that make GP racing so exciting — the conflict of the giants. But it has one extra attraction that sadly, no GP class can boast any more: the rorty sound of Singles!

Think thin: covert backing from Yamaha Japan makes Team Ishii bike a works racer, Hot competition in Japan's 'Sound of Singles' class comes from Honda-supported Team Ikuzawa 628cc XBRs. Wire wheels provide nice period touch



YAMAHA SRX-R600

Engine	Single cylinder sohc four-valve, air-cooled four-stroke
Dimensions:	96×84mm
Capacity:	608cc
Compression ratio:	10.5:1 (estimated)
Output:	52bhp at 7000rpm (claimed)
Carburation:	2×28mm Teikei (YDIS — one guillotine, one cylindrical slide)
Ignition:	CDI
Gearbox:	Five-speed close ratio
Clutch:	Multiplate oil-bath
Chassis:	Semi-duplex cradle in square-section steel tubing
Suspension:	Front: 36mm Kayaba telescopic forks Rear: Aluminium swingarm with twin Yamaha/DeCarbon units
Wheelbase:	54.9in
Head angle:	26.5-degrees
Brakes:	Front: 1×12.2in floating Yamaha disc with four-piston Brembo caliper Rear: 1×8.6in fixed Yamaha disc with two-piston Yamaha caliper
Tyres:	Front: 125/605 — 17in Bridgestone slick on 3.0in wire-wheeled rim Rear: 145/645 — 18in Bridgestone slick on 3.0in wire-wheeled rim
Weight:	265lb. with oils no fuel
Top speed:	Approx. 125mph
Year of manufacture:	1986
Owner:	Team Ishii, Tokyo, Japan