

Features & Specifications

2019 QuadSport Z50



LT-Z50L9

YU1: Champion Yellow No. 2

Key Features

- Child-size (Y-6) controls for easy operation
- QuadSport Z50 is designed for adult-supervised riders age 6 and older - includes many features that make learning to ride a safe and fun experience
- A keyed ignition switch lets grown-ups decide when the action begins and ends.
- Simple screw-type throttle limiter allows adult supervisors to limit the maximum power delivery to suit the rider's ability.
- Remote tether-type engine-stop switch allows adult supervisors to instantly shutdown the engine when necessary.
- Easy electric starting system plus standard backup recoil starter.
- Smooth-running CVT automatic transmission provides easy operation and allows the rider to focus on riding instead of shifting
- Competition-inspired bodywork and Suzuki Championship Yellow color scheme.

Overview

The 2019 QuadSport Z50 is designed for adult-supervised riders age 6 and older and includes many features that make learning to ride a safe and fun experience. With an emphasis on safety and adult control, this Quad features a throttle limiter to control engine output, a tether switch to remotely shut off the ignition, and a keyed main switch that prevents unauthorized use. Adjustable hand controls, an automatic transmission, full floorboards, and a low seat height make sure that beginning riders will enjoy active convenience and control. To sum it up, the QuadSport Z50 is packed with quality, safety and style making it the perfect choice for younger adventurers!

Engine Features

- Compact 49cc 4-stroke, single-cylinder, air-cooled engine has been designed for durability and low maintenance.
- Efficient, push-rod valve train lets the engine operate quietly. Easy-access oil filter and filler cap simplifies service.
- Clean-burning four-stroke engine easily achieves Environmental Protection Agency (EPA) emissions regulations (eligible for red-sticker registration in California).
- Easy electric starting system plus standard backup recoil starter.
- Smooth-running CVT automatic transmission provides easy operation and allows the rider to focus on riding instead of shifting
- A keyed ignition switch lets grown-ups decide when the action begins and ends.
- Simple screw-type throttle limiter allows adult supervisors to limit the maximum power delivery to suit the rider's ability.
- Remote tether-type engine-stop switch allows adult supervisors to instantly shutdown the engine when necessary.
- Spark-arrester equipped muffler is environmentally friendly, yet has a pleasant exhaust note.
- Suitable capacity 0.75 gallon (2.8 L) fuel tank for extended operating range combines with vacuum fuel petcock that automatically stops fuel flow when the engine's not running.



LT-Z50L9

YU1: Champion Yellow No. 2

Chassis Features

- Child-size (Y-6) controls for easy operation
- Strong, high-rigidity steel frame is sturdy and compact.
- Independent swingarm front suspension with coil-over shock absorbers and a single-shock rear suspension provide long wheel travel for a smooth, comfortable ride
- Large diameter semi-sealed front drum brakes and single fully sealed rear drum brake provide strong braking performance.
- Modern styling with full floorboards and a big Quad look, plus brilliant yellow bodywork with black and red graphics.

Chassis Features (continued)

- Faux headlamp on front fender mimics the sporty look of the QuadSport Z400.
- One-piece 7-inch wheels with tubeless tires provide a smooth comfortable ride
- This machine has a low seat height of just 21.1 inches for easy mounting and confidence-inspiring operation.
- Suzuki T-shaped seat similar to the QuadSport Z400 for smooth weight transition and a comfortable ride, and is easy to remove to simplify maintenance. Textured seat cover complements the ATV's graphics package.
- Competition-inspired bodywork with Suzuki Championship Yellow color scheme.

Additional Features

- 12-month limited warranty is double the length of most other youth ATVs. Longer coverage and other benefits are available through Suzuki Extended Protection (SEP).
- A variety of Genuine Suzuki Accessories for QuadSport owners are available including a large selection of Suzuki logo apparel.
- Rider Minimum Age: 6 Years Old
- For more details, please visit www.suzukicycles.com.

