

# Features & Specifications

## 2016 RM-Z250

### RM-Z250L6

GY8: Champion Yellow  
No.2 / Solid Black



### Key New Features

- **Suzuki Holeshoot Assist Control (S-HAC)** is a selectable launch mode system derived straight from factory race bike. S-HAC helps the rider's takeoff from the starting gate for an early lead. S-HAC was introduced in 2014 RM-Z450, and now a refined version is on the RM-Z250. There are three modes riders can choose for the best option per their skill level and starting conditions.

*A-Mode: For hard surfaces or slippery conditions at the starting gate.*

*B-Mode: When conditions at the starting gate have better traction, and a more aggressive launch is desired.*

*Base Mode: Standard power launch, no action required on the S-HAC switch.*

- **The S-HAC light also provides fuel injection self-diagnostic indication plus engine run time codes.**
- **New design KYB PSF2 Pneumatic Spring front fork uses air chambers in place of steel springs for light weight, easy adjustability, improved damper performance and smooth action from low friction. Riders can adjust both air forks with one balanced air pressure setting from a hand-pump. Compression damping is adjustable while rebound damping force is both high- and low-speed adjustable.**
- **New design KYB rear shock absorber is connected link style to the swingarm via re-shaped cushion rods and spacers. The nitrogen-charged, piggyback style shock features a new top-mounted integral adjuster system for easy adjustment of the high- and low-speed rebound, and high- and low-speed compression damping force adjusters. Spring preload can be precisely tuned via a threaded collar on the main shock body.**
- **The RM-Z250s engine has been refined so mid-range power and torque is enhanced while maximum power is maintained. Power delivery is smoother and linear for easier control.**
  - o *New piston, piston ping & piston ring improve durability and ring-sealing.*
  - o *Reduced crankshaft inertia, increased magneto inertia to reduce engine braking losses.*
  - o *Revised EFI throttle valve angle also reduces engine braking losses.*
  - o *Redesigned camshafts and intake valves to widen engine performance.*
  - o *Redesigned decompression system for improved starting.*
  - o *Redesigned kick drive gear, breather gear & kick idle gear also aids starting.*
  - o *The hot-start lever system is not required and is eliminated.*
  - o *Redesigned cam chain tensioner and adjuster to reduce valve train friction.*
  - o *Redesigned crankcase for increased lubrication.*
  - o *New clutch cover with oil level window.*
  - o *New, longer head pipe for enhanced low-to-mid range power.*
  - o *Revised muffler meets AMA sound standards.*

- Redesigned main frame is reduced in weight 2.5% while chassis rigidity has been optimized for improved cornering performance.
- New light weight front brake caliper reduces mass while still providing outstanding stopping force.
- New Dunlop MX52 series tires are used featuring CTCS (Carcass Tension Control System) technology for superb rigidity and high level of grip.



### **RM-Z250L6**

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## **Engine Features**

- 249cc 4-stroke liquid-cooled DOHC 4-valve fuel-injected engine delivers remarkably smooth and controlled idle-to-redline performance
- The compact aluminum cylinder is finished with Suzuki Composite Electrochemical Material (SCEM) coating for durability, light weight and efficient heat transfer.
- The piston pin now has Diamond-Like Carbon (DLC) surface treatment, for less friction and increased durability.
- Designed for motocross-use, the lightweight, battery-less, electronic fuel injection system with progressive throttle linkage delivers efficient power. A 12-hole fuel injector sprays a fine fuel/air mist for efficient combustion.
- For quick fuel adjustments to suit riding conditions, two couplers are provided. One is for rich and another for lean fuel setting compared to stock setting. Riders can change fuel settings in seconds by simply connecting either coupler to the wire harness.
- Cooling performance is efficient with balanced flow between the left and right radiators, and a high capacity coolant pump.
- Well-designed 5-speed transmission enables precise gear shift operation. The gear selection feel and accuracy is the result refined shift cam and shift lever. Specialized machining processes ensure the precision of the matching gears.

