

1-14 GENERAL INFORMATION

Torque and Locking Agent

The following tables list the tightening torque for the major fasteners, and fasteners or parts requiring use of a non-permanent locking agent or liquid gasket.

Letters used in the "Remarks" column mean:

HL: Apply a high-lock agent (high-adhesion locking agent with medium strength) to the threads.

L: Apply non-permanent locking agent to the threads.

O: Apply engine oil to the threads of nut and seating surface.

S: Tighten the fasteners following the specified sequence.

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Cooling System				
Water Pump Cover Bolts	9.8	1.0	87 in·lb	
Water Pump Impeller Nut	7.8	0.8	69 in·lb	
Coolant Drain Plug	25	2.5	18	
Thermostat Housing Cap Bolts	9.8	1.0	87 in·lb	
Elbow (Water Pipe) Mounting Bolts	9.8	1.0	87 in·lb	
Radiator Fan Switch	8.8	0.9	78 in·lb	
Water Temperature Sensor	8.8	0.9	78 in·lb	
Engine Top End				
Air Suction Valve Cover Bolts	9.8	1.0	87 in·lb	
Cylinder Head Cover Bolts	7.8	0.8	69 in·lb	
Spark Plug	13	1.3	115 in·lb	
Camshaft Cap Bolts	12	1.2	104 in·lb	S
Camshaft Sprocket Bolts	9.8	1.0	87 in·lb	L
Cylinder Head Bolts $\phi 6$	12	1.2	104 in·lb	S
Cylinder Head Allen Bolt (First Torquing)	15	1.5	11	S
Cylinder Head Allen Bolts (Standard Torquing)	46	4.7	34	S
Hose Fitting	13	1.3	115 in·lb	L
Camshaft Chain Guide Mounting Bolt	25	2.5	18	
Camshaft Chain Guide Bracket Bolt	9.8	1.0	87 in·lb	
Carburetor Holder Mounting Bolt	12	1.2	104 in·lb	
Camshaft Chain Tensioner Mounting Bolts	9.8	1.0	87 in·lb	
Camshaft Chain Sub Tensioner Bolt	15	1.5	11	
Inspection Plug	2.5	0.25	22 in·lb	
Rotor Plug	2.5	0.25	22 in·lb	
Engine Right Side/Left Side				
Engine Oil Drain Plug	15	1.5	11	
Clutch Hub Nut	78	8.0	58	L
Clutch Spring Bolts	7.8	0.8	69 in·lb	
Shift Drum Cam Allen Bolt	12	1.2	104 in·lb	L
Return Spring Pin	37	3.8	27	L
Primary Gear Nut	98	10	72	
Alternator Flywheel Bolt	118	12	87	L
Kick Ratchet Guide Bolt	9.8	1.0	87 in·lb	HL
External Shift Mechanism Cover Bolts and Nut	9.8	1.0	87 in·lb	L
External Shift Mechanism Cover Screw	5.4	0.55	48 in·lb	
Gear Set Lever Nut	9.8	1.0	87 in·lb	

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Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Neutral Switch	15	1.5	11	L
Exhaust Pipe Holder Nuts	25	2.5	18	L
Clutch Cover Bolts	9.8	1.0	87 in·lb	
Clutch Cable Mounting Bolts	9.8	1.0	87 in·lb	
Right Engine Cover Bolts (M6 - 8)	9.8	1.0	87 in·lb	
Right Engine Cover Bolts (M6 - 2)	15	1.5	11	
Alternator Cover Bolts	9.8	1.0	87 in·lb	
Torque Limiter Cover Bolts	12	1.2	104 in·lb	
Engine Lubrication System				
Engine Oil Drain Plug	15	1.5	11	L
Oil Pressure Relief Valve	15	1.5	11	
Oil Pipe Banjo Bolt ϕ 8	9.8	1.0	87 in·lb	
Oil Pipe Banjo Bolt ϕ 10	20	2.0	14.5	
Oil Pump Mounting Screws	5.4	0.55	48 in·lb	
Engine Removal/Installation				
Swing Arm Pivot Shaft Nut	88	9.0	65	
Engine Mounting Bracket Nuts	44	4.5	33	
Engine Mounting Nuts	44	4.5	33	
Cylinder Head Bracket Bolts ϕ 8	23	2.3	17	
Cylinder Head Bracket Bolts ϕ 10	44	4.5	33	
Crankshaft/Transmission				
Shift Drum Bearing Retainer Bolts	9.8	1.0	87 in·lb	
Right Cover Bolts (M6 - 8)	9.8	1.0	87 in·lb	
Right Cover Bolts (M6 - 2)	15	1.5	11	
Gear Set Lever Nut	9.8	1.0	87 in·lb	
Shift Drum Cam Allen Bolt	12	1.2	104 in·lb	
Wheels/Tires				
Front Axle	88	9.0	65	
Front Axle Clamp Nuts	8.8	0.9	78 in·lb	
Rear Axle Nut	108	11	80	
Spoke Nipples	Not less than 1.5	Not less than 0.15	Not less than 13 in·lb	
Final Drive				
Engine Sprocket Nut (KLX250-H5 ~ H7, H6F)	127	13	94	O
Engine Sprocket Cover Bolts	9.8	1.0	87 in·lb	
Rear Sprocket Nuts	32	3.3	24	
Swing Arm Pivot Shaft Nut	88	9.0	65	
Tie-Rod Upper Mounting Nut	83	8.5	61	
Rear Axle Nut	108	11	80	
Brakes				
Brake Hose Banjo Bolts	34	3.5	25	
Reservoir Cap Screws (Front, Rear)	1.5	0.15	13 in·lb	

