FZR1000 SPECIFICATIONS

ENGINE

Type	4-stroke, liquid-cooled, DOHC, 5-valve, parallel four
Displacement	989 cc
Bore and stroke	75.0 × 56.0 mm
Compression ratio	11.2 : 1
Max. power (ISO)	125.0 PS (92.1 kW) @10,000 rpm
Max. torque (ISO)	9.9 kg-m (96.9 Nm) @8,500 rpm
Lubrication	Wet sump
Carburation	Mikuni BDS37 (4)
Ignition	Transistor controlled (digital)
Starting	Electric
Fuel tank capacity	20.0 litres
Oil capacity	3.7 litres
Transmission	5-speed
Final drive	Chain

CHASSIS

Overall length	2,205 mm
Overall width	730 mm
Overall height	1,215 mm
Seat height	775 mm
Wheelbase	1,470 mm
Min. ground clearance	140 mm
Dry weight	204 kg
Suspension	
Front	Telescopic forks
Rear	Rising-rate Monocross
Brakes	
Front	Hydraulic double disc
Rear	Hydraulic disc
Tyres	
Front	120/70-VR17 V270
Rear	160/60-VR18 V270

Specifications and appearance of Yamaha motorcycles shown here may vary according to requirements and conditions, and are subject to change without notice.
For further details, please consult with your Yamaha dealer.
Always wear a helmet and eye protection.

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YAMAHA

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YAMAHA

FZR1000

GENESIS

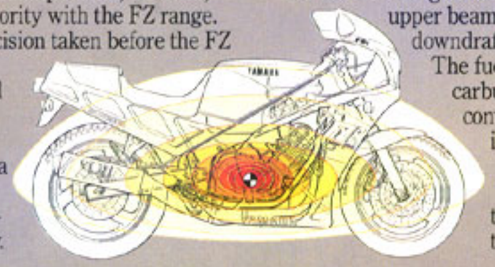
The Yamaha FZR1000 has the most-advanced four-stroke engine on today's roads and a chassis design derived directly from World Championship-winning road racers.

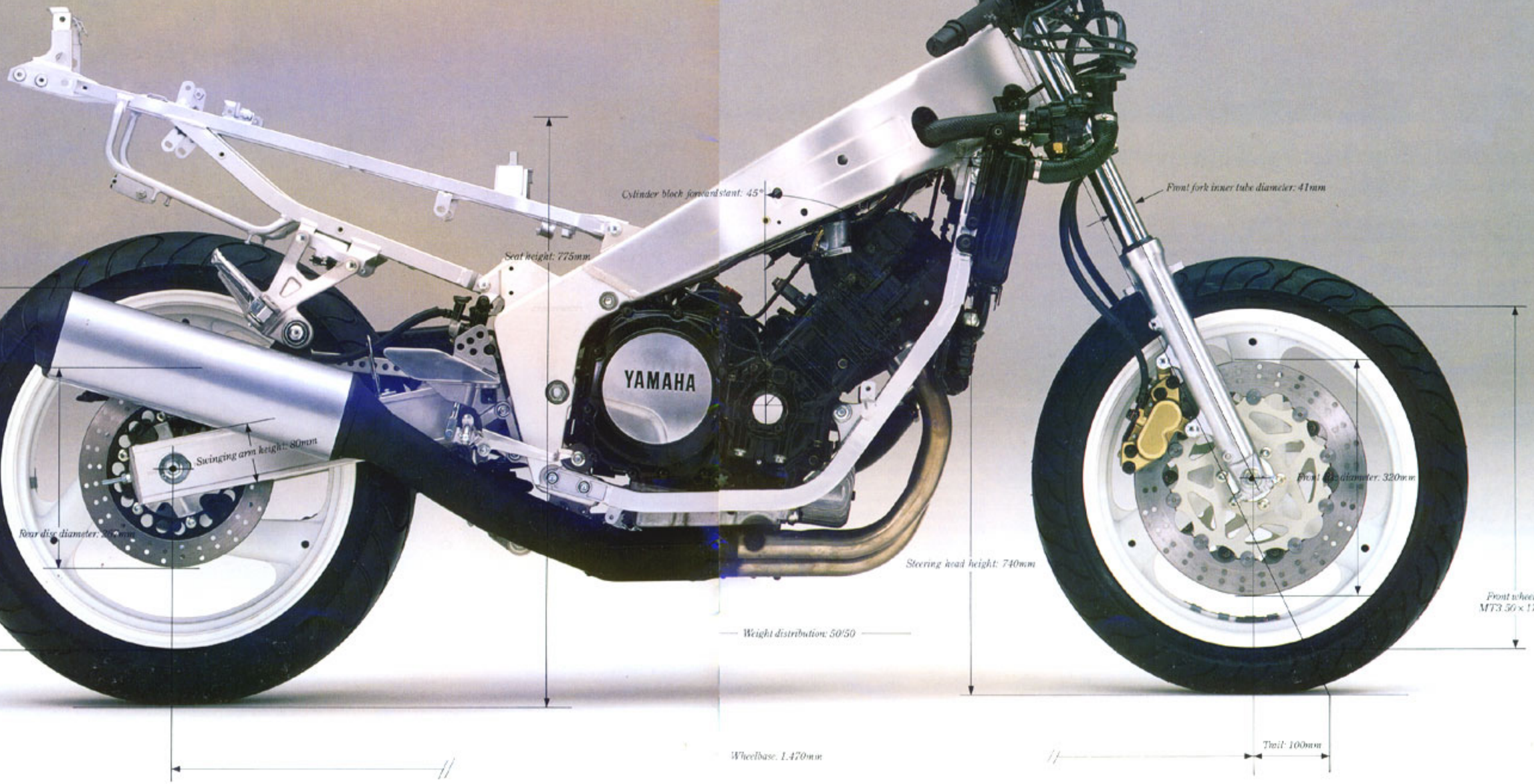
The excellence of these individual components, however, still isn't the key to Yamaha's superiority with the FZ range. The secret of that success was a decision taken before the FZ project even got on to the drawing board. The decision that engine and chassis should be developed in parallel, right from the start... and that the design of each should have a positive effect on the other.

