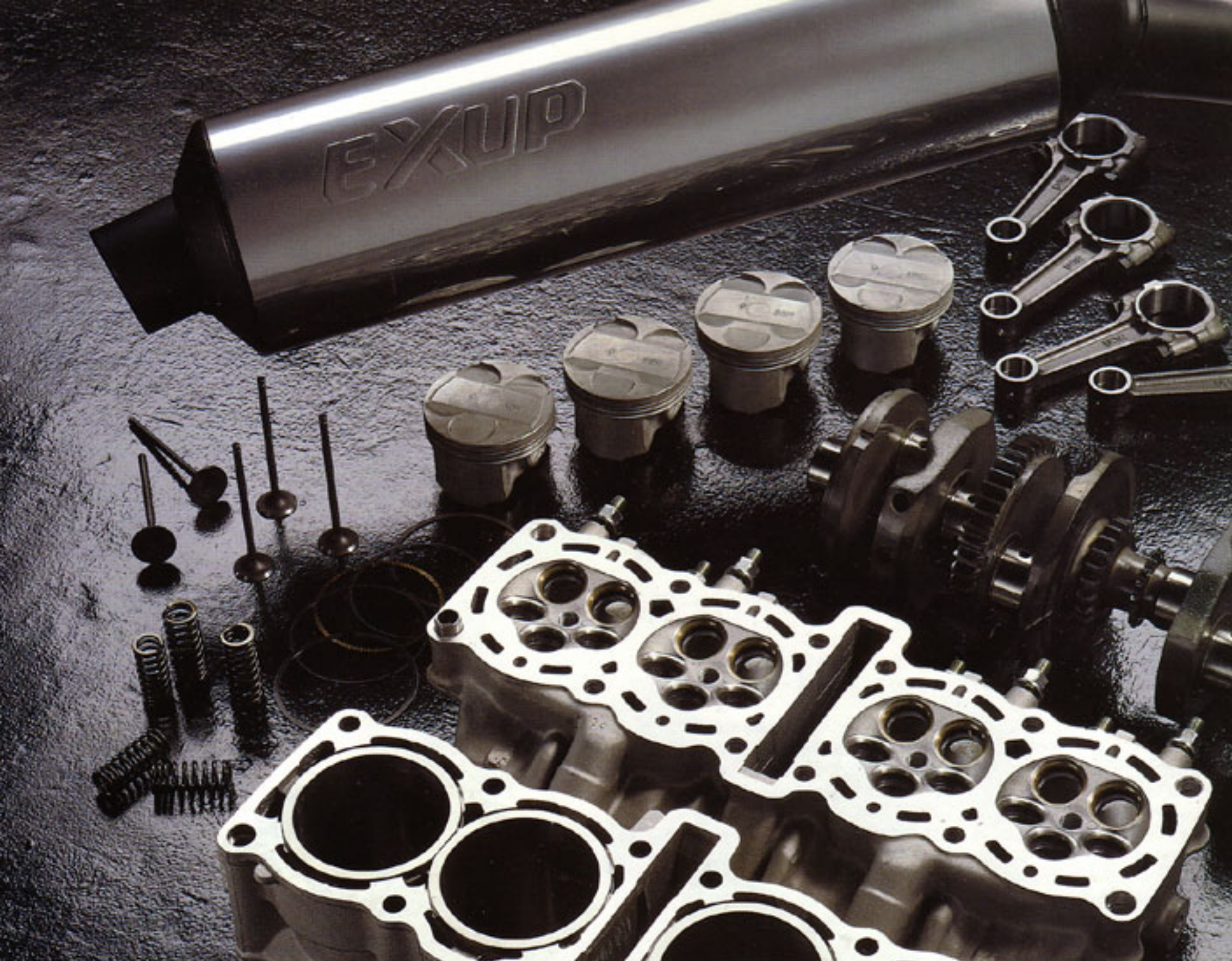




# FZR1000







## The second generation Yamaha FZR1000 — getting even closer to “pure sports” perfection.

“Genesis — Evolution by growth or development” says the dictionary. Which is a perfect definition of Yamaha’s engineering and design philosophy for our top-of-their class supersports bikes. Our “Genesis concept” is a “pure sports” philosophy of continued development towards perfection.

The first-generation Yamaha FZR1000 was developed true to this concept from the award-winning FZ750 and was already a long way up the ladder towards being the “perfect motorcycle”. And that’s not just our opinion but one backed up by “Machine of the Year” awards from journalists and magazine readers around the world.

