

SUZUKI **GSX-R750**

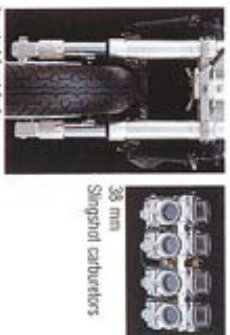


Dominant Force: Direct Access Racing Technology

The new Suzuki GSX-R750 brings to 750cc class production motorcycles an all-around superiority won in successful factory racing actions and proven in a wide range of production endurance racing events. Powerful, circuit-bred performance features like engine improvements straight out of the factory team's race shop, rigid inverted front forks and Suzuki's unique progressive link rear suspension — all cradled within an aluminum-alloy frame and swingarm whose efficiency has been proved with modified racing engines. The new GSX-R750 is another Suzuki success in efficient application of racing technology — technology that's made the GSX-R750 the dominant force in 750cc Street Production-based racing — to street bikes. It's direct-access racing technology in action.



Body color: White/Blue



38 mm
Slipstream carburetors



Racer derived styling with high-mounted headlights

- The latest GSX-R750 749cc powerhouse features cylinder head designs straight from the factory racers.
- Valve seats are smoothly blended with reshaped intake ports for better cylinder charging and higher torque.
- Use of lightweight, single rocker arms to open each valve, and use of small shims to adjust valve lash, reduces inertial mass and mechanical losses.
- Lightweight pistons with light, thin rings efficiently reduce friction and resist fluttering even at peak rpms.
- Suzuki Advanced Cooling System (SACS), combined with air cooling, efficiently carries engine heat away to the high-capacity curved Radial Flow cooler.
- 38mm Slipstream carburetors maintain quick engine response.
- Cool-air induction system routes cool, dense air from the fairing intake to the airbox.
- Aluminum-alloy double-cradle frame, together with swingarm reinforced with gussets, features rigidity exceptionally well proven with modified racing engines.
- Inverted front forks have higher rigidity and provide better fork response. Suzuki's unique progressive link rear suspension system is combined with a remote-reservoir rear shock.
- Wide aluminum-alloy wheels with hollow spokes carry high-performance 17-inch front and rear radial tires.
- 310mm front brake discs with surface slotting and floating carrier mounts are mounted, together with 4-piston calipers with staggered piston sizes.
- New factory racer-derived, narrower fairing with flush-mounted headlights, along with sidecovers and tailsection, are wind-tunnel refined and provide better aerodynamics.



Professional rider pictured

SPECIFICATIONS

Engine type	4-stroke, air-cooled with SACS, DOHC-TS/C
Piston displacement	749 cc
Bore x stroke	70.0 x 48.7 mm
Compression ratio	10.9 : 1
Maximum power	116 PS/11,000 rpm
Maximum torque	79.7 kg-m/3,500 rpm
Carburetor	MKJUNI BS138SS x 4
Ignition type	SUZUKI "PEI"
Starter system	Electric
Lubrication system	Wet sump
Transmission	6-speed constant mesh
Final drive	Chain
Overall length	2,065 mm (81.3 in)
Overall width	725 mm (28.5 in)
Overall height	1,410 mm (44.8 in)
Wheelbase	1,415 mm (55.7 in)
Ground clearance	125 mm (4.9 in)
Seat height	790 mm (31.1 in)
Dry mass	208 kg (459 lbs)
Suspension front	Inverted telescopic, cool spring, spring preload fully adjustable, damping force compression 12-way and rebound 12-way adjustable
rear	Link-type, coil spring, gas/oil damped, damping force compression 12-way, rebound 4-way adjustable
Brakes front	Disc
rear	Disc
Tires front	120/70 ZR17
rear	170/60 ZR17
Fuel tank	21 L (5.5 gallon)

Body color



White/Red



Black/Gray



Black/Silver

70th
ANNIVERSARY
1920-1990 SUZUKI

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SUZUKI

SUZUKI MOTOR CORPORATION
2000 TAKASHIKAWA, HIRAKAWA-CITY, JAPAN

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GSX-R750



Professional rider pictured

Direct Access Racing Technology

Nothing speeds technological development and advances the state of the engineering art as rapidly as racing.