## **Chassis Features**

- Slim chassis design creates a trim riding position, allowing the rider to actively take control of the machine.
- Aluminum fuel tank provides sound foundation and cooling for the internal EFI fuel pump. Fuel capacity is 6.5L (1.7 US gal.).
- Race-inspired waved disc rotors are mounted to EXCEL aluminum rims with stainless steel spokes.
- The standard Renthal Fatbar is stronger and reduces vibration more than conventional aluminum handlebars.
- Bright Champion Yellow bodywork with race team-inspired graphics package.
- Gripper seat, with projected cross-shaped patterns, aids rider control

## **Additional Features**

- See Suzuki industry leading Amateur Contingency program at [www.SuzukiCycles.com/Racing](http://www.SuzukiCycles.com/Racing).
- For more details, please visit [www.suzukicycles.com](http://www.suzukicycles.com).

# Specifications RM-Z250L6

E-03: USA, E-33: California

## DIMENSIONS AND CURB MASS

Overall length.....	2170 mm (85.4 in)
Overall width.....	830 mm (32.7 in)
Overall height.....	1270 mm (50.0 in)
Wheelbase.....	1475 mm (58.1 in)
Ground clearance.....	345 mm (13.6 in)
Seat height.....	955 mm (37.6 in)
Curb mass.....	106 kg (234 lbs)

## ENGINE

Type.....	Four-stroke, liquid-cooled, DOHC
Number of cylinders.....	1
Bore.....	77.0 mm (3.03 in)
Stroke.....	53.6 mm (2.11 in)
Displacement.....	249 cm <sup>3</sup> (15.2 cu. in)
Compression ratio.....	13.75 : 1
Fuel system.....	Fuel injection
Air cleaner.....	Polyurethane foam element
Starter system.....	Primary kick
Lubrication system.....	Semi-dry sump
Idle speed.....	2200 ± 50 r/min

## DRIVE TRAIN

Clutch.....	Wet multi disc
Transmission.....	5-speed constant mesh
Gearshift pattern.....	1-down, 4-up
Primary reduction ratio.....	3.315 (63/19)
Gear ratios, Low.....	2.153 (28/13)
2nd.....	1.764 (30/17)
3rd.....	1.470 (25/17)
4th.....	1.238 (26/21)
Top.....	1.090 (24/22)
Final reduction ratio.....	3.769 (49/13)
Drive chain.....	DID 520DMA4, 114 links

## CHASSIS

Front suspension.....	Inverted telescopic, air spring, oil damped
Rear suspension.....	Link type, coil spring, oil damped
Front suspension stroke.....	310mm (12.2 in)
Rear wheel travel.....	310mm (12.2 in)
Caster.....	29°20'
Trail.....	130 mm (5.1 in)
Steering angle.....	45° (right & left)
Front brake.....	Disc brake
Rear brake.....	Disc brake
Front tire size.....	80/100-21 51M, tube type
Rear tire size.....	100/90-19 57M, tube type

## ELECTRICAL

Ignition type.....	Electronic ignition (CDI)
Ignition timing.....	6° B.T.D.C. at 2200 r/min
Spark plug.....	NGK CR8EIB-10

## CAPACITIES

Fuel tank.....	6.5 L (1.7/1.4 US/Imp gal)
Engine oil, oil change.....	850 ml (0.9/0.7 US/Imp qt)
with filter change.....	900 ml (1.0/0.8 US/Imp qt)
overhaul.....	1000 ml (1.1/0.9 US/Imp qt)
Coolant.....	950 ml (1.0/0.8 US/Imp qt)

# Service Data RM-Z250L6

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

### VALVE + GUIDE

Unit: mm (in)

ITEM	STANDARD		LIMIT
Valve diam.	IN.	31 (1.22)	—
	EX.	25 (0.98)	—
Tappet clearance (when cold)	IN.	0.09 – 0.16 (0.004 – 0.006)	—
	EX.	0.17 – 0.24 (0.007 – 0.009)	—
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 stem deflection	IN. & EX.	—	0.25 (0.010)
Valve guide I.D.	IN. & EX.	4.500 – 4.512 (0.1772 – 0.1176)	—
Valve stem O.D.	IN.	4.475 – 4.490 (0.1762 – 0.1768)	—
	EX.	4.455 – 4.470 (0.1754 – 0.1760)	—
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.	—	37.1 (1.46)
	EX.	—	37.5 (1.48)
Valve spring tension	IN.	142 – 157 N (14.5 – 16.0 kgf, 31.9 – 35.3 lbs) at length 33.55 mm (1.321 in)	—
	EX.	137 – 157 N (14.0 – 16.0 kgf, 30.8 – 35.3 lbs) at length 33.55 mm (1.321 in)	—

