

# Features & Specifications

## 2019 GSX-R600



**GSX-R600L9**

*YWW: Pearl Glacier White*

### Overview

The Suzuki GSX-R600 is a class-leading sportbike worthy of its race-winning GSX-R heritage. Whether you're carving through your favorite canyon or dominating the racetrack, it offers unparalleled performance. A compact, powerful four-cylinder engine demonstrates the advanced race-proven technology of the GSX-R line when you hit the throttle and push it to redline, while supremely refined suspension systems front and rear help provide precise, responsive handling. Wrapped in aerodynamic and light-weight bodywork that's lifted from the racetrack, the GSX-R600 can not only win races, it can win envy.

### Key Features

- Race-ready, iconic GSX-R styling provides sharp looks and a slippery shape with new paint schemes for 2019. Riders can choose between Glass Sparkle Black or Pearl Glacier White colors, each with new monochromatic graphics and white cast aluminum wheels.
- The GSX-R600's compact, fuel injected, 599cc, four-cylinder engine delivers a rush of power from idle to redline. Located between the frame's spars, the engine's top end is canted forward to improve cylinder head charging for increased power output.
- The Suzuki Drive Mode Selector (S-DMS) lets the rider adjust the engine's power delivery to suit the riding conditions.
- The twin-spar aluminum frame effectively connects the steering head with the swingarm pivot portion of the chassis in a way that balances light weight and strength. The engine is suspended below the frame to keep mass low and the wheelbase short to promote nimble handling.
- The Showa Big Piston front Fork (BPF) and remote reservoir rear shock absorber are fully adjustable to deliver exceptional handling.
- Twin Brembo Monobloc, radially mounted front brake calipers grasp fully floating stainless steel brake rotors to deliver strong stopping power.



## GSX-R600L9

YVB: Glass Sparkle Black

### Engine Features

- Compact 599cc, four-cylinder engine with a race-proven over-square bore/stroke ratio that produces remarkably strong high rpm power delivery.
- The energy-efficient engine employs forged pistons, shot-peened connecting rods, chrome-nitride-coated upper compression and oil control rings, and pentagonal ventilation holes to reduce frictional and mechanical losses.
- Camshafts with aggressive valve-lift profiles were developed using proven MotoGP racing engine technology – the first time this method has been applied to a production Suzuki.
- Lightweight titanium alloy valves are controlled by single-coil valve springs to reduce valve train mass, reducing mechanical losses at high rpm.
- Lightweight and durable forged pistons were designed using the same Finite Element Method (FEM) and fatigue analysis technology used for MotoGP racing engines.
- Suzuki Dual Throttle Valve (SDTV) fuel injection uses eight fine-spray eight-hole injectors for improved fuel atomization, which contributes to more complete combustion.
- An Engine Control Module (ECM) provides state-of-the-art engine management and has enhanced settings to suit the intake and exhaust systems, resulting in better fuel economy and linear throttle response.
- Advanced, MotoGP-developed transistorized ignition control programming helps maintain more precise spark timing across the range of engine speed and temperature.
- Suzuki Drive Mode Selector (S-DMS) offers push-button selection of two racing-developed engine control maps to suit road or track conditions and personal tastes.
- Four-into-one stainless-steel exhaust system with a titanium muffler is fitted with a Suzuki Exhaust Tuning (SET) valve that maximizes torque and improves throttle response, especially in the low- to mid-rpm range.
- The close-ratio six-speed transmission features a taller first-gear ratio and shorter ratios for 2nd, 3rd, 4th, and 6th gears, making it easier for a racer to get a good start while improving straight-line acceleration and drive out of corners.
- Race-proven back-torque-limiting clutch contributes to smoother down-shifting and corner entry.

### Chassis Features

- Lightweight and compact twin-spar aluminum-alloy frame is constructed of five cast sections to produce a balance of light weight and strength.
- The frame is mated with a cast aluminum swingarm and multi-piece rear sub-frame that's ready for race-track adaptation.
- Race-developed, lightweight SHOWA Big Piston front Forks (BPF) deliver superb feedback and consistent performance.

## **Chassis Features (continued)**

- Single Showa rear shock features externally adjustable rebound and compression damping, along with adjustable ride height.
- Electronically controlled steering damper provides lighter steering at slower speeds and more damping force at racetrack and highway speeds.
- Front brakes with fully floating 310mm discs are grasped by radial-mount, four-piston Brembo Monobloc calipers.
- Three-spoke cast aluminum alloy wheels are shod with lightweight, high-grip front and rear tires for sharp handling.
- Three-way adjustable footpegs, adjustable shift lever and short fuel tank help compose a comfortable riding position that permits the rider movement required for performance riding.
- Compact, lightweight instrument cluster with a built-in lap timer/stopwatch and programmable engine rpm indicators alert the rider to certain shift points.
- Trim, simple, and lightweight bodywork creates an exciting, aerodynamic style that truly works well at speed.
- Distinctive multi-reflector headlight with vertically stacked high- and low-beam halogen bulbs is centered between position lights on each side.
- Bright, durable LED tail light, with clear lens.
- The front turn signals are integrated into the rearview mirrors while the rear tail section houses the rear signals.
- The lightweight instruments also include an analog tachometer and LCD readouts that show speed, odometer, dual trip meter, reserve trip meter, clock, coolant temperature/oil pressure indicator, S-DMS, and gear position indicators.
- Attention to rider comfort and confidence includes a carefully shaped seat with a high-grip cover.