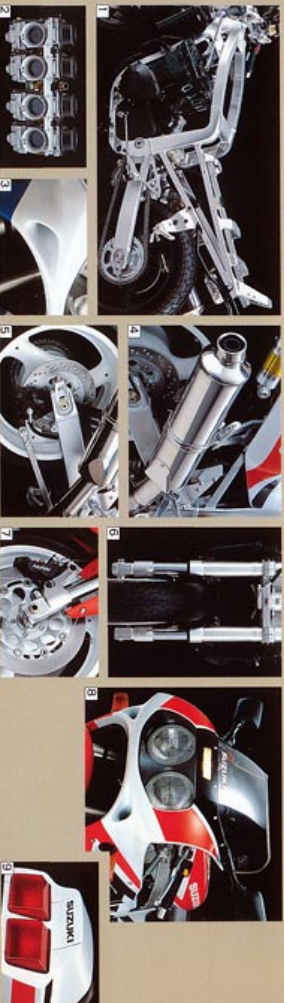
The racetrack rewards all-around function. Success in racing comes to efficient high-performance machines, racing motorcycles that accelerate harder, corner faster, stop quicker, simply work better. Nobody builds better racebikes than Suzuki: The Grand Prix-winning RGV500i and the stunning 750cc Formula-1 GSX-R750R (fielded by the Suzuki factory team) are proof of that fact. But building exotic racebikes is one thing. Applying racing technology to production street motorcycles without building in an outrageous price tag is another.

That's what makes the high-performance Suzuki GSX-R line different: The direct, efficient application of racing technology.

Technology that makes the GSX-R750 simpler, lighter, more efficient, better than the competition.

The 1991 GSX-R750 is more than the best all-around high-performance 750cc street motorcycle available off a showroom floor today.

The 1991 GSX-R750 is direct access racing technology.



A Revolutionary Engine, Refined

Revolutionary for its combination of high torque output, design simplicity and light weight, Suzuki's unique GSX-R engine has been continually refined since its introduction in 1984. GSX-R's Advanced Cooling System (ACS), race-proven 280cc power-horse has a bore and stroke of 70 x 48.7mm, four valves per cylinder, double overhead camshafts and Suzuki's TSCC (Twin Swirl Combustion Chamber) design. Racing-design connecting rods carry lightweight pistons with recessed wrist-pin bosses, cut-away skirts and light, thin rings that reduce friction to the 13,000 rpm redline. A cast iron ring seal all the way up New cylinder head improvements come straight out of the factory Formula-1 team's race shop. Bending the valve seats smoothly into reshaped intake and exhaust ports increases gas flow velocity, improving cylinder charging and scavenging and producing more torque. Opening lead valves with a lightweight, single rocker arm (instead of the two used by conventional engines) on a small stem (held on top of each valve spring retainer) to adjust valve lift, reduces inertial mass and—especially at high rpm—mechanical losses as well. And using valve springs from the GSX-R1100 engine improves valve control at higher rpm.

It all adds up to an astounding amount of torque, in all gears, at all rpm. The GSX-R750 has the type of reliability that has made the GSX-R750 legendary.

Suzuki Advanced Cooling System (SACS)

The Suzuki Advanced Cooling System (SACS) combines with air cooling to efficiently keep the GSX-R750 engine at optimum operating temperature. SACS is a separate, high-volume oil flow system called Radii Flow cooler. SACS results in engine temperatures much lower than those achieved with air-cooling alone, and SACS is simpler and lighter than competing water-cooling systems.

Slingshot Carburetors

The Suzuki GSX-R750 breathes through Slingshot carburetors. The design combines the best performance features of a flat slide and a round slide, delivering the quick response and reduced inertia—movement resistance of a flat slide and the less-turbulent airflow and better sealing of a round slide. A smooth-radius air intake bell, without ridges, increases intake efficiency. The carburetors are designed to create a negative pressure underneath the slide diaphragm, allowing the slide to rise more rapidly and improving throttle response. Slingshot design carburetors are lighter than conventional carburetors and are easier to work on, making jettling changes faster and simpler at the racetrack.

Cool Air Induction System

Cool air is denser air, and denser air means more torque

output. But the air reaching the carburetors of most motorcycles has been heated and thinned by passing through the intake system. The GSX-R750's Cool Air Induction System carries relatively cool, dense air to the carburetors. The system routes air from a fairing intake scoop into the right-side frame rail; the air travels through the rear frame cross tube and is fed into the airbox intake.

Four-into-one Exhaust System

The GSX-R750's efficient four-into-one exhaust system is designed to help maximize cornering clearance.

Computerized Ignition

Suzuki's microcomputer-controlled digital ignition system provides ideal ignition timing at every engine rpm. Timing is not affected by heat or humidity.

Race-proven Clutch with Rack-and-pinion Actuation

The GSX-R750's race-proven clutch has six heavy coil springs. The rack-and-pinion clutch actuation system uses needle roller bearings on the pinion for a light pull and precise feel, and gives the rider excellent feedback at the clutch engagement point.

Compact, Strong Racing Frame and Swingarm

The GSX-R750's compact, light and rigid combination of side-of-the-seat castings and extended straight-wall tubing. The double-cradle frame and rectangular-section swingarm designs have performed exceptionally well even with heavily modified racing engines. Swingarm reinforcing includes gussets behind the cross brace tube.

