

OC



Tightening Torque List

Engine

Item		N·m	kgf·m	lbf·ft	
Exhaust pipe bolt		23	2.3	16.5	
Exhaust chamber support bolt		23	2.3	16.5	
Exhaust chamber support bracket bolt		26	2.6	19.0	
Muffler connecting bolt		23	2.3	16.5	
Muffler cover bolt		11	1.1	8.0	
Muffler support bolt		26	2.6	19.0	
Speed sensor rotor bolt		28	2.8	20.0	
Speed sensor bolt		4.5	0.45	3.0	
Engine sprocket nut		115	11.5	83.0	
Engine mounting bolt (Cylinder)		55	5.5	39.8	
Engine mounting nut (Crankcase)		75	7.5	54.0	
Engine mounting thrust adjuster		23	2.3	16.5	
Engine mounting thrust adjuster lock-nut		45	4.5	32.5	
Engine mounting pinch bolt		23	2.3	16.5	
Cylinder head cover bolt		14	1.4	10.0	
Spark plug		11	1.1	8.0	
Cam chain guide No. 1 bolt		23	2.3	16.5	
Camshaft journal holder bolt		10	1.0	7.0	
Cam chain tension adjuster service cap		23	2.3	16.5	
Cam chain tension adjuster mounting bolt		10	1.0	7.0	
Cam chain tensioner bolt		23	2.3	16.5	
CKP sensor rotor/cam chain drive sprocket bolt		54	5.4	39.0	
Cylinder head bolt	[M10]	31 N·m (3.1 kgf·m, 22.5 lbf·ft) then turn in 1/6 (60°) turn			
	[M6]	10	1.0	7.0	
Clutch sleeve hub nut		95	9.5	68.5	
Clutch spring set bolt		10	1.0	7.0	
Clutch release adjuster cap		11	1.1	8.0	
Clutch push rod adjusting screw lock-nut		5.5	0.55	4.0	
Clutch lifter pin lock-nut		23	2.3	16.5	
Clutch cable lock-nut		4.5	0.45	3.0	
Crankshaft hole plug		11	1.1	8.0	
Starter clutch bolt		15	1.5	11.0	
Generator rotor bolt		120	12.0	87.0	
Generator stator set bolt		11	1.1	8.0	
Generator lead wire clamp bolt		5.5	0.55	4.0	
Oil pressure switch		14	1.4	10.0	
Oil pressure switch lead wire screw		1.5	0.15	1.0	
Oil filter		20	2.0	14.5	
Crankshaft journal bolt	[M9]	18 N·m (1.8 kgf·m, 13.0 lbf·ft) then turn in 50°			
Crankcase bolt	[M6]	Initial	6	0.6	4.5
		Final	11	1.1	8.0

	[M8]	Initial	15	1.5	11.0
		Final	26	2.6	19.0
Oil gallery plug			7	0.7	5.0
	[M6]		10	1.0	7.0
Oil gallery plug	[M12]		15	1.5	11.0
	[M16]		35	3.5	25.5
Oil drain plug			23	2.3	16.5
Oil gallery jet			27	2.7	19.5
Piston cooling oil jet bolt			10	1.0	7.0
Conrod cap bolt			15 N·m (1.5 kgf-m, 11.0 lbf-ft) then turn in 1/4 (90°) turn		
Oil cooler mounting bolt			10	1.0	7.0
Driveshaft bearing cover bolt		Initial	6	0.6	4.5
		Final	12	1.2	8.5
Driveshaft bearing case bolt (LH and RH)			12	1.2	8.5
Driveshaft retainer bolt			12	1.2	8.5
Gearshift arm stopper			19	1.9	13.5
Gearshift cam stopper bolt			10	1.0	7.0
Gearshift cam plate bolt			13	1.3	9.5
Gearshift cam bearing retainer screw			10	1.0	7.0
Gearshift shaft end screw			8.5	0.85	6.1
Gearshift lever shaft			40	4.0	29.0
Gearshift lever bracket bolt			28	2.8	20.0
Push rod oil seal retainer bolt			10	1.0	7.0
Starter motor mounting bolt			10	1.0	7.0
Starter motor lead wire mounting nut			6	0.6	4.5
Starter motor housing bolt			5	0.5	3.5
Starter motor brush holder nut			11	1.1	8.0
PAIR solenoid valve bracket mounting bolt			11	1.1	8.0
Throttle cable nut			4.5	0.45	3.0

