



Press information

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Contents

1.	Introduction	Р3
2.	Product concept	P4
3.	Styling design	P7
4.	Engine design	P11
5.	Suzuki Intelligent Ride System (SIRS)	P20
6.	Chassis design	P28
7.	Electronic design	P36
8.	Genuine accessories	P40
9.	Colour lineup	P44
10.	Specification	P45



1. Introduction

The GSX-S1000 was launched in 2015 to bring a new model to Suzuki customers, providing a sports machine in a streetbike package. At its heart was a long stroke 999cc inline-four cylinder engine that produced waves of torque and a surging top-end power.

This engine was wrapped in a new lightweight aluminium frame mated to a GSX-R-derived swingarm, and the whole package was built to 'own the street.'

The first major update to the GSX-S1000 now aims to enhance the overall balance of the streetbike performance, to deliver greater controllability, agility, and power for an even more exciting riding experience, while complying with Euro 5 emissions standards and improving its aggressive stance to turn heads.



2. Product concept

The GSX-S1000 product concept is:

'The beauty of naked aggression.'

This concept clearly conveys its role as a streetfighter designed to bring sports performance to riders in a street-focused package. It's about confidence-inspiring controllability, optimised comfort, and standout looks.

It also reflects the engine's character, performance, and reliability, and adoption of select technologies that serve to further enhance the riding experience, and the beauty of the new model's design.



2. Product concept Key product features

Styling features:

- An aggressive new stance the speaks of power and performance, as well as refinement and sophistication. **NEW**
- A radical and futuristic stacked LED headlight assembly. NEW
- The thin tail section creates a lighter, tougher profile with a mass-forward look. **NEW**
- Three body colours available: metallic triton blue, the main colour and a symbol of Suzuki brand identity, glass matt mechanical grey, a new colour for the GSX-S1000, and glass sparkle black. NEW
- Decals featuring the new logo and urban camo textured overlays of the side panels and radiator shrouds. NEW

Engine features:

- 999cc liquid-cooled inline-four cylinder engine that builds on its superbike DNA to deliver streetbike performance through updates and refinements for smoother, more consistent output in the low to midrange.
- Updated and compact 4-2-1 exhaust system introduces a new layout behind the collector that repositions the Suzuki Exhaust Tuning (SET) system and muffler, and new catalytic converters and a revised chamber design that help satisfy Euro 5 emissions standards. UPDATE
- Finely-tuned fuel injection system uses 10-hole, long-nosed injectors on each throttle body to maximise loading efficiency and performance, while also contributing to lower fuel consumption.
- Retention of the previous model's intake sound and impressive resonance while enhancing the quality of its note. **UPDATE**
- Suzuki Clutch Assist System (SCAS) provides smoother deceleration and better control when downshifting, while also realising a lighter clutch lever operation. **NEW**

Suzuki Intelligent Ride System (SIRS) features:

- Suzuki Drive Mode Selector (SDMS) allows section of three different power modes.
 NEW
- Suzuki Traction Control System (STCS) with five modes, plus off. UPDATE
- New ride-by-wire electronic throttle control system. **NEW**
- Bi-directional quickshifter means no need to shut the throttle on upshifts or blip it on downshifts, or operate the clutch lever for gear changes. NEW
- Suzuki Easy Start System means one prod of the starter button to fire the engine.
- Suzuki Low RPM Assist function is updated to work with SCAS to aid pulling away and low speed riding. UPDATE

2. Product concept

Chassis features:

- Compact, lightweight chassis engineered for agile character and optimum performance in real world conditions.
- Twin-spar aluminium frame with straight main tube from steering head to swingarm pivot achieves high rigidity for nimble handling and road-holding performance.
- GSX-R-derived aluminium alloy swingarm.
- New handlebars with 23mm wider grip and revised angle combine with updated seat design to achieve upright riding position that balances comfort and sport riding experience. UPDATE
- Fully-adjustable 43mm KYB front forks.
- Adjustable link-type rear suspension.
- Six-spoke cast aluminium wheels.
- Custom engineered Dunlop SPORTMAX Roadsport2 tyres. NEW
- New fuel tank increases capacity to 19 litres. NEW
- Four-piston Brembo monobloc front brake calipers bite 310mm floating discs.

Electric equipment features:

- New vertically stacked LED headlights in hexagonal housings topped by LED position light. NEW
- New LED front and rear turn signals. NEW
- Double lens LED rear combination lights.
- Informative, easy-to-read full-LCD instrument panel. UPDATE

The GSX-S1000 design concept is:

'Razor sharp and ready to strike.'

The goal of the design is to visually express the potential of a motorcycle with superbike DNA but refined with the sophistication of a product designed to 'own the street', providing greater predictability and controllability on any ride and for any rider. Its sharp lines, radical new headlight design, and slim front and rear sections highlight its muscular and aggressive stance.