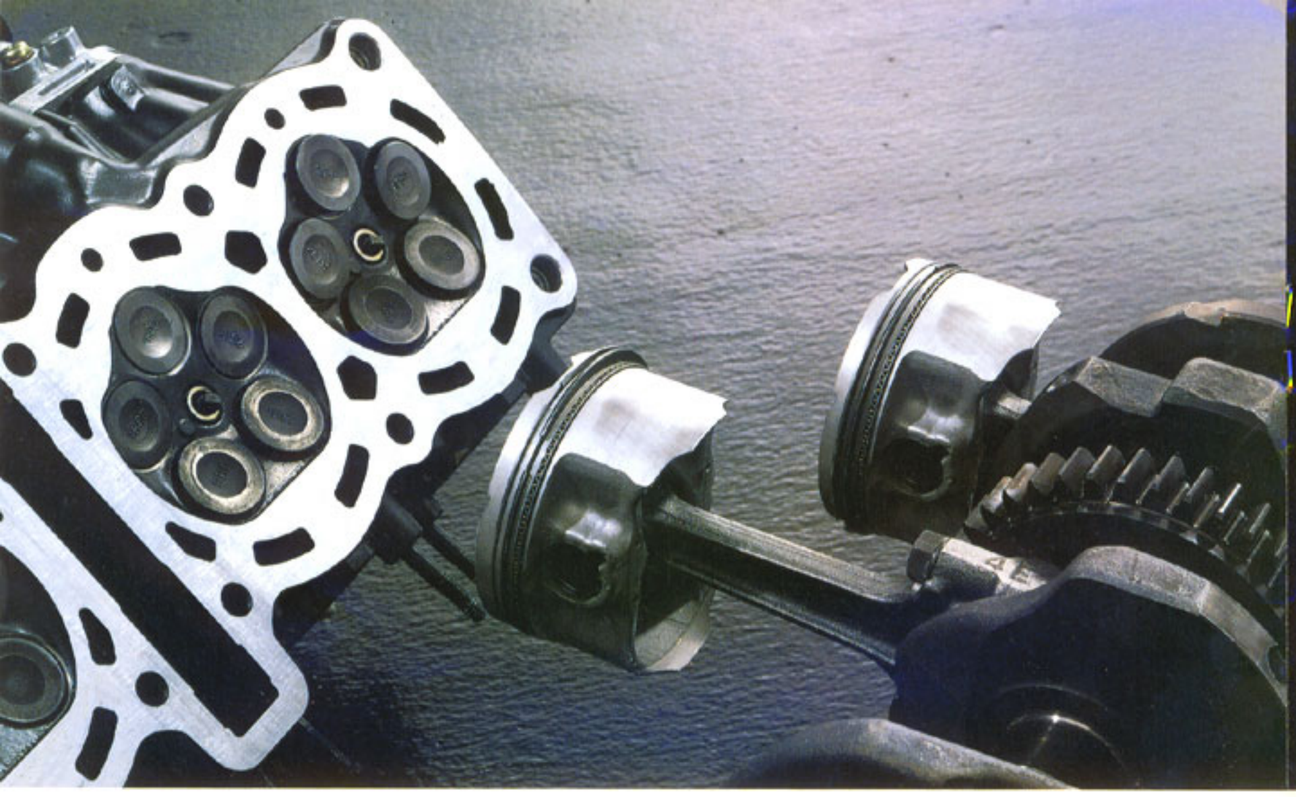
This was the "Genesis concept"—a term which was not mere imagery. It genuinely was a new beginning.