Now the second-generation FZR1000 — still true to the “Genesis” ideals, takes several steps closer to perfection.

The goals of our Genesis programme have always been to produce a road bike that has the same blend of performance, handling and inherent safety factors as our World Championship racers. Could this be the one? Only time will tell, but one thing is certain. Nothing has yet come closer to this ideal!

Featuring a new Deltabox frame and swinging arm, improved engine design and the remarkable Yamaha EXUP exhaust power control system, the FZR1000 is now the most-balanced performer in the upper stratosphere of “pure sports” motorcycling. It has achieved that balance of top speed and superb handling, acceleration and maximum braking efficiency by faithfully following the “Genesis concept”. The concept which dictates that development of a motorcycle’s engine and chassis are always considered in tandem.

Yamaha’s design development engineers followed the Genesis philosophy from the inception of the FZ line. The Genesis concept dictated a clear direction to realise the engine and chassis working together in harmony to provide the discerning supersports enthusiast with the ultimate machine. Throughout the project the Yamaha engine and chassis design teams maintained open lines of communication at all times in order to ensure the realisation of the Genesis goal. It’s the pinnacle of the Genesis concept. A perfect balance between power and handling to high performance on two wheels more effortless and safer than ever before. In a effort to maintain Yamaha’s position at the leading edge of the technological quest, the design and development teams are not satisfied to rest on their laurels.

Lessons learned in the tough school of Grand Prix competition are fed back from the race department to our road machine engineers, so that what we learn on the track is soon benefiting Yamaha riders on the road.

The new frame and swinging arm on our second-generation FZR1000, for example, follows the design patterns established by the 500cc Grand Prix racer that has just taken Eddie Lawson to his World Championship.

The incredible 20-valve, twin-overhead camshaft engine that pushes the FZR1000 along at such velocity is a bigger, beefier version of the power unit which won the 1987 World F1 Championship and which has taken Yamaha to two Suzuka Eight Hour Race wins in the past two years!

Everywhere you look on the FZR1000 is evidence of Yamaha’s amazing technological capabilities. Living proof of Yamaha’s claim to be one of the most innovative of motorcycle manufacturers! Yamaha wrote the book on

two-stroke development, with every significant technological feature in that area coming from the YAMAHA drawing boards. Now we’re doing the same with four-strokes. What other production engines — car or motorcycle — feature triple inlet and dual exhaust valves, for example? We led the world with the five-valve technology and it has taken four years even for engineers in the rarified world of F1 Grand Prix car racing to catch up!

And what about EXUP — Yamaha’s electronically-controlled “exhaust throttle”? The Exhaust Ultimate Power Valve! What other manufacturer, two wheels or four, offers a device which controls exhaust gas pressure waves on a four-stroke engine to gain both top speed and maximum tractability. The answer — as with so many other Yamaha-created engineering advances — is “none”!

Because the Yamaha FZR1000 is the creation of some of the most brilliant minds in the automotive field. Minds that dreamed up the technology which has taken Yamaha to more World Championships than any of its rivals . . . then took that technology and put it on the road! That’s why the Yamaha FZR1000 was voted “Machine of the Year” all around the world. It has been designed by some of the most innovative minds in motorcycling and constructed by production-line workers with a strong sense of quality and commitment what has been voted the finest motorcycle of its time.

The Yamaha FZR1000. A very special motorcycle, built by a very special company.





Still at the top of the technology ratings. The new Yamaha FZR1000.

We're a company that's proud of our engineering achievements and our reputation as the greatest innovators in motorcycling. Which is why we're not likely to let our flag-ship, the FZR1000, ever get left behind in the technology stakes.

Not that there truly was ever much chance of that. When the FZR1000 was first announced, it was so far ahead in specification that everybody else was going to be hard-pressed to even catch up!

Now, with the second-generation FZR1000, we've stayed true to our "Genesis concept" of growth through development and gone further forward yet.

**Bigger — and even better!**

The liquid-cooled, four-cylinder FZR1000 engine has now grown from 989cc to 1002cc, to give it even more torque in the mid-rpm range. We've also made some more changes to keep it running out front where it belongs.

Bigger (38mm) carburetors; shorter, lighter valves with strengthened lifters and stiffer springs; straighter intake ports, increased valve angles and a higher (12:1) compression ratio.

What it all means is 500 extra rpm, translating into even more top speed and even quicker acceleration!

**Exhaust control!**

Probably the most-significant advance on the 20-valve, twin overhead-camshaft engine is the adoption of EXUP — Yamaha's patented "Exhaust Ultimate Power Valve".