Sculpted sense of muscular strength NEW

Every stage of the design was aimed at creating a strong sense of a well-built streetfighter. To this end repeated rounds of computer analysis and clay modelling were each followed by discussions between the development team and the designers as they worked to highlight a sculpted, muscular poise.



Stance of aggressive attitude NEW

The radical design and of the hexagonal lenses of the new stacked LED headlight assemblies create a sharp, compact face. The minimalist cowling that surrounds them adds sharp lines and a sense of tension that is inspired by designs found on Suzuki's GP racing machines The compact front pairs with the short, compact muffler design and slim design of the tail section to establish a clean, agile look. The result is a mass-forward image that emphasises the new GSX-S1000's aggressive stance.



Straight, sharp lines for look of modernity and quality NEW

The design features straight, sharp lines and attention to every detail, which, combined with the exposed metal finish of the front fork outer tubes and muffler create a modern, eye-catching, appealing look.



A trio of body colours **NEW**

Metallic triton blue: the main colour and brand symbol for Suzuki's on-road sports identity. Glass Matt mechanical grey: this solid matt grey with a hint of a blue is a newly-developed theme colour for the GSX-S1000. Glass sparkle black: a combination of glossy and flat black.



New decals and textured overlay NEW

New understated Suzuki logos on the fuel tank and model decals on the side cowling adopt a modest size and modern design to lend a look of sophistication. In addition a new textured pattern is applied to select surfaces to aid the urban look and enhance product quality.



Introduction

The high-performance 999cc four-stroke, DOHC liquid-cooled inline-four cylinder engine that powers the GSX-S1000 inherits winning superbike DNA, but this new iteration of a legendary engine has undergone thorough review, as it was updated to deliver naked streetbike performance under varying riding conditions - whether out for a sporty ride or negotiating traffic on city streets - and for a variety of riders. Changes that include a new camshaft profile, new valve springs, a new clutch, and new exhaust system increase power output and achieve an overall better balance of performance, all while satisfying Euro 5 emissions standards.

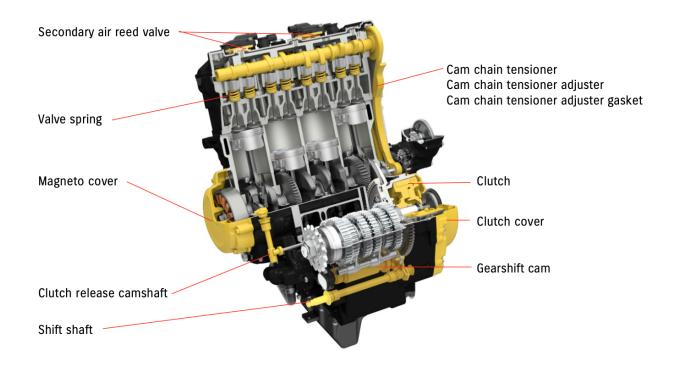
The new engine produces greater torque than its predecessor at low rpm. This brings about a better response and more immediate pick-up when accelerating from low speed. In the same vein, the engine demonstrates a better torque response at midrange and higher speeds. This too leads to a more exhilarating and enjoyable riding experience. The new engine also provides a level of stability at high speeds that builds greater confidence.

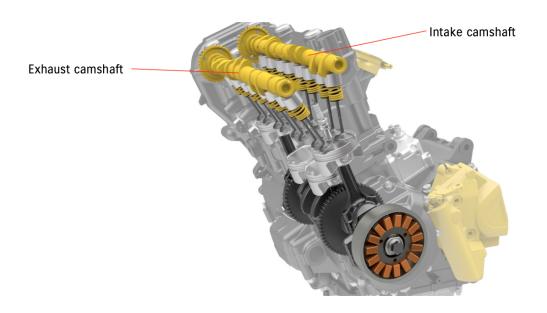
In addition to its broad, smooth torque curve and power delivery throughout its wider power band, the new engine incorporates a rich variety of new electronic control technologies that make the GSX-S1000 more controllable, more predictable, and less tiring to operate. This includes giving the rider fine control over power output characteristics, enabling them to match the way the torque comes in when opening the throttle to the type of ride or their riding style.

Another development goal was to further enhance the durability of an already highly durable engine design. Attention to detail extends to a change from cut threads to rolled threads for the holes in the upper crankcase cover. Rolled threads are harder and less prone to cracking from wear, so help maximise holding strength for the journal bolts that support the crank.