## **Additional Features**

- Stylized Suzuki “S” 3-D emblems on the fuel tank and the fork upper bracket denotes the quality, sophistication and performance legacy of the brand.
- Optional single seat cowl can replace the passenger seat for an even more aggressive look or for use on solo rides, or track days.
- A variety of Genuine Suzuki Accessories for GSX-R owners are available including a large selection of Suzuki logo apparel.
- 12-month limited warranty
- For more details, please visit [www.suzukicycles.com](http://www.suzukicycles.com).

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# Specifications GSX-R600L9

## E-03: USA, E-33: California

### DIMENSIONS AND CURB MASS

Overall length .....	2030 mm (79.9 in)
Overall width .....	710 mm (28.0 in)
Overall height .....	1135 mm (44.7 in)
Wheelbase .....	1385 mm (54.5 in)
Ground clearance .....	130 mm (5.1 in)
Seat height .....	810 mm (31.9 in)
Curb mass .....	187 kg (412 lbs)

### ENGINE

Type .....	4-stroke, liquid-cooled, DOHC
Number of cylinders .....	4
Bore .....	67.0 mm (2.638 in)
Stroke .....	42.5 mm (1.673 in)
Displacement .....	599 cm <sup>3</sup> (36.5 cu. in)
Compression ratio .....	12.9 : 1
Fuel system .....	Fuel injection
Air cleaner .....	Paper element
Starter system .....	Electric
Lubrication system .....	Wet sump
Idle speed .....	1300 ± 100 r/min

### DRIVE TRAIN

Clutch .....	Wet multi-plate type
Transmission .....	6-speed constant mesh
Gearshift pattern .....	1-down, 5-up
Primary reduction ratio .....	1.974 (77/39)
Gear ratios, Low .....	2.687 (43/16)
2nd .....	2.105 (40/19)
3rd .....	1.761 (37/21)
4th .....	1.521 (35/23)
5th .....	1.347 (31/23)
Top .....	1.230 (32/26)
Final reduction ratio .....	2.687 (43/16)
Drive chain .....	RK525SMOZ8, 114 links

### CHASSIS

Front suspension .....	Inverted telescopic, coil spring, oil damped
Rear suspension .....	Link type, coil spring, oil damped
Front fork stroke .....	120 mm (4.7 in)
Rear wheel travel .....	130 mm (5.1 in)
Caster .....	23° 45'
Trail .....	97 mm (3.82 in)
Steering angle .....	27° (right & left)
Turning radius .....	3.4 m (11.2 ft)
Front brake .....	Disc brake, twin
Rear brake .....	Disc brake
Front tire .....	120/70ZR17M/C (58W), tubeless
Rear tire .....	180/55ZR17M/C (73W), tubeless

# Specifications GSX-R600L9

## E-03: USA, E-33: California

### ELECTRICAL

Ignition type.....	Electronic ignition (Transistorized)
Ignition timing.....	1° B.T.D.C. at 1300 r/min
Spark plug.....	NGK CR9EIA-9 or DENSO IU27D
Battery.....	12V 28.8 kC (8 Ah)/10 HR
Generator.....	Three-phase A.C. generator
Main fuse.....	30A
Fuse.....	10/10/10/10/10/15A
Headlight.....	12V 65W (H9) + 12V 55W (H7)
Position light.....	12V 5W × 2
Brake/Tail light.....	LED
Turn signal light.....	12V 21W
License plate light.....	12V 5W
Combination meter light.....	LED
Neutral indicator light.....	LED
High beam indicator light.....	LED
Turn signal indicator light.....	LED
Fuel level indicator light.....	LED
Oil pressure/Coolant temperature indicator light.....	LED
FI/SD indicator light.....	LED
Engine RPM indicator light.....	LED

### CAPACITIES

Fuel tank.....	16.0 L (4.2/3.5 US/Imp gal) ...E-33
	17.0 L (4.5/3.7 US/Imp gal) ...E-03
Engine oil, oil change.....	2200 ml (2.3/1.9 US/Imp qt)
with filter change.....	2500 ml (2.6/2.2 US/Imp qt)
overhaul.....	2900 ml (3.1/2.6 US/Imp qt)
Coolant.....	2.7 L (2.9/2.4 US/Imp qt)



