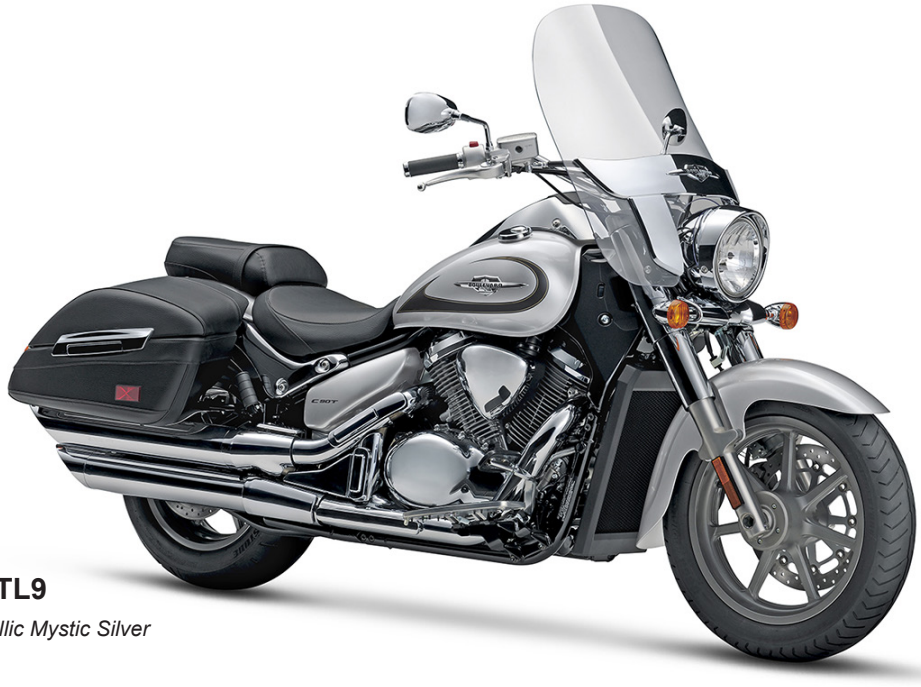
Features & Specifications
2019 Boulevard C90T



VL1500TL9

YMD: Metallic Mystic Silver

Overview

The Suzuki Boulevard C90T is a tour-ready cruiser powered by a fuel injected, 90 cubic inch, V-twin engine that delivers exceptional torque for outstanding acceleration in every gear. A strong five-speed transmission and shaft drive cleanly puts all that power to the ground. This bike also features fully integrated leather-look, rigid side cases and a comfortable passenger seat, all behind a large windscreen for remarkably comfortable cruising on the open road. With bold, classic styling, the C90T is also designed to capture attention whether you're cruising down the boulevard or kicking back at a rest stop.

Key Features

- **Bright Metallic Mystic Silver paint with new tank graphics blend well with the Boulevard's classic styling, windscreen, leather-texture seats and matching saddlebags.**
- **Ninety cubic inch (1462cc), 54-degree, V-twin engine rumbles through dual pipes as it smoothly puts down power that's at home in town or out on the highway.**
- **With a light pull, the clutch feeds engine power to the smooth-shifting five-speed transmission and out to the clean shaft drive.**
- **Riders settle in behind a classically styled windscreen holding wide, buckhorn-style handlebars, with feet comfortably on forward-mount floorboards, while sitting on a plush seat that's just 28.3 inches above the ground.**
- **The classically styled 4.8-gallon fuel tank complements the large valance fenders that hover over the wide 16-inch rear and 17-inch front tires mounted on cast aluminum wheels.**
- **Brushed, stainless steel covers shield the stout front fork whereas a hidden, link-style rear shock smooths the ride while giving the bike an old-school, hard-tail look.**

Engine Features

- **Liquid-cooled, 90 cubic inch (1462cc), long-stroke, V-twin engine delivers the most power and torque in the class.* Outstanding low- to mid-range output means smooth acceleration and comfortable long-range cruising characteristics.**

  1000 to 1600cc class

- **Sculpted engine features polished aluminum and chrome covers that complement the visually striking cylinders with symmetrical cooling fins.**

Engine Features (continued)