999cc four-stroke, four-cylinder, liquid-cooled, DOHC, engine



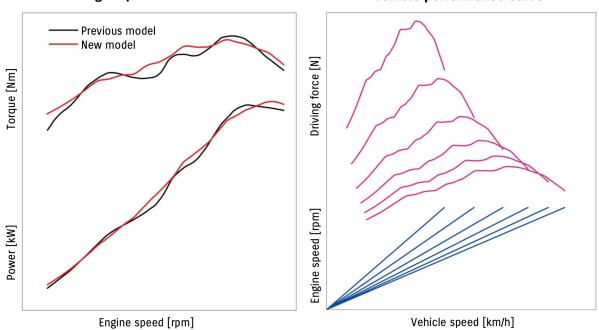


Parts redesigned for the new GSX-S1000 are shown in yellow

	Previous GSX-S1000	New GSX-S1000
Displacement	999cc	999cc
Bore x stroke	73.4mm x 59.0mm	73.4mm x 59.0mm
Compression ratio	12.2 : 1	12.2 : 1
Maximum power	110kW (150PS)/10,000rpm	112kW (152PS)/11,000rpm
Maximum torque	108N-m/9,500rpm	106N-m/9,250rpm
Acceleration (0-200m)	6.70s	6.64s
Acceleration (0-400m)	10.25s	10.15s
Emissions level	Euro 4	Euro 5

Engine performance curve

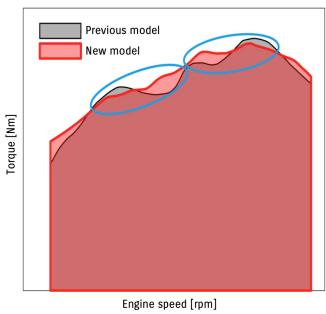
Vehicle performance curve

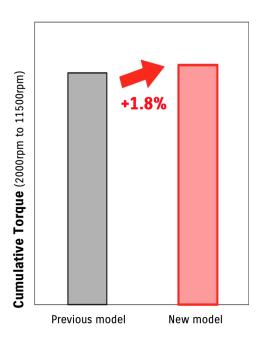


Enhanced torque production UPDATE

Not only does the new GSX-S1000 feature a broader, smoother torque curve with fewer peaks and valleys, it also achieves greater overall cumulative torque production across the engine's operating range. This results in more predictable and controllable response and consistently abundant power delivery for a more exciting riding experience, particularly in the mid- to high-rpm range where the enhanced torque output is most notable.

Total torque area across the range





Exhaust system **UPDATE**

While retaining the clean, sharp looks and exciting exhaust note of the previous model, the 4-2-1 exhaust system for the new GSX-S1000 was completely redesigned and re-tuned. The goal was to maximise overall performance while satisfying Euro 5 emission standards. The new exhaust system not only retains the impressive resonance of its predecessor, the quality of its note is also enhanced.

Changes include a new layout behind the collector, a new chamber structure, and the introduction of a second catalytic converter inside the chamber. In addition, the collector is now marginally longer and the Suzuki Exhaust Tuning (SET) system positioned differently.



Previous exhaust system

New exhaust system

Electronic throttle bodies **NEW**

A change to the bore size of the new electronic throttle bodieshelps achieve a better balance between control and power output characteristics. One benefit of the new system is more controllable behavior when the rider opens the throttle to accelerate hard, such as out of a corner. Throttle body size has been changed from 44mm to 40mm, but as it is electronically controlled this made it possible to have a smaller and lighter throttle body. Generally speaking a smaller throttle body will result in a power decrease, but this is not the case with the new GSX-S1000.



Airbox NEW

Changes to the internal structure of the new airbox contribute to increasing power output. The new design makes it possible to do away with the separator, effectively reducing intake resistance.





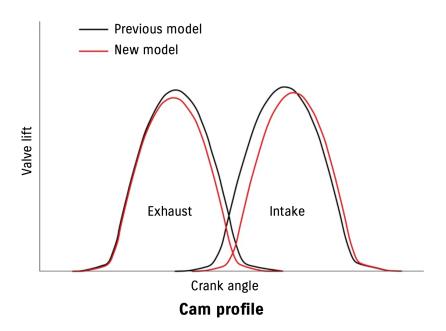
Previous airbox

New airbox



Camshaft NEW

A new camshaft with carefully revised exhaust and intake cam profiles decreases the amount of lift and reduces valve lift overlap. This helps improve emissions performance while achieving a better overall balance of performance and controllability across the broad range of engine speeds a rider uses in most riding conditions.

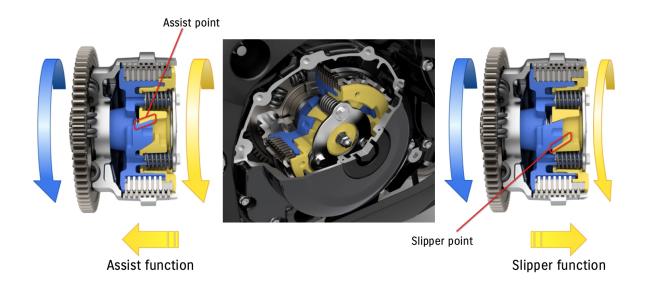


Suzuki Clutch Assist System (SCAS) NEW

The new GSX-S1000 adopts the Suzuki Clutch Assist System (SCAS), which introduces an assist function to complement the slipper clutch from the previous generation.