# Service Data GSX-R600L9

## E-03: USA, E-33: California

### Valve + Guide

Unit: mm (in)

Item		Standard	Limit
Valve diam.	IN.	27.2 (1.07)	—
	EX.	22.0 (0.87)	—
Valve clearance (when cold)	IN.	0.08 – 0.18 (0.003 – 0.007)	—
	EX.	0.18 – 0.28 (0.007 – 0.011)	—
Valve guide to valve stem clearance	IN.	0.010 – 0.037 (0.0004 – 0.0015)	—
	EX.	0.030 – 0.057 (0.0012 – 0.0022)	—
Valve guide I.D.	IN. & EX.	4.500 – 4.512 (0.1772 – 0.1776)	—
Valve stem O.D.	IN.	4.475 – 4.490 (0.1762 – 0.1768)	—
	EX.	4.455 – 4.470 (0.1754 – 0.1760)	—
Valve stem deflection	IN. & EX.	—	0.25 (0.010)
Valve stem runout	IN. & EX.	—	0.05 (0.002)
Valve seat width	IN. & EX.	0.9 – 1.1 (0.035 – 0.043)	—
Valve head radial runout	IN. & EX.	—	0.03 (0.001)
Valve spring free length	IN. & EX.	—	39.4 (1.55)
Valve spring tension	IN. & EX.	215 – 247 N (21.9 – 25.2 kgf, 48.3 – 55.5 lbs) at length 33.55 mm (1.321 in)	—

### Camshaft + Cylinder Head

Unit: mm (in)

Item		Standard	Limit
Cam height	IN. & EX.	35.78 – 35.83 (1.409 – 1.411)	35.48 (1.397)
Camshaft journal oil clearance	IN. & EX.	0.032 – 0.066 (0.0013 – 0.0026)	0.150 (0.0059)
Camshaft journal holder I.D.	IN. & EX.	24.012 – 24.025 (0.9454 – 0.9459)	—
Camshaft journal O.D.	IN. & EX.	23.959 – 23.980 (0.9433 – 0.9441)	—
Camshaft runout		—	0.10 (0.004)
Cam chain pin (at arrow “3”)		12th pin	—
Cylinder head distortion		—	0.20 (0.008)

**Cylinder + Piston + Piston Ring**

Unit: mm (in)

Item	Standard			Limit
Compression pressure	1 300 – 1 700 kPa (13 – 17 kgf/cm <sup>2</sup> , 185 – 242 psi)			1 000 kPa (10 kgf/cm <sup>2</sup> , 142 psi)
Compression pressure difference	—			200 kPa (2 kgf/cm <sup>2</sup> , 28 psi)
Piston-to-cylinder clearance	0.030 – 0.040 (0.0012 – 0.0016)			0.120 (0.0047)
Cylinder bore	67.000 – 67.015 (2.6378 – 2.6384)			No nicks or Scratches
Piston diam.	66.965 – 66.980 (2.6364 – 2.6370) Measure 13.5 mm (0.53 in) from the skirt end.			66.880 (2.6331)
Cylinder distortion	—			0.20 (0.008)
Piston ring free end gap	1st	IT	Approx. 5.5 (0.22)	4.4 (0.17)
	2nd	2T	Approx. 7.5 (0.30)	6.0 (0.24)
Piston ring end gap	1st	IT	0.06 – 0.21 (0.002 – 0.008)	0.50 (0.020)
	2nd	2T		
Piston ring-to-groove clearance	1st	—		0.180 (0.0071)
	2nd	—		0.150 (0.0059)
Piston ring groove width	1st	1.01 – 1.03 (0.0398 – 0.0406)		—
	2nd	0.81 – 0.83 (0.0319 – 0.0327)		—
	Oil	1.51 – 1.53 (0.0594 – 0.0602)		—
Piston ring thickness	1st	0.97 – 0.99 (0.0382 – 0.0390)		—
	2nd	0.77 – 0.79 (0.0303 – 0.0311)		—
Piston pin bore	14.002 – 14.008 (0.5513 – 0.5515)			14.030 (0.5524)
Piston pin O.D.	13.995 – 14.000 (0.5510 – 0.5512)			13.980 (0.5504)

**Conrod + Crankshaft**

Unit: mm (in)