- The aluminum alloy cylinders are coated with Suzuki Composite Electrochemical Material (SCEM), a coating of nickel-phosphorus-silicon carbide that reduces friction and increases heat transfer. The result is increased durability and ring seal.
- Each piston's upper compression ring and oil control ring are given a chrome-nitride coating to make them harder and smoother to further reduce friction.
- Four-valve cylinder heads with overhead camshafts and dual spark plugs increase combustion efficiency to help ensure seamless throttle response, gutsy low- to mid-range output, better fuel efficiency, and reduced emissions.
- To further reduce mechanical sounds, each cylinder head's cam cover is separated from the cam bearing caps, and a rubber gasket is used between the cylinder head and the cam cover.
- Suzuki Dual Throttle Valve (SDTV) induction system is enhanced by the 32-bit engine-control unit that instantly delivers the optimum fuel-air mixture and power output. This system – it's the same design used in Suzuki championship-winning GSX-R sportbikes – delivers seamless throttle response while boosting fuel efficiency and delivering strong torque.
- Auto Fast Idle System (AFIS) automatically sets the throttle-valve opening during cold-engine starts by monitoring coolant temperature.
- To maximize air induction for best power and torque, the C90T features a unique system that uses three separate air-cleaner boxes feeding the engine. This air induction system increases engine output without sacrificing style or fuel tank capacity.
- The Suzuki Clutch Assist System (SCAS) reduces the force needed to pull in the clutch lever, so clutch operation remains light. The clutch features back-torque-limiting clutch system, contributing to smooth downshift operation.
- Chromed and staggered dual exhaust system mounted on the right side of the engine is tuned for responsive torque delivery, providing a deep, rumbling exhaust note.
- A wide-ratio five-speed transmission features a high fifth-gear ratio for relaxed highway cruising.
- Low-maintenance shaft drive is clean-running and has minimal torque reaction, as it efficiently transmits power to the wide 16-inch rear tire.

Chassis Features

- The appeal of classic styling is combined with the benefits of modern touring performance, with the steel-tube frame comfortably carrying the rider and confidently housing the powerful engine.
- The styling incorporates timeless visual statements from cruiser heritage: rich paintwork, glittering chrome, and deep front and rear fenders with flared ends.
- New graphics for 2019 accentuate the classic lines of the fuel tank.
- The standard windshield offers full wind protection at freeway speeds with classic styling featuring a unique chrome garnish with Boulevard emblems.
- Easily removable, the firmly mounted windscreen offers protection without distraction. Wind buffeting is minimized by allowing just the right amount of air to pass above the headlight.
- Large-capacity, leather-texture saddlebags with Boulevard emblems are standard equipment, and convenient twist-lock fasteners provide plenty of storage capacity. These rigid saddlebags are made of durable, impact-resistant ABS plastic under stylish covers custom-matched to the leather-grain texture of the seats. They are designed as part of the bike, not as luggage add-ons.
- Additional touring-friendly features include well-positioned footboards, 4.8-gallon fuel tank and shaft drive.

Chassis Features (continued)

- **Design engineers focused on creating an ideal rider's triangle – footboards, handlebars, and seat positions set to deliver classic control with outstanding comfort. The resulting wide handlebar, seat, and low fuel tank shape add true comfort to the C90T's low-slung, relaxed look.**
- **Both rider and passenger seats are made for long-range comfort and top-notch control. They allow freedom of movement, accommodate riders of different sizes, and are well-cushioned.**
- **Wide passenger seat makes for comfortable two-up rides. Its stepped location on the rear fender allows the passenger to see over the rider's shoulder.**
- **The design of the link-type rear suspension maintains classic hard-tail look, while keeping the ride low and producing a smooth, ground-hugging ride.**
- **Stout telescopic front forks deliver generous 5.1 inches of smooth wheel travel, and the long 65.9-inch wheelbase provides a smooth, comfortable ride.**
- **A beefy 16-inch rear tire and complementary 17-inch front tire have wide footprints and are mounted to bright, spoke-style wheels for a nostalgic cruiser look.**
- **Hydraulic front and rear disc brakes provide strong, reliable braking performance.**
- **The multifunction instrument includes a convenient gear-position indicator and a fuel gauge, along with a clock and a trip meter, plus indicator lights for low fuel, turn signals, and more.**
- **Bright multi-reflector headlight. Durable, efficient, and compact LED tail light and four bullet-style turn signals.**

Additional Features

- **A variety of Genuine Suzuki Accessories for Boulevard owners are available including a large selection of Suzuki logo apparel.**
- **12-month limited warranty**
- **Coverage extensions and additional benefits are available through Suzuki Extended Protection (SEP).**
- **For more details, please visit www.suzukicycles.com.**

Specifications VL1500TL9
E-03: USA, E-33: California

DIMENSIONS AND CURB MASS

Overall length	2560 mm (100.8 in)
Overall width	990 mm (39.0 in)
Overall height	1440 mm (56.7 in)
Wheelbase	1675 mm (65.9 in)
Ground clearance	140 mm (5.5 in)
Seat height	720 mm (28.3 in)
Curb mass	363 kg (800 lbs)

ENGINE

Type	4-stroke, liquid-cooled, SOHC, 54-degree, V-twin
Number of cylinders	2
Bore	96 mm (3.780 in)
Stroke	101 mm (3.976 in)
Displacement	1462 cm^3 (89.2 cu. in)
Compression ratio	9.5 : 1
Fuel system	Fuel injection
Air cleaner	Paper element
Starter system	Electric
Lubrication system	Wet sump
Idle speed	1000 ± 100 r/min

