



SECTION 10 - AIDS FOR MAINTENANCE

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Torque Specifications (250/300)

DRIVE TRAIN COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Front Driveshaft (Coupler)**	Flange	4.2	30
Engine	Sub-Frame (Front/Rear)	5.5	40
Engine/Sub-Frame	Frame	5.5	40
Frame*	Front Diff Bracket/Upper	4.2	30
Front Differential*	Frame/Diff Bracket/Lower	5.5	40
Diff Housing Cover***	Diff Housing	2.9-3.5	21-25
Drive Bevel Gear Nut***	Shaft	11-13	79.5-94
Pinion Housing	Diff Housing	2.9-3.5	21-25
Lock Collar	Diff Housing	17.3	125
Hub Nut	Front/Rear Shaft/Axle (max)	10.4	75
Oil Drain Plug	Front Diff	0.5	3.5
Oil Fill Plug	Front Diff	2.2	16
Oil Drain Plug	Engine	2.2	16
Oil Fittings*	Engine	1.1	8
Shift Arm	Engine	1.4	10
High/Low Shift Arm	Engine	1.1	8
2W/4W Shift Arm	Front Diff	1.1	8
Wheel	Hub	5.5	40

EXHAUST COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Header Pipe	Engine	1.1	8

ELECTRICAL COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Ground Cable	Engine	1.1	8

STEERING COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Handlebar Block	Steering Post	2.8	20
Steering Post Bearing Housings	Frame	2.8	20
Steering Post Bearing Flange	Frame	2.8	20
Lower Steering Bearing Washer Cap Screw***	Steering Post	5.5	40
Tie Rod End	Knuckle/Steering Post	4.2	30

BRAKE COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Brake Disc*	Hub	2.1	15
Brake Hose	Caliper	4.2	30
Brake Hose	Master Cylinder	0.8	6
Auxiliary Brake Lever	Frame	9.7	70
Master Cylinder Cover	Master Cylinder	.03	10 in.-lb
Brake Pressure Switch	Front Brake Block	2.1	15
Hydraulic Caliper	Knuckle	2.8	20
Auxiliary Caliper	Knuckle	2.1	15

CHASSIS COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Sub-Frame	Frame	5.5	40
Footrest	Frame (8 mm)	2.8	20
Footrest	Frame (10 mm)	5.5	40
Foot Shift Lever	Footrest	9.7	70
Gas Tank Valve	Gas Tank	0.1	1
Reverse Shift Lever *	Frame	2.8	20

SUSPENSION COMPONENTS (Front)

Part	Part Bolted To	Torque	
		kg-m	ft-lb
A-Arm (All)	Frame	4.8	35
Ball Joint Cap Screw	Knuckle	4.8	35
Shock Absorber	Frame	4.8	35
Shock Absorber	Upper A-Arm	4.8	35

SUSPENSION COMPONENTS (Rear)

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Rear Shock	Sub-Frame	4.8	35
Rear Shock	Lower A-Arm	2.8	20
A-Arms (All)	Sub-Frame	4.8	35
Rear Knuckles	A-Arms	4.8	35

ENGINE/TRANSMISSION

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Air Cleaner Assy	Frame	1.1	8
Clutch Shoe	Crankshaft	11	79.5
Clutch Sleeve Hub	Countershaft	8	58
Crankcase Half (6 mm)	Crankcase Half	0.9-1.3	6.5-9.5
Crankcase Half (8 mm)	Crankcase Half	2-2.4	14.5-17
Cylinder Head Cap Nuts/Nut	Cylinder	2.5	18
Cylinder Head/Crankcase	Cylinder	1.1	8
Hi/Lo Shifter Arm	Shifter Arm Shaft	1.1	8
Left-Side Cover	Crankcase Half	0.9-1.3	6.5-9.5
Oil Pump*	Crankcase	1	7
Recoil Starter	Left-Side Cover	0.8	6
Reverse Gear Shaft	Reverse Shift Shaft	1.1	8
Right-Side Cover	Crankcase Half	0.9-1.3	6.5-9.5
Rotor/Flywheel Nut	Crankshaft	16	116
Shifter Arm	Shifter Arm Shaft	1.1	8
Cam Sprocket	Camshaft	1.15	8.5
Starter Cup	Crankshaft	3.5	25
Valve Cover	Cylinder	1	7
Spark Plug	Engine	1.7	12