Item	Standard			Limit
Conrod small end I.D.	14.010 – 14.018 (0.5516 – 0.5519)			14.040 (0.5528)
Conrod big end side clearance	0.10 – 0.20 (0.004 – 0.008)			0.30 (0.012)
Conrod big end width	19.95 – 20.00 (0.7854 – 0.7874)			—
Crank pin width	20.10 – 20.15 (0.7913 – 0.7933)			—
Conrod big end oil clearance	0.032 – 0.056 (0.0013 – 0.0022)			0.080 (0.0031)
Crank pin O.D.	30.976 – 31.000 (1.2195 – 1.2205)			—
Crankshaft journal oil clearance	0.010 – 0.028 (0.0004 – 0.0011)			0.080 (0.0031)
Crankshaft journal O.D.	29.982 – 30.000 (1.18039 – 1.18110)			—
Crankshaft thrust bearing thickness	Right side	2.425 – 2.450 (0.0955 – 0.0965)		—
	Left side	2.350 – 2.500 (0.0925 – 0.0984)		—
Crankshaft thrust clearance	0.055 – 0.110 (0.0022 – 0.0043)			—
Crankshaft runout	—			0.05 (0.002)

**Oil Pump**

Item	Standard	Limit
Oil pressure (at 60 °C, 140 °F)	100 – 400 kPa (1.0 – 4.0 kgf/cm <sup>2</sup> , 14 – 57 psi) at 3 000 r/min	—

## Clutch

Unit: mm (in)

Item		Standard	Limit
Clutch drive plate thickness	No. 1 & 2	2.72 – 2.88 (0.107 – 0.113)	2.42 (0.095)
Clutch drive plate claw width	No. 1 & 2	13.85 – 13.96 (0.545 – 0.550)	13.05 (0.514)
Clutch driven plate distortion		—	0.10 (0.004)
Clutch spring free length		66.47 (2.617)	63.2 (2.49)
Clutch lifter pin height		0.2 – 0.4 (0.008 – 0.016)	—
Wave spring washer height		—	4.30 (0.169)
Clutch lever play		10 – 15 (0.4 – 0.6)	—
Clutch release screw		1 turn back	—

## Drive Train

Unit: mm (in) Except ratio

Item		Standard	Limit
Primary reduction ratio		1.974 (77/39)	—
Final reduction ratio		2.687 (43/16)	—
Gear ratios	Low	2.687 (43/16)	—
	2nd	2.105 (40/19)	—
	3rd	1.761 (37/21)	—
	4th	1.521 (35/23)	—
	5th	1.347 (31/23)	—
	Top	1.230 (32/26)	—
Gearshift fork to groove clearance		0.1 – 0.3 (0.004 – 0.012)	0.5 (0.02)
Gearshift fork groove width		5.0 – 5.1 (0.197 – 0.201)	—
Gearshift fork thickness		4.8 – 4.9 (0.189 – 0.193)	—
Drive chain	Type	RK 525SMOZ8	—
	Links	114 links	—
	20-pitch length	—	319.4 (12.57)
Drive chain slack (on side-stand)		20 – 30 (0.8 – 1.2)	—
Gearshift lever height		65 – 75 (2.6 – 3.0)	—

## Thermostat + Radiator + Fan + Coolant

Item		Standard/Specification	Note
Thermostat valve opening temperature		Approx. 82 °C (180 °F)	—
Thermostat valve lift		Over 8 mm (0.31 in) and at 95 °C (203 °F)	—
ECT sensor resistance	20 °C (68 °F)	Approx. 2.45 kΩ	—
	50 °C (122 °F)	Approx. 0.811 kΩ	—
	80 °C (176 °F)	Approx. 0.318 kΩ	—
	110 °C (230 °F)	Approx. 0.142 kΩ	—
Radiator cap valve opening pressure		108 – 137 kPa (1.1 – 1.4 kgf/cm <sup>2</sup> , 15.4 – 19.5 psi)	—
Cooling fan operating temperature	OFF → ON	Approx. 105 °C (221 °F)	IAT 40 °C (104 °F) and less
	ON → OFF	Approx. 100 °C (212 °F)	
	OFF → ON	Approx. 100 °C (212 °F)	IAT 40 °C (104 °F) and more
	ON → OFF	Approx. 95 °C (203 °F)	
Engine coolant type		Use an anti-freeze/coolant compatible with aluminum radiator.	—
Engine coolant including reserve	Reserve tank side	Approx. 250 ml (0.3/0.2 US/Imp qt)	—
	Engine side	Approx. 2 400 ml (2.5/2.1 US/Imp qt)	—



## Injector + Fuel Pump + Fuel Pressure Regulator

Item	Specification	Note
Injector resistance	Approx. 12 $\Omega$ at 20 °C (68 °F)	Primary and secondary
Fuel pump discharge amount	167 ml (5.6/5.9 US/Imp oz) and more/10 sec.	
Fuel pressure regulator operating set pressure	Approx. 300 kPa (3.0 kgf/cm <sup>2</sup> , 43 psi)	

