Features & Specifications
2019 KingQuad 500AXi Power Steering SE

LT-A500XPZL9

30H: Solid Special White No. 2

Key Points

- New edgy and dynamic styling with Solid Special White bodywork
- Powerful, emissions-compliant four-stroke engine is easy on gas
- Quadmatic™ transmission delivers strong, smooth acceleration with controlled engine braking
- Select 2WD, 4WD or 4WD differential-lock on the fly with a push of a button
- New frame and other changes boost towing capacity to 1322 pounds
- Higher-capacity Power Steering system reduces turning effort and damps vibration to the rider
- New lightweight, cast-aluminum wheels

Overview

The KingQuad 500AXi Power Steering SE is not just a new ATV, it's a new KingQuad ATV. Suzuki, the inventor of the four-wheel ATV, took the world's best sports-utility quad and made it better and more capable than ever. The legacy of the iconic KingQuad has a new and exciting chapter and is ready for you to join the narrative. The new 2019 KingQuad is easier to ride on any terrain thanks to updates in several key areas:

Styling All-new styling & body-work, the Solid Special White SE is a higher trim level KingQuad with new, cast-aluminum wheels.

Chassis Increased towing capacity (up to 1322 lbs.) from a new, stronger frame, new gas-charged shock absorbers, larger rear stabilizer bar with more compliant bushings, refined front and rear brakes, plus easier rider control via updated steering calibration and a higher-capacity electronic power steering system.

Engine Reliable, fuel-injected engine delivers controllable power and is matched to the Quadmatic™ CVT transmission for strong, smooth acceleration and effective engine braking. Full emissions compliance (new California model is eligible for green-sticker registration).

Electrics New handlebar-mounted lights and fender-mounted twin headlights with a new, low-draw LED taillight, plus a new LCD instrument panel that is easier to read with programmable service reminder, and a fender-mounted power outlet.

Accessories An expanded range of Genuine Suzuki Accessories lets you set up your KingQuad for Any Mission.

Engine Features

- The powerful 493cc, SOHC, single-cylinder, liquid-cooled, four-stroke engine produces a wide powerband with strong top-end power.
- Its cylinder is canted forward for a low center of gravity resulting in reduced engine height and lower seat height. The engine also features a balancer shaft for smooth operation.
- The compact 4-valve cylinder head has large intake valves and straight intake ports for superb cylinder charging efficiency.
- A lightweight aluminum cylinder uses SCEM (Suzuki Composite Electrochemical Material) coating for excellent heat transfer and ring sealing resulting in superb combustion chamber efficiency.
- Advanced Suzuki Fuel Injection improves throttle response and fuel efficiency, while delivering power consistently across the full rev-range, and improves engine starting in all conditions.
- The new KingQuad easily achieves US emissions compliance, including California models that conform to the state's stringent evaporative emissions standard (eligible for green sticker registration).
- High capacity aluminum radiator with large diameter, thermostatically controlled cooling fan provides stable engine operating temperature.

Transmission Features

- The QuadMatic™ CVT-type automatic transmission provides versatility and convenience with a fender-mounted gate-type shifter for high/low range selection. Its advanced engine-braking system minimizes free-wheeling with the throttle off and helps control the vehicle during steep descents.
- A compact torque-sensing limited-slip front differential offers potent traction plus light steering. A differential-lock system provides serious four-wheel-drive traction.
- Handlebar-mounted push-button controls permit easy selection between 2WD, 4WD and differential-lock 4WD. An override button on the left handlebar can be used to override the normal speed limiter when stuck in the mud.

Chassis Features

- To increase rider comfort, make the ATV easier to ride on any terrain and increase towing capacity the KingQuad's frame is new with thicker frame tubes and redesigned brackets in key areas.
- The base steering characteristics are now tuned to an "under-steer" condition for reduced effort and tighter turning in tight conditions. This permits higher, more comfortable handlebars to be used.
- The KingQuad's new, advanced electric power steering system has higher capacity than ever before for significantly reduced steering effort that also damps vibration and jolts to the rider.
- The bold, new bodywork features high-clearance fenders that offer great protection for the rider from flying debris. Refined panels simplify maintenance needs, such as oil level checks, fuel and air filter service.
- Independent double A-arm front suspension (6.7 inches of wheel travel) includes new large diameter, gas-charged shock absorbers with 5-way spring preload adjustment.
- Fully independent, A-arm/I-beam rear suspension with 7.7 inches of wheel travel includes new large diameter, gas-charged shock absorbers with 5-way spring preload adjustment.
- A new, larger diameter rear stabilizer bar with more compliant bushings helps control body movement while reducing shocks to the rider.
- The dual hydraulic front disc brakes have new brake pad material, fluid lines and lever to optimize barking performance.
- The sealed, multi-plate rear brake system features a new foot brake lever ratio for enhanced rider control. The rear brake's clutch-type design provides high durability, reduced unsprung weight and low-maintenance.
- High traction 25-inch CARLISLE tires are mounted on new, lightweight, cast-aluminum wheels.
- Suzuki's plush T-shaped seat delivers rider mobility during spirited or difficult terrain riding.
- Polyethylene skid plates provide protection with minimal resistance over rocks and rough terrain. Durable plastic guards protect the front and rear half shafts.