The reality of the Genesis technology is an engine with its four cylinders inclined forward at 45-degrees to improve front to rear weight balance. A chassis with wide-spaced upper beams that permit power-boosting downdraft induction into the inclined engine. The fuel load relocated to where the carburettors would have been on a conventional machine to further improve weight distribution for better handling.

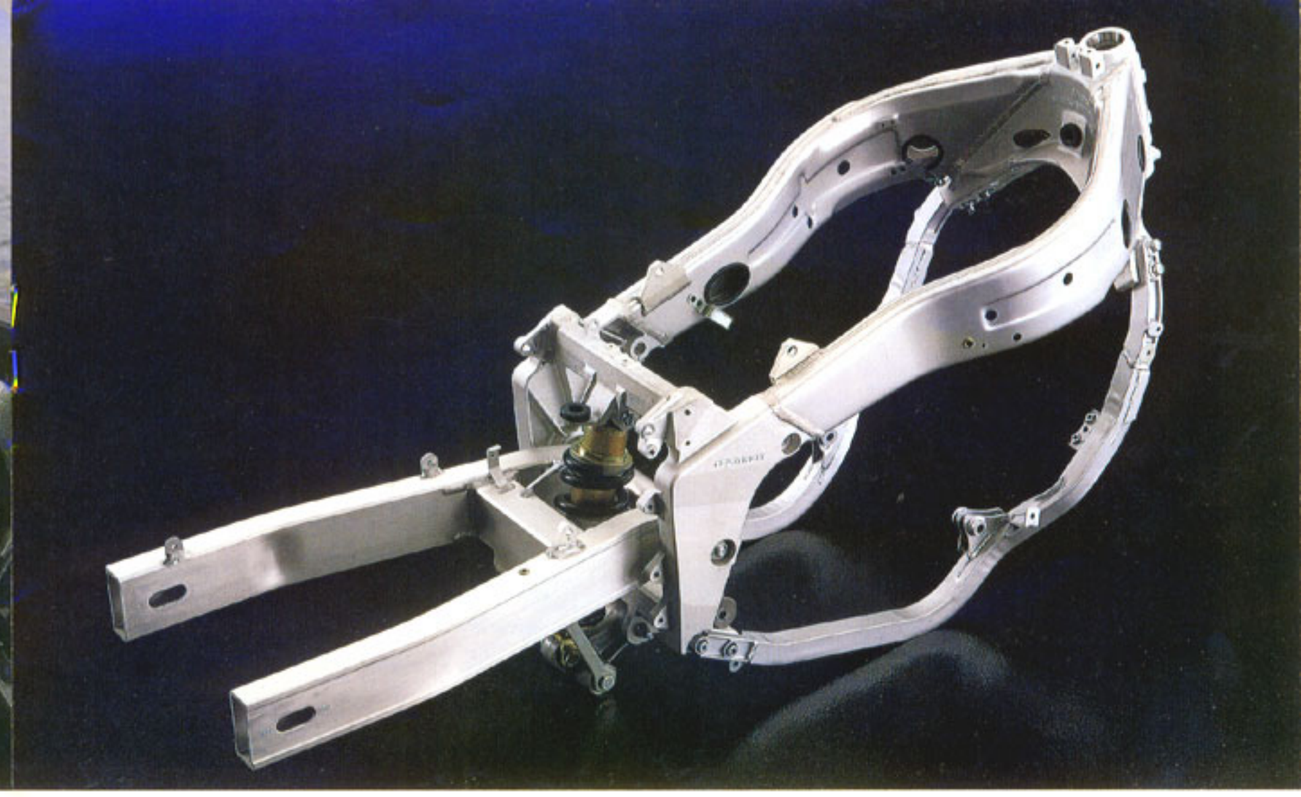
Designing one component while thinking of its effect on another. That's the genius of Genesis.