## FI Sensors

Item	Standard/Specification	Note
CKP sensor resistance	Approx. 168 $\Omega$ at 20 °C (68 °F)	
CKP sensor peak voltage	0.28 V and more	When cranking
IAP sensor input voltage	4.5 – 5.5 V	
IAP sensor output voltage	Approx. 2.7 V at idle speed	
TP sensor input voltage	4.5 – 5.5 V	
TP sensor output voltage	Closed	1.02 – 1.22 V
	Opened	4.34 – 4.54 V
ECT sensor input voltage	4.5 – 5.5 V	
ECT sensor output voltage	0.15 – 4.85 V	
ECT sensor resistance	Approx. 2.45 k $\Omega$ at 20 °C (68 °F)	
IAT sensor input voltage	4.5 – 5.5 V	
IAT sensor output voltage	0.15 – 4.85 V	
IAT sensor resistance	Approx. 2.58 k $\Omega$ at 20 °C (68 °F)	
AP sensor input voltage	4.5 – 5.5 V	
AP sensor output voltage	Approx. 3.6 V at 100 kPa (760 mmHg)	
TO sensor resistance	Approx. 19.4 k $\Omega$ at 20 °C (68 °F)	
TO sensor voltage	Normal	0.4 – 1.4 V
	Leaning	3.7 – 4.4 V
GP switch voltage	0.6 V and more	When leaning 65° From 1st to Top
Injector voltage	Battery voltage	Primary and secondary
Ignition coil primary peak voltage	80 V and more	When cranking
HO2 sensor output voltage	0.4 V and less at idle speed	
	0.6 V and more at 5 000 r/min	
HO2 sensor heater resistance	6.7 – 9.5 $\Omega$ at 23 °C (73 °F)	
PAIR control solenoid valve resistance	20 – 24 $\Omega$ at 20 – 30 °C (68 – 86 °F)	
STP sensor input voltage	4.5 – 5.5 V	
STP sensor output voltage	Closed	0.52 – 0.72 V
	Opened	4.12 – 4.32 V
STVA resistance	Approx. 6.5 $\Omega$	
EXCVA position sensor input voltage	4.5 – 5.5 V	
EXCVA position sensor output voltage	Closed	0.45 – 1.4 V
	Opened	3.6 – 4.55 V
EXCVA position sensor resistance	Approx. 3.1 k $\Omega$	At adjustment position
EVAP system purge control solenoid valve resistance	Approx. 32 $\Omega$ at 20 °C (68 °F)	If equipped
ISC valve resistance	Approx. 20 $\Omega$ at 20 °C (68 °F)	
Steering damper solenoid valve resistance	Approx. 12.5 $\Omega$ at 20 °C (68 °F)	
Steering damper solenoid valve voltage	Approx. 10 V	When battery fully charged

## Throttle Body

Item	Specification
Bore size	40 mm (1.57 in)
I.D. No.	14J1 (For E-33), 14J0 (For E-03)
Idle r/min	1 300 ± 100 r/min
Throttle cable play	2.0 – 4.0 mm (0.08 – 0.16 in)

## Electrical

Unit: mm (in)

Item	Specification	Note	
Firing order	1 · 2 · 4 · 3		
Spark plug	Type	NGK: CR9EIA-9 DENSO: IU27D	
	Gap	0.8 – 0.9 (0.031 – 0.035)	
Spark performance	Over 8 (0.3) at 1 atm.		
CKP sensor resistance	Approx. 168 Ω at 20 °C (68 °F)		
CKP sensor peak voltage	0.28 V and more	When cranking	
Ignition coil resistance	Primary	1.1 – 1.5 Ω at 20 °C (68 °F)	Terminal – Terminal
	Secondary	6.4 – 9.6 kΩ at 20 °C (68 °F)	Plug cap – Terminal
Ignition coil primary peak voltage	80 V and more	When cranking	
Generator coil resistance	0.2 – 1.0 Ω		
Generator maximum output	Approx. 400 W at 5 000 r/min		
Generator no-load voltage (When engine is cold)	65 V (AC) and more at 5 000 r/min		
Regulated voltage	14.0 – 15.5 V at 5 000 r/min		
Starter motor brush length	Standard	12.0 (0.47)	
	Limit	6.5 (0.26)	
Starter relay resistance	3 – 6 Ω		
Battery	Type designation	FTX9-BS	
	Capacity	12 V 28.8 kC (8 Ah)/10 HR	
	Standard electrolyte S.G.	1.320 at 20 °C (68 °F)	
Fuse size	Headlight	HI	10 A
		LO	10 A
	Ignition	10 A	
	Signal	10 A	
	Fuel	10 A	
	Fan	15 A	
	Main	30 A	

