

GLADIUS

2009 SUZUKI SFV650

www.gladiusstyle.com



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- Always wear a helmet, eye protection and protective clothing.
- Read your Owner's Manual carefully.
- Enjoy riding safely.
- Never ride under the influence of alcohol or other drugs.

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There are machines that fade away into surrounding traffic, and disappear into the background. Some are simple transportation devices, form and function dictated by nothing more than a price tag, uninspired, uninspiring, utterly forgettable.

This is not one of those machines.

Introducing a unique work of motorcycle art, a masterpiece of fresh styling.

Powered by a sporty, 650cc V-Twin engine featuring the best of modern technology, delivering broad power.

A motorcycle that blends traditional displacement with an elegant new look, smooth handling and a friendly, comfortable ride. A motorcycle that stands out from the crowd when traveling down the road, and draws a crowd when parked in the plaza.

Think of it as a combination of style and technology, efficiency and fashion, an unmatched value on two wheels, with an extra dose of daily fun included.

It is called the 2009 Suzuki GLADIUS.





Fashion Meets Technology



Elegance On Two Wheels

The elegant look of the GLADIUS starts with a compact trellis frame, made from steel-tubing to contrast with the richly curved bodywork and the organic flow of the footpeg mounting brackets. The edgy lines of the frame cover on each side match the seat rail and engine cover detailing and compliment the shape of the buffed stainless steel muffler cover.

The carefully shaped multi-reflector headlight incorporates high and low beams as well as a position light, and is flanked by clear lens turn indicators. The compact combination tail and brake light is tucked up underneath the rear of the seat, framed by the rear fender and flanked by clear lens turn indicators.



The instrument cluster is positioned above the headlight and incorporates an analog tachometer, an LCD digital speedometer, LCD digital dual trip meter and odometer, an LCD digital clock, and an LCD digital gear position indicator. Indicator lights include a two-way remaining fuel warning lamp, backed up by an LCD digital reserve trip meter.



Available color combinations include Metallic Triton Blue/Glass Splash White, Candy Ruby Magenta/Pearl Mirage White, Pearl Nebular Black/Metallic Lush Green, and Pearl Nebular Black.

In some color schemes, the front fender and radiator covers are color-matched with the fuel tank covers and side covers, and contrast with the color of the steel fuel tank itself and with the color of the frame. In the other color schemes, the front fender matches the color of the steel fuel tank itself and the color of the frame.



Designed For Comfort

There is more to the design of the GLADIUS than exciting styling. The chassis and bodywork are as slim as possible at the point where the fuel tank and the seat meet, the outside forward edges of the seat are rounded, and the two-tone seat itself is relatively low, positioned just 785 mm above the pavement. All these factors make it more comfortable for the rider at a stop, or when maneuvering into or out of a parking space. An optional higher seat is also available to increase comfort for taller riders.

The carefully shaped seat has ample padding and the rear edges are bolstered to support the rider's hips well. The shape of the tubular handlebars and the positioning of the handlebars and footpegs in relationship to the seat also add to riding comfort.

The single rear shock is connected to the rectangular-section steel swingarm through a progressive linkage, which allows the suspension to react more smoothly to small road irregularities as well as larger bumps, improving overall ride comfort. Shock spring preload is adjustable over a seven-step range to suit rider preference and load, and rear wheel travel is 130 mm. The forks feature 41 mm stanchion tubes, spring preload is adjustable over a 15 mm range, and front wheel travel is 125 mm. Wheelbase is 1,445 mm with rake and trail of 25 degrees and 104 mm.



Cast Alloy Wheels, Disc Brakes And Optional ABS



Standard 17-inch cast aluminum-alloy wheels each feature five spokes; front wheel width is MT3.50 and rear wheel width is MT5.00. Dunlop Qualifier sport radial tires are fitted as standard equipment, a 120/70ZR17 (58W) front and a 160/60ZR17 (69W) rear.

Dual, floating front brake discs each measure 290 mm in diameter and work with dual-piston calipers. A single, 240 mm rear brake disc is fitted with a single-piston caliper.

Optional equipment for the GLADIUS will include an electrically controlled ABS (AntiLock Brake System). The system monitors wheel speed, and matches stopping power to available traction.*

*ABS is a supplemental device for brake operation, not a device for shortening stopping distance. Always remember to reduce speed sufficiently before approaching curves, corners and traffic congestion.

Sporty V-Twin Power



The GLADIUS is powered by a sporty, fuel-injected, DOHC 90-degree V-Twin engine, based on the proven SV650 powerplant famous for its long-term reliability, broad power and quiet rumble.

Displacement remains 645cm³ from an oversquare bore and stroke of 81.0 x 62.6 mm, and the compression ratio is still 11.5 : 1. Each cylinder head still features a compact combustion chamber with four valves, two 31 mm intake valves set at 14 degrees from the cylinder centerline and two 25.5 mm exhaust valves set at 16 degrees from the cylinder centerline. New single valve springs reduce inertia weight and mechanical losses while maintaining accurate valve control.

Each cylinder head also carries two spark plugs, as introduced in the SV650 engine, to improve combustion. But the GLADIUS not only has twin spark plugs, it has twin Iridium spark plugs. The use of the exotic Iridium alloy reduces spark plug electrode degradation and allows the electrode to be finer, producing a more intense, hotter spark and further enhancing combustion.

Replacing conventional iron liners, the bore of each aluminum-alloy cylinder is now plated with Suzuki's own race-proven nickel-phosphorus-silicon-carbide coating, which reduces friction and improves heat transfer, durability and ring seal and is known as Suzuki Composite Electrochemical Material (SCEM).