Utility/Convenience Features

- **The new 35W handlebar-mounted headlight illuminates the trail in the direction you are steering the ATV. Dual 35W headlights (with high and low settings) are part of the new, distinctive KingQuad bodywork.**
- **A new, low-draw and bright LED tail light helps make the ATV visible in dark conditions while conserving power.**
- **A new receiver-type trailer hitch mount makes it easy to select the type of equipment you want to move with the KingQuad's higher towing capacity (up to 1322 pounds).**
- **Winch-ready mounts and wire conduit makes winch installation simple.**
- **A new, fully redesigned multi-function instrument panel has improved appearance, visibility and provides service reminders based on running time or mileage. The instrumentation includes LCD readouts for speedometer, odometer, twin tripmeter, hour meter, clock, fuel level, driving range and drive mode. LED indicators for high, low, neutral, reverse and 2WD/4WD and differential-locked 4WD. LED cautions for fuel injection and engine temperature.**
- **High-output, three-phase charging system feeds an 18-amp maintenance-free battery for abundant power for easy starting and accessory use. A sealed 12V accessory outlet is standard.**
- **The large 4.6 gallon (17.5 L) fuel tank is positioned for a low center-of-gravity. It includes a vacuum-operated petcock and a ratchet-style filler cap (which prevents over tightening so it can be easily unscrewed for refilling).**
- **A new, large 4.0 liter storage compartment is centrally added to the rear of the ATV adjacent to the existing 4.0 liter left-side compartment to increase cargo capacity. The 2.8 liter water resistant front storage compartment includes an easy access screw-on cap.**
- **The rugged steel-tube cargo racks have wrinkle paint finish for durability and scratch resistance.**
- **Full floorboards with integrated raised footpegs provide protection.**

Additional Features

- **A variety of Suzuki Genuine Accessories are available including winches, windshield, front and rear bumpers, a new quick-release snow plow, aluminum skid pans, rack extensions, utility box and more.**
- **12-month limited warranty**
- **For more details, please visit www.suzukicycles.com.**

Specifications LT-A500XPZL9
E-03: USA, E-33: California

Dimensions and curb mass

Item	Specification	Remark
Overall length	2150 mm (84.65 in)	—
Overall width	1215 mm (47.83 in)	—
Overall height	1285 mm (50.59 in)	—
Wheelbase	1285 mm (50.59 in)	—
Ground clearance	260 mm (10.2 in)	—
Front track	940 mm (37.0 in)	—
Rear track	920 mm (36.2 in)	—
Seat height	920 mm (36.2 in)	—
Curb mass	322 kg (710 lbs)	E03 (For U.S.A.)
	323 kg (712 lbs)	E33 (For California State)

Engine

Item	Specification	Remark
Type	Four-stroke, liquid-cooled, OHC	—
Number of cylinders	1	—
Bore	87.5 mm (3.44 in)	—
Stroke	82.0 mm (3.23 in)	—
Displacement	493 cm^3 (30.085 cu.in)	—
Compression ratio	10.0 : 1	—
Fuel system	Fuel injection	—
Air cleaner	Paper element and Polyurethane foam element	—
Starter system	Electric	—
Lubrication system	Wet sump	—
Idle speed	1500 ± 100 r/min	—

Drive train

Item		Specification	Remark
Clutch		Wet shoe, automatic, centrifugal type	—
Transmission		CVT (V-belt)	—
Transfer		2-speed forward with reverse	—
Gearshift pattern	Transmission	Automatic	—
	Transfer	L-H-N-R (Hand operated)	—
Automatic transmission ratio		Variable change (2.902 – 0.779)	—
Secondary reduction ratio		2.603 (37/18 × 19/15)	—
Final reduction ratio (Front and Rear)		3.600 (36/10)	—
Transfer gear ratio	Low	2.562 (41/16)	—
	High	1.240 (31/25)	—
	Reverse	2.000 (32/16)	—
Drive system		Shaft drive	—

Specifications LT-A500XPZL9
E-03: USA, E-33: California

Chassis

Item	Specification	Remark
Front suspension	Independent, double wishbone, coil spring, oil damped	—
Rear suspension	Independent, double wishbone, coil spring, oil damped	—
Front wheel travel	172 mm (6.77 in)	—
Rear wheel travel	194 mm (7.64 in)	—
Caster	1.7°	—
Trail	6.8 mm (0.27 in)	—
Toe-out	13 mm (0.51 in)	—
Camber	–0.4°	—
Steering angle	44° (right and left)	—
Turning radius	3.1 m (10.2 ft)	—
Front brake	Disc brake, twin	—
Rear brake	Sealed oil-bathed multi-disc	—
Front tire size	AT25 × 8-12 ☆ ☆ , tubeless	—
Rear tire size	AT25 × 10-12 ☆ ☆ , tubeless	—

Electrical

Item	Specification	Remark
Ignition type	Electronic ignition (Transistorized)	—
Spark plug	NGK LMAR6A-9	—
Battery	12 V 64.8 kC (18 Ah)/10 HR	—
Generator	Three-phase A.C. generator	—
Fuse	30/10/10/10/15/15/10 A	—
EPS fuse	40 A	—
Headlight	12 V 35/35 W (HS1) × 2	—
Auxiliary headlight	12 V 35/35 W (HS1)	—
Brake light/Taillight	LED	—
Instrument panel light	LED	—
Neutral indicator light	LED	—
Hi beam indicator light	LED	—
Engine coolant temperature indicator light/FI indicator light	LED	—
Reverse indicator light	LED	—
Diff-lock indicator light	LED	—
EPS indicator light	LED	—