**CAMSHAFT + CYLINDER HEAD**

Unit: mm (in)

ITEM	STANDARD		LIMIT
Cam height	IN.	35.18 – 35.23 (1.385 – 1.387)	34.88 (1.373)
	EX.	34.08 – 34.13 (1.342 – 1.344)	33.78 (1.330)
Camshaft journal oil clearance	IN. & EX.	0.023 – 0.066 (0.0013 – 0.0026)	0.150 (0.0059)
Camshaft journal holder I.D.	IN. & EX.	22.003 – 22.025 (0.8663 – 0.8671)	—
Camshaft journal O.D.	IN. & EX.	21.959 – 21.980 (0.8645 – 0.8654)	—
Camshaft runout	—		0.10 (0.004)
Cam chain pin	13th pin		—
Cylinder head distortion	—		0.05 (0.002)

**CYLINDER + PISTON + PISTON RING**

Unit: mm (in)

ITEM	STANDARD		LIMIT
Compression pressure (Automatic decomp. actuated)	400 – 800 kPa (4.0 – 8.0 kgf/cm <sup>2</sup> , 57 – 114 psi)		—
Piston to cylinder clearance	0.030 – 0.040 (0.0012 – 0.0016)		0.120 (0.0047)
Cylinder bore	77.000 – 77.015 (3.0315 – 3.0321)		Nicks or scratches
Piston diam.	76.965 – 76.980 (3.0301 – 3.0307) Measure at 8.0 mm (0.31 in) from the skirt end.		76.880 (3.0268)
Cylinder distortion	—		0.05 (0.002)
Piston ring free end gap	1st	Approx. 5.9 (0.23)	4.7 (0.19)
Piston ring end gap	1st	0.08 – 0.20 (0.003 – 0.008)	0.50 (0.020)
Piston ring to groove clearance	1st	—	0.180 (0.0071)
Piston ring groove width	1st	0.83 – 0.85 (0.0327 – 0.0335)	—
		1.30 – 1.32 (0.051 – 0.052)	—
	Oil	1.51 – 1.53 (0.0594 – 0.0602)	—
Piston ring thickness	1st	0.76 – 0.81 (0.030 – 0.032)	—
		1.08 – 1.10 (0.0425 – 0.0433)	—
Piston pin bore	16.002 – 16.008 (0.6300 – 0.6302)		16.030 (0.6311)
Piston pin O.D.	15.993 – 16.000 (0.6296 – 0.6299)		15.980 (0.6291)

## CONROD + CRANKSHAFT

Unit: mm (in)

ITEM	STANDARD	LIMIT
Conrod small end I.D.	16.008 – 16.027 (0.6302 – 0.6310)	16.040 (0.6315)
Conrod deflection	—	3.0 (0.12)
Conrod big end side clearance	0.20 – 0.65 (0.008 – 0.026)	1.0 (0.04)
Conrod big end width	17.75 – 17.80 (0.699 – 0.701)	—
Crank web to web width	55.9 – 56.1 (2.20 – 2.21)	—
Crankshaft runout	—	0.08 (0.003)

## OIL PUMP

ITEM	STANDARD	LIMIT
Oil pressure (at 50 °C, 122 °F)	90 kPa (0.9 kgf/cm <sup>2</sup> , 12.8 psi) at 6 000 r/min	—

## CLUTCH

Unit: mm (in)

ITEM	STANDARD	LIMIT
Clutch cable play	2 – 3 (0.08 – 0.16)	—
Drive plate thickness	2.72 – 2.88 (0.107 – 0.113)	2.42 (0.095)
Drive plate claw width	13.85 – 13.96 (0.545 – 0.550)	13.05 (0.514)
Driven plate distortion	—	0.10 (0.004)
Clutch spring free length	50.74 (1.998)	48.2 (1.90)