Suzuki Motor of America, Inc. makes every effort to present the most current specifications and product features at the time of publication. Because of our policy of continual improvement, changes may be made in equipment, availability and specifications without notice or obligation. At Suzuki, we want every ride to be safe and enjoyable. The QuadSport Z50 may only be used by those aged 6 and older. Adults must always supervise riders under the age of 16 and let your child ride only as long as he or she is riding the ATV safely. Rider should always wear a helmet, eye protection and protective clothing. Never ride under the influence of alcohol or other drugs. Study the owner's manual and always inspect your Suzuki before riding. Always supervise young riders. Take an SVIA skills course. Suzuki highly recommends all ATV riders take a training course. We'll even pay for it. For safety and training course information, see your dealer or call the SVIA at 1-800-852-5344. ATVs can be hazardous to operate. Never ride on public roads, and avoid paved surfaces. Avoid excessive speeds. Never carry passengers or engage in stunt riding. Be extra careful on difficult terrain. Along with concerned conservationists everywhere, Suzuki urges you to Tread Lightly!® on public and private land. Limited Warranty: The 2019 QuadSport Z50 limited warranty covers a period of 12 months. See your dealer for details. Ask your participating dealer about Genuine Suzuki Accessories and the Suzuki Retail Finance Plan and the Suzuki Extended Protection Plan. With the Suzuki Retail Finance Plan it's easy to afford and equip the machine that's perfect for you. VISIT SUZUKICYCLES.COM FOR MORE INFORMATION. Suzuki Motor of America, Inc., 3251 East Imperial Highway, P.O. Box 1100, Brea, CA 92822-1100, Suzuki, the "S" logo, and Suzuki model names are Suzuki trademarks or ®. ©2018 Suzuki Motor of America, Inc.

Specifications LT-Z50L9

P-03: USA (P33: California)

DIMENSIONS AND CURB MASS

Overall length	1 270 mm (50.0 in)
Overall width	760 mm (29.9 in)
Overall height	765 mm (30.1 in)
Wheelbase	830 mm (32.7 in)
Ground clearance.....	120 mm (4.7 in)
Seat height.....	535 mm (21.1 in)
Front track	575 mm (22.6 in)
Rear track.....	575 mm (22.6 in)
Curb mass.....	79 kg (174 lbs)

ENGINE

Type.....	4-stroke, air-cooled
Number of cylinders	1
Bore	36.0 mm (1.417 in)
Stroke.....	48.6 mm (1.913 in)
Displacement	49 cm ³ (3.0 cu. in)
Corrected compression ratio	8.4 : 1
Carburetor	MIKUNI VM13, single
Air cleaner	Polyurethane foam element
Starter system.....	Electric and recoil
Idle speed	2 000 ± 150 r/min

DRIVE TRAIN

Clutch.....	Dry shoe, automatic, centrifugal type
Gearshift pattern	Automatic
Primary reduction ratio (Automatic drive).....	2.091 – 1.879 (Variable change)
Secondary reduction ratio	4.272 (47/11)
Final reduction ratio.....	3.700 (37/10)
Drive chain	D.I.D. 415. 82 links

CHASSIS

Front suspension.....	Independent, swing axle, coil spring, oil damped
Rear suspension	Swingarm type, coil spring, oil damped
Front wheel travel.....	52 mm (2.0 in)
Rear wheel travel	51 mm (2.0 in)
Caster	3 °
Trail.....	10 mm (0.39 in)
Toe-in	1.5 mm (0.06 in)
Camber	0 °
Steering angle.....	35 ° (right & left)
Turning radius	2.0 m (6.6 ft)
Front brake	Drum brake
Rear brake	Drum brake
Front tire size	AT16 × 8-7☆, tubeless
Rear tire size	AT16 × 8-7☆, tubeless

Specifications LT-Z50L9

P-03: USA (P33: California)

ELECTRICAL

Ignition type.....	Electronic ignition (CDI)
Ignition timing.....	14 ° B.T.D.C. at 2 000 r/min
Spark plug.....	NGK CR6HSA or DENSO U20FSR-U
Battery.....	12 V 14.4 kC (4 Ah) /10 HR
Fuse.....	10 A

CAPACITIES

Fuel tank.....	2.6 L (0.7/0.6 US/Imp gal)
Engine oil, oil change.....	300 ml (0.3/0.3 US/Imp qt)
overhaul.....	350 ml (0.4/0.3 US/Imp qt)
Transmission oil, oil change.....	25 ml (0.8/0.9 US/Imp oz)
overhaul.....	30 ml (1.0/1.1 US/Imp oz)