Yamaha FZR power: Four-stroke engineering at its most-advanced.



Yamaha's alloy "Deltabox" chassis: Handling to World Championship standards.

The Yamaha FZR1000 engine: true state-of-the-art technology that represents the latest advance in Yamaha's Genesis engineering achievements.

First of the "new wave" FZ motors was the 750, which took the motorcycle world by storm because it went one better than the rest and featured no less than five valves per cylinder.

Triple inlet and dual exhaust valves in a configuration that is still unique to Yamaha and which has since proved itself superior in terms of gas flow rate and combustion efficiency.

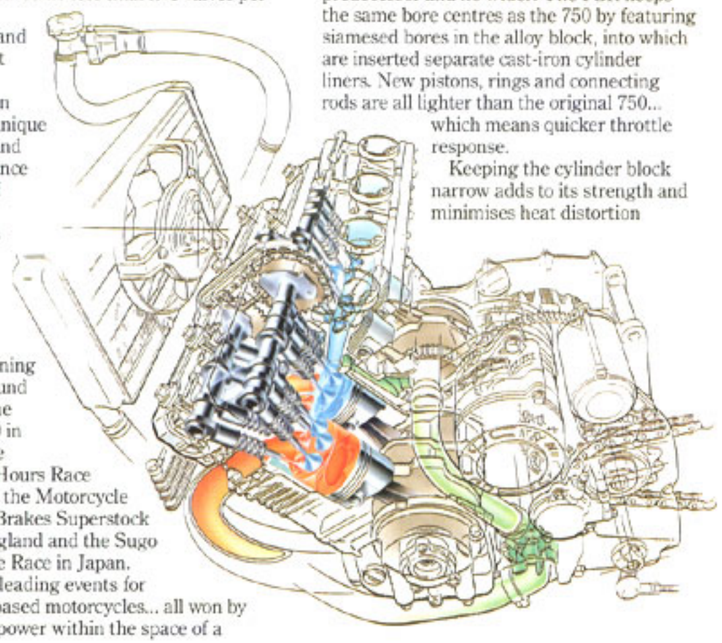
It proved itself by winning races all around the world: the Daytona 200 in America, the Castrol Six Hours Race in Australia, the Motorcycle News/EBC Brakes Superstock Series in England and the Sugo Formula One Race in Japan. The world's leading events for production-based motorcycles... all won by Yamaha FZ power within the space of a single season!

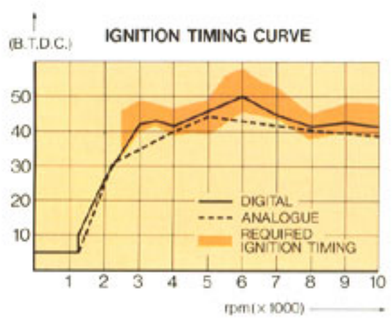
With this basis to build on, the FZR1000 engine will obviously be a winner too!

It's a bigger, faster, even-more powerful version of the original 750, specially-toughened to cope with the extra power.

Amazingly, it's even lighter than its smaller predecessor and no wider! The FZR keeps the same bore centres as the 750 by featuring siamesed bores in the alloy block, into which are inserted separate cast-iron cylinder liners. New pistons, rings and connecting rods are all lighter than the original 750... which means quicker throttle response.