Capacities

Item		Specification	Remark
Fuel tank		17.5 L (4.62 US gal, 3.85 Imp gal)	—
Engine oil	Oil change	2500 ml (2.64 US qt, 2.20 Imp qt)	—
	With filter change	2700 ml (2.85 US qt, 2.38 Imp qt)	—
	Overhaul	3200 ml (3.38 US qt, 2.82 Imp qt)	—
Differential gear oil		460 ml (15.55 US oz, 16.19 Imp oz)	—
Final gear oil		770 ml (26.04 US oz, 27.10 Imp oz)	—
Engine coolant		2450 ml (2.59 US qt, 2.16 Imp qt)	—

Emission Control Devices

Item	Specification	Standard	Limit
EVAP system purge control solenoid valve power supply voltage (If equipped)		Battery voltage	—
EVAP system purge control solenoid valve resistance (If equipped)	20 °C (68 °F)	30 – 34 Ω	—
PAIR control solenoid valve power supply voltage		Battery voltage	—
PAIR control solenoid valve resistance	20 – 30 °C (68 – 86 °F)	20 – 24 Ω	—

Engine Electrical Devices

Item	Specification	Standard	Limit
IAP sensor power supply voltage		4.5 – 5.5 V	—
IAP sensor output voltage	At 1 atm	2.88 – 5.12 V	—
IAT sensor power supply voltage		4.5 – 5.5 V	—
IAT sensor resistance	10 °C (50 °F)	3803 – 4069 Ω	—
	20 °C (68 °F)	2535 – 2756 Ω	—
	40 °C (104 °F)	1203 – 1348 Ω	—
ECT sensor power supply voltage		4.5 – 5.5 V	—
ECT sensor resistance	20 °C (68 °F)	2320 – 2590 Ω	—
	80 °C (176 °F)	310 – 326 Ω	
TP sensor power supply voltage		4.5 – 5.5 V	—
TP sensor output voltage	Closed	1.10 – 1.14 V	—
	Opened	4.13 – 4.33 V	
ISC valve power supply voltage		Battery voltage	—
ISC valve resistance	20 °C (68 °F)	28.8 – 31.2 Ω	—
CKP sensor peak voltage	When cranking	5 V or more	—
CKP sensor resistance	20 °C (68 °F)	160 – 260 Ω	—
TO sensor power supply voltage		4.5 – 5.5 V	—
TO sensor output voltage	Normal	0.4 – 1.4 V	—
	Leaning 65°	3.7 – 4.4 V	
TO sensor resistance		19000 – 20000 Ω	—
ECM power supply voltage		Battery voltage	—
Speed sensor power supply voltage		Battery voltage	—

Engine Mechanical

Item	Specification		Standard	Limit
Throttle body I.D. No.	Without EVAP control system (E03)		31H1	—
	With EVAP control system (E33)		31H3	—
Throttle body bore size			37 mm (1.5 in)	—
Throttle cable play			3.0 – 5.0 mm (0.12 – 0.19 in)	—
Idle speed	When engine warmed		1500 ± 100 r/min	—
Fast idle speed			1600 – 2100 r/min	—
Compression pressure	Automatic decompression actuated.		800 – 1200 kPa (8.2 – 12.2 kgf/cm^2, 116 – 174 psi)	600 kPa (6.1 kgf/cm^2, 87.0 psi)
Cam height	Intake		33.45 – 33.50 mm (1.317 – 1.318 in)	33.15 mm (1.306 in)
	Exhaust		33.47 – 33.52 mm (1.318 – 1.319 in)	33.17 mm (1.306 in)
Camshaft journal oil clearance	Right		0.028 – 0.059 mm (0.0011 – 0.0023 in)	0.150 mm (0.0059 in)
	Center and Left		0.032 – 0.066 mm (0.0013 – 0.0025 in)	0.150 mm (0.0059 in)
Camshaft journal holder I.D.	Right		17.512 – 17.525 mm (0.6895 – 0.6899 in)	—
	Center and Left		22.012 – 22.025 mm (0.8667 – 0.8671 in)	
Camshaft journal O.D.	Right		17.466 – 17.484 mm (0.6877 – 0.6883 in)	—
	Center and Left		21.959 – 21.980 mm (0.8646 – 0.8653 in)	
Camshaft runout			—	0.10 mm (0.004 in)
Rocker arm I.D.	Intake		12.000 – 12.018 mm (0.4725 – 0.4731 in)	—
	Exhaust		12.000 – 12.018 mm (0.4725 – 0.4731 in)	
Rocker arm shaft O.D.	Intake		11.973 – 11.984 mm (0.4714 – 0.4718 in)	—
	Exhaust		11.973 – 11.984 mm (0.4714 – 0.4718 in)	
Valve clearance	When engine cold	Intake	0.05 – 0.10 mm (0.0020 – 0.0039 in)	—
		Exhaust	0.17 – 0.22 mm (0.0067 – 0.0086 in)	
Valve diameter	Intake		30.6 mm (1.20 in)	—
	Exhaust		27 mm (1.1 in)	
Valve stem runout	Intake & Exhaust		—	0.05 mm (0.0019 in)
Valve head radial runout	Intake & Exhaust		—	0.03 mm (0.0011 in)
Valve head thickness	Intake		—	0.5 mm (0.019 in)
	Exhaust		—	0.5 mm (0.019 in)
Valve stem deflection	Intake & Exhaust		—	0.35 mm (0.013 in)
Valve stem O.D.	Intake		4.975 – 4.990 mm (0.1959 – 0.1964 in)	—
	Exhaust		4.955 – 4.970 mm (0.1951 – 0.1956 in)	—
Valve seat width	Intake		0.9 – 1.1 mm (0.036 – 0.043 in)	—
	Exhaust		0.9 – 1.1 mm (0.036 – 0.043 in)	—
Valve guide I.D.	Intake		5.000 – 5.012 mm (0.1969 – 0.1973 in)	—
	Exhaust		5.000 – 5.012 mm (0.1969 – 0.1973 in)	—
Valve guide to valve stem clearance	Intake		0.010 – 0.037 mm (0.0004 – 0.0014 in)	—
	Exhaust		0.030 – 0.057 mm (0.0012 – 0.0022 in)	—
Valve spring free length	Intake		—	38.8 mm (1.53 in)
	Exhaust		—	38.8 mm (1.53 in)