* w/Blue Loctite #243

** w/Red Loctite #271

*** w/Green Loctite #609

Torque Specifications (400/500 - Manual Transmission)

DRIVE TRAIN COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Engine (Lower Rear/Front)	Frame	5.5	40
Engine (Upper Front Inside Bracket/Topside)	Frame Bracket	2.8	20
Engine Mount (Left-Side Upper Rear) (400)	Frame	1.7	12
Engine (Left-Side Upper Rear) (400)	Mount	5.5	40
Front Differential*	Frame/Diff Bracket	6.2	45
Pinion Housing	Diff Housing	2.9-3.5	21-25
Diff Housing Cover***	Diff Housing	2.9-3.5	21-25
Drive Bevel Gear Nut***	Shaft	11-13	79.5-94
Differential Gear Case***	Hub	2.3-3	16.5-22
Lock Collar	Diff Housing	17.3	125
Hub Nut	Front/Rear Shaft/Axle (min)	17.3	125
Oil Drain Plug	Front Diff/Rear Dr	0.5	3.5
Oil Fill Plug	Front Diff/Rear Dr	2.2	16
Oil Drain Plug	Engine	2.2	16
Inspection Plug	Front Diff/Rear Dr	0.5	3.5
Wheel	Hub	5.5	40

EXHAUST COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Exhaust Pipe	Engine	1.9	14

ELECTRICAL COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Coil*	Frame	1.7	12
Ground Wire	Engine	1.1	8

STEERING COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Handlebar Block	Steering Post	2.8	20
Steering Post Bearing Housings	Frame	2.8	20
Steering Post Bearing Flange	Frame	2.8	20
Lower Steering Bearing Washer Cap Screw***	Steering Post	5.5	40
Tie Rod End	Knuckle/Steering Post	4.2	30

BRAKE COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Brake Disc*	Hub	2.1	15
Brake Hose	Caliper	2.8	20
Brake Hose	Master Cylinder	0.8	6
Master Cylinder Cover	Master Cylinder	0.9	6.5
Auxiliary Brake Pedal	Footrest	3.0	22
Hydraulic Caliper	Knuckle/Axle Retainer Assy	2.8	20
Auxiliary Caliper	Knuckle/Axle Retainer Assy	2.8	20

CHASSIS COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Footrest	Frame (8 mm)	2.8	20
Footrest	Frame (10 mm)	5.5	40
Gas Tank Valve	Gas Tank (400)	0.1	1
Reverse Shift Lever*	Frame	2.8	20

SUSPENSION COMPONENTS (Front)

Part	Part Bolted To	Torque	
		kg-m	ft-lb
A-Arm (All)	Frame	4.8	35
Ball Joint Cap Screw	Knuckle	4.8	35
Shock Absorber	Frame	4.8	35
Shock Absorber	Upper A-Arm	4.8	35
Knuckle	A-Arm	4.8	35
Axle Housing	Gear Case	4.3-5.3	31-38

SUSPENSION COMPONENTS (Rear)

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Axle Retainer Assy	Axle Housing	5.5	40
Shock Absorber (Upper)	Frame	4.8	35
Shock Absorber (Lower)	A-Arm	2.8	20
A-Arms	Frame	4.8	35
Swing Arm	Axle Housing/Case	4.8	35
Knuckle	A-Arm	4.8	35
Axle Housing	Gear Case	4.3-5.3	31-38

ENGINE/TRANSMISSION

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Clutch Shoe	Crankshaft	13	94
Clutch Sleeve Hub	Countershaft	10	72
Crankcase Half (6 mm)	Crankcase Half	0.9-1.3	6.5-9.5
Crankcase Half (8 mm)	Crankcase Half	2-2.4	14.5-17
Cylinder Head (Cap Screws)	Cylinder	3.8	27.5
Cylinder Head (6 mm Nuts)	Cylinder	1.1	8
Cylinder Head (8 mm Nut)	Cylinder	2.5	18
Left-Side Cover	Crankcase Half	0.9-1.3	6.5-9.5
Mechanical Water Pump Impeller	Pump Shaft	1.05	7.5
Oil Pump Drive Gear	Crank Balancer Shaft	8	58
Oil Pump*	Crankcase	1	7
Output Shaft Gear	Output Shaft	10	72
Rear Output Shaft	Output Joint	2.8	20
Recoil Starter	Left-Side Cover	0.8	6
Reverse Cam Stopper Housing	Crankcase	2.3	16.5
Right-Side Cover	Crankcase	0.9-1.3	6.5-9.5
Rotor/Flywheel Nut	Crankshaft	16	116
Shift Stop Housing	Crankcase	2.3	16.5
Cam Sprocket	Camshaft	1.5	11
Starter Cup	Crankshaft	3.5	25
Spark Plug	Engine	1.7	12