The slipper clutch partially disengages to reduce negative engine torque and mitigate the effect of engine braking when downshifting from high rpm. This helps prevent the rear wheel from locking up or hopping and provides smoother deceleration, enabling the rider to shift down with greater confidence and maintain better control when entering corners.

Adding an assist function increases the clutch's clamping force under acceleration and thereby allows the use of softer springs while still efficiently transferring torque to the rear wheel. One resulting benefit is a light clutch lever operation, which reduces fatigue riding in traffic or in other situations that require frequent clutch lever operation.



Other features

- Suzuki Composite Electrochemical Material (SCEM)-plated cylinders reduce friction, promote better heat dissipation and increase durability.
- Finite-element-analysis techniques were employed to make the pistons light with compromising their rigidity.
- The compact combustion chamber design realises an optimal compression ratio, a flat-top piston shape, and a broad spread of power throughout the rev range.
- Iridium spark plugs heighten the spark strength and combustion efficiency, thereby contributing to a higher power, more linear throttle response, easier engine start-up, and a more stable idle.
- 10-hole, long-nosed fuel injectors improve fuel atomisation for better combustion efficiency and lower fuel consumption.

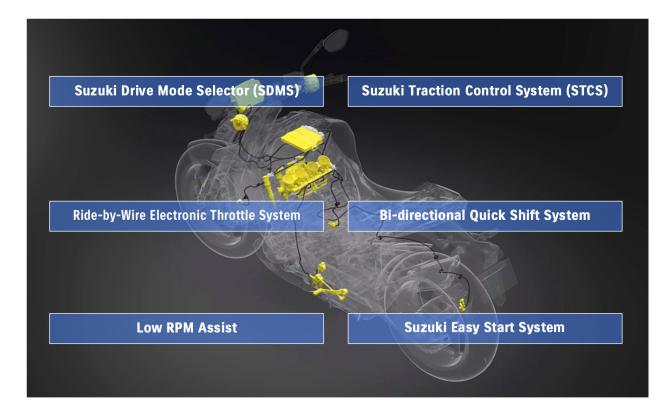


5. Suzuki Intelligent Ride System (SIRS)

Introduction

The new GSX-S1000 adopts a collection of electronic systems that comprise the Suzuki Intelligent Ride System (SIRS). Included are the Suzuki Drive Mode Selector (SDMS), Suzuki Traction Control System, a ride-by-wire electronic throttle, bi-directional quickshifter, Suzuki Easy Start, and Low RPM Assist systems. These enable the rider to optimise performance characteristics to best suit the ride, as well as their personal preferences. By assisting the rider, they help make the bike more controllable, more predictable, and less tiring to operate, whether out for a sporty run or enjoying a ride on city streets.

Suzuki Intelligent Ride System (SIRS)



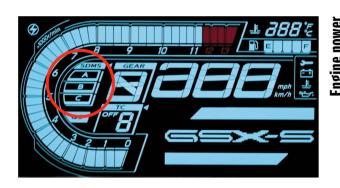
5. Suzuki Intelligent Ride System (SIRS) Suzuki Drive Mode Selector (SDMS) NEW

SDMS is designed to offer the rider a choice between three different modes that change the engine's output characteristics to match riding conditions or preferences. The settings for each of the three modes were custom-tuned and thoroughly tested to build in the flexibility to better adapt to changing weather, road and riding conditions, and make the overall riding experience more enjoyable.

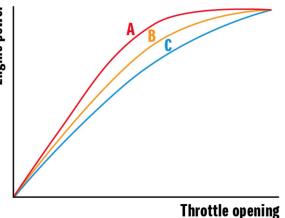
Mode A (Active) provides the sharpest response. Settings for torque characteristics are finely tuned to deliver the exciting acceleration, and it is well-suited for track days or enjoying a sporty run on good roads in nice weather.

Mode B (Basic) reaches the same level of maximum output, but with a softer response. The settings are tuned to make the bike more controllable and instill confidence when accelerating, and to make it a good fit for a wide range of rider styles and road conditions in everyday riding.

Mode C (Comfort) provides the softest throttle response and more gentle torque characteristics, delivering power in smoother fashion, but still reaching the same level of maximum power output. This makes it ideal for wet weather use or a gentle ride home after a long day.