Item	Specification		Standard	Limit
Valve spring pre-load	When compressed to 31.5 mm (1.24 in)	Intake	182 – 210 N (18.6 – 21.4 kgf, 40.9 – 47.2 lbf)	—
		Exhaust	182 – 210 N (18.6 – 21.4 kgf, 40.9 – 47.2 lbf)	—
Cylinder head distortion			—	0.05 mm (0.0019 in)
Cylinder head cover distortion			—	0.05 mm (0.0019 in)
Cylinder distortion			—	0.05 mm (0.0019 in)
Cylinder bore			87.500 – 87.515 mm (3.4449 – 3.4454 in)	No nicks or Scratches
Piston diameter	Measure at 15 mm (0.59 in) from the skirt end.		87.465 – 87.480 mm (3.4435 – 3.4440 in)	87.380 mm (3.4402 in)
Piston to cylinder clearance			0.030 – 0.040 mm (0.0012 – 0.0015 in)	0.120 mm (0.0047 in)
Piston ring to groove clearance	1st		—	0.180 mm (0.0070 in)
	2nd		—	0.150 mm (0.0059 in)
Piston ring groove width	1st		0.78 – 0.80 mm (0.0307 – 0.0314 in) 1.30 – 1.32 mm (0.0512 – 0.0519 in)	—
	2nd		1.01 – 1.03 mm (0.0398 – 0.0405 in)	—
	Oil		2.51 – 2.53 mm (0.0989 – 0.0996 in)	—
Piston ring thickness	1st		0.71 – 0.76 mm (0.028 – 0.029 in) 1.08 – 1.10 mm (0.0426 – 0.0433 in)	—
	2nd		0.97 – 0.99 mm (0.0382 – 0.0389 in)	—
Piston ring free end gap	1st		Approx. 6.2 mm (0.24 in)	4.9 mm (0.20 in)
	2nd		Approx. 12.0 mm (0.472 in)	9.6 mm (0.38 in)
Piston ring end gap	1st		0.08 – 0.20 mm (0.0032 – 0.0078 in)	0.50 mm (0.019 in)
	2nd		0.10 – 0.25 mm (0.0040 – 0.0098 in)	0.50 mm (0.019 in)
Piston pin bore I.D.			20.002 – 20.008 mm (0.7875 – 0.7877 in)	20.030 mm (0.7885 in)
Piston pin O.D.			19.992 – 20.000 mm (0.7871 – 0.7874 in)	19.980 mm (0.7867 in)
Conrod small end I.D.			20.006 – 20.014 mm (0.7877 – 0.7879 in)	20.040 mm (0.7889 in)
Conrod deflection			—	3.0 mm (0.11 in)
Conrod big end side clearance			0.100 – 0.650 mm (0.0040 – 0.0255 in)	1.0 mm (0.039 in)
Conrod big end width			24.95 – 25.00 mm (0.9823 – 0.9842 in)	—
Crank web to web width			70.9 – 71.1 mm (2.792 – 2.799 in)	—
Crankshaft runout			—	0.080 mm (0.0031 in)

Engine Lubrication System

Item	Specification	Standard	Limit
Oil pressure	At 60 °C (140 °F), 3000 r/min	80 – 120 kPa (0.8 – 1.2 kgf/cm^2, 11.6 – 17.4 psi)	—
Necessary amount of engine oil	Oil change	2500 ml (2.64 US qt, 2.20 Imp qt)	—
	Oil and filter change	2700 ml (2.85 US qt, 2.38 Imp qt)	
	Engine overhaul	3200 ml (3.38 US qt, 2.82 Imp qt)	

