







**5.1 FRAME TIGHTENING TORQUES**

Component	Screw	Tightening torque	Remarks
Engine fastening screws	M10 (8.8)	50 Nm (5.0 m·kgf, 36 ft·lbf)	
	M8 (8.8)	27 Nm (2.7 m·kgf, 20 ft·lbf)	
Swingarm pin	M14	80 Nm (8.0 m·kgf, 59 ft·lbf)	
Rear connecting rods nuts	M12	60 Nm (6.0 m·kgf, 43 ft·lbf)	
Mono-shock absorber nuts Upper pin	M10	40 Nm (4.0 m·kgf, 30 ft·lbf)	
Mono-shock absorber nuts Lower pin	M10	40 Nm (4.0 m·kgf, 30 ft·lbf)	
Fastening screws for frame side plates	M8 (8.8)	25 Nm (2.5 m·kgf, 18 ft·lbf)	
	M6 (8.8)	16 Nm (1.6 m·kgf, 12 ft·lbf)	
Kickstand screw	M8 (10.9)	38 Nm (3.8 m·kgf, 28 ft·lbf)	
Collar clutch/Brake pump screws	M6 (10.9)	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Lower ring nut for swingarm lower fork plate	-	15 Nm (1.5 m·kgf, 11 ft·lbf)	
Locknut for swingarm upper plate	-	80 Nm (8.0 m·kgf, 59 ft·lbf)	
Swingarm plates fastening screws	M6 (8.8)	from 22 Nm (2.2 m·kgf, 16 ft·lbf) to 25 Nm (2.5 m·kgf, 18 ft·lbf)	
	M6 (8.8)	12 Nm (1.2 m·kgf, 8.7 ft·lbf)	
Handlebar bolts fastening screws	M10 (8.8)	25 Nm (2.5 m·kgf, 18 ft·lbf)	
	M8 (8.8)	55 Nm (5.5 m·kgf, 41 ft·lbf)	
Front brake calliper fastening screws	M8 (10.9)	25 Nm (2.5 m·kgf, 18 ft·lbf)	
Swingarm foot screws	M8 (8.8)	25 Nm (2.5 m·kgf, 18 ft·lbf)	
Front wheel pin	M14	50 Nm (5.0 m·kgf, 36 ft·lbf)	
Rear wheel pin	M17	80 Nm (8.0 m·kgf, 59 ft·lbf)	
Rim fastening screws	M8 (10.9)	25 Nm (2.5 m·kgf, 18 ft·lbf)	
Front brake disc fastening screws	M8 (8.8)	25 Nm (2.5 m·kgf, 18 ft·lbf)	
Rear brake disc fastening screws	M6 (8.8)	16 Nm (1.6 m·kgf, 12 ft·lbf)	
Rear brake lever screw	M10 (8.8)	50 Nm (5.0 m·kgf, 36 ft·lbf)	

**5.2 ENGINE TIGHTENING TORQUES**

Component	Screw	Tightening torque	Remarks
Cylinder head bolt	M8	22 Nm (2.2 m·kgf, 16 ft·lbf)	
	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Spark plug	M10	13 Nm (1.3 m·kgf, 9.4 ft·lbf)	
Cylinder head cover bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Oil level inspection cap	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Drain pipe stud screw	M8	15 Nm (1.5 m·kgf, 11 ft·lbf)	
Coolant draining bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Balancer driven gear nut	M10	50 Nm (5.0 m·kgf, 36 ft·lbf)	
Locknut for valve adjustment screw	M5	7 Nm (0.7 m·kgf, 5.1 ft·lbf)	
Camshaft sprocket bolt	M8	30 Nm (3.0 m·kgf, 22 ft·lbf)	
Camshaft retainer bolt	M6	7 Nm (0.7 m·kgf, 5.1 ft·lbf)	
Timing chain guide bolt (intake side)	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Timing chain tensioner bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Timing chain tensioner cap bolt	M8	8 Nm (0.8 m·kgf, 5.8 ft·lbf)	
Radiator bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	

Component	Screw	Tightening torque	Remarks
Radiator fan bolt	M6	8 Nm (0.8 m·kgf, 5.8 ft·lbf)	
Coolant tank bolt	M6	11 Nm (1.1 m·kgf, 8.0 ft·lbf)	
Water pump unit bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Water pump housing cover bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Impeller shaft retainer bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Thermostat cover bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Oil pump unit screw	M5	4 Nm (0.4 m·kgf, 2.9 ft·lbf)	
Oil drain plug	M35	32 Nm (3.2 m·kgf, 23 ft·lbf)	
Oil filter element cover bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Oil deflector bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Intake manifold bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Fuel injector bolt	M6	12 Nm (1.2 m·kgf, 8.7 ft·lbf)	
Tightening clamp for throttle body joint	M4	2 Nm (0.2 m·kgf, 1.4 ft·lbf)	
Tightening band for air filter casing joint	M4	2 Nm (0.2 m·kgf, 1.4 ft·lbf)	
Air filter casing bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
O2 sensor	M12	25 Nm (2.5 m·kgf, 18 ft·lbf)	
Exhaust pipe nut	M8	15 Nm (1.5 m·kgf, 11 ft·lbf)	
Exhaust group bolt (central)	M8	32 Nm (3.2 m·kgf, 23 ft·lbf)	
Exhaust group bolt (rear)	M8	20 Nm (2.0 m·kgf, 14 ft·lbf)	
Crankcase bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Generator cover bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Clutch crankcase bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Rim cover bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Unidirectional starter bolt	M6	14 Nm (1.4 m·kgf, 10 ft·lbf)	
Primary drive driving gear nut	M12	60 Nm (6.0 m·kgf, 43 ft·lbf)	
Clutch spring bolt	M6	12 Nm (1.2 m·kgf, 8.7 ft·lbf)	
Short clutch control rod locknut	M6	8 Nm (0.8 m·kgf, 5.8 ft·lbf)	
Clutch hub nut	M14	70 Nm (7.0 m·kgf, 51 ft·lbf)	
Rim retaining bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Crankcase bearing retaining bolt	M6	7 Nm (0.7 m·kgf, 5.1 ft·lbf)	
Gear shift selector drum segment screw	M6	12 Nm (1.2 m·kgf, 8.7 ft·lbf)	
Cut off lever bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Stator coil bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Crankshaft position sensor bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Generator rotor nut	M12	70 Nm (7.0 m·kgf, 50 ft·lbf)	
Neutral gear switch	M10	20 Nm (2.0 m·kgf, 14 ft·lbf)	
Speed sensor	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Starter motor bolt	M6	10 Nm (1.0 m·kgf, 7.2 ft·lbf)	
Coolant temperature sensor	M10	14 Nm (1.4 m·kgf, 10 ft·lbf)	