DRIVE TRAIN

Clutch	Wet multi-plate type
Transmission	5-speed constant mesh
Gearshift pattern	1-down, 4-up
Primary reduction ratio	1.407 (76/54)
Gear ratios, Low	2.187 (35/16)
2nd	1.400 (28/20)
3rd	1.038 (27/26)
4th	0.875 (28/32)
Top	0.787 (26/33)
Final reduction ratio	3.137 (20/17 x 32/12)
Drive system	Shaft drive

CHASSIS

Front suspension	Inverted telescopic, coil spring, oil damped
Rear suspension	Link type, coil spring, oil damped
Front fork stroke	130 mm (5.1 in)
Rear wheel travel	108 mm (4.3 in)
Steering angle	37° (right & left)
Caster	31° 10’
Trial	132 mm (5.2 in)
Turning radius	3.3 m (10.8 ft)
Front brake	Disc brake
Rear brake	Disc brake
Front tire size	130/80R 17M/C (65H), tubeless
Rear tire size	200/60R 16M/C (79H), tubeless

Specifications VL1500TL9
E-03: USA, E-33: California

ELECTRICAL

Ignition type	Electronic ignition (Transistorized)
Ignition timing	5° B.T.D.C. at 1000 r/min
Spark plug	NGK CPR6EA-9 or DENSO U20EPR9
Battery	12 V 64.8 kC (18 Ah)/10 HR
Generator	Three-phase A.C. generator
Main fuse	30 A
Fuse	10/10/10/10/15/15 A
Headlight	12 V 60/55 W (H4)
Front turn signal light	12 V 21 W
Rear turn signal light	12 V 21 W
Brake light/Taillight	LED
License plate light	12 V 5 W
Speedometer light	LED
Neutral indicator light	LED
High beam indicator light	LED
Turn signal indicator light	LED
Coolant temperature indicator light	LED
Oil pressure indicator light	LED
FI indicator light	LED

CAPACITIES

Fuel tank	18 L (4.8 US gal, 4.0 Imp gal)
Engine oil, Oil change	3000 ml (3.2 US qt, 2.6 Imp qt)
With filter change	3200 ml (3.4 US qt, 2.8 Imp qt)
Overhaul	4000 ml (4.2 US qt, 3.5 Imp qt)
Coolant	2650 ml (2.8 US qt, 2.3 Imp qt)
Final gear oil	200 – 220 ml (6.8 – 7.4 US oz, 7.0 – 7.7 Imp oz)

Valve + Guide

Item	Standard / Specification		Limit / Note
Valve diam.	IN.	33 mm (1.30 in)	—
	EX.	30 mm (1.18 in)	—
Tappet clearance (When cold)	IN.	0.08 – 0.13 mm (0.003 – 0.005 in)	—
	EX.	0.17 – 0.22 mm (0.007 – 0.009 in)	—
Valve guide to valve stem clearance	IN.	0.010 – 0.037 mm (0.0004 – 0.0015 in)	—
	EX.	0.030 – 0.057 mm (0.0012 – 0.0022 in)	—
Valve guide I.D.	IN. & EX.	5.500 – 5.512 mm (0.2165 – 0.2170 in)	—
Valve stem O.D.	IN.	5.475 – 5.490 mm (0.2156 – 0.2161 in)	—
	EX.	5.455 – 5.470 mm (0.2148 – 0.2154 in)	—
Valve stem deflection	IN. & EX.	—	0.35 mm (0.014 in)
Valve stem runout	IN. & EX.	—	0.05 mm (0.002 in)
Valve head thickness	IN. & EX.	—	0.5 mm (0.02 in)
Valve stem end length	IN.	—	2.5 mm (0.10 in)
	EX.	—	2.2 mm (0.09 in)
Valve seat width	IN. & EX.	0.9 – 1.1 mm (0.035 – 0.043 in)	—
Valve head radial runout	IN. & EX.	—	0.03 mm (0.001 in)
Valve spring free length	Inner	—	34.4 mm (1.35 in)
	Outer	—	38.1 mm (1.50 in)
Valve spring tension	Inner	58 – 66 N (5.9 – 6.7 kgf, 13.1 – 15.0 lbf) at length 27.56 mm (1.09 in)	—
	Outer	135 – 155 N (13.8 – 15.8 kgf, 30.4 – 34.9 lbf) at length 31.06 mm (1.23 in)	—