## RADIATOR + ENGINE COOLANT

ITEM	STANDARD/SPECIFICATION	LIMIT
Radiator cap valve opening pressure	95 – 125 kPa (0.95 – 1.25 kgf/cm <sup>2</sup> , 14 – 18 psi)	—
Engine coolant type	Use an anti-freeze/coolant compatible with aluminum radiator.	—
Engine coolant capacity	950 ml (1.0/0.8 US/Imp qt)	—

## TRANSMISSION + DRIVE CHAIN

Unit: mm (in) Except ratio

ITEM		STANDARD	LIMIT
Primary reduction ratio		3.315 (63/19)	—
Final reduction ratio		3.769 (49/13)	—
Gear ratios	Low	2.153 (28/13)	—
	2nd	1.764 (30/17)	—
	3rd	1.470 (25/17)	—
	4th	1.238 (26/21)	—
	Top	1.090 (24/22)	—
Shift fork to groove clearance		No.1, 2 & 3 0.10 – 0.30 (0.004 – 0.012)	0.50 (0.020)
Shift fork groove width		No.1, 2 & 3 5.00 – 5.10 (0.197 – 0.201)	—
Shift fork thickness		No.1, 2 & 3 4.80 – 4.90 (0.189 – 0.193)	—
Drive chain	Type	DID 520 DMA4	—
	Links	114 links	—
	20-pitch length	—	323.8 (12.75)
Drive chain slack		35 – 45 (1.4 – 1.8)	—
Gearshift lever height		10 – 15 (0.4 – 0.6) (Above the top face of the foot rest)	—

## INJECTOR + FUEL PUMP + FUEL PRESSURE REGULATOR

ITEM	SPECIFICATION	NOTE
Injector resistance	10 – 11 $\Omega$ at 24 °C (75 °F)	
Fuel pump discharge amount	89 ml (3.0/3.1 US/Imp oz) or more /10 sec.	
Fuel pressure regulator operating set pressure	Approx. 294 kPa (2.94 kgf/cm <sup>2</sup> , 41.81 psi)	

## FI SENSORS

ITEM	STANDARD/SPECIFICATION	NOTE
CKP sensor resistance	80 – 120 $\Omega$	
CKP sensor peak voltage	2.8 V or more	
IAP sensor input voltage	4.5 – 5.5 V	
IAP sensor output voltage	0.30 – 4.03 V at idle speed	
TP sensor input voltage	4.5 – 5.5 V	
TP sensor output voltage	Closed	0.60 – 0.64 V
	Opened	3.60 – 4.00 V
ECT sensor input voltage	4.5 – 5.5 V	
ECT sensor resistance	Approx. 2.58 k $\Omega$ at 20 °C (68 °F)	
IAT sensor input voltage	4.5 – 5.5 V	

ITEM	STANDARD/SPECIFICATION		NOTE
IAT sensor resistance	Approx. 2.58 k $\Omega$ at 20 °C (68 °F)		
TO sensor resistance	16.5 – 22.3 k $\Omega$		
TO sensor voltage	Normal	0.4 – 1.4 V	When leaning 65°
	Leaning	3.7 – 4.4 V	
GP switch voltage	0.88 V or more		From 1st to Top
Injector voltage	Battery voltage		

## THROTTLE BODY

ITEM	SPECIFICATION
Bore size	44 mm (1.73 in)
I.D. No.	49H2
Idle r/min	2 200 $\pm$ 50 r/min
Idle screw	5 – 6 turns counterclockwise
Throttle cable play	2 – 4 mm (0.08 – 0.16 in)

## ELECTRICAL

Unit: mm (in)

ITEM	STANDARD/SPECIFICATION		NOTE
Ignition timing	6° B.T.D.C. at 2 200 r/min.		
Spark plug	Type	NGK: CR8EIB10	
	Gap	0.9 – 1.0 (0.035 – 0.039)	
Spark performance	Over 8 (0.3) at 1 atm.		
CKP sensor resistance	80 – 120 $\Omega$		R – G
Charge coil resistance	1.2 – 2.5 $\Omega$		Y – Y
CKP sensor peak voltage	2.8 V or more		⊕ R – ⊖ G
Ignition coil resistance	Primary	0.17 – 0.70 $\Omega$	W/BI – B/W
	Secondary	9 – 14 k $\Omega$	Plug cap – B/W
Ignition coil primary peak voltage	170 V or more		⊕ B/W – ⊖ W/BI
Magneto no-load voltage (When engine is cold)	100 V (AC) or more at 5 000 r/min		
Regulated voltage	13.5 V at 5 000 r/min		
Engine stop switch resistance	Under 1 $\Omega$		B/Y – B/W
S-HAC switch resistance	Under 1 $\Omega$		R/Y – B/W



