YAMAHA

YZF-R1



Leaning in deeper.

Never before in the history of motorcycling has the high performance rider had access to such an awesome piece of advanced technology as the mind-blowing Yamaha YZF-R1!

100% new from the ground up, this totally original hypersport bike has been constructed to annihilate just about every record in the book.

Drawing on vast resources of technical know-how earned from decades of experience producing ground-breaking road and race bikes – including legendary models like the RD twins and FZ and FZR fours – Yamaha's leading designers have created the most innovative and exciting new machine of the decade!

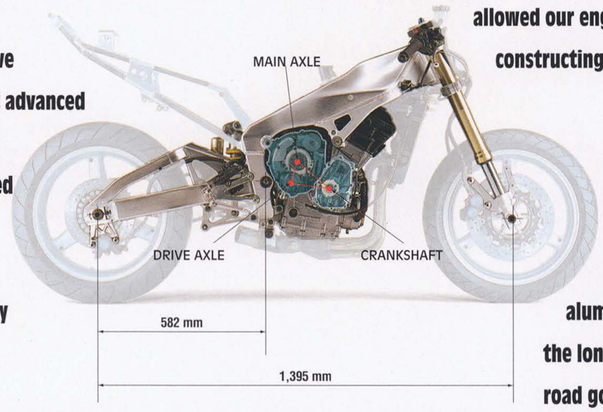
Designed using a holistic philosophy in which every single part – however small – has been engineered to achieve optimal performance at the lowest possible weight, the all-new Yamaha R1 is far beyond comparison with any existing supersport motorcycle.

Attaining the highest power-to-weight ratio ever recorded in the category, this phenomenal new one litre supersport machine truly embodies Yamaha's original spirit of innovation and competition.

Yamaha YZF-R1. This is where the future begins.



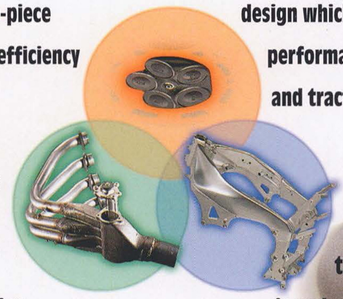
No one is pushing harder at the cutting edge of motorcycle design than Yamaha. And for 1998 we've developed one of the most advanced machines of all time that utilises highly sophisticated engine and chassis technology never seen before in the large capacity supersport category.



dimensions, extremely low weight and high rigidity have allowed our engineers total freedom in constructing their ideal chassis layout.