## Wattage

Unit: W

Item		Specification
Headlight	HI	65
	LO	55
Position light		5 x 2
Brake/Tail light		LED
Turn signal light		21 x 4
License plate light		5
Combination meter light		LED
Turn signal indicator light		LED
High beam indicator light		LED
Neutral position indicator light		LED
Oil pressure indicator light/Engine coolant temp. indicator light		LED
FI indicator light/Sd indicator light		LED
Fuel level indicator light		LED
Engine RPM indicator light		LED

## Brake + Wheel

Unit: mm (in)

Item	Standard		Limit	
Rear brake pedal height	65 – 75 (2.6 – 3.0)		—	
Brake disc thickness	Front	4.8 – 5.2 (0.19 – 0.20)	4.5 (0.18)	
	Rear			
Brake disc runout	—		0.30 (0.012)	
Master cylinder bore & piston diam.	Front	Approx. 17.5 (0.69)	—	
	Rear	Approx. 14.0 (0.55)	—	
Brake caliper cylinder bore & piston diam.	Front	Leading	Approx. 32.0 (1.26)	
		Trailing		
	Rear	Approx. 30.2 (1.19)		—
		DOT 4		—
Wheel rim runout	Axial	—	2.0 (0.08)	
	Radial			
Wheel rim size	Front	17 M/C x MT 3.50	—	
	Rear	17 M/C x MT 5.50	—	
Wheel axle runout	Front	—	0.25 (0.010)	
	Rear			

## Tire

Item	Standard		Limit
Cold inflation tire pressure (Solo riding)	Front	250 kPa (2.50 kgf/cm <sup>2</sup> , 36 psi)	—
	Rear	290 kPa (2.90 kgf/cm <sup>2</sup> , 42 psi)	—
Cold inflation tire pressure (Dual riding)	Front	250 kPa (2.50 kgf/cm <sup>2</sup> , 36 psi)	—
	Rear	290 kPa (2.90 kgf/cm <sup>2</sup> , 42 psi)	—
Tire size	Front	120/70 ZR17M/C (58 W)	—
	Rear	180/55 ZR17M/C (73 W)	—
Tire type	Front	BRIDGESTONE BATTLEAX BT016F AA	—
	Rear	BRIDGESTONE BATTLEAX BT016R AA	—
Tire tread depth (Recommended depth)	Front	—	1.6 mm (0.06 in)
	Rear	—	2.0 mm (0.08 in)

## Suspension

Unit: mm (in)

Item	Standard		Limit
Front fork stroke	120 (4.7)		—
Front fork spring free length	238.3 (9.38)		233 (9.2)
Front fork oil level	90 (3.5)		—
	80 (3.1) 10 min. after adjustment		—
Front fork oil type	FORK OIL SS-47 or an equivalent fork oil		—
Front fork oil capacity (Each leg)	487 ml (16.5/17.1 US/Imp oz)		—
Front fork inner tube O.D	41 (1.6)		—
Front fork spring adjuster	6-1/4 turns in from full soft position		—
Front fork damping force adjuster	Rebound	4 turns out from full hard position	—
	Compression	4-1/2 turns out from full hard position	—
Rear shock absorber spring pre-set length	180 (7.2)		—
Rear shock absorber damping force adjuster	Rebound	2-3/4 turns out from full hard position	—
	Compression	Lo: 1-3/4 turns out from full hard position Hi: 2-3/4 turns out from full hard position	—
Rear wheel travel	130 (5.1)		—
Swingarm pivot shaft runout	—		0.3 (0.01)

## Fuel + Oil

Item	Specification		Note	
Fuel type	Use only unleaded gasoline of at least 90 pump octane (R/2 + M/2). Gasoline containing MTBE (Methyl Tertiary Butyl Ether), less than 10% ethanol, or less than 5% methanol with appropriate cosolvents and corrosion inhibitor is permissible.			
Fuel tank capacity	Including reserve	16 L (4.2/3.5 US/Imp gal)	E-33	
		17 L (4.5/3.7 US/Imp gal)	E-03	
	Fuel level indicator	blink	Approx. 3.9 L (1.0/0.9 US/Imp gal)	
		light lighting	Approx. 1.5 L (0.4/0.3 US/Imp gal)	
Engine oil type	SAE 10W-40, API SF/SG or SH/SJ with JASO MA			
Engine oil capacity	Change	2 200 ml (2.3/1.9 US/Imp qt)		
	Filter change	2 500 ml (2.6/2.2 US/Imp qt)		
	Overhaul	2 900 ml (3.1/2.6 US/Imp qt)		