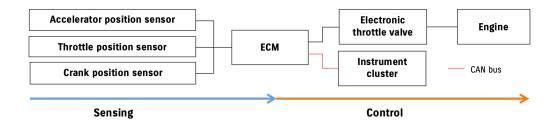


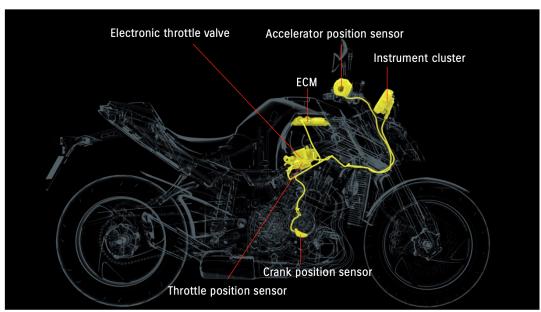
Power delivery image by mode



5. Suzuki Intelligent Ride System (SIRS)

Suzuki Drive Mode Selector overview diagram



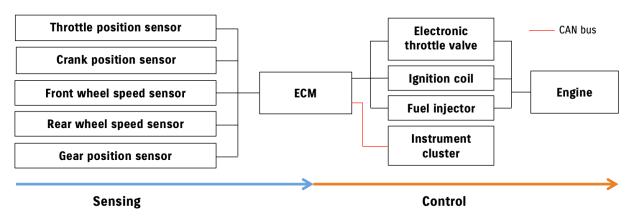


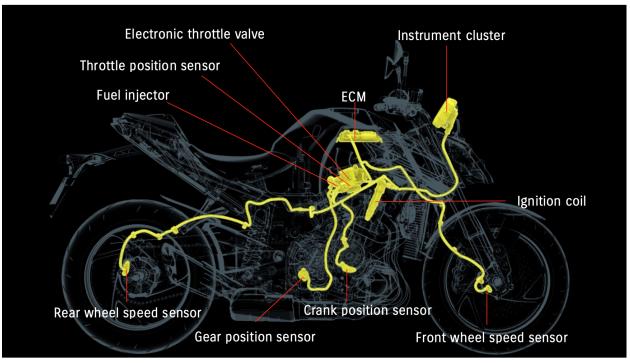


5. Suzuki Intelligent Ride System (SIRS) Suzuki Traction Control System (STCS) UPDATE

The new GSX-S1000 features an updated version of STCS with a wider selection of five modes, plus it can be turned off. The finer incremental control over settings allows the new system to better fit a more diverse variety of riding conditions and styles. The higher the mode number, the faster the control takes effect and the more proactive the system is in limiting wheel spin. The system continuously monitors front and rear wheel speed, engine RPM (as calculated using data from the crank position sensor), throttle position and gear position. It is designed to immediately limit power and help prevent slipping when an imminent loss of traction is detected by controlling the throttle opening, ignition timing, and fuel injection rate.

Suzuki Traction Control System overview diagram





5. Suzuki Intelligent Ride System (SIRS)





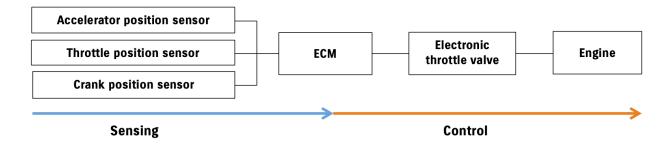
5. Suzuki Intelligent Ride System (SIRS) Ride-by-wire electronic throttle system NEW

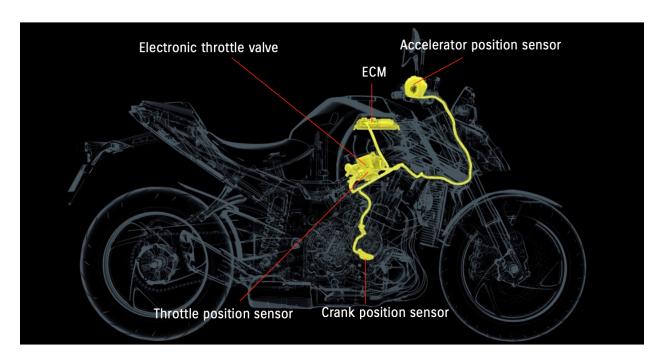
The GSX-S1000 adopts Suzuki's electronic throttle control system, which takes advantage of the 32-bit ECM to control the action of the throttle valves. This makes it possible for settings to more finely control the relationship between throttle action and engine power output, so realises the best match between the rider's expectations and the power delivered.

Another benefit of this system and its finer control is that individual settings can be tuned and thoroughly tested to best match each of the SDMS modes, and it also allows for the introduction of the bi-directional quickshifter.

The new ride-by-wire throttle system is simpler, lighter and more compact than the previous mechanical system, yet it benefits from a natural response and linear control similar to that of conventional throttle operation.