## BRAKE + WHEEL

Unit: mm (in)

ITEM	STANDARD		LIMIT
Brake lever adjuster length	11 – 15 (0.4 – 0.6)		—
Rear brake pedal height	0 – 10 (0 – 0.4) (Below the top face of the foot rest)		—
Brake disc thickness	Front	2.8 – 3.2 (0.11 – 0.13)	2.5 (0.10)
	Rear	3.85 – 4.15 (0.152 – 0.163)	3.5 (0.14)
Brake disc distortion	Front & Rear	—	0.3 (0.012)
Master cylinder bore	Front	11.000 – 11.043 (0.4331 – 0.4348)	—
	Rear	11.000 – 11.043 (0.4331 – 0.4348)	—
Master cylinder piston diam.	Front	10.957 – 10.984 (0.4314 – 0.4324)	—
	Rear	10.957 – 10.984 (0.4314 – 0.4324)	—
Brake caliper cylinder bore	Front	27.000 – 27.050 (1.0630 – 1.0650)	—
	Rear	25.400 – 25.450 (1.0000 – 1.0020)	—
Brake caliper piston diam.	Front	26.900 – 26.950 (1.0591 – 1.0610)	—
	Rear	25.335 – 25.368 (0.9974 – 0.9987)	—
Brake fluid type	DOT 4		—
Wheel rim runout	Axial	—	2.0 (0.08)
	Radial	—	2.0 (0.08)
Wheel rim size	Front	1.60 × 21	—
	Rear	1.85 × 19	—
Wheel axle runout	Front	—	0.25 (0.010)
	Rear	—	0.25 (0.010)

## TIRE

ITEM	STD/SPEC.		LIMIT
Cold inflation tire pressure	Front & Rear	70 – 110 kPa (0.7 – 1.1 kgf/cm <sup>2</sup> , 10 – 16 psi)	—
Tire size	Front	80/100-21 51M	—
	Rear	100/90-19 57M	—
Tire type	Front	MX52F	—
	Rear	MX52	—
Tire tread depth (Recommend depth)	Front & Rear	—	4.0 mm (0.16 in)

## SUSPENSION

Unit: mm (in)

ITEM		STANDARD	LIMIT	NOTE
Front fork stroke		310 (12.2)	—	
Front fork inner tube O.D.		48 (1.9)	—	
Front fork oil level (Outer tube fully compressed)		115 (4.5)	—	
Front fork damping force adjuster	Rebound (High speed)	MAX – 16 clicks turn counterclockwise	—	
	Rebound (Low speed)	MAX – 15 clicks turn counterclockwise	—	
	Compression	MAX – 7 clicks turn counterclockwise	—	
Front fork air pressure		240 kPa (2.4 kgf/cm <sup>2</sup> , 34.1 psi)	—	
Rear shock absorber gas pressure		1 000 kPa (10.0 kgf/cm <sup>2</sup> , 142.2 psi)	—	
Rear shock absorber spring set length		6.0 (0.24)	—	6.0 mm (0.24 in) compressed from spring free length
Rear shock absorber spring rate		54 N/mm (5.5 kgf/mm)	—	
Rear shock absorber damping force adjuster	Rebound (High speed)	MAX – 17 clicks turn counterclockwise	—	
	Rebound (Low speed)	MAX – 11 clicks turn counterclockwise	—	
	Compression (High speed)	MAX – 9 clicks turn counterclockwise	—	
	Compression (Low speed)	MAX – 10 clicks turn counterclockwise	—	
Rear wheel travel		310 (12.2)	—	
Swingarm pivot shaft runout		—	0.3 (0.01)	