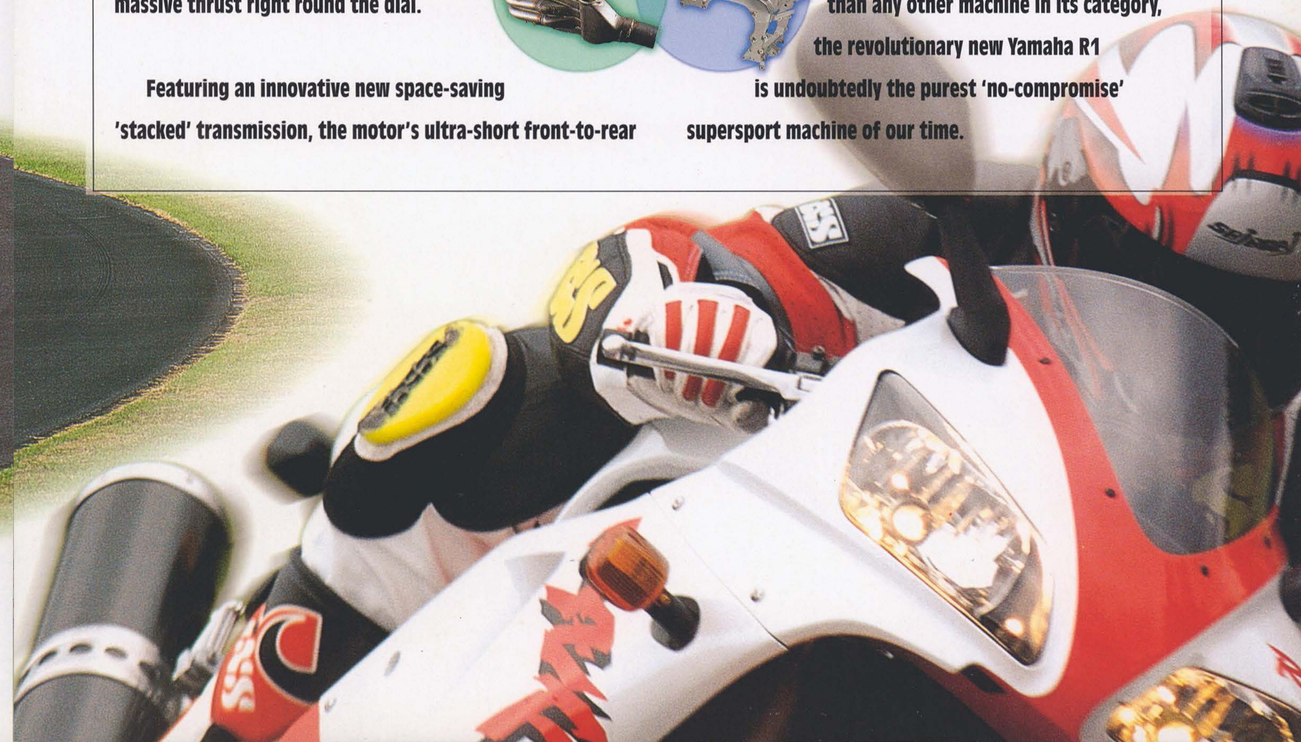
Employing the new engine as a fully integrated part of its structure, the 1395mm wheelbase Deltabox II aluminium chassis is fitted with the longest swinging arm used on a road going machine - a race proven design which makes for unmatched handling performance combined with high levels of stability and traction.

Running with 5-valve heads, a new one-piece forward inclined cylinder/crankcase, high-efficiency downdraft carburettors and a completely redesigned EXUP system, the R1's all-new 998cc in-line four cylinder motor kicks out massive thrust right round the dial.

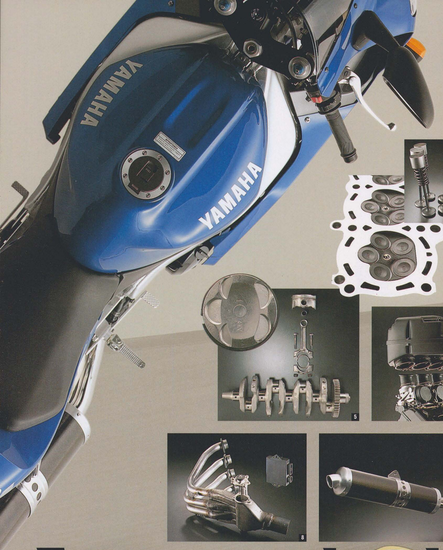


Featuring an innovative new space-saving 'stacked' transmission, the motor's ultra-short front-to-rear

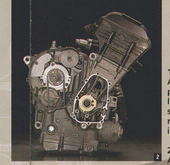
Lighter, shorter and more compact than any other machine in its category, the revolutionary new Yamaha R1 is undoubtedly the purest 'no-compromise' supersport machine of our time.



Future technology that's a race apart



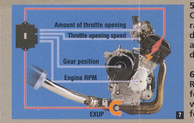
















998 cc's of concentrated supersport exhilaration

1. One-piece cylinder/crankcase
A key feature on the all-new R1 is its one-piece cylinder/crankcase—a superior lightweight design which, as well as substantially increasing engine and chassis rigidity, also enhances heat dissipation and improves durability.

2. 3-axis transmission/crankshaft layout
All-new 6-speed transmission features a vertically stacked mainshaft and layshaft—an ingenious space-saving design which gives the R1's ultra-compact engine the shortest front-to-rear measurement in its class.