Ride-by-Wire Electronic Throttle System overview diagram



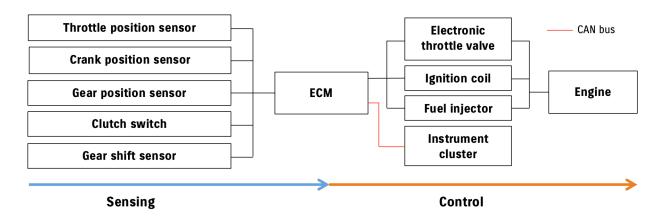


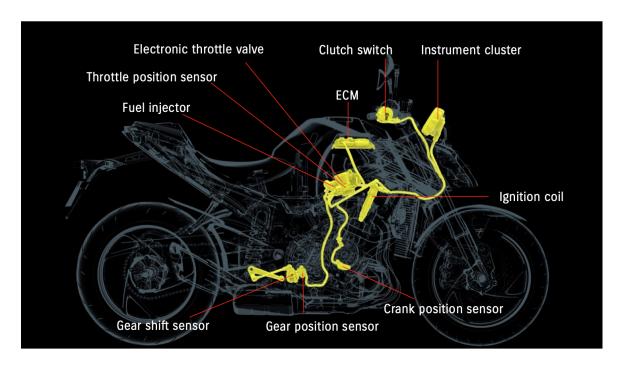
5. Suzuki Intelligent Ride System (SIRS) Bi-directional quick shift system NEW

The bi-directional quick shift System enables the rider to shift up or down without operating the clutch lever. When activated by the rider, the system automatically interrupts power delivery when accelerating just long enough to unload the transmission gear dogs, thereby producing smoother acceleration when the rider shifts up. When decelerating, the system automatically opens the throttle valves just enough to increase rpm and match engine speed to the next-lower gear ratio. The automatic blipping function combines seamlessly with engine braking for a natural feel.

In terms of its form, internal structure and control system, the bi-directional quickshifter for the GSX-S1000 represents a total rethinking of the one on the GSX-R1000R.

Bi-directional Quick Shift System overview diagram





5. Suzuki Intelligent Ride System (SIRS) Suzuki Easy Start System

Lets the rider start the motorcycle with one quick press of the starter button. There is no need to pull in the clutch lever when the transmission is in neutral, and the starter motor automatically disengages the instant the engine fires up, adding a layer of convenience.



Low RPM Assist UPDATE

Employs TI-ISC (Throttle-body Integrated Idle Speed Control) to seamlessly boost engine speed when releasing the clutch lever to launch from a standing start or riding at low speeds, thereby suppressing engine stalls and helping ensure better control and operation in stop-and-go traffic. The system is updated for the new GSX-S1000 and works in harmony with the Suzuki Clutch Assist System (SCAS) to make pulling away from a standing start even smoother and easier.

Controller Area Network (CAN bus)

The new GSX-S1000 adopts a robust CAN bus that enables the ECM to communicate with the multi-function instrument cluster and operate with the wider electronics package.

Engine Control Module (ECM)

A new 32-bit ECM provides state-of-the-art engine management that contributes to the operation and optimisation of several critical systems.



Introduction

Achieving the right balance of performance, agility, stability, and controllability demands attention to every aspect of the chassis design. Starting with the core structure of the frame and swing arm, this includes everything from the suspension settings and tyres to the riding position as determined by the design and positioning of the handlebars, and even details such as fuel tank capacity. And it goes further to include achieving a harmonious relationship between the chassis, the engine, and the Suzuki Intelligent Ride System (SIRS).

The chassis is designed to be a compact, lightweight package that makes the GSX-S1000 agile and fun to ride in real-world conditions, from city streets and twisty roads to sporty runs and participation in track day events.





Twin-spar aluminium frame

The twin-spar aluminium frame helps to ensure nimble handling and great road holding ability. The main tubes are straight from the steering head to the swingarm pivot, which is ideal for achieving high rigidity and light weight.



Aluminium-alloy swingarm

The sturdy, GSX-R-derived aluminium-alloy swingarm is braced and helps to ensure great road holding ability together with superbike looks.



Upright riding position for greater comfort and control

New tapered handlebars of extended length mean a 23mm wider grip than on the previous model, and the bars are rotated upward slightly to raise the grip position. This new design brings the grips 20mm closer to the rider and contributes to a more upright riding position. Moreover, the wider grip and closer positioning enables the rider to steer with less effort. That in turn enhances controllability and reduces rider fatigue.

An updated seat design further improves on the upright riding position to offer greater comfort. Additionally, the slim bodywork and slim knee-grip area combine with the seat height to help the rider put their feet down easily. Independent seats for the rider and passenger enhance the sporty styling, while also providing plenty of cushioning to make longer rides comfortable.