# TIGHTENING TORQUE

## ENGINE

ITEM		N·m	kgf·m	lbf·ft
Cylinder head cover bolt		14	1.4	10.0
Spark plug		11	1.1	8.0
Spark plug cap retainer bolt		11	1.1	8.0
Cylinder head bolt	(Initial)	25	2.5	18.0
	(Final)	51	5.1	37.0
Cylinder head base bolt		10	1.0	7.0
Cylinder base bolt		10	1.0	7.0
Camshaft journal holder bolt		10	1.0	7.0
Primary drive gear nut		110	11.0	79.5
Magneto rotor nut		80	8.0	58.0
Clutch sleeve hub nut		90	9.0	65.0
Clutch spring set bolt		10	1.0	7.0
Gearshift arm stopper bolt		23	2.3	16.5
Gearshift cam driven gear pin		24	2.4	17.5
Gearshift cam stopper bolt		10	1.0	7.0
Pawl lifter screw		8.5	0.85	6.0
Kick starter guide bolt		10	1.0	7.0
Cam chain tension adjuster mounting bolt		10	1.0	7.0
Cam chain tension adjuster cap bolt		5.5	0.55	4.0
Cam chain tensioner bolt		10	1.0	7.0
Cam chain guide retainer bolt		10	1.0	7.0
Right crankcase cover bolt		11	1.1	8.0
Bearing retainer screw		8.5	0.85	6.0
Reed valve guide bolt		4.5	0.45	3.25
Engine oil drain plug		21	2.1	15.0
Engine oil drain No.2 plug		12	1.2	8.5
Engine oil strainer cap		21	2.1	15.0
Oil filter cap bolt		11	1.1	8.0
Oil gallery plug		10	1.0	7.0
Oil pump idle gear shaft		23	2.3	16.5
Oil pump No.1 bolt		5.5	0.55	4.0
Oil pump No.2 bolt		11	1.1	8.0
Oil strainer No.2 bolt		5.5	0.55	4.0
Crankcase bolt		11	1.1	8.0
Clutch cover bolt		11	1.1	8.0
TDC plug		14	1.4	10.0
Magneto cover bolt		11	1.1	8.0
Magneto stator bolt		5.5	0.55	4.0
Crankshaft hole plug		11	1.1	8.0
Ignition coil mounting bolt		10	1.0	7.0
Condenser bracket bolt		10	1.0	7.0

ITEM	N·m	kgf·m	lbf·ft
Engine mounting upper bolt	45	4.5	32.5
Engine mounting lower nut	66	6.6	47.5
Engine mounting front nut	66	6.6	47.5
Engine mounting upper bracket nut	40	4.0	29.0
Engine mounting front bracket nut	40	4.0	29.0
Engine sprocket bolt	32	3.2	23.0
Engine sprocket cover bolt	11	1.1	8.0
Kick starter lever bolt	29	2.9	21.0
Kick starter lever screw	10	1.0	7.0
Intake pipe bolt	10	1.0	7.0
Exhaust pipe nut	23	2.3	16.5
Muffler connector clamp bolt	17	1.7	12.5
Muffler mounting front bolt	21	2.1	15.0
Muffler mounting rear bolt	23	2.3	16.5
Exhaust pipe cover bolt	11	1.1	8.0
Rear muffler body mounting bolt	10	1.0	7.0

## FI SYSTEM AND INTAKE AIR SYSTEM

ITEM	N·m	kgf·m	lbf·ft
CKP sensor bolt	5.5	0.55	4.0
IAT sensor mounting screw	1.3	0.13	0.95
GP switch mounting bolt	6.5	0.65	4.7
Fuel delivery pipe mounting screw	3.5	0.35	2.5
Fuel pipe mounting screw	3.5	0.35	2.5
Fuel pump mounting bolt	10	1.0	7.0
TP sensor mounting screw	3.5	0.35	2.5
ECT sensor	12	1.2	8.5
TO sensor bracket bolt	8.5	0.85	6.0
Air cleaner mounting bolt	5	0.5	3.5

## COOLING SYSTEM

ITEM	N·m	kgf·m	lbf·ft
Water pump impeller	8	0.8	6.0
Water pump case bolt	11	1.1	8.0
Water pump joint bolt	10	1.0	7.0
Engine coolant drain bolt	11	1.1	8.0
Water hose clamp screw	1.5	0.15	1.0