Service Data LT-Z50L9

P-03: USA (P33: California)

VALVE + VALVE GUIDE

Unit: mm (in)

ITEM		STANDARD	LIMIT
Valve diam.	IN.	14.5 (0.57)	—
	EX.	12.5 (0.49)	—
Valve clearance (when cold)	IN.	0.05 – 0.10 (0.002 – 0.004)	—
	EX.	0.10 – 0.15 (0.004 – 0.006)	—
Valve guide to valve stem clearance	IN.	0.010 – 0.037 (0.0004 – 0.0015)	—
	EX.	0.025 – 0.052 (0.0010 – 0.0020)	—
Valve guide I.D.	IN. & EX.	4.000 – 4.012 (0.1575 – 0.1580)	—
Valve stem O.D.	IN.	3.975 – 3.990 (0.1565 – 0.1571)	—
	EX.	3.960 – 3.975 (0.1559 – 0.1565)	—
Valve stem deflection	IN. & EX.	—	0.35 (0.014)
Valve stem runout	IN. & EX.	—	0.05 (0.002)
Valve stem end length	IN. & EX.	—	3.0 (0.12)
Valve head thickness	IN. & EX.	—	0.5 (0.02)
Valve head radial runout	IN. & EX.	—	0.03 (0.001)
Valve spring free length	IN. & EX.	—	22.8 (0.90)
Valve spring tension	IN. & EX.	36.5 – 41.9 N (3.7 – 4.3 kgf, 8.2 – 9.5 lbs) at length 15.0 mm (0.59 in)	—

CAMSHAFT + CYLINDER HEAD

Unit: mm (in)

ITEM	STANDARD		LIMIT
Cam height	IN. & EX.	28.43 – 28.63 (1.119 – 1.127)	28.13 (1.107)
Rocker arm I.D.	IN. & EX.	4.015 – 4.027 (0.1581 – 0.1585)	—
Rocker arm shaft O.D.	IN. & EX.	3.990 – 4.005 (0.1571 – 0.1577)	—
Cylinder head distortion	—		0.05 (0.002)

CYLINDER + PISTON + PISTON RING

Unit: mm (in)

ITEM	STANDARD		LIMIT
Compression pressure	1 100 – 1 200 kPa (11 – 12 kgf/cm ² , 156 – 171 psi)		800 kPa (8 kgf/cm ² , 114 psi)
Piston-to-cylinder clearance	0.015 – 0.038 (0.0006 – 0.0015)		0.120 (0.0047)
Cylinder bore	36.005 – 36.015 (1.4175 – 1.4179)		Nicks or Scratches
Piston diam.	35.977 – 35.990 (1.4164 – 1.4169) Measure at 5 mm (0.2 in) from the skirt end.		35.885 (1.4128)
Cylinder distortion	—		0.05 (0.002)
Piston ring free end gap	1st	Approx. 4.6 (0.18)	3.7 (0.15)
	2nd	Approx. 4.6 (0.18)	3.7 (0.15)
Piston ring end gap	1st	0.08 – 0.20 (0.003 – 0.008)	0.50 (0.020)
	2nd	0.08 – 0.20 (0.003 – 0.008)	0.50 (0.020)
Piston ring to groove clearance	1st	—	0.180 (0.0071)
	2nd	—	0.150 (0.0059)

ITEM	STANDARD		LIMIT
Piston ring groove width	1st	1.01 – 1.03 (0.0398 – 0.0405)	—
	2nd	1.21 – 1.23 (0.0476 – 0.0484)	—
	Oil	1.51 – 1.53 (0.0594 – 0.0602)	—
Piston ring thickness	1st	0.97 – 0.99 (0.0382 – 0.0390)	—
	2nd	1.17 – 1.19 (0.0461 – 0.0469)	—
Piston pin bore I.D.	10.002 – 10.008 (0.3938 – 0.3940)		10.030 (0.3949)
Piston pin O.D.	9.995 – 10.000 (0.3935 – 0.3937)		9.980 (0.3929)

CONROD + CRANKSHAFT

Unit: mm (in)