Camshaft + Cylinder Head

Item	Standard / Specification		Limit / Note
Cam height	IN.	33.060 – 33.110 mm (1.3016 – 1.3035 in)	32.76 mm (1.290 in)
	EX.	33.110 – 33.150 mm (1.3035 – 1.3051 in)	32.81 mm (1.292 in)
Camshaft journal oil clearance	IN. & EX.	0.032 – 0.066 mm (0.0013 – 0.0026 in)	0.150 mm (0.0059 in)
Camshaft journal holder I.D.	Sprocket side	22.012 – 22.025 mm (0.8666 – 0.8671 in)	—
	Other side	18.512 – 18.525 mm (0.7288 – 0.7293 in)	—
Camshaft journal O.D.	Sprocket side	21.959 – 21.980 mm (0.8645 – 0.8653 in)	—
	Other side	18.459 – 18.480 mm (0.7267 – 0.7276 in)	—
Camshaft runout	IN. & EX.	—	0.10 mm (0.004 in)
Cylinder head distortion	—		0.05 mm (0.002 in)
Rocker arm shaft O.D.	IN. & EX.	11.973 – 11.984 mm (0.4714 – 0.4718 in)	—
Rocker arm I.D.	IN. & EX.	12.000 – 12.018 mm (0.4724 –0.4731 in)	—

Cylinder + Piston + Piston Ring

Item	Standard / Specification		Limit / Note
Compression pressure (Automatic decomp. actuated)	850 – 1450 kPa (8.5 – 14.5 kgf/cm², 121 – 206 psi)		750 kPa (7.5 kgf/cm², 106.7 psi)
Piston-to-cylinder clearance	0.025 – 0.035 mm (0.0010 – 0.0014 in)		0.120 mm (0.0047 in)
Cylinder bore	96.000 – 96.015 mm (3.7795 – 3.7801 in)		Nicks or Scratches
Piston diam.	95.970 – 95.985 mm (3.7783 – 3.7789 in) Measure at 15 mm (0.6 in) from the skirt end.		95.880 mm (3.7748 in)
Cylinder distortion	—		0.05 mm (0.002 in)
Piston ring free end gap	1st	Approx. 10.5 mm (0.41 in)	8.4 mm (0.33 in)
	2nd	Approx. 11.0 mm (0.43 in)	8.8 mm (0.35 in)
Piston ring end gap	1st	0.10 – 0.25 mm (0.004 – 0.010 in)	0.50 mm (0.020 in)
	2nd	0.10 – 0.25 mm (0.004 – 0.010 in)	0.50 mm (0.020 in)
Piston ring-to-groove clearance	1st	—	0.180 mm (0.0071 in)
	2nd	—	0.150 mm (0.0059 in)
Piston ring groove width	1st	1.21 – 1.23 mm (0.0476 – 0.0484 in)	—
	2nd	1.01 – 1.03 mm (0.0398 – 0.0406 in)	—
	Oil	2.51 – 2.53 mm (0.0988 – 0.0996 in)	—
Piston ring thickness	1st	1.17 – 1.19 mm (0.046 – 0.047 in)	—
	2nd	0.97 – 0.99 mm (0.038 – 0.039 in)	—
Piston pin bore I.D.	22.002 – 22.008 mm (0.8662 – 0.8665 in)		22.030 mm (0.8673 in)
Piston pin O.D.	21.992 – 22.000 mm (0.8658 – 0.8661 in)		21.980 mm (0.8654 in)

Conrod + Crankshaft

Item	Standard / Specification	Limit / Note
Conrod small end I.D.	22.010 – 22.018 mm (0.8665 – 0.8668 in)	22.040 mm (0.8677 in)
Conrod big end side clearance	0.10 – 0.20 mm (0.004 – 0.008 in)	0.30 mm (0.012 in)
Conrod big end width	19.95 – 20.00 mm (0.785 – 0.787 in)	—
Crank pin width	20.10 – 20.15 mm (0.791 – 0.793 in)	—
Conrod big end oil clearance	0.032 – 0.056 mm (0.0013 – 0.0022 in)	0.080 mm (0.0031 in)
Crank pin O.D.	54.976 – 55.000 mm (2.1644 – 2.1654 in)	—
Crankshaft journal oil clearance	0.002 – 0.029 mm (0.00008 – 0.00114 in)	0.080 mm (0.00310 in)
Crankshaft journal O.D.	54.985 – 55.000 mm (2.1648 – 2.1654 in)	—
Crankshaft thrust bearing thickness	1.925 – 2.075 mm (0.0758 – 0.0817 in)	—
Crankshaft thrust clearance	0.100 – 0.150 mm (0.0039 – 0.0059 in)	—
Crankshaft runout	—	0.05 mm (0.002 in)

Oil Pump

Item	Standard / Specification	Limit / Note
Oil pressure (at 60 °C, 140 °F)	Above 400 kPa (4.0 kgf/cm², 57 psi) Below 800 kPa (8.0 kgf/cm², 114 psi) at 3000 r/min	—

Clutch

Item	Standard / Specification		Limit / Note
Clutch cable play	10 – 15 mm (0.4 – 0.6 in)		—
Clutch release arm play	6 mm (0.24 in)		2 mm (0.08 in)
Clutch release screw	1/2 turn counterclockwise		—
Clutch drive plate thickness	No. 1	3.72 – 3.88 mm (0.146 – 0.153 in)	3.42 mm (0.135 in)
	No. 2	3.72 – 3.88 mm (0.146 – 0.153 in)	3.42 mm (0.135 in)
Clutch drive plate claw width	No. 1, 2	13.9 – 14.0 mm (0.547 – 0.551 in)	13.1 mm (0.516 in)
Clutch driven plate distortion		—	0.10 mm (0.004 in)
Clutch spring free length	39.05 mm (1.53 in)		37.1 mm (1.46 in)