## CHASSIS

ITEM	N·m	kgf-m	lbf-ft
Handlebar clamp bolt	25	2.5	18.0
Handlebar holder set nut	44	4.4	32.0
Front fork upper clamp bolt (right and left)	23	2.3	16.5
Front fork lower clamp bolt (right and left)	23	2.3	16.5
Steering stem head nut	120	12.0	87.0
Steering stem nut	45 N·m (4.5 kgf-m, 32.5 lbf-ft) then turn counterclockwise 1/4 – 1/2		
Fork cap	45	4.5	32.5
Lock-nut/fork cap	29	2.9	21.0
Center bolt	75	7.5	54.0
Air valve (front fork)	5.5	0.55	4.0
Fork protector bolt	4.9	0.49	3.5
Front brake master cylinder holder bolt	10	1.0	7.0
Rear brake master cylinder mounting bolt	10	1.0	7.0
Rear brake master cylinder rod lock-nut	6	0.6	4.5
Brake lever pivot bolt	6	0.6	4.5
Brake lever pivot bolt lock-nut	6	0.6	4.5
Brake pedal pivot bolt	29	2.9	21.0
Brake hose union bolt (front and rear)	23	2.3	16.5
Front brake hose guide bolt	3	0.3	2.0
Front brake caliper mounting bolt	26	2.6	19.0
Brake pad mounting pin (front and rear)	18	1.8	13.0
Front brake caliper axle bolt (caliper)	25	2.5	18.0
Front brake caliper axle bolt (bracket)	28	2.8	20.0
Rear brake caliper axle bolt (caliper)	43	4.3	31.0
Rear brake caliper axle bolt (bracket)	13	1.3	9.5
Brake air bleeder valve (front and rear)	6	0.6	4.5
Disc plate bolt (front)	11	1.1	8.0
Disc plate bolt (rear)	26	2.6	19.0
Front axle nut	35	3.5	25.5
Front axle holder bolt	21	2.1	15.0
Rear axle nut	100	10.0	72.5
Rear sprocket nut	30	3.0	21.5
Drive chain roller bolt/nut	23	2.3	16.5
Spoke nipple	6	0.6	4.5
Front wheel rim lock	14	1.4	10.0
Rear wheel rim lock	17	1.7	12.5
Swingarm pivot nut (engine mounting)	70	7.0	50.5
Swingarm rear axle plate screw	3	0.3	2.0
Rear shock absorber mounting nut (upper and lower)	50	5.0	36.0
Adjuster assembly	23	2.3	16.5
Cushion lever nut	80	8.0	58.0

ITEM	N·m	kgf-m	lbf-ft
Cushion rod nut (front and rear)	80	8.0	58.0
Spring adjuster lock-nut	30	3.0	21.5
Seat rail bolt and nut (upper and lower)	23	2.3	16.5
Footrest bolt	35	3.5	25.5
Cable adjuster lock-nut (throttle and clutch)	4.5	0.45	3.25
Clutch cable bracket bolt	10	1.0	7.0
Throttle case screw	3.8	0.38	2.75
Clutch lever holder bolt	3	0.3	2.0
Clutch lever pivot bolt	4	0.4	3.0
Clutch lever pivot bolt lock-nut	4	0.4	3.0
Radiator cover upper bolt	10	1.0	7.0
Radiator cover bolt	10	1.0	7.0

## FUEL + OIL

ITEM	SPECIFICATION		NOTE
Fuel type	Use only unleaded gasoline of at least 90 pump octane (R/2 + M/2 method).		
Fuel tank capacity	6.5 L (1.7/1.4 US/Imp gal)		
Engine oil type	SAE 10W-40, API SG/SH/SJ/SL with JASO MA/MA1/MA2		
Engine oil capacity	Change	850 ml (0.9/0.7 US/Imp qt)	
	Filter change	900 ml (1.0/0.8 US/Imp qt)	
	Overhaul	1 000 ml (1.1/0.9 US/Imp qt)	
Air cleaner element oil type	MOTUL AIR FILTER OIL or equivalent		
Front fork oil type	KYB SUSPENSION OIL KHL15-11 or equivalent		
Front fork oil capacity	Each leg	632 ml (21.4/22.3 US/Imp oz)	
Rear shock absorber oil type	REAR SUSPENSION OIL KHV10-K2C or equivalent		
Rear shock absorber oil capacity	422 ml (14.3/14.9 US/Imp oz)		