FI System + Intake Air System

Item	N·m	kgf-m	lbf-ft
CMP sensor bolt	10	1.0	7.0
TP sensor mounting screw	3.5	0.35	2.5
STP sensor mounting screw	3.5	0.35	2.5
ISC valve mounting screw	2	0.2	1.5
CKP sensor mounting screw	5.5	0.55	4.0
CKP sensor clamp screw	5.5	0.55	4.0
HO2 sensor	25	2.5	18.0
Fuel delivery pipe mounting screw	3.5	0.35	2.5
Fuel pump mounting bolt	10	1.0	7.0
EXCVA pulley mounting bolt	5	0.5	3.5
EXCV cable bracket mounting nut	11	1.1	8.0
IAP sensor mounting screw	3.5	0.35	2.5
IAT sensor mounting bolt	1.5	0.15	1.0
GP switch mounting bolt	6.5	0.65	4.5

Intake pipe bolt	10	1.0	7.0
Intake pipe clamp screw	1.5	0.15	1.0
Air cleaner box cover screw	1.5	0.15	1.0
Air cleaner holder bolt	10	1.0	7.0
Funnel bolt	4.3	0.43	3.0
EVAP pipe mounting bolt (E-33 only)	10	1.0	7.0
EVAP system purge control solenoid valve mounting nut (E-33 only)	10	1.0	7.0
EVAP system purge control solenoid valve bracket bolt (E-33 only)	10	1.0	7.0

Cooling System

Item	N·m	kgf-m	lbf-ft
Impeller securing bolt	8	0.8	6.0
Water pump case screw	5.5	0.55	4.0
Water pump air bleeder bolt	13	1.3	9.5
Water pump mounting bolt	10	1.0	7.0
ECT sensor	18	1.8	13.0
Radiator reservoir tank bolt	6	0.6	4.5
Water hose clamp screw	1.5	0.15	1.0

Chassis

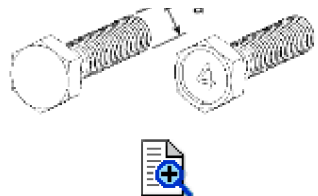
Item	N·m	kgf-m	lbf-ft
Steering stem head nut	90	9.0	65.0
Steering stem lock-nut	80	8.0	58.0
Steering damper bolt	23	2.3	16.5
Steering damper nut	23	2.3	16.5
Front fork upper clamp bolt	23	2.3	16.5
Front fork lower clamp bolt	23	2.3	16.5
Front fork cap bolt	35	3.5	25.5
Front fork piston rod nut	28	2.8	20.0
Front fork rod guide case	90	9.0	65.0
Front axle nut	100	10.0	72.5
Front axle pinch bolt	23	2.3	16.5
Handlebar clamp bolt	23	2.3	16.5
Handlebar balancer screw	5.5	0.55	4.0
Master cylinder holder bolt (Upper and Lower)	10	1.0	7.0
Front brake caliper mounting bolt	39	3.9	28.0
Brake hose union bolt	23	2.3	16.5
Air bleeder valve (Front caliper)	7.5	0.75	5.5
Air bleeder valve (Rear caliper)	6.0	0.6	4.5
Air bleeder valve (Front master cylinder)	6.0	0.6	4.5
Brake disc bolt (Front)	18	1.8	13.0
Brake disc bolt (Rear)	35	3.5	25.5
Rear brake pad mounting pin	18	1.8	13.0
Rear brake pad mounting pin plug	2.5	0.25	2.0