Thermostat + Radiator + Fan + Coolant

Item	Standard / Specification		Limit / Note
Thermostat valve opening temperature	Approx. 88 °C (190 °F)		—
Thermostat valve lift	Over 8 mm (0.31 in) at 100 °C (212 °F)		—
ECT sensor resistance	13840 – 16330 Ω at –20 °C (–4 °F)		—
	2320 – 2590 Ω at 20 °C (68 °F)		—
	310 – 326 Ω at 80 °C (176 °F)		—
Radiator cap valve opening pressure	108 – 137 kPa (1.1 – 1.4 kgf/cm^2, 15.4 – 19.5 psi)		—
Cooling fan operating temperature	OFF → ON	105 °C (221 °F)	—
	ON → OFF	99 °C (210 °F)	—
Engine coolant type	Use an antifreeze/coolant compatible with aluminum radiator, mixed with distilled water only, at the ratio of 50:50.		—
Engine coolant	Reservoir tank side	250 ml (0.3 US qt, 0.2 Imp qt)	—
	Engine side	2400 ml (2.5 US qt, 2.1 Imp qt)	—

Drive Train

Item		Standard / Specification	Limit / Note
Primary reduction ratio		1.407 (76/54)	—
Final reduction ratio		3.137 (20/17 x 32/12)	—
Gear ratios	Low	2.187 (35/16)	—
	2nd	1.400 (28/20)	—
	3rd	1.038 (27/26)	—
	4th	0.875 (28/32)	—
	Top	0.787 (26/33)	—
Shift fork to groove clearance		0.1 – 0.3 mm (0.004 – 0.012 in)	0.5 mm (0.02 in)
Shift fork groove width		5.0 – 5.1 mm (0.197 – 0.201 in)	—
Shift fork thickness		4.8 – 4.9 mm (0.189 – 0.193 in)	—
Gearshift lever height		117 mm (4.6 in)	—

Driveline / Axle

Item	Standard / Specification	Limit / Note
Secondary gear backlash	0.03 – 0.15 mm (0.001 – 0.006 in)	—
Final bevel gear backlash	0.08 – 0.16 mm (0.003 – 0.006 in)	—
Damper spring free length	—	20.5 mm (0.81 in)
Final gear oil type	Hypoid gear oil SAE #90, API grade GL-5	—
Final gear oil capacity	200 – 220 ml (6.8 – 7.4 US oz, 7.0 – 7.7 Imp oz)	—

Injector + Fuel Pump + Fuel Pressure Regulator

Item	Standard / Specification	Limit / Note
Injector resistance	11 – 13 Ω at 23 °C (73 °F)	—
Fuel discharge amount	167 ml (5.6 US oz, 5.9 Imp oz) and more for 10 seconds at 300 kPa (3.0 kgf/cm^2, 43 psi)	—
Fuel pressure regulator operating set pressure	Approx. 300 kPa (3.0 kgf/cm^2, 43 psi)	—

FI Sensors

Item	Standard / Specification		Limit / Note
CKP sensor resistance	170 – 260 Ω		—
CKP sensor peak voltage	3 V and more		When cranking
IAP sensor input voltage (#1 & #2)	4.5 – 5.5 V		—
IAP sensor output voltage (#1 & #2)	Approx. 2.6 V at idle speed		—
TP sensor input voltage	4.5 – 5.5 V		—
TP sensor resistance	Closed	Approx. 1100 Ω	—
	Opened	Approx. 4300 Ω	—
TP sensor output voltage	Closed	Approx. 1.1 V	—
	Opened	Approx. 4.3 V	—
ECT sensor input voltage	4.5 – 5.5 V		—
ECT sensor resistance	13840 – 16330 Ω at –20 °C (–4 °F)		—
	2320 – 2590 Ω at 20 °C (68 °F)		—
	310 – 326 Ω at 80 °C (176 °F)		—
IAT sensor input voltage	4.5 – 5.5 V		—
IAT sensor resistance	Approx. 6000 Ω at 0 °C (32 °F)		—
	Approx. 2500 Ω at 20 °C (68 °F)		—
	Approx. 340 Ω at 80 °C (176 °F)		—
TO sensor input voltage	4.5 – 5.5 V		—
TO sensor resistance	16500 – 22300 Ω		—
TO sensor voltage	Normal	0.4 – 1.4 V	—
	Leaning	3.7 – 4.4 V	When leaning 65°
GP switch input voltage	0.6 V and more		From Low to Top
Injector voltage	Battery voltage		—
Ignition coil primary peak voltage	150 V and more		#1: (+) W/Bl – (–) Ground #2: (+) B – (–) Ground
STP sensor input voltage	4.5 – 5.5 V		—
STP sensor output voltage	Closed	Approx. 0.6 V	—
	Opened	Approx. 4.2 V	—
STV actuator resistance	Approx. 7 Ω		—
HO2 sensor output voltage	0.4 V and less at idle speed		—
	0.6 V and more at 4000 r/min		—
HO2 sensor heater resistance	4 – 5 Ω at 23 °C (73 °F)		—
PAIR control solenoid valve resistance	18 – 22 Ω at 20 – 30 °C (68 – 86 °F)		—
EVAP system purge control solenoid valve resistance	30 – 34 Ω at 20 °C (68 °F)		E33 only