Keeping the cylinder block narrow adds to its strength and minimises heat distortion





while the under-sides of the piston crowns are cooled by special oil-jets from the crankcase.

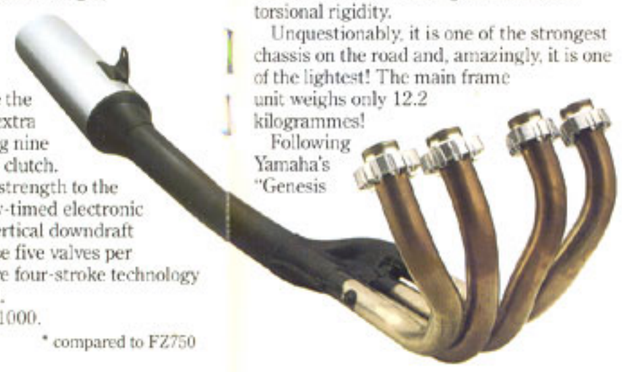
An oil-cooler and dual-rotor pump are included in the lubrication system, while the main engine coolant radiator is expanded by 25mm* and uses a 10mm* larger, thermostatically-controlled, electric fan.

Gear pinion sizes are increased to take the extra power and an extra friction plate (making nine in total) added to the clutch.

Add this inherent strength to the efficiency of digitally-timed electronic ignition, free-flow vertical downdraft carburation and those five valves per cylinder and you have four-stroke technology at its most-advanced.

The Yamaha FZR1000.

* compared to FZ750



The most-advanced four-stroke engine on today's roads deserves a chassis to match and the Yamaha FZR1000 has just that! Wrapped around the power plant is an alloy "Delta-box" frame based directly on the design which won Yamaha both the 500cc and 250cc World Championships in 1986 road racing.

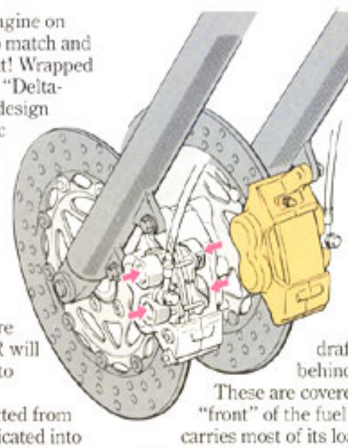
The "Deltabox" also proved capable of handling the bulk and power of our F1 and Endurance-racing "Genesis" four-strokes... on which the FZR1000 is so obviously based.

And this, of course, is why we are totally confident that the new FZR will be second-to-none when it comes to handling capabilities.

The "Deltabox" unit is constructed from high-grade aluminium sheet, fabricated into box-section beams that give it immense torsional rigidity.

Unquestionably, it is one of the strongest chassis on the road and, amazingly, it is one of the lightest! The main frame unit weighs only 12.2 kilogrammes!

Following Yamaha's "Genesis concept", the FZR1000 chassis was developed in parallel with the motor, taking full advantage of the 45-degree forward inclination of the engine's cylinder block.



The upper chassis beams are splayed wide apart to accommodate the down-draft carburettors just behind the steering head.

These are covered by the dummy "front" of the fuel tank, which actually carries most of its load down behind the cylinders, where conventional carburettors would have been.

Weight distribution comes close to the perfect 50/50 front-to-rear balance, plus the centre of gravity is lower and the weight mass more-centralized.

Helping achieve this is the Monocross suspension layout, which controls movement of the box-section aluminium swinging arm by a De Carbon-type, gas/oil shock absorber. The main mass of the shock and its attendant rising-rate linkages are below swinging arm pivot height.

At the front end, the telescopic forks are made flex-free by the use of 41mm-diameter stanchions. These have a steep castor angle of 25.33-degrees (thanks to the high rigidity of the "Deltabox" frame) for quick but precise steering reaction.

The cast-alloy, hollow-spoke wheels are both extremely strong and light, with the consequent reduction in unsprung weight a definite aid to suspension performance. They carry wide-section, low-profile Pirelli MP7S radial tyres with ultra-high speed ratings and triple disc brakes. Dual 320mm units at the front and a single 267mm disc at the rear.

Chassis, suspension, wheels and brakes were all developed for the FZR1000 from Yamaha's World Championship-winning racers.