Item	Specification		Standard	Limit
Valve spring pre-load	When compressed to 31.5 mm (1.24 in)	Intake	182 – 210 N (18.6 – 21.4 kgf, 40.9 – 47.2 lbf)	—
		Exhaust	182 – 210 N (18.6 – 21.4 kgf, 40.9 – 47.2 lbf)	—
Cylinder head distortion			—	0.05 mm (0.0019 in)
Cylinder head cover distortion			—	0.05 mm (0.0019 in)
Cylinder distortion			—	0.05 mm (0.0019 in)
Cylinder bore			87.500 – 87.515 mm (3.4449 – 3.4454 in)	No nicks or Scratches
Piston diameter	Measure at 15 mm (0.59 in) from the skirt end.		87.465 – 87.480 mm (3.4435 – 3.4440 in)	87.380 mm (3.4402 in)
Piston to cylinder clearance			0.030 – 0.040 mm (0.0012 – 0.0015 in)	0.120 mm (0.0047 in)
Piston ring to groove clearance	1st		—	0.180 mm (0.0070 in)
	2nd		—	0.150 mm (0.0059 in)
Piston ring groove width	1st		0.78 – 0.80 mm (0.0307 – 0.0314 in) 1.30 – 1.32 mm (0.0512 – 0.0519 in)	—
	2nd		1.01 – 1.03 mm (0.0398 – 0.0405 in)	—
	Oil		2.51 – 2.53 mm (0.0989 – 0.0996 in)	—
Piston ring thickness	1st		0.71 – 0.76 mm (0.028 – 0.029 in) 1.08 – 1.10 mm (0.0426 – 0.0433 in)	—
	2nd		0.97 – 0.99 mm (0.0382 – 0.0389 in)	—
Piston ring free end gap	1st		Approx. 6.2 mm (0.24 in)	4.9 mm (0.20 in)
	2nd		Approx. 12.0 mm (0.472 in)	9.6 mm (0.38 in)
Piston ring end gap	1st		0.08 – 0.20 mm (0.0032 – 0.0078 in)	0.50 mm (0.019 in)
	2nd		0.10 – 0.25 mm (0.0040 – 0.0098 in)	0.50 mm (0.019 in)
Piston pin bore I.D.			20.002 – 20.008 mm (0.7875 – 0.7877 in)	20.030 mm (0.7885 in)
Piston pin O.D.			19.992 – 20.000 mm (0.7871 – 0.7874 in)	19.980 mm (0.7867 in)
Conrod small end I.D.			20.006 – 20.014 mm (0.7877 – 0.7879 in)	20.040 mm (0.7889 in)
Conrod deflection			—	3.0 mm (0.11 in)
Conrod big end side clearance			0.100 – 0.650 mm (0.0040 – 0.0255 in)	1.0 mm (0.039 in)
Conrod big end width			24.95 – 25.00 mm (0.9823 – 0.9842 in)	—
Crank web to web width			70.9 – 71.1 mm (2.792 – 2.799 in)	—
Crankshaft runout			—	0.080 mm (0.0031 in)

Engine Lubrication System

Item	Specification	Standard	Limit
Oil pressure	At 60 °C (140 °F), 3000 r/min	80 – 120 kPa (0.8 – 1.2 kgf/cm^2, 11.6 – 17.4 psi)	—
Necessary amount of engine oil	Oil change	2500 ml (2.64 US qt, 2.20 Imp qt)	—
	Oil and filter change	2700 ml (2.85 US qt, 2.38 Imp qt)	
	Engine overhaul	3200 ml (3.38 US qt, 2.82 Imp qt)	

Front Suspension

Item	Specification	Standard	Limit
Toe-out		9 – 17 mm (0.36 – 0.66 in)	—
Front shock absorber spring adjuster		2nd position from softest end	—

Rear Suspension

Item	Specification	Standard	Limit
Rear shock absorber spring adjuster		2nd position from softest end	—

Wheels and Tires

Item	Specification		Standard	Limit
Tire size	Front		AT25 × 8-12 ☆ ☆	—
	Rear		AT25 × 10-12 ☆ ☆	
Tire type	Front		CARLISLE / AT489	—
	Rear		CARLISLE / AT489	
Tire tread depth	Recommend depth	Front	—	4.0 mm (0.15 in)
		Rear	—	4.0 mm (0.15 in)
Cold inflation tire pressure	Front		35 kPa (0.35 kgf/cm^2, 5.1 psi)	—
	Rear		35 kPa (0.35 kgf/cm^2, 5.1 psi)	
Wheel rim size	Front		12 × 6.0AT	—
	Rear		12 × 7.5AT	

Differential

Item	Specification	Standard	Limit
Front differential gear oil capacity		460 ml (15.55 US oz, 16.19 Imp oz)	—
Front differential gear backlash		0.05 – 0.10 mm (0.0020 – 0.0039 in)	—
Rear final gear oil capacity		770 ml (26.04 US oz, 27.10 Imp oz)	—
Rear final gear backlash		0.08 – 0.15 mm (0.0032 – 0.0059 in)	—
Diff-lock relay power supply voltage		Battery voltage	—

Transfer

Item	Specification	Standard	Limit
Gearshift fork to groove clearance	Reverse	0.1 – 0.3 mm (0.004 – 0.011 in)	0.5 mm (0.019 in)
	Sub transmission	0.1 – 0.3 mm (0.004 – 0.011 in)	0.5 mm (0.019 in)
Gearshift fork groove width	Reverse	5.5 – 5.6 mm (0.217 – 0.220 in)	—
	Sub transmission	5.5 – 5.6 mm (0.217 – 0.220 in)	
Gearshift fork thickness	Reverse	5.3 – 5.4 mm (0.209 – 0.212 in)	—
	Sub transmission	5.3 – 5.4 mm (0.209 – 0.212 in)	
Resistor resistance		980 – 1020 Ω	—

Propeller Shafts

Item	Specification	Standard	Limit
Secondary bevel gear backlash		0.03 – 0.15 mm (0.0012 – 0.0059 in)	—

Brake Control System and Diagnosis

Item	Specification	Standard	Limit
Rear brake pedal height		12.5 – 22.5 mm (0.493 – 0.885 in)	—
Master cylinder bore / piston diameter	Front	Approx. 12.7 mm (0.500 in)	—
Rear brake lever play		6 – 8 mm (0.24 – 0.31 in)	—
Rear brake pedal free travel		20 – 30 mm (0.79 – 1.18 in)	—

Front Brakes

Item	Specification	Standard	Limit
Front brake disc thickness		3.5 mm (0.14 in)	3.0 mm (0.12 in)
Front brake disc runout		—	0.30 mm (0.012 in)
Front brake caliper cylinder bore / piston diameter		Approx. 34.0 mm (1.34 in)	—