Throttle Body

Item	Standard / Specification	Limit / Note
Bore size	42 mm (2.0 in)	—
I.D. No.	40HB	E33
	40HA	E03
Idle r/min	1000 ± 100 r/min/Warmed engine	—
Throttle cable play	2.0 – 4.0 mm (0.08 – 0.16 in)	—

Electrical

Item			Standard / Specification		Limit / Note
Firing order			1 · 2		—
Spark plug			Type	NGK: CPR6EA-9 DENSO: U20EPR9	—
			Gap	0.8 – 0.9 mm (0.031 – 0.035 in)	—
Spark performance			Over 8 mm (0.3 in) at 1 atm.		—
CKP sensor resistance			170 – 260 Ω		—
Ignition coil resistance			Primary	1 – 5 Ω	(+) Terminal – (–) Terminal
			Secondary	25 – 40 kΩ	Plug cap – Plug cap
CKP sensor peak voltage			3 V and more		When cranking
Ignition coil primary peak voltage			150 V and more		#1: (+) W/Bl – (–) Ground #2: (+) B – (–) Ground
Generator coil resistance			0.2 – 0.6 Ω		—
Generator maximum output			Approx. 425 W at 5000 r/min		—
Generator no-load voltage			80 V (AC) and more at 5000 r/min		When engine is cold
Regulated voltage			13.5 – 15.5 V at 5000 r/min		—
Battery	Type designation		FTZ16-BS		—
	Capacity		12 V 64.8 kC (18 Ah)/10 HR		—
	Standard electrolyte S.G.		1.330 at 20°C (68°F)		—
Fuse size	Headlight	HI	10 A		—
		LO	10 A		—
	Fuel		10 A		—
	Ignition		15 A		—
	Signal		10 A		—
	Fan motor		15 A		—
	Main		30 A		—
Starter motor brush length			12.5 mm (0.49 in)		6 mm (0.24 in)
Starter torque limiter slip torque			19.6 – 39.2 N·m (1.96 – 3.92 kgf-m, 14.0 – 28.5 lbf-ft)		—
Starter relay resistance			3 – 6 Ω		—

Wattage

Item	Standard / Specification
Headlight	60/55 W (H4)
Position light	5 W
Front turn signal light	21 W x 2
Brake light/Taillight	LED
Rear turn signal light	21 W x 2
License plate light	5 W
Speedometer light	LED
Turn signal indicator light	LED
High beam indicator light	LED
Neutral position indicator light	LED
Coolant temperature indicator light	LED
Oil pressure indicator light	LED
FI indicator light	LED

Brake + Wheel

Item	Standard / Specification			Limit / Note
Rear brake pedal height	110 – 120 mm (4.3 – 4.7 in)			—
Brake disc thickness	Front	5.8 – 6.2 mm (0.23 – 0.24 in)		5.5 mm (0.22 in)
	Rear	6.6 – 7.0 mm (0.26 – 0.28 in)		6.3 mm (0.25 in)
Brake disc runout	Front & Rear	—		0.30 mm (0.012 in)
Master cylinder bore	Front	Approx. 11.0 mm (0.43 in)		—
	Rear	Approx. 15.9 mm (0.63 in)		—
Master cylinder piston diam.	Front	Approx. 11.0 mm (0.43 in)		—
	Rear	Approx. 15.9 mm (0.63 in)		—
Brake caliper cylinder bore	Front	Approx. 25.4 mm (1.00 in)		—
	Rear	Approx. 30.2 mm (1.19 in)		—
Brake caliper piston diam.	Front	Approx. 25.4 mm (1.00 in)		—
	Rear	Approx. 30.2 mm (1.19 in)		—
Brake fluid type	DOT 4			—
Wheel rim runout	Front & Rear	Axial	—	2.0 mm (0.08 in)
		Radial		
Wheel axle runout	Front & Rear	—		0.25 mm (0.010 in)
Wheel rim size	Front	17 M/C x MT 3.00		—
	Rear	16 M/C x MT 5.50		—