A superb pedigree. But then, of course, the Yamaha FZR1000 is a superb motorcycle!

❶ *Vertical downdraft carburation means a straight intake path from carburettor mouth to inlet valve.*

❷ *Five valves per cylinder are one of the major reasons for the awesome power of the FZR1000. Triple inlet valves and dual exhausts provide maximum cylinder filling and total combustion efficiency.*

❸ *The FZR cylinder block is slanted forward at 45-degrees. This moves much of the engine weight lower and further forward so that front-to-rear weight balance is close to the perfect 50/50 ratio for superb handling.*

❹ *The 4-into-1 exhaust system follows racing pattern, with the stainless steel header pipes merging direct into the larger-diameter tailpipe to maintain maximum exhaust gas velocity.*

❺ *The aluminium "Deltabox" chassis is based directly on that of our successful F1/Endurance racer and the design that won us both 500 and 250 World Championships in 1986.*

❻ *The twin floating 320mm front disc brakes and the single 267mm rear unit are all drilled to allow expansion under heavy use, thus preventing distortion. Opposed-piston calipers (four-pot front, twin-pot rear) generate maximum braking force.*

❼ *Monocross rear suspension uses a De Carbon-type, gas/oil shock absorber to control the movement of the aluminium box-section swinging arm via rising-rate linkages. The shock is pre-load adjustable.*

❽ *The FZR1000 employs a five-speed transmission plus nine friction plates in the heavy-duty wet clutch to cope with its high-torque power delivery.*

❾ *The seat pad is sculptured to provide the most positive, comfortable location for rider and passenger. Racing-style, single-seat cowling comes as standard but is easily removed for two-up riding.*

❿ *The front of the fuel tank is, in fact, merely a cover for the carburettors and airbox. Most of its 20-litre capacity is located rearward and down between the chassis beams for better weight distribution and improved handling.*

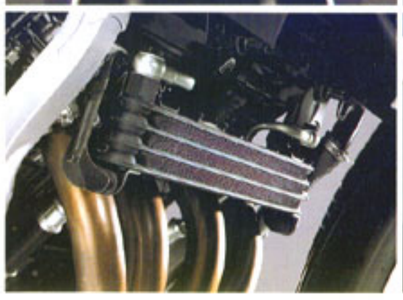
⓫ *Cast-alloy, hollow-spoke wheels are light but immensely-strong and were first developed for our Grand Prix road racers. Front is 17-inch diameter, rear is 18-inch. Both shod with wide, ultra-high speed Pirelli radial tyres.*

⓬ *Microprocessor-operated Digital Ignition system delivers a superhot spark at exactly the right time.*

⓭ *Aluminium footrests, brackets and pedals are neat, compact and lightweight. Rearset to combine with low, clip-on handlebars for ideal supersports riding position.*

⓮ *Wheelbase is a compact 1470mm for ideal handling characteristics. High chassis-rigidity permits a steep fork angle for quick and precise steering.*

⓯ *Chain adjusters are located actually inside the box-section alloy swinging arm. Adjustment is quick and highly-accurate.*



The full fairing has been aerodynamically-proved at racing speeds. Extractor ducts in the fairing's sides take hot air away from the rider.

The essential meters for sustained high-speed riding are the focal points of the instrument panel in the FZR1000 cockpit. Tachometer, speedometer and coolant temperature gauge.

Dual halogen headlights stress the FZR's endurance-racing heritage. Ducts in the head-fairing direct cool, dense air towards the carburettor airbox to reduce intake air temperature.

An oil-cooler is standard equipment on the FZR, with the lubricant being circulated around the engine by a dual-rotor pump. A unique oil-jet system in the crankcase directs fresh, cooling oil on to the undersides of the pistons.

Both the stems and the shells of the fairing-mounted rearview mirrors are streamlined for best possible air-penetration.

The separate clip-on handlebars are attached direct to the fork stanchions below the upper triple clamp, as on road-racing machines, for low and super-sporting riding position. All switches are handlebar-mounted at the rider's fingertips.

The high-speed touring possibilities of the FZR1000 have not been ignored. Integral tie-down hooks on the tail fairing allow easy use of the flat seat cowling as a luggage platform.