ITEM	STANDARD	LIMIT
Conrod small end I.D.	10.006 – 10.028 (0.3939 – 0.3948)	10.040 (0.3952)
Conrod deflection	—	3.0 (0.12)
Conrod big end side clearance	0.15 – 0.50 (0.006 – 0.019)	1.0 (0.04)
Conrod big end width	11.95 – 12.00 (0.470 – 0.472)	—
Crank web to web width	33.95 – 34.05 (1.337 – 1.341)	—
Crankshaft runout	—	0.08 (0.003)

CLUTCH

Unit: mm (in)

ITEM	STANDARD	LIMIT
Clutch housing I.D.	110.00 – 110.15 (4.331 – 4.337)	110.50 (4.350)
Clutch shoe thickness	4.0 (0.16)	3.0 (0.12)
Clutch engagement	2 400 – 3 000 r/min.	—
Clutch lock-up	3 300 – 4 300 r/min.	—

REDUCTION GEAR + DRIVE BELT + DRIVE CHAIN

Unit: mm (in) Except ratio

ITEM	STANDARD		LIMIT
Reduction ratio	Variable change (2.091 – 1.879)		—
Reduction gear ratio	4.272 (47/11)		—
Final reduction ratio	3.700 (37/10)		—
Drive belt width	15.9 (0.63)		14.9 (0.59)
Movable driven face spring free length	76.8 (3.02)		73.0 (2.87)
Drive chain	Type	D.I.D. 415	—
	Links	82	—
	20-pitch length	—	259.0 (10.20)
Drive chain slack	25 – 35 (1.0 – 1.4)		—

CARBURETOR

ITEM	SPECIFICATION	
Carburetor type	MIKUNI VM13	
Bore size	13 mm	
I.D.No.	43G0	
Idle r/min	2 000 ± 150 r/min.	
Float height	23.4 ± 1.0 mm (0.92 ± 0.04 in)	
Main jet (M.J.)	#58.8	
Jet needle (J.N.)	3N39	
Needle jet (N.J.)	E-6	
Pilot jet (P.J.)	#12.5	
Air screw (A.S.)	PRE-SET	
Throttle cable play	3 – 5 mm (0.12 – 0.20 in)	

ELECTRICAL

Unit: mm (in)

ITEM		STANDARD/SPECIFICATION	LIMIT	NOTE	
Spark plug		Type	NGK: CR6HSA DENSO: U20FSR-U	—	
		Gap	0.6 – 0.7 (0.024 – 0.028)	—	
Spark performance		Over 8 (0.3) at 1 atm.		—	
Ignition coil resistance		Primary	0.1 – 0.7 Ω	—	Terminal – Terminal
		Secondary	14 – 20 kΩ	—	Plug cap – Terminal
Ignition coil primary peak voltage		150 V and more		—	⊕: Ground ⊖: B
Pick-up coil peak voltage		1.5 V and more		—	⊕: Br ⊖: Ground
Generator coil resistance		Charging	0.5 – 2.0 Ω	—	W/R – Ground
		Pick-up	150 – 230 Ω	—	Br – Ground
Generator no-load voltage (when engine is cold)		20 V (AC) and more at 2 800 r/min.		—	
Generator output		70 W at 5 000 r/min.		—	
Regulated voltage		13.5 – 15.2 V		—	
Starter relay resistance		70 – 90 Ω		—	
Battery	Type designation	YTX5L-BS		—	
	Capacity	12 V 14.4 kC (4 Ah)/10 HR		—	
Fuse size	Main	10 A		—	
Starter motor brush length		5.5 (0.22)		2.75 (0.11)	



BRAKE + WHEEL

Unit: mm (in)

ITEM	STANDARD		LIMIT
Front brake lever play	4 – 6 (0.16 – 0.23)		—
Rear brake lever play	4 – 6 (0.16 – 0.23)		—
Brake drum I.D.	Front	—	80.7 (3.18)
	Rear	—	110.7 (4.36)
Rear axle runout	Rear	—	3.0 (0.12)
Wheel rim size	Front & Rear	7 × 6.0 AT	—
Toe-in (with 30 kg)	1.5 ± 3 (0.05 ± 0.12)		—
Turning radius	2.0 m (6.6 ft)		—
Camber	0°		—
Caster	3°		—
Trail	10 (0.39)		—
Steering angle	35° (Right & Left)		—

TIRE

Unit: mm (in)