Suspension

Item	Standard / Specification	Limit / Note
Front fork stroke	130 mm (5.1 in)	—
Front fork spring free length	428 mm (16.9 in)	419 mm (16.5 in)
Front fork inner tube O.D.	45 mm (1.8 in)	—
Front fork oil level (Without spring, inner tube fully compressed)	122 mm (4.8 in)	—
Front fork oil type	SUZUKI FORK OIL SS-08 or equivalent	—
Front fork oil capacity (Each leg)	595 ml (20.1 US oz, 21.0 Imp oz)	—
Rear shock absorber spring pre-set length	185 mm (7.28 in)	—
Rear wheel travel	108 mm (4.3 in)	—
Swingarm pivot shaft runout	—	0.3 mm (0.01 in)

Tire

Item	Standard / Specification		Limit / Note
Cold inflation tire pressure (Solo riding)	Front	225 kPa (2.25 kgf/cm^2, 33 psi)	—
	Rear	250 kPa (2.50 kgf/cm^2, 36 psi)	—
Cold inflation tire pressure (Dual riding)	Front	225 kPa (2.25 kgf/cm^2, 33 psi)	—
	Rear	280 kPa (2.80 kgf/cm^2, 41 psi)	—
Tire size	Front	130/80R 17M/C (65H), tubeless	—
	Rear	200/60R 16M/C (79H), tubeless	—
Tire type	Front	BRIDGESTONE: G853 G	—
	Rear	BRIDGESTONE: G852 G	—
Tire tread depth (Recommended depth)	Front	—	1.6 mm (0.06 in)
	Rear	—	2.0 mm (0.08 in)

Fuel + Oil

Item	Standard / Specification		Limit / Note
Fuel type	Use unleaded gasoline with an octane rating of 87 AKI or higher. Do not use leaded gasoline. Unleaded gasoline containing up to 15% MTBE by volume may be used. Unleaded gasoline containing up to 10% ethanol by volume may be used. Unleaded gasoline containing up to 5% methanol by volume may be used if it also contains appropriate co-solvents and corrosion inhibitors.		
Fuel tank capacity	18 L (4.8 US gal, 4.0 Imp gal)		—
Engine oil type	SAE 10W-40, API SG or higher with JASO MA		—
Engine oil capacity	Change	3000 ml (3.2 US qt, 2.6 Imp qt)	—
	Filter change	3200 ml (3.4 US qt, 2.8 Imp qt)	—
	Overhaul	4000 ml (4.2 US qt, 3.5 Imp qt)	—

Tightening Torque List

Engine

Item			N·m	kgf-m	lbf-ft
Cylinder head cover bolt			14	1.4	10.0
Cylinder head cover bracket bolt			10	1.0	7.0
Cylinder head bolt	[L160]		26	2.6	19.0
	[L180]		26	2.6	19.0
	[L190]	Initial	25	2.5	18.0
		Final	42	4.2	30.5
Water jacket plug (Cylinder head)			26	2.6	19.0
Camshaft journal holder bolt			10	1.0	7.0
Cam chain sprocket bolt			15	1.5	11.0
Cam chain tension adjuster bolt			10	1.0	7.0
Cam chain tension adjuster cap bolt			23	2.3	16.5
Cam chain tensioner bolt (Front & Rear)			23	2.3	16.5
Valve clearance adjuster lock-nut			15	1.5	11.0
Cam chain guide bolt (Front & Rear)			23	2.3	16.5
Exhaust pipe bolt			23	2.3	16.5
HO2 sensor			48	4.8	34.5
Spark plug			11	1.1	8.0
Primary drive gear bolt			150	15.0	108.5
Starter clutch bolt			25	2.5	18.0
Conrod cap bolt			35 N·m (3.5 kgf-m, 25.5 lbf-ft) then turn in 1/4 (90°) turn		
Special tool bolt			23	2.3	16.5
Oil drain plug			23	2.3	16.5
Crankcase bolt	[M6]		11	1.1	8.0
	[M8]	Initial	15	1.5	11.0
		Final	26	2.6	19.0
Oil gallery plug	[M8]		18	1.8	13.0
	[M14]		23	2.3	16.5
	[M16]		35	3.5	25.5
Oil gallery plug (Transmission oil jet)	[M10]		18	1.8	13.0
Oil pressure switch			14	1.4	10.0
Oil pressure switch lead wire bolt			1.5	0.15	1.0
Oil pump cover screw			1.3	0.13	1.0
Clutch sleeve hub nut			95	9.5	68.5
Clutch spring set bolt			150	15.0	108.5
Valve timing inspection plug			23	2.3	16.5
Valve timing inspection cap bolt			10	1.0	7.0
Gearshift cam plate bolt			10	1.0	7.0
Gearshift arm stopper			19	1.9	13.5
Gearshift cam stopper bolt			10	1.0	7.0
Gearshift lever bolt			50	5.0	36.0
Generator cover cap			11	1.1	8.0
Generator rotor bolt			160	16.0	115.5
Generator stator set bolt			11	1.1	8.0
Starter motor mounting bolt			10	1.0	7.0
Starter motor housing bolt			5	0.5	3.5
Starter motor lead wire mounting nut			6	0.6	4.5
Brush holder nut			11	1.1	8.0
Oil filter			20	2.0	14.5
Engine mounting nut			55	5.5	40.0
Muffler connecting bolt (Front & Rear)			26	2.6	19.0
Muffler support nut			26	2.6	19.0
Muffler support bolt			26	2.6	19.0
Muffler joint bolt			26	2.6	19.0