3. Redesigned narrow-angle 5-valve head
Running with an all-new 5-valve head layout featuring narrower valve angles and a more compact, high-efficiency combustion chamber, the awesomely fast R1 motor pumps instantaneous power over a wider rpm band.

4. New 5-valve head with side-drive DOHC cams/Magnesium valve cover
New-design 5-valve heads feature side-driven camshafts which reduce engine width and allow the use of straighter, more efficient inlet tracts—and for reduced weight a magnesium valve cover is fitted.

5. Piston/Con rods/Pins/Crank assembly
Completely redesigned lightweight engine internals feature racing-type drop-forged low-friction pistons turning the small-diameter crankshaft via extremely strong carburized con rods—a package which makes for shattering acceleration with superb durability.

6. Carburettors/Air cleaner
Race-bred intake system utilises a voluminous dual-inlet airbox feeding four big-bore BDSR 40 mm carburettors equipped with TPS which force-feed the 5-valve heads with precisely the right charge for optimal power at all rpm.

7. Ignition system
By analysing data from sensors at the carburettors, crankshaft, gearbox and EXUP system, the sophisticated digital 3D mapped ignition constantly adjusts both ignition timing and EXUP aperture to ensure record-breaking performance.

8. EXUP
R1's new lightweight computer-controlled 'intelligent' EXUP (Exhaust Ultimate Powervalve) uses data from the digital 3D mapped ignition system to tune' the exhaust for maximum power across the rev range.

9. Muffler
Large-capacity exhaust system features stainless steel pipes flowing through the 'intelligent' EXUP into a race-style muffler. Manufactured from aluminium and carbon fibre, this high-quality upswept system offers serious cornering potential.

10. Oil cooler/Oil filter/Built-in water pump
To keep engine dimensions short the R1 is equipped with a trick new liquid-cooled oil cooler and oil filter mounted side-by-side—while overall width is reduced by a new internal water pump.



Shortest, lightest, most agile

1. Steering head pipe/Bearings
To ensure extremely light and responsive steering characteristics the short-wheelbase Deltabox II frame's sturdy head pipe is equipped with large-diameter low-friction sealed bearings.

2. Front forks
Fully-adjustable race-developed front forks feature 41 mm tubes and a forged aluminium lower clamp for increased flex-resistance—and for superior handling performance they offer an extra-long 135 mm rebound damping stroke.

3. Swinging arm/Linkage
R1's quick-steering high-agility 1,395 mm wheelbase Deltabox II chassis runs with an extra-long 582 mm truss-type swinging arm which, together with the Monocross rising rate rear suspension, makes for superb handling stability.

4. Rear shock
Operated by the extremely rigid truss-type swinging arm is a fully adjustable Bilstein rear shock whose piggyback reservoir ensures consistent damping performance for excellent rider comfort and precision roadholding.

5. Front brakes/Calipers
Highly sophisticated front braking system incorporates ultra-compact one-piece 4-pot calipers weighing only 135 grams each. Gripping dual 298 mm floating discs they generate outstanding stopping power together with precision feedback to the rider.

6. Rear brake/Caliper
Complementing the class-leading front system is a 245 mm rear disc slowed by the latest generation 2-pot caliper. Featuring a lightweight swinging arm-mounted torque stopper, this underslung caliper produces progressive, high-performance braking.

7. Shift linkage
Running through a tunnel in the frame, the innovative short-stroke gearchange linkage ensures quick and positive shifting through the 6-speed transmission every time, and demonstrates our designers' close attention to detail.

8. Wheels/Tyres
Newly designed 3-spoke hollow cast alloy wheels are exceptionally light, ensuring precision suspension action. Rolling on 120/70-ZR17 front rubber and a massive 190/50-ZR17 rear tyre, this sticky package finds traction at extreme lean angles.