## Tightening Torque List

### Engine

Item		N·m	kgf·m	lbf·ft	
Exhaust pipe bolt		23	2.3	16.5	
Exhaust chamber support bolt		23	2.3	16.5	
Exhaust chamber support bracket bolt		26	2.6	19.0	
Muffler connecting bolt		23	2.3	16.5	
Muffler cover bolt		11	1.1	8.0	
Muffler support bolt		26	2.6	19.0	
Speed sensor rotor bolt		28	2.8	20.0	
Speed sensor bolt		4.5	0.45	3.0	
Engine sprocket nut		115	11.5	83.0	
Engine mounting bolt (Cylinder)		55	5.5	39.8	
Engine mounting nut (Crankcase)		75	7.5	54.0	
Engine mounting thrust adjuster		23	2.3	16.5	
Engine mounting thrust adjuster lock-nut		45	4.5	32.5	
Engine mounting pinch bolt		23	2.3	16.5	
Cylinder head cover bolt		14	1.4	10.0	
Spark plug		11	1.1	8.0	
Cam chain guide No. 1 bolt		23	2.3	16.5	
Camshaft journal holder bolt		10	1.0	7.0	
Cam chain tension adjuster service cap		23	2.3	16.5	
Cam chain tension adjuster mounting bolt		10	1.0	7.0	
Cam chain tensioner bolt		23	2.3	16.5	
CKP sensor rotor/cam chain drive sprocket bolt		54	5.4	39.0	
Cylinder head bolt	[M10]	31 N·m (3.1 kgf·m, 22.5 lbf·ft) then turn in 1/6 (60°) turn			
	[M6]	10	1.0	7.0	
Clutch sleeve hub nut		95	9.5	68.5	
Clutch spring set bolt		10	1.0	7.0	
Clutch release adjuster cap		11	1.1	8.0	
Clutch push rod adjusting screw lock-nut		5.5	0.55	4.0	
Clutch lifter pin lock-nut		23	2.3	16.5	
Clutch cable lock-nut		4.5	0.45	3.0	
Crankshaft hole plug		11	1.1	8.0	
Starter clutch bolt		15	1.5	11.0	
Generator rotor bolt		120	12.0	87.0	
Generator stator set bolt		11	1.1	8.0	
Generator lead wire clamp bolt		5.5	0.55	4.0	
Oil pressure switch		14	1.4	10.0	
Oil pressure switch lead wire screw		1.5	0.15	1.0	
Oil filter		20	2.0	14.5	
Crankshaft journal bolt	[M9]	18 N·m (1.8 kgf·m, 13.0 lbf·ft) then turn in 50°			
Crankcase bolt	[M6]	Initial	6	0.6	4.5
		Final	11	1.1	8.0
	[M8]	Initial	15	1.5	11.0
		Final	26	2.6	19.0
Oil gallery plug		7	0.7	5.0	
Oil gallery plug	[M6]	10	1.0	7.0	
	[M12]	15	1.5	11.0	
	[M16]	35	3.5	25.5	
Oil drain plug		23	2.3	16.5	
Oil gallery jet		27	2.7	19.5	
Piston cooling oil jet bolt		10	1.0	7.0	
Conrod cap bolt		15 N·m (1.5 kgf·m, 11.0 lbf·ft) then turn in 1/4 (90°) turn			
Oil cooler mounting bolt		10	1.0	7.0	





Item		N·m	kgf·m	lbf·ft
Driveshaft bearing cover bolt	Initial	6	0.6	4.5
	Final	12	1.2	8.5
Driveshaft bearing case bolt (LH and RH)		12	1.2	8.5
Driveshaft retainer bolt		12	1.2	8.5
Gearshift arm stopper		19	1.9	13.5
Gearshift cam stopper bolt		10	1.0	7.0
Gearshift cam plate bolt		13	1.3	9.5
Gearshift cam bearing retainer screw		10	1.0	7.0
Gearshift shaft end screw		8.5	0.85	6.1
Gearshift lever shaft		40	4.0	29.0
Gearshift lever bracket bolt		28	2.8	20.0
Push rod oil seal retainer bolt		10	1.0	7.0
Starter motor mounting bolt		10	1.0	7.0
Starter motor lead wire mounting nut		6	0.6	4.5
Starter motor housing bolt		5	0.5	3.5
Starter motor brush holder nut		11	1.1	8.0
PAIR solenoid valve bracket mounting bolt		11	1.1	8.0
Throttle cable nut		4.5	0.45	3.0