Inverted Front Forks

Any rider who has made back-to-back comparisons will tell you that the fastest way to improve handling is to replace conventional front forks with a set of inverted forks. Race-proven inverted forks simply work better, and that's why they're standard on the 1991 GSX-R750. Unlike conventional forks, the GSX-R750's inverted forks have the stanchion tubes at the bottom, carrying the upper tubes through the fork crown. The inverted upper tubes grabbed by forged aluminum alloy triple clamps, because there's more surface area gripped by the triple clamps, the entire assembly is more rigid, reducing side loading of fork bushings and improving fork response. Round and compression damping can be adjusted independently. The inverted fork design allows for 12 compression damping settings. Spring preload can be adjusted across a 15mm range. Front wheel travel is 120mm (4.72 inches).

Progressive Link Rear Suspension System

Suzuki's unique progressive link rear suspension system becomes progressively firmer throughout its 150mm (5.91 inches) of wheel travel, improving response

to road irregularities around town and at highway speeds. Needle roller bearings reduce friction in linkage joints. The rear shock absorber has four rebound damping settings and 12 compression damping settings. Spring preload can be adjusted across a 10mm range.

Wide Cast Wheels, Radial Tires

The 1991 GSX-R750's wide, cast aluminum-alloy wheels carry 17-inch high-performance radial tires. Each wheel has three spokes spaced to reduce weight, with a wide hub for extra strength. The front wheel has a sealed design to reduce stress concentration where the spoke meets the rim. The front wheel measures 350 x 17-inches and the rear wheel measures 500 x 17-inches.

Four-piston Calipers, Floating Front Brake Discs

Race-proven stainless steel alloy, 30mm (1.18-inch) thick floating front brake discs. The four-piston carrier mounts to help resist heat-related distortion. Four-piston calipers have staggered (30mm leading and 34mm trailing) piston sizes for more even pad wear. The front master cylinder features a remote fluid reservoir.

Raceable Aerodynamics

The 1991 GSX-R750's frame and bodywork design come straight off the factory team's 1991 roadbike. The wind-tunnel refined fairing features a slanted nose, flush-mounted headlight assembly and raked windshield for less lift, smaller frontal area and reduced drag. The sidecovers and tailsection smooth the airflow behind the rider's legs.

Wider Seat and Optional Solo Cover

A new, wider seat increases rider and passenger comfort. An optional cover is available to replace the rear seat section, for solo riding.

Dual Lighting, Complete Instrumentation

The GSX-R750's new dual-halogen-hub headlight assembly is complemented by a new front turning light and a new dual-hub taillight migrated from the rear. The instrument cluster includes a tachometer, speedometer and a full array of indicator lights.



SPECIFICATIONS

DIMENSIONS AND DRY MASS

Overall length 2,055 mm (80.9 in)
 Overall width 725 mm (28.5 in)
 Overall height 1,400 mm (44.9 in)
 Wheelbase 1,420 mm (55.9 in)
 Front ground clearance 70 mm (2.8 in)
 Rear ground clearance 70 mm (2.8 in)
 Swing height 110 mm (4.3 in)
 Seat height 811 mm (26.6 in)

ENGINE

OHV, 4-stroke, TSCC, SACS, 4 valves
 4
 700 mm x 48.7 mm
 79.9 cc
 12.5:1
 Multi-Link BSTC, 4 x 4
 Electric starter

TRANSMISSION

Chain
 6-speed constant mesh

Transmission

Gearshift pattern

Primary reduction ratio

Gear ratios 1st

2nd

3rd

4th

5th

6th

Final reduction ratio

2.895 (43/15)

CHASSIS

Front suspension

Inverted telescopic coil spring, oil damped, spring preload fully, rebound 12-way, adjustable

Rear suspension

Link-type suspension, spring preload fully, rebound 4-way, compression 12-way, adjustable

Front suspension stroke

120 mm (4.7 in)

Rear wheel travel

128 mm (5.0 in)

Trail

100 mm (3.9 in)

Steering angle

31° (10.2 in)

Tuning radius

120/70 ZM17

Front brake

170/60 ZM17

Front tire size

120/70 ZM17

Rear brake

170/60 ZM17

Rear tire size

170/60 ZM17

Electric start

Yes

Ignition type

CDI

Ignition timing

12 V / 14 Ah

Battery

Headlight

12 V / 60/55 W x 2

Chirp/taillights

21 L (5.5 gal)

Fuel tank

43 L (4.5 gal)

Engine oil

21 L (5.5 gal)

43 L (4.5 gal)

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SUZUKI GSSX-R750

PRODUCT INFORMATION



WHITE/BLUE

WHITE/RED

BLACK/GRAY

BLACK/SILVER



SUZUKI MOTOR CO., LTD.

300 TAKATSUKA, HAMAMATSU, JAPAN

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