CVT

Item	Specification	Standard	Limit
Drive V-belt width		30.5 mm (1.20 in)	29.5 mm (1.17 in)
Movable driven spring free length		200 mm (7.87 in)	190 mm (7.48 in)
Clutch engagement		1700 – 2200 r/min	—
Clutch lock-up		3700 – 4300 r/min	—
Clutch housing I.D.		140.0 – 140.2 mm (5.512 – 5.519 in)	140.5 mm (5.531 in)
Clutch shoe groove		1 mm (0.04 in)	No groove at any part

Wiring Systems

Item	Specification		Standard	Limit
Fuse size	Headlight	HI	10 A	—
		LO	10 A	—
	Fuel		10 A	—
	Ignition		15 A	—
	Fan		15 A	—
	Power source		10 A	—
	Main		30 A	—
	EPS		40 A	—

Lighting Systems

Item	Specification	Standard	Limit
Headlight		12 V 35/35 W (HS1) × 2	—
Auxiliary headlight		12 V 35/35 W (HS1)	—
Brake light/Taillight		LED	—

Combination Meter / Fuel Meter / Horn

Item	Specification	Standard	Limit
Instrument panel light		LED	—
Neutral indicator light		LED	—
Hi beam indicator light		LED	—
Engine coolant temperature indicator light/FI indicator light		LED	—
Reverse indicator light		LED	—
Diff-lock indicator light		LED	—
EPS indicator light		LED	—

Tightening Torque List

Emission Control Devices

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
PAIR reed valve cover bolt	10	1.0	7.5
PAIR control solenoid valve bracket bolt	10	1.0	7.5
EVAP system purge control solenoid valve nut	7.0	0.71	5.20

Engine Electrical Devices

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
ECT sensor	18	1.8	13.5
ISC valve screw	2.0	0.20	1.50
Speed sensor bolt	10	1.0	7.5

Engine Mechanical

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Air cleaner outlet tube clamp screw	1.5	0.15	1.10
Air cleaner box mounting bolt	4.5	0.46	3.35
Intake pipe clamp screw	1.5	0.15	1.10
Intake pipe bolt	9.0	0.92	6.65
Valve clearance adjusting screw lock-nut	10	1.0	7.5
Valve clearance inspection cap bolt	10	1.0	7.5
TDC check plug	23	2.3	17.0
Camshaft sprocket bolt	15	1.5	11.0
Cylinder head cover bolt	10	1.0	7.5
Cam chain tension adjuster bolt	10	1.0	7.5
Cam chain tension adjuster plug	5.5	0.56	4.05
Rocker arm shaft plug	28	2.9	21.0
Cylinder head bolt (M10)	25 → 38	2.5 → 3.9	18.5 → 28.0
Cylinder head bolt (M8)	25	2.5	18.5
Cylinder head nut	25	2.5	18.5
Water bypass union	12	1.2	9.0
Cam chain tensioner bolt	13	1.3	9.5
Crank balancer drive gear nut	150	15.3	111.0
Crank balancer driven gear bolt	50	5.1	37.0
Engine mounting nut	60	6.1	44.5
Oil gallery plug (M12)	21	2.1	15.5
Crankcase bolt (M8)	26	2.7	19.5

Engine Lubrication System

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Oil gallery plug (M8)	18	1.8	13.5
Engine oil drain plug	21	2.1	15.5
Oil filter	20	2.0	15.0
Crank balancer driven gear bolt	50	5.1	37.0

Engine Cooling System

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Engine coolant drain bolt	13	1.3	9.5
Cooling fan assembly mounting bolt	8.3	0.85	6.15
Radiator mounting bolt	10	1.0	7.5
Radiator reservoir tank mounting bolt	6.0	0.61	4.45
Water hose clamp screw	1.5	0.15	1.10
Cooling fan thermo-switch	17	1.7	12.5
Thermostat cover bolt	23	2.3	17.0
Water pump mounting bolt	10	1.0	7.5
Water pump case screw	5.5	0.56	4.05

Fuel System

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Fuel tank mounting bolt	5.5	0.56	4.05
Fuel tank cover No.1 screw	4.5	0.46	3.35
Fuel tank cover No.2 screw	10	1.0	7.5
Fuel delivery pipe screw	3.5	0.36	2.60

Ignition System

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Spark plug	11	1.1	8.5

Starting System

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Starter motor mounting bolt	10	1.0	7.5
Starter motor terminal nut	6.0	0.61	4.45
Brush terminal nut	6.9	0.70	5.10
Starter motor set bolt	3.4	0.35	2.50
Starter relay terminal bolt	4.9	0.50	3.65
Starter clutch bolt	26	2.7	19.5

Charging System

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Generator stator bolt	11	1.1	8.5
CKP sensor bolt	6.0	0.61	4.45
Generator lead wire clamp bolt	6.0	0.61	4.45
Generator rotor nut	140	14.3	103.5
Starter cup nut	38	3.9	28.0

Exhaust System

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Exhaust pipe nut	25	2.5	18.5
Muffler connector bolt	25	2.5	18.5
Muffler support bolt	25	2.5	18.5
Muffler plate nut	11	1.1	8.5
Muffler cover bolt	10	1.0	7.5

Front Suspension

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Tie-rod lock-nut	29	3.0	21.5
Front shock absorber upper mounting bolt	55	5.6	40.5
Front shock absorber lower mounting nut	60	6.1	44.5
Front suspension lower arm pivot nut	65	6.6	48.0
Front suspension upper arm pivot nut	60	6.1	44.5