ITEM	STANDARD		LIMIT
Cold inflation tire pressure (Solo riding)	Front	20 kPa (0.20 kgf/cm ² , 2.9 psi)	—
	Rear	20 kPa (0.20 kgf/cm ² , 2.9 psi)	—
Tire size	Front	AT 16 × 8-7 ☆, tubeless	—
	Rear	AT 16 × 8-7 ☆, tubeless	—
Tire tread depth	Front	—	4.0 (0.16)
	Rear	—	4.0 (0.16)

SUSPENSION

Unit: mm (in)

ITEM	STANDARD	LIMIT
Front wheel travel	52 (2.0)	—
Rear wheel travel	51 (2.0)	—
Swingarm pivot shaft runout	—	0.6 (0.02)

FUEL + OIL

ITEM	SPECIFICATION		NOTE
Fuel type	Use only unleaded gasoline of at least 87 pump octane (R/2 + M/2) or 91 octane or higher rated by the Research Method. 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	2.6 L (0.7/0.6 US/Imp gal)		
Engine oil type	SAE 10W-40, API SF/SG or SH/SJ with JASO MA		
Engine oil capacity	Change	300 ml (0.6/0.5 US/Imp pt)	
	Overhaul	350 ml (0.7/0.6 US/Imp pt)	
Final reduction gear box oil type	SAE 10W-40, API SF/SG or SH/SJ with JASO MA		
Final reduction gear box oil capacity	Change	25 ml (0.8/0.9 US/Imp oz)	
	Overhaul	30 ml (1.0/1.1 US/Imp oz)	

TIGHTENING TORQUE ENGINE

ITEM		N·m	kgf-m	lb-ft
Cylinder head cover bolt		11	1.1	8.0
Cylinder head bolt		14	1.4	10.0
Valve clearance adjuster locknut		7	0.7	5.0
Generator rotor nut		35	3.5	25.5
Clutch housing nut		50	5.0	36.0
Clutch shoe nut		60	6.0	43.5
Fixed drive face nut	Initial	13	1.3	9.5
	Final	50	5.0	36.0
Generator coil bolt		10	1.0	7.0
Pick-up coil bolt		4.5	0.45	3.0
Crankcase bolt		11	1.1	8.0
Generator case bolt		11	1.1	8.0
CVT case bolt		11	1.1	8.0
Generator cover bolt		11	1.1	8.0
CVT case cover bolt		11	1.1	8.0
Engine oil drain plug		12	1.2	8.5
Final reduction gear box cover bolt		11	1.1	8.0
Engine mounting nut		31	3.1	22.5
Muffler mounting bolt		23	2.3	16.5
Exhaust pipe nut		10	1.0	7.0
Recoil starter friction plate bolt		5.4	0.54	4.0
Spark plug		11	1.1	8.0
Carburetor mounting bolt		6	0.6	4.5
Intake pipe bolt		6	0.6	4.5

FUEL

ITEM		N·m	kgf-m	lb-ft
Fuel valve bolt		4.5	0.45	3.3

CHASSIS

ITEM	N·m	kgf-m	lb-ft
Front suspension arm bolt	50	5.0	36.0
Knuckle arm nut	50	5.0	36.0
Tie-rod end nut	29	2.9	21.0
Tie-rod locknut	29	2.9	21.0
Steering shaft lower nut	29	2.9	21.0
Steering shaft holder bolt	23	2.3	16.5
Handlebar clamp bolt	26	2.6	19.0
Front shock absorber bolt (upper)	29	2.9	21.0
Front shock absorber bolt (lower)	29	2.9	21.0
Front hub nut	65	6.5	47.0
Wheel set nut (front and rear)	28	2.8	20.0
Front brake cable equalizer bolt	6.5	0.65	4.5
Front brake cam lever nut	3.3	0.33	2.5
Swingarm pivot nut	102	10.2	74.0
Rear shock absorber bolt	29	2.9	21.0
Rear shock absorber nut	29	2.9	21.0
Rear hub nut	75	7.5	54.0
Rear brake cam lever nut	7.7	0.77	5.5
Rear brake panel nut	28	2.8	20.0
Rear axle housing bolt	50	5.0	36.0
Rear sprocket bolt	23	2.3	16.5
Footrest bolt	26	2.6	19.0