### FI System + Intake Air System

Item		N·m	kgf·m	lbf·ft
CMP sensor bolt		10	1.0	7.0
TP sensor mounting screw		3.5	0.35	2.5
STP sensor mounting screw		3.5	0.35	2.5
ISC valve mounting screw		2	0.2	1.5
CKP sensor mounting screw		5.5	0.55	4.0
CKP sensor clamp screw		5.5	0.55	4.0
HO2 sensor		25	2.5	18.0
Fuel delivery pipe mounting screw		3.5	0.35	2.5
Fuel pump mounting bolt		10	1.0	7.0
EXCVA pulley mounting bolt		5	0.5	3.5
EXCV cable bracket mounting nut		11	1.1	8.0
IAP sensor mounting screw		3.5	0.35	2.5
IAT sensor mounting bolt		1.5	0.15	1.0
GP switch mounting bolt		6.5	0.65	4.5
Intake pipe bolt		10	1.0	7.0
Intake pipe clamp screw		1.5	0.15	1.0
Air cleaner box cover screw		1.5	0.15	1.0
Air cleaner holder bolt		10	1.0	7.0
Funnel bolt		4.3	0.43	3.0
EVAP pipe mounting bolt (if equipped)		10	1.0	7.0
EVAP system purge control solenoid valve mounting nut (if equipped)		10	1.0	7.0
EVAP system purge control solenoid valve bracket bolt (if equipped)		10	1.0	7.0

## Chassis

Item	N·m	kgf-m	lbf-ft
Steering stem head nut	90	9.0	65.0
Steering stem lock-nut	80	8.0	58.0
Steering damper bolt	23	2.3	16.5
Steering damper nut	23	2.3	16.5
Front fork upper clamp bolt	23	2.3	16.5
Front fork lower clamp bolt	23	2.3	16.5
Front fork cap bolt	35	3.5	25.5
Front fork piston rod nut	28	2.8	20.0
Front fork rod guide case	90	9.0	65.0
Front axle nut	100	10.0	72.5
Front axle pinch bolt	23	2.3	16.5
Handlebar clamp bolt	23	2.3	16.5
Handlebar balancer screw	5.5	0.55	4.0
Master cylinder holder bolt (Upper and Lower)	10	1.0	7.0
Front brake caliper mounting bolt	39	3.9	28.0
Brake hose union bolt	23	2.3	16.5
Air bleeder valve (Front caliper)	7.5	0.75	5.5
Air bleeder valve (Rear caliper)	6.0	0.6	4.5
Air bleeder valve (Front master cylinder)	6.0	0.6	4.5
Brake disc bolt (Front)	18	1.8	13.0
Brake disc bolt (Rear)	35	3.5	25.5
Rear brake pad mounting pin	18	1.8	13.0
Rear brake pad mounting pin plug	2.5	0.25	2.0
Rear brake caliper sliding pin A	27	2.7	19.5
Rear brake caliper sliding pin B	13	1.3	9.5
Rear brake master cylinder mounting bolt	10	1.0	7.0
Rear brake master cylinder rod lock-nut	18	1.8	13.0
Brake lever pivot bolt	1	0.1	0.7
Brake lever pivot bolt lock-nut	6	0.6	4.5
Clutch lever pivot nut	6.5	0.65	4.7
Clutch lever holder bolt	10	1.0	7.0
Swingarm pivot shaft	15	1.5	11.0
Swingarm pivot nut	100	10.0	72.5
Swingarm pivot lock-nut	90	9.0	65.0
Cushion lever mounting nut	98	9.8	71.0
Cushion rod mounting nut	98	9.8	71.0
Rear shock absorber bracket nut	100	10.0	72.5
Rear shock absorber mounting nut (Upper and Lower)	50	5.0	36.0
Spring adjuster lock-nut	35	3.5	25.5
Rear axle nut	100	10.0	72.5
Rear sprocket nut	60	6.0	43.0
Rear combination light mounting bolt	5	0.5	3.5
License plate light mounting nut	5	0.5	3.5
Side-stand nut	40	4.0	29.0
Side-stand bolt	50	5.0	36.0



Item	N·m	kgf-m	lbf-ft
Side-stand bracket mounting bolt	50	5.0	36.0
Bank sensor bolt	18	1.8	13.0
Footrest bracket bolt	23	2.3	16.5
Footrest guard screw (Left side)	4.5	0.45	3.0
Footrest holder bolt	35	3.5	25.5
Pillion footrest bracket bolt	23	2.3	16.5
Seat rail mounting bolt	50	5.0	36.0
Cowling brace mounting nut	38	3.8	27.5
Rear fender (Lower) mounting bolt	10	1.0	7.0
Rear view mirror mounting nut	10	1.0	7.0
Front reflector bolt (if equipped)	10	1.0	7.0
Front reflex reflector (if equipped)	1.8	0.18	1.3
Rear reflex reflector nut (if equipped)	1.8	0.18	1.3
Under cowling mounting screw (right side)	6.5	0.65	4.7

### Cooling System

Item	N·m	kgf-m	lbf-ft
Impeller securing bolt	8	0.8	6.0
Water pump case screw	5.5	0.55	4.0
Water pump air bleeder bolt	13	1.3	9.5
Water pump mounting bolt	10	1.0	7.0
ECT sensor	18	1.8	13.0
Radiator reservoir tank bolt	6	0.6	4.5
Water hose clamp screw	1.5	0.15	1.0