Rear Suspension

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Rear shock absorber mounting nut	60	6.1	44.5
Rear suspension arm pivot nut	60	6.1	44.5
Rear stabilizer joint nut	60	6.1	44.5

Wheels and Tires

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Wheel nut	60	6.1	44.5

Drive Chain / Drive Train / Drive Shaft

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Steering knuckle end nut	29	3.0	21.5
Tie-rod end nut	29	3.0	21.5
Front wheel hub nut	110	11.2	81.5
Rear knuckle end nut	60	6.1	44.5
Rear wheel hub nut	121	12.3	89.5

Differential

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Front differential gear oil level plug	8.1	0.83	6.00
Front differential gear oil filler plug	35	3.6	26.0
Front differential gear oil drain plug	32	3.3	24.0
Front differential gear cover bolt	26	2.7	19.5
2WD/4WD/Diff-lock actuator mounting bolt	12	1.2	9.0
Rear final gear oil drain plug	23	2.3	17.0
Final gear case mounting bolt	75	7.6	55.5
Final gear case mounting nut	75	7.6	55.5
Rear final drive gear nut	100	10.2	74.0
Final drive bearing stopper	100	10.2	74.0
Rear final gear case bolt (M8)	26	2.7	19.5
Rear final gear case bolt (M10)	55	5.6	40.5

Transfer

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
GP switch bolt	6.0	0.61	4.45

Propeller Shafts

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Secondary drive bevel gear nut	100	10.2	74.0
Rear drive output yoke nut	100	10.2	74.0
Secondary driven output gear nut	100	10.2	74.0
Front propeller shaft yoke boot clamp screw	1.3	0.13	0.95
Rear output joint boot clamp screw	2.0	0.20	1.50

Brake Control System and Diagnosis

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Front brake caliper air bleeder valve	6.0	0.61	4.45
Front brake pipe flare nut	16	1.6	12.0
Front brake master cylinder holder bolt	10	1.0	7.5
Front brake hose union bolt	23	2.3	17.0
Front brake light switch screw	1.2	0.12	0.90
Front brake lever pivot bolt	5.9	0.60	4.35
Front brake lever pivot bolt lock-nut	5.9	0.60	4.35
Rear brake lever pivot bolt	6.5	0.66	4.80
Rear brake lever pivot bolt lock-nut	6.5	0.66	4.80
Rear brake pedal pivot nut	11	1.1	8.5

Front Brakes

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Front brake caliper mounting bolt	26	2.7	19.5
Caliper hanger pin	17	1.7	12.5
Front brake hose union bolt	23	2.3	17.0
Caliper torque nut	22	2.2	16.5
Caliper bolt pin	17	1.7	12.5
Front brake caliper air bleeder valve	6.0	0.61	4.45
Front brake disc bolt	23	2.3	17.0

Rear Brakes

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Rear brake case bolt	26	2.7	19.5
Rear propeller shaft coupling nut	100	10.2	74.0
Rear brake cam lever nut	11	1.1	8.5

CVT

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
V-belt outer cover bolt	8.0	0.82	5.90
Drive face bolt	120	12.2	88.5
Driven face bolt	120	12.2	88.5
Driven pulley spring nut	110	11.2	81.5
Clutch shoe nut	165	16.8	122.0
V-belt inner cover bolt	9.0	0.92	6.65
Transmission lever gate cover bolt	10	1.0	7.5

Steering / Handlebar

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Handlebar clamp bolt	26	2.7	19.5
Rear brake lever holder bolt	10	1.0	7.5
Steering shaft lower nut	162	16.5	119.5
Steering shaft holder bolt	23	2.3	17.0
Handlebar holder nut	60	6.1	44.5
Tie-rod end nut	29	3.0	21.5

Power Assisted Steering System

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
EPS control unit mounting nut	12	1.2	9.0
EPS body assembly upper mounting bolt	26	2.7	19.5
EPS body assembly lower mounting nut	28	2.9	21.0
Steering shaft bolt	50	5.1	37.0
Steering shaft upper nut	120	12.2	88.5
Handlebar holder nut	60	6.1	44.5

Lighting Systems

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Auxiliary headlight mounting bolt	1.8	0.18	1.35
Rear combination light nut	5.5	0.56	4.05

Combination Meter / Fuel Meter / Horn

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Combination meter mounting bolt	4.5	0.46	3.35

Exterior Parts

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Ring nut	2.8	0.29	2.10
Rear cover bracket screw	2.5	0.25	1.85

Body Structure

Fastening part	Tightening torque		
	N·m	kgf-m	lbf-ft
Footrest mounting bolt (M10)	55	5.6	40.5
Footrest mounting bolt (M8)	26	2.7	19.5
Trailer towing plate bolt	60	6.1	44.5

Fuel / Oil / Fluid / Coolant Recommendation

BENK35K20308001

Fuel

NOTICE

Do not use leaded gasoline. If it is used, the engine and the emission control system will be damaged.

Use unleaded gasoline with an octane rating of 87 AKI or higher.
Unleaded gasoline containing up to 10% ethanol by volume may be used.

Engine Oil

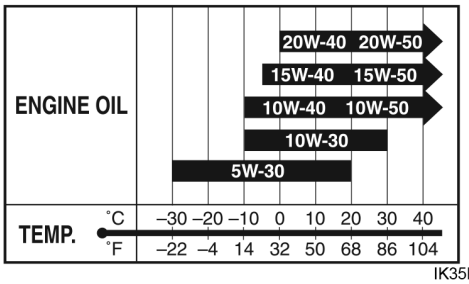
Use Suzuki genuine engine oil or equivalent.
If Suzuki genuine engine oil is not available, select a proper engine oil according to the following guideline.