6. Chassis design Suspension

The 43mm KYB inverted front forks give a ride that is sporty yet plush. They have fully adjustable damping, rebound, compression, and spring preload. The link-type rear suspension with adjustable rebound damping and spring preload settings contributes to enhancing agility and stability. Various settings were thoroughly tested before the optimum settings were applied to realise nimbler handling and improved steering into corners.





6. Chassis design Wheels and tyres

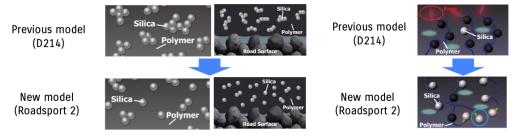
The cast-aluminium wheels feature a lightweight, six-spoke design. Dunlop's new Roadsport 2 radial tyres (120/70ZR17 front, 190/50ZR17 rear) are custom-engineered to perform optimally on the GSX-S1000 and contribute to improved grip and other performance characteristics of the D214 tyres they replace. The updated internal construction, which differs from the commercially available version, features a carcass and Ultra Flex Steel Jointless Belt layer tuned to deliver just the right level of rigidity to match the weight, performance characteristics and riding conditions under which the GSX-S1000 will be used. The tread pattern is optimised over the previous model and introduces a brand-new silica compound that enhances positive grip in wet conditions, faster warm-up, and durable wear resistance. These new wheels and tyres work in harmony with the front and rear suspension settings to provide grip, stability, and nimble handling demanded for sporty performance, while also contributing to a comfortable ride.

SPORTMAX Roadsport 2



Tread Compound Comparison

The Roadsport 2 tire (front and rear) adopts a brand-new silica compound.



Improved silica dispersion achieves good wet grip and faster warm-up.

New functionalized polymer achieves good wear resistance.

6. Chassis design Fuel tank NEW

The new fuel tank increases capacity to 19 litres, reducing the frequency of refueling stops and more time riding.



Antilock Braking System (ABS)

The GSX-S1000 has radial-mount Brembo monobloc calipers. The calipers each have four opposed 32mm pistons acting on 310mm floating-mount discs for strong stopping power.

An antilock braking system (ABS) helps the rider stay in directional control even during hard braking. The system is programmed to monitor wheel speed and match stopping power to the available traction. The ABS control unit has a compact, lightweight design that helps make the bike nimble.



Seat NEW

The rider's seat is designed for comfortable sporty riding. Updated to deliver greater support toward the rear edge, the seat is shaped to offer freedom of movement and is covered in a skin that provides positive grip. The separate pillion seat includes a hand strap for the passenger.



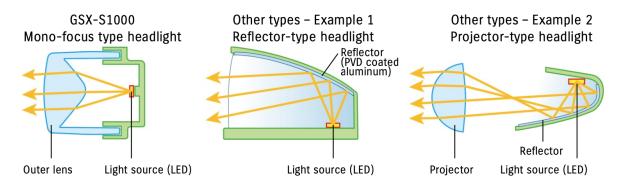
7. Electronic design

Vertically stacked LED headlights NEW

The vertically stacked pair of newly developed LED headlights adopts a mono-focus LED light source that shines straight through the relatively thick outer lens. The lens's convex interior surface gathers the light to illuminate the road ahead and helps make the GSX-S1000 clearly visible to pedestrians and other traffic at night.

The vertically orientated design featuring two stacked hexagonal headlight housings topped by an LED position light creates a sharp new look. Thin, compact, and light in weight, the headlight assembly makes the front end look tighter and lighter, and adds to the aggressive stance of the overall design.





7. Electronic design





7. Electronic design

LED turn signals front and rear NEW

The front and rear turn signals adopt LEDs in thin bar-shaped housings that extend straight outward.

LED rear combination light

Thin, flatly shaped rear combination lights use LEDs for high visibility and long life. It is a double lens design that emphasises stylish lines of the compact tail section.



7. Electronic design Multi-function instrument cluster NEW



The full LCD, brightness-adjustable instrument cluster packs a wide range of useful information into a relatively compact form. It is also designed to make the readouts from its multiple functions easy to recognise.

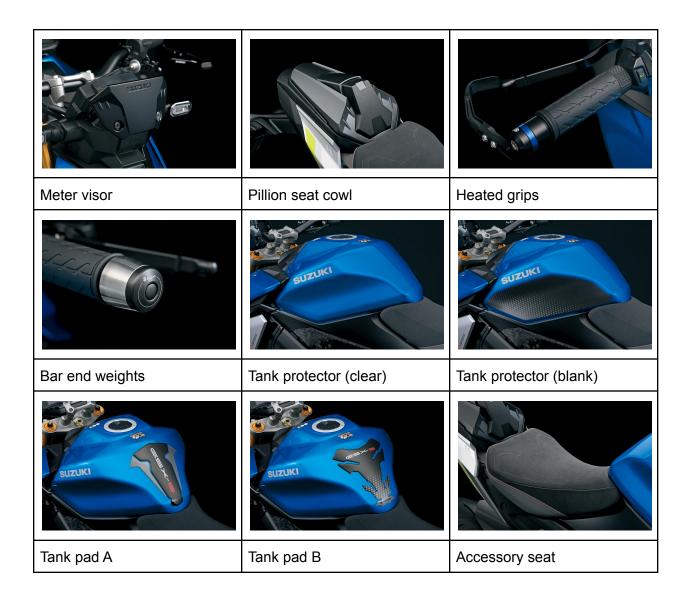
Readouts include:

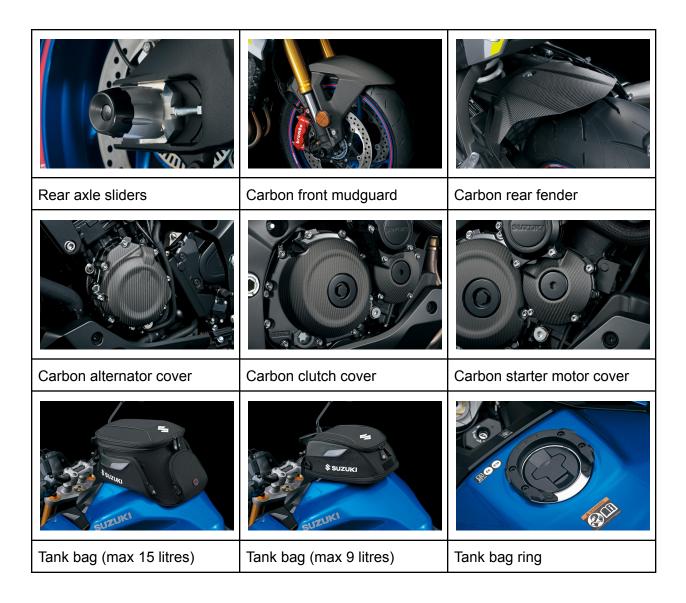
- Speedometer
- Tachometer
- Odometer
- Dual trip meter (A, B)
- Gear position
- Water temperature
- Riding range
- Lap time mode
- Clock
- Average fuel consumption
- Battery voltage
- Instant fuel consumption
- RPM indicator
- Traction Control mode
- Service reminder
- SDMS mode
- Quickshifter (ON/OFF)
- Fuel gauge

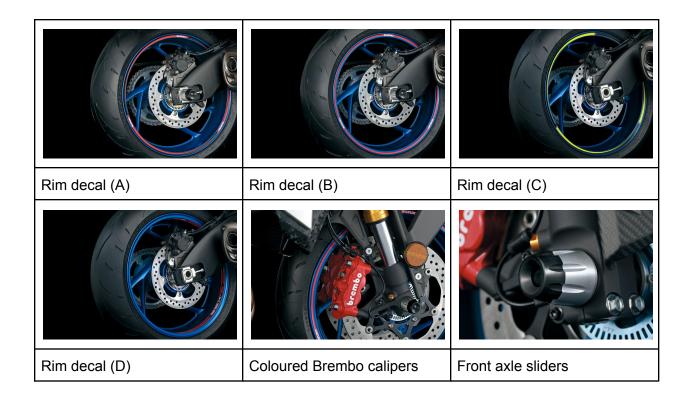
LED indicators flanking the display include those for the turn signals, high beam, neutral, malfunction, master warning, ABS, traction control system, low voltage warning, coolant temperature and oil pressure. They are designed for easy recognition.

Riders can select from a range of accessories for the GSX-S1000.









9. Colour lineup

Metallic triton blue



Glass matt mechanical grey



Glass sparkle Black



10. Specifications

Overall length	2,115mm
Overall width	810mm
Overall height	1,080mm
Wheelbase	1,460mm
Ground clearance	140mm
Seat height	810mm
Kerb weight	214kg
Engine type	Four-stroke, four-cylinder, liquid-cooled, DOHC
Bore x stroke	73.4mm x 59.0mm
Engine displacement	999cc
Peak power	152PS @ 11,000rpm
Peak torque	106N-m/9,250rpm
Compression ratio	12.2:1
Fuel system	Fuel injection
Starter system	Electric
Lubrication system	Wet sump
Transmission	Six-speed constant mesh
Suspension - front	Inverted telescopic, coil spring, oil damped
Suspension - rear	Link type, coil spring, oil damped
Rake / trail	25° / 100mm
Brakes - front	Disc, twin
Brakes - rear	Disc
Tyres - front	120/70ZR17M/C (58W), tubeless
Tyres - rear	190/50ZR17M/C (73W), tubeless
Ignition system	Electronic ignition (transistorised)
Fuel tank capacity	19 litres
Fuel efficiency / range	46.3mpg / 194 miles
Oil capacity (overhaul)	3.4 litres