Item	N·m	kgf-m	lbf-ft
Rear muffler upper cover mounting bolt	10	1.0	7.0
Air cleaner box mounting bolt	5.5	0.55	4.0

Driveline / Axle

Item		N·m	kgf-m	lbf-ft
Secondary drive gear bolt		175	17.5	126.5
Secondary driven bevel gear bearing stopper		105	10.5	76.0
Secondary bevel gear coupling nut		95	9.5	68.5
Secondary gear case bolt	Initial	15	1.5	11.0
	Final	26	2.6	19.0
Secondary driven gear bearing housing bolt		55	5.5	40.0
Final gear case nut		40	4.0	29.0
Final drive gear coupling nut		100	10.0	72.5
Final drive bevel gear bearing stopper		110	11.0	79.5
Final gear bearing case bolt	[M8]	23	2.3	16.5
	[M10]	50	5.0	36.0
Final gear oil drain plug		23	2.3	16.5

FI System and Intake Air System

Item	N·m	kgf-m	lbf-ft
CKP sensor mounting bolt	5.5	0.55	4.0
Fuel pump mounting bolt	10	1.0	7.0
GP switch mounting bolt	6.5	0.65	4.5
TP sensor mounting screw	3.5	0.35	2.5
STP sensor mounting screw	3.5	0.35	2.5
IAT sensor mounting screw	1.3	0.13	1.0
Fuel delivery pipe mounting screw	5	0.5	3.5

Cooling System

Item	N·m	kgf-m	lbf-ft
ECT sensor	18	1.8	13.0
Water hose clamp screw	1.5	0.15	1.0
Water pump case screw	5.5	0.55	4.0
Cooling fan mounting bolt	6.5	0.65	4.5

Chassis

Item	N·m	kgf-m	lbf-ft
Handlebar clamp bolt	23	2.3	16.5
Handlebar holder bolt	70	7.0	50.5
Front fork clamp bolt (Upper & Lower)	23	2.3	16.5
Front fork damper rod bolt	20	2.0	14.5
Front fork spacer clamp bolt	4.2	0.42	3.0
Steering stem nut	45 N·m (4.5 kgf-m, 32.5 lbf-ft) then turn counterclockwise 1/2 – 1/4		
Steering stem head nut	90	9.0	65.0
Front axle	100	10.0	72.5
Front axle pinch bolt	33	3.3	24.0
Wheel weight mounting bolt	10	1.0	7.0
Spacer clamp bolt	4.2	0.42	3.0
Brake disc bolt (Front & Rear)	23	2.3	16.5
Rear brake caliper bracket mounting bolt	94	9.4	68.0
Front brake caliper mounting bolt	26	2.6	19.0
Rear brake caliper mounting bolt	54	5.4	39.0
Air bleeder valve (Front brake)	6	0.6	4.5
Air bleeder valve (Rear brake)	7.5	0.75	5.5
Brake hose union bolt	23	2.3	16.5
Brake lever pivot bolt	1	0.1	0.5
Brake lever pivot bolt lock-nut	6	0.6	4.5
Front brake master cylinder holder bolt (Upper & Lower)	10	1.0	7.0
Rear brake master cylinder mounting bolt	10	1.0	7.0
Rear brake master cylinder rod lock-nut	18	1.8	13.0
Rear brake pedal boss bolt	16	1.6	11.5
Rear brake pad mounting pin	17	1.7	12.5
Pad pin plug	2.5	0.25	1.8
Brake hose union bolt	23	2.3	16.5
Caliper bracket sliding pin	13	1.3	9.5
Caliper sliding pin	23	2.3	16.5
Frame down tube bolt	50	5.0	36.0
Rear frame bolt	50	5.0	36.0
Rear reflex reflector mounting nut	1.8	0.18	1.5
Front footrest bracket bolt	50	5.0	36.0
Swingarm pivot shaft nut	100	10.0	72.5
Cushion lever mounting nut	132	13.2	95.5
Cushion rod nut	132	13.2	95.5
Rear shock absorber mounting nut (Upper & Lower)	65	6.5	47.0
Rear axle nut	100	10.0	72.5
Steering lock bracket bolt	26	2.6	19.0
Front turn signal light mounting bolt	10	1.0	7.0
Rear turn signal light mounting bolt	11	1.1	8.0
Rear turn signal light bracket bolt	11	1.1	8.0
Windscreen lower brace mounting bolt (VL1500T/BT)	23	2.3	16.5