Changes in camshaft profiles and valve lift, a 10% increase in crankshaft inertia, newly staggered intake and exhaust tract lengths and an increase in exhaust system volume made it possible to boost the engine's low-rpm/mid-range torque output and broaden and smooth power delivery without affecting top-end power. Intake valve duration is 281 degrees, with 9.0 mm of lift. Exhaust valve duration is 267 degrees, with 8.3 mm of lift.

Changes in the design of the clutch release mechanism and the transmission gear engagement dogs help improve shifting of the six-speed transmission. To reduce mechanical noise, a scissors-type primary drive gear is split lengthwise with the two halves spring-loaded, and the clutch and drive sprocket covers are now double-layered.

A new, more efficient radiator is narrower, while a new liquid-to-liquid oil cooler reduces weight. The fuel pump is also lighter and more compact, and is located inside the 14.5-liter fuel tank. Final drive is now via a #520 roller chain, and final drive gearing is now 15/46.

Advanced Digital Engine Management And Emission Controls

A powerful engine-management computer runs a state-of-the-art fuel injection, ignition and engine management system, including Suzuki Dual Throttle Valve (SDTV) throttle bodies. The fuel injection and engine management system further improves combustion efficiency, with more complete burning of the fuel producing better throttle response and stronger acceleration as well as reducing exhaust emissions. An oval throttle pulley helps smooth low-rpm/mid-range power delivery.

Each downdraft 39 mm SDTV throttle body carries an extra-fine-atomization, 10-hole fuel injector and two butterfly valves. The rider controls the primary butterfly valve in each throttle body by using the twist grip. The secondary butterfly valve in each throttle body is controlled by the engine management computer. Based on primary butterfly valve position, engine rpm and gear selection, the engine management computer incrementally opens or closes the secondary butterfly valve to maintain the proper intake air velocity needed for maximum combustion efficiency and improved throttle response across the rpm range. The extra-fine-atomization injectors produce an average spray particle diameter that is smaller than an average spray particle diameter from a more conventional fine-atomization injector, again improving combustion efficiency. The engine management system controls injector on-time,

which determines the quantity of fuel injected into the cylinder, based on engine rpm, intake pressure (or vacuum), throttle position and readings from an O₂ (oxygen) sensor positioned in the exhaust system.

An automatic Idle Speed Control (ISC) system is integrated into each throttle body, using internal passageways to eliminate external hoses and control valves. A notch machined into the secondary butterfly valve shaft precisely matches the volume of air flowing through the idle circuit with actual throttle position, producing a stable idle while improving cold starting and reducing emissions immediately after start-up.

The engine is so efficient in burning fuel that it doesn't need a conventional secondary system to inject fresh air into the exhaust ports to ignite unburned hydrocarbons. To deal with other emission gasses, the GLADIUS has a catalyst built into an exhaust chamber mounted underneath the engine and connected to an upswept muffler.





SPECIFICATIONS

Engine type	4-stroke, 2-cylinder, liquid-cooled, DOHC, 90° V-Twin
Bore x stroke	81.0 mm x 62.6 mm
Displacement	645 cm ³ (cc)
Compression ratio	11.5 : 1
Carburetion	Fuel injection
Oil capacity (overhaul)	3.1 L (0.8 US gal.)
Ignition	Electronic ignition (Transistorized)
Starter system	Electric
Lubrication system	Wet sump
Transmission	6-speed constant mesh
Primary drive ratio	2.088 (71 / 34)
Final drive ratio	3.067 (46 / 15)
Frame type	Steel-truss
Rake/trail	25.0 degree / 104.0 mm (4.1 in.)
Suspension	Front Telescopic, coil spring, oil damped

Suspension	Rear	Link type, coil spring, oil damped, spring preload adjustable
Wheels	Front	17 M/C x MT3.50, cast aluminum-alloy
	Rear	17 M/C x MT5.00, cast aluminum-alloy
Brakes	Front	2-piston calipers, 290 mm disc, twin
	Rear	1-piston caliper, 240mm disc
Tires	Front	120/70ZR17M/C (58W), tubeless
	Rear	160/60ZR17M/C (69W), tubeless
Fuel tank	14.5 L (3.8 US gal.)	
Overall length	2,130 mm (83.9 in.)	
Overall width	760 mm (29.9 in.)	
Overall height	1,080 mm (42.5 in.)	
Wheelbase	1,445 mm (56.9 in.)	
Seat height	785 mm (30.9 in.)	
Curb mass	202 kg (446 lbs.)	



It All Comes Down To Fun

Cut down to its essence, the whole point of fashion is, fun. And in the case of the 2009 Suzuki GLADIUS, the whole point is, making it easier to have fun.

More efficient combustion and fewer emissions? Less thinking about fresh air, as opposed to enjoying fresh air.

Better throttle response and acceleration? Less thinking about what you want the motorcycle to do, as opposed to just doing it.

Elegant styling? Two-wheeled art? Modern technology? Riding comfort? Less wondering what people will think, as opposed to enjoying the ride.

Translation? The 2009 Suzuki GLADIUS has everything you need to have more fun.

Take one for a ride today, and see for yourself!



Metallic Triton Blue / Glass Splash White (GLR)



Candy Ruby Magenta / Pearl Mirage White (GDW)



Pearl Nebular Black / Metallic Lush Green (GUU)



Pearl Nebular Black (YAV)