Think of it as an "exhaust throttle"! By placing a rotary valve (driven by a microcomputer-controlled servomotor) between the four header pipes and the exhaust collector box, Yamaha's engineers have been able to harness the exhaust pressure waves and use them to the rider's advantage.

This advantage comes in the shape of a dramatic increase in top-end power and a stunning increase in low-and mid-range torque figures! EXUP makes an engine faster, smoother, stronger, quieter — and even reduces exhaust emissions. How many other "pure sports" bikes have a social conscience!

**Chassis changes, too.**

True to our Genesis ideals, we've also improved the FZR1000 chassis to match the engine's advances. The front downtubes have now been eliminated from the Deltabox frame and the engine incorporated as an integral part of the chassis layout. As a stress-bearing member, it now takes its share of the strain instead of simply imposing its load on the chassis tubes.

The bike, therefore, is lighter, more compact and even more torsionally-rigid than ever before. Plus there's a new fabricated box-section "Deltabox" triangulated swinging arm to further resist lateral flexing, even under the full-power stresses of the awesome FZR1000 engine. We defy any of the competition to out-handle the new Yamaha FZR1000!

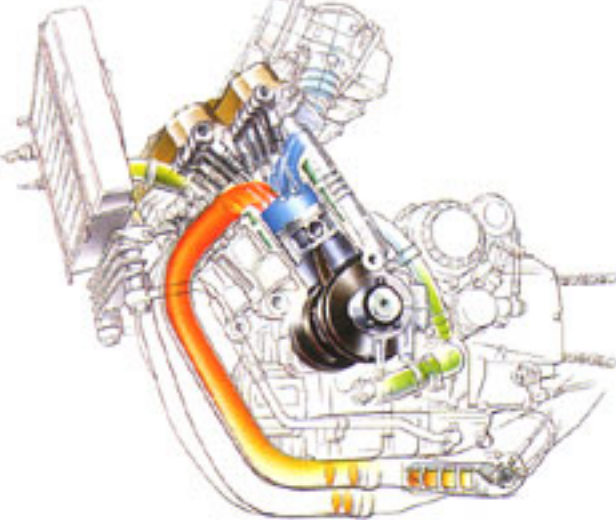
FZR1000 TECHNICAL SPECIFICATIONS

ENGINE	
Type	4-stroke, liquid-cooled, DOHC 5 valve, parallel four cylinder
Displacement	1002 cc
Bore & stroke	75.5 x 56.0 mm
Compression ratio	12.0 : 1
Max. power (DIN)	125.0 PS (92.0 kW) @10,000 rpm
Max. torque (DIN)	10.0 kg-m (98.2 Nm) @8,500 rpm
Lubrication	Wet sump
Carburation	Mikuni BDS38 x 4
Ignition	Transistor controlled (digital)
Starter system	Electric
Fuel tank capacity	19.14
Oil capacity	3.34
Transmission	5-speed
Final transmission	Chain

CHASSIS

Overall length	2200 mm
Overall width	730 mm
Overall height	1160 mm
Seat height	765 mm
Wheelbase	1460 mm
Min. ground clearance	135 mm
Dry weight	209 kg
Front suspension	Telescopic forks
Rear suspension	Swinging arm (Monocross)
Front brake	Dual 287 mm discs
Rear brake	Single 235 mm disc
Front tyre	130/60VR17 V280
Rear tyre	170/60VR17 V280

*Always wear a helmet, eye protection and protective clothing. Yamaha encourages you to ride safely and respect fellow riders and the environment. 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 your Yamaha dealer.*



**Massive forks and new front brake**  
Front fork stanchion diameter is increased from 41mm to 43mm for increased rigidity. Unequal piston sizes (larger diameter for the top pair) in the new-design hydraulic calipers provide the rider more "feel" when using the dual 287mm disc brakes.