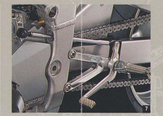














An experience in absolute rider control

1. Instruments
Light and very compact, the race-inspired instrument console incorporates a highly accurate and easy-to-read digital speedometer, fuel gauge, dual tripmeters, tachometer and clock, as well as an array of LED indicator lights.

2. Handlebars/Levers
Equipped with end weights, the R1's lightweight aluminium handlebars help absorb any vibration for enhanced comfort and control—and for easy operation a specially-shaped clutch lever and span-adjustable brake lever are fitted.

3. Seat/Rear cowl
Yamaha YZF-R1's race-developed seat is designed to allow quick and easy weight shifting and to offer high levels of comfort—while the slippery rear cowl reduces drag for increased high speed performance.

4. Fuel tank
Featuring a slim rear section for optimal rider comfort and control, the beautifully-crafted flangeless fuel tank employs an internal space-saving fuel pump, and although visually compact it offers a generous 18 litre capacity.









The face of the future

Fairing/Front fender/Mirrors
Designed to pierce the air barrier with minimum effort, the GP-inspired slant nose fairing, one-piece front fender and streamlined mirrors combine a remarkably low drag coefficient with an awesomely handsome profile.

Headlights
Burning brilliant holes in the darkness, the R1's dual multi-reflector headlights generate high-intensity beams for excellent night-time visibility. And they also deliver the meanest looking and most intimidating 'stare' on the street!





BWC1 (Bluish White Cocktail 1)





YZF-R1
TECHNICAL SPECIFICATIONS

ENGINE

Cylinder arrangement	Inline 4
Displacement	998 cc
Bore and stroke	74 x 58 mm
Compression ratio	11.8 : 1
Maximum power	110.3 kW / 10,000 rpm
Maximum torque	108.3 Nm / 8,500 rpm
Starting system	Electric starter
Lubrication	Wet sump
Oil capacity	3.6 L
Carburation	BDSR40
Primary reduction ratio	63 / 43 (1,581)
Secondary reduction ratio	43 / 16 (2,688)
Clutch type	Multidisc type wet
Transmission type	Constant mesh 6 speed
Gear ratio 1st	39 / 15 (2,600)
Gear ration 2nd	35 / 19 (1.842)
Gear ration 3rd	30 / 20 (1,500)
Gear ration 4th	28 / 21 (1,333)
Gear ration 5th	30 / 25 (1,200)
Gear ration 6th	29 / 26 (1,115)
Final transmission	Chain
Generator	ACM 12V

CHASSIS

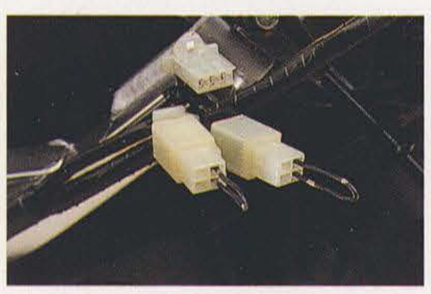
Overall size (L*W*H)	2,035*695*1,095 mm
Seat height	815 mm
Wheelbase	1395 mm
Dry weight	177 kg
Min. ground clearance	140 mm
Trail	92 mm
Fuel tank capacity	18 L
Front suspension	Telescopic
Rear suspension	Swing arm
Front wheel travel	17 x MT3,50
Rear wheel travel	135 mm
Front brake	Double disc Ø 298 mm
Rear brake	Single disc Ø 245 mm
Front tyre size	120/70 ZR17 58W
Rear tyre size	190/50 ZR17 53W

DPBMC (Deep Purplish Blue Metallic C)









1. Wiring harness
For easy fitment of an aftermarket alarm the R1's wiring harness incorporates a simple plug-in adaptor.



2. Seat cowl
The optional seat cowl offers extra rear support during solo supersport riding.

Always wear a helmet, eye protection and protective clothing. Yamaha encourage you to ride safely and respect fellow riders and the environment. Specifications and appearance of Yamaha products shown here may vary according to requirements and conditions, and are subject to change without notice. For further details, please consult your Yamaha dealer.

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