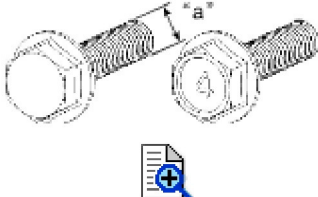
Rear brake caliper sliding pin A	27	2.7	19.5
Rear brake caliper sliding pin B	13	1.3	9.5
Rear brake master cylinder mounting bolt	10	1.0	7.0
Rear brake master cylinder rod lock-nut	18	1.8	13.0
Brake lever pivot bolt	1	0.1	0.7
Brake lever pivot bolt lock-nut	6	0.6	4.5
Clutch lever pivot nut	6.5	0.65	4.7
Clutch lever holder bolt	10	1.0	7.0
Swingarm pivot shaft	15	1.5	11.0
Swingarm pivot nut	100	10.0	72.5
Swingarm pivot lock-nut	90	9.0	65.0
Cushion lever mounting nut	98	9.8	71.0
Cushion rod mounting nut	98	9.8	71.0
Rear shock absorber bracket nut	100	10.0	72.5
Rear shock absorber mounting nut (Upper and Lower)	50	5.0	36.0
Spring adjuster lock-nut	35	3.5	25.5
Rear axle nut	100	10.0	72.5
Rear sprocket nut	60	6.0	43.0
Rear combination light mounting bolt	5	0.5	3.5
License plate light mounting nut	5	0.5	3.5
Side-stand nut	40	4.0	29.0
Side-stand bolt	50	5.0	36.0
Side-stand bracket mounting bolt	50	5.0	36.0
Bank sensor bolt	18	1.8	13.0
Footrest bracket bolt	23	2.3	16.5
Footrest guard screw (Left side)	4.5	0.45	3.0
Footrest holder bolt	35	3.5	25.5
Pillion footrest bracket bolt	23	2.3	16.5
Seat rail mounting bolt	50	5.0	36.0
Cowling brace mounting nut	38	3.8	27.5
Rear fender (Lower) mounting bolt	10	1.0	7.0
Rear view mirror mounting nut	10	1.0	7.0
Front reflector bolt (E-03, 24, 28, 33, 43)	10	1.0	7.0
Front reflex reflector (E-03, 24, 28, 33, 43)	1.8	0.18	1.3
Rear reflex reflector nut (E-03, 28, 33)	1.8	0.18	1.3
Under cowling mounting screw (right side)	6.5	0.65	4.7

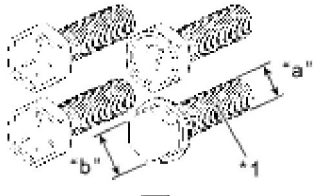
Tightening Torque Chart

Each fastener should be tightened to the torque specified in "TIGHTENING LIST". If no description or specification is provided, refer to the following tightening torque chart for the applicable torque for each fastener.


Bolt type	Thread diameter (Nominal diameter) "a" [mm]	Unit		
		N·m	kgf-m	lbf-ft
	4	1.5	0.15	1.0
	5	3.0	0.30	2.0
	6	5.5	0.55	4.0

	8	13	1.3	9.5
	10	29	2.9	21.0
	12	45	4.5	32.5
	14	65	6.5	47.0
	16	105	10.5	76.0
A equivalent of 4T strength fastener without flange	18	160	16.0	115.5

Bolt type	Thread diameter (Nominal diameter) "a" [mm]	Unit		
		N·m	kgf·m	lbf·ft
	4	1.7	0.17	1.0
	5	3.3	0.33	2.5
	6	6	0.6	4.5
	8	14	1.4	10.0
	10	32	3.2	23.0
	12	50	5.0	36.0
	14	72	7.2	52.0
16	116	11.6	84.0	
A equivalent of 4T strength fastener with flange	18	176	17.6	127.5

Bolt type	Thread diameter (Nominal diameter) "a" [mm]	Unit		
		N·m	kgf·m	lbf·ft
	4	2.3	0.23	1.5
	5	4.5	0.45	3.5
	6	10	1.0	7.0
	8	23	2.3	16.5
	10	50	5.0	36.0
	12	85	8.5	61.5
	14	135	13.5	97.5
A equivalent of 7T strength fastener without flange and small crown shape bolt *1	16	210	21.0	152.0
	18	240	24.0	173.5

*1: Small crown shape bolt (crown shape bolt with flange either "a" = 5 and "b" = 7 or "a" = 6 and "b" = 8)

Bolt type	Thread diameter (Nominal diameter) "a" [mm]	Unit		
		N·m	kgf·m	lbf·ft
	4	2.5	0.25	2.0
	5	5	0.5	3.5
	6	11	1.1	8.0
	8	25	2.5	18.0
	10	55	5.5	40.0
	12	94	9.4	68.0
	14	149	14.9	107.5

A equivalent of 7T strength fastener with flange except small crown shape bolt	16	231	23.1	167.0
	18	264	26.4	191.0