	Engine oil
API service classification	SG, SH, SJ, SL, SM or SN
JASO T903 standard	MA
Viscosity	SAE 10W-40

If SAE 10W-40 engine oils are not available, select oils of an appropriate viscosity grade according to the following chart.

NOTICE

When 5W-30 or 10W-30 engine oil is used, use only SG, SH, SJ, SL API classification. If there are not used API classification engine oils, the engine will be damaged.



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Suzuki does not recommend the use of engine oils which have an “ENERGY CONSERVING” or “RESOURCE CONSERVING” indication in the API service symbol for any of its motorcycles / ATVs.

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Suzuki recommends the use of ECSTAR SUZUKI genuine oil or SUZUKI PERFORMANCE 4 MOTOR OIL.

Brake Fluid

Specification and classification: DOT 4

⚠ WARNING

Since the brake system of this vehicle is filled with a glycol-based brake fluid by the manufacturer, do not use or mix different types of fluid such as silicone-based and petroleum-based fluid for refilling the system, otherwise serious damage will result.
Do not use any brake fluid taken from old or used or unsealed containers.
Never reuse brake fluid left over from a previous servicing, which has been stored for a long period.

Engine Coolant

Suzuki recommends the use of SUZUKI LONG LIFE COOLANT.

Coolant 99000–99032–12X (SUZUKI LONG LIFE COOLANT (GREEN))

If SUZUKI COOLANT is not available, use an anti-freeze/engine coolant compatible with an aluminum radiator, mixed with distilled water only.

NOTICE

- **Use a high quality ethylene glycol base anti-freeze, mixed with distilled water. Do not mix an alcohol base anti-freeze and different brands of anti-freeze.**
- **Do not put in more than 60% anti-freeze or less than 50%. (Refer to Fig. 1 and 2.)**

The 50:50 mixture of distilled water and ethylene glycol anti-freeze will provide the optimum corrosion protection and excellent heat protection, and will protect the cooling system from freezing at temperatures above –31 °C (–24 °F).
If the vehicle is to be exposed to temperatures below –31 °C (–24 °F), this mixing ratio should be increased up to 55% or 60% according to the figure.

Anti-freeze Proportioning Chart

Anti-freeze density	Freezing point
50%	–31 °C (–24 °F)
55%	–40 °C (–40 °F)
60%	–55 °C (–67 °F)

Fig.1: Engine coolant density-freezing point curve

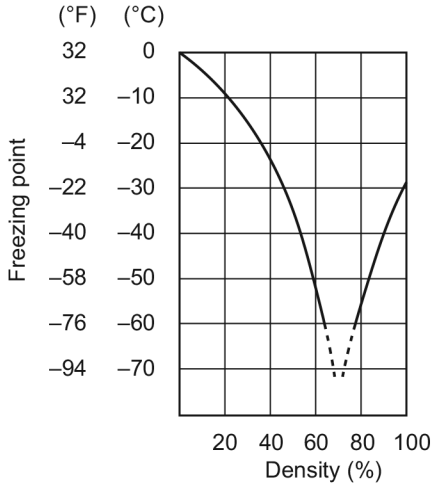

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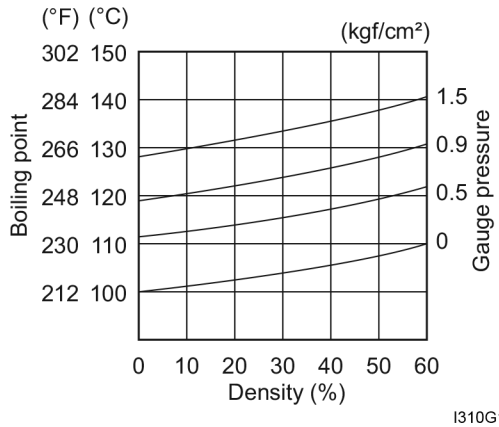
Fig.2: Engine coolant density-boiling point curve



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Water for mixing
Use distilled water only. Water other than distilled water can corrode and clog the aluminum radiator.
For engine coolant mixture information, refer to “Engine Coolant” (Page 0C-13).

NOTICE

Mixing of anti-freeze/engine coolant should be limited to 60%. Mixing beyond it would reduce its efficiency. If the anti-freeze/engine coolant mixing ratio is below 50%, rust inhabiting performance is greatly reduced. Be sure to mix it above 50% even though the atmospheric temperature does not go down to the freezing point.

Anti-freeze / Engine coolant
The engine coolant perform as a corrosion and rust inhibitor as well as anti-freeze. Therefore, the engine coolant should be used at all times even though the atmospheric temperature in your area does not go down to freezing point.
Suzuki recommends the use of SUZUKI COOLANT anti-freeze/engine coolant. If this is not available, use an equivalent which is compatible with an aluminum radiator.

Front Differential Gear Oil
Use a SAE 90 hypoid gear oil which is rated GL-5 under the API classification system. If you normally operate the vehicle where ambient temperature is below 0 °C (32 °F), use a SAE 80 hypoid gear oil.

Rear Final Gear Oil
Use Mobil® MOBIFLUID 424 or equivalent.

Rear final gear oil (Mobil® MOBILFLUID 424 or equivalent)