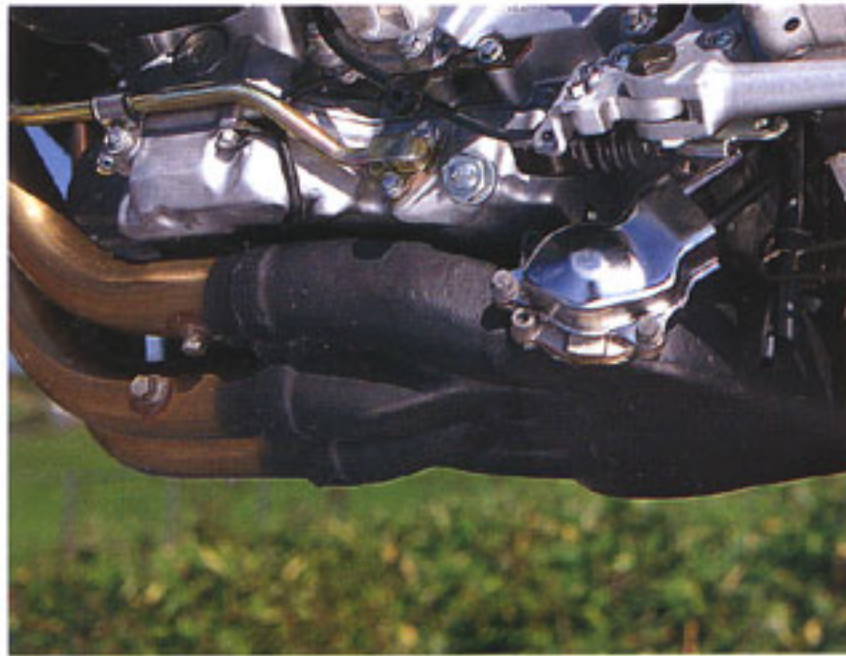
**Deltabox swinging arm and adjustable shock**  
New Deltabox swinging arm is constructed in light alloy and triangulated for maximum lateral rigidity. The Monocross rear shock absorber stroke is increased by new linkage arrangements for improved shock action. The damper is adjustable for spring pre-load and damping rate.



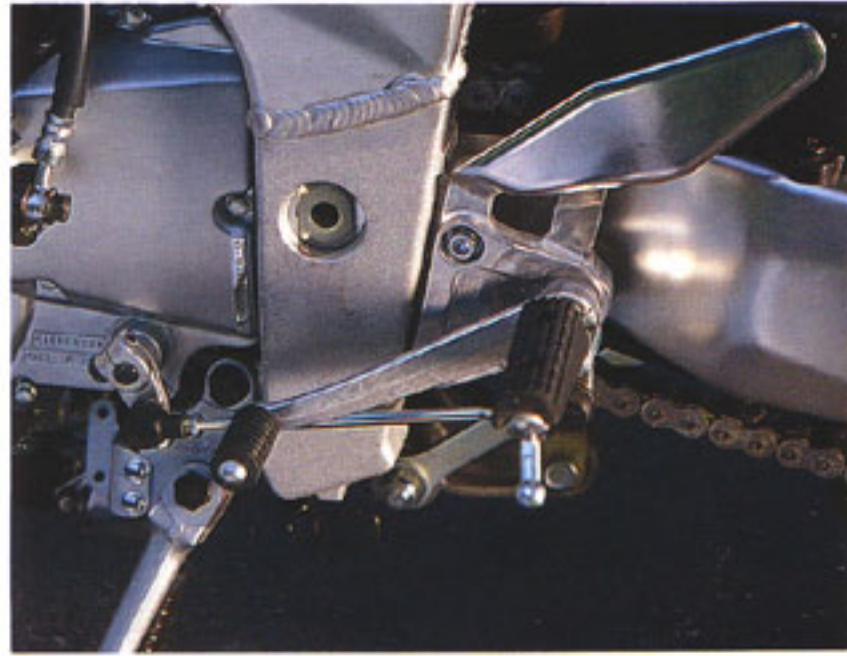
**New fairing with FAI system**  
A new fairing has flush-fitting headlight lens and a greater rake to the upper cowl for better air-penetration. The FAI (Fresh Air Intake) system in the fairing sides routes cool, dense air to the carburetor airbox for better cylinder breathing and more performance.



**Redesigned instrument panel**  
The redesigned instrument panel is more compact, with smaller meters and the tachometer more prominently-positioned for quick reference. An electrically-operated fuel switch allows the rider to change to reserve supply with minimum effort.



**EXUP (Exhaust Ultimate Power Valve)**  
Yamaha's Exhaust Ultimate Power Valve (EXUP) is a special valve in the exhaust system which controls the exhaust-flow pressure waves and prevents them from forcing outgoing gases back into the cylinders. It means a healthy boost in top-end power and an earth-shaking increase in mid-range torque.



**Slick-shifting transmission**  
Gear-changing is made more positive by the use of counter-tapered (back-cut) engagement dogs on the gears. This detail modification also extends overall transmission reliability. Slicker gear-shifting will allow the rider to make full use of the extra 500rpm delivered by the "second generation" FZR1000.

Important: The machine pictured is a prototype and may differ in some visual details in certain countries.





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