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Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Brake Lever Pivot Locknut	5.9	0.6	52 in·lb	
Front Master Cylinder Clamp Bolts	8.8	0.9	78 in·lb	
Rear Master Cylinder Mounting Screws	7.8	0.8	69 in·lb	
Caliper Bleed Valves (Front, Rear)	7.8	0.8	69 in·lb	
Brake Disc Mounting Bolt (Front, Rear)	23	2.3	16.5	
Caliper Mounting Bolts (Front, Rear)	25	2.5	18	
Rear Brake Push Rod Locknut	18	1.8	13	
Brake Pad Bolts (Front, Rear)	18	1.8	13	
Brake Pipe Joint Bolt	9.8	1.0	87 in·lb	
Brake Pipe Joint Bolt (KLX250-H6 ~ H7, H6F)	15	1.5	87 in·lb	
Front Brake Light Switch Mounting Bolt	1.2	0.12	10 in·lb	
Suspension				
Front Top Plug Screw	1.3	0.13	12 in·lb	
Front Top Plug	29	3.0	22	
Front Fork Clamp Bolts (Upper)	20	2.0	14.5	
Front Fork Clamp Bolts (Lower)	25	2.5	18	
Push Rod Nut	15	1.5	11	
Front Fork Protector Mounting Bolt	9.8	1.0	87 in·lb	
Front Fork Cylinder Valve (ASSY)	54	5.5	40	L
Front Axle Clamp Nuts	9.8	1.0	87 in·lb	
Rear Shock Absorber Upper Mounting Bolt	39	4.0	29	
Rear Shock Absorber Lower Mounting Nut	39	4.0	29	
Swing Arm Pivot Shaft Nut	88	9.0	65	
Rocker Arm Pivot Nut	98	10	72	
Tie-Rod Mounting Nuts (Upper, Lower)	83	8.5	61	
Steering				
Handlebar Clamp Bolts	25	2.5	18	S
Steering Stem Head Nut	44	4.5	33	
Front Fork Clamp Bolts (Upper)	20	2.0	14.5	
Front Fork Clamp Bolts (Lower)	25	2.5	18	
Steering Stem Locknut	Hand -Tighen (about 4.9)	Hand -Tighen (about 0.5)	Hand -Tighen (about 43 in·lb)	
Electrical System				
Spark Plugs	13	1.3	115 in·lb	
Alternator Flywheel Bolt	118	12	87	
Stator Coil Mounting Bolts	5.9	0.6	52 in·lb	
Crankshaft Sensor Mounting Screws	2.5	0.25	22 in·lb	
Starter Motor Terminal Locknut	6.9	0.7	61 in·lb	
Starter Motor Terminal Nut	4.9	0.5	43 in·lb	
Starter Relay Terminal Screw	4.9	0.5	43 in·lb	
Starter Motor Assembly Bolt	4.9	0.5	43 in·lb	
Starter Motor Mounting Bolts	9.8	1.0	87 in·lb	

Torque and Locking Agent

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Starter Motor Clutch Bolt	12	1.2	104 in·lb	HL
Igniter Mounting Bolts	4.9	0.5	43 in·lb	
Regulator Mounting Bolts	9.8	1.0	87 in·lb	
Ignition Coil Mounting Bolts	9.8	1.0	87 in·lb	

The table on the right, relating tightening torque to thread diameter, lists the basic torque for the bolts and nuts. Use this table for only the bolts and nuts which do not require a specific torque value. All of the values are for use with dry solvent-cleaned threads.

Basic Torque for General Fasteners

Threads dia.(mm)	Torque		
	N·m	kgf·m	ft·lb
5	3.4 ~ 4.9	0.35 ~ 0.50	30 ~ 43 in·lb
6	5.9 ~ 7.8	0.60 ~ 0.80	52 ~ 69 in·lb
8	14 ~ 19	1.4 ~ 1.9	10.0 ~ 13.5
10	25 ~ 34	2.6 ~ 3.5	19.0 ~ 25
12	44 ~ 61	4.5 ~ 6.2	33 ~ 45
14	73 ~ 98	7.4 ~ 10.0	54 ~ 72
16	115 ~ 155	11.5 ~ 16.0	83 ~ 115
18	165 ~ 225	17.0 ~ 23.0	125 ~ 165
20	225 ~ 325	23 ~ 33	165 ~ 240