* w/Blue Loctite #243

** w/Red Loctite #271

*** w/Green Loctite #609

Torque Specifications

(400/500 - Automatic Transmission/650 H1)

DRIVE TRAIN COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Engine Mount (Front Upper)	Frame	2.8	20
Engine Bracket (Upper)	Engine	2.8	20
Engine Mounting Through-Bolts	Frame	5.5	40
Engine Mount (Upper Rear) (400)	Frame	1.7	12
Front Differential*	Frame/Diff Bracket	6.2	45
Rear Output Joint Assy	Engine	2.8	20
Input Housing	Diff Housing	2.9-3.5	21-25
Diff Housing Cover***	Diff Housing	2.9-3.5	21-25
Drive Bevel Gear Nut***	Shaft	11-13	79.5-94
Differential Gear Case***	Hub	2.3-3	16.5-22
Lock Collar	Diff Housing	17.3	125
Hub Nut	Front/Rear Shaft/Axle (min)	17.3	125
Oil Drain Plug	Front Diff/Rear Dr	0.5	3.5
Oil Fill Plug	Front Diff/Rear Dr	2.2	16
Oil Drain Plug	Engine	2.2	16
Inspection Plug	Rear Drive	0.5	3.5
Wheel	Hub	5.5	40

EXHAUST COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Exhaust Pipe	Engine	1.9	14

ELECTRICAL COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Coil*	Frame	1.7	12
Ground Wire	Engine	1.1	8

STEERING COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Handlebar Block	Steering Post	2.8	20
Steering Post Bearing Housings	Frame	2.8	20
Steering Post Bearing Flange	Frame	2.8	20
Lower Steering Bearing Washer Cap Screw***	Steering Post	5.5	40
Tie Rod End	Knuckle/Steering Post	4.2	30

BRAKE COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Brake Disc*	Hub	2.1	15
Brake Hose	Caliper	2.8	20
Brake Hose	Master Cylinder	0.8	6
Master Cylinder Cover	Master Cylinder	0.9	6.5
Auxiliary Brake Pedal	Footrest	3.0	22
Hydraulic Caliper	Knuckle	2.8	20
Auxiliary Caliper	Knuckle	2.8	20

CHASSIS COMPONENTS

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Footrest	Frame (8 mm)	2.8	20
Footrest	Frame (10 mm)	5.5	40
Gas Tank Valve (400)	Gas Tank	0.1	1
Reverse Shift Lever*	Frame	2.8	20

SUSPENSION COMPONENTS (Front)

Part	Part Bolted To	Torque	
		kg-m	ft-lb
A-Arm (All)	Frame	4.8	35
Ball Joint Cap Screw	Knuckle	4.8	35
Shock Absorber	Frame	4.8	35
Shock Absorber	Upper A-Arm	4.8	35
Knuckle	A-Arm	4.8	35

SUSPENSION COMPONENTS (Rear)

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Axle Retainer Assy	Axle Housing	5.5	40
Axle Housing/Hitch	Rear Gear Case	4.8	35
Axle Housing/Hitch	Rear Gear Case (New)	5.5	40
A-Arms	Frame	4.8	35
Shock Absorber (Upper)	Axle Housing/Frame	4.8	35
Shock Absorber (Lower)	A-Arm	2.8	20
Knuckle	A-Arm	4.8	35

SUSPENSION COMPONENTS (Rear) TBX Model

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Shock Absorber	Frame	4.8	35
Shock Absorber	A-Arm	4.8	35
Cargo Box Frame	ATV Frame	4.8	35
Cargo Box (Plastic)	Cargo Box Frame	1.7	12
Side Box (Upper)	Frame	2.8	20
Side Box (Lower)	Frame	2.5	18
Rear Gear Case U-Joint**	Driveshaft	5.5	40

400/500 - Automatic Transmission

ENGINE/TRANSMISSION

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Clutch Shoe	Crankshaft	13	94
Clutch Cover/ Housing Assy	Crankcase	1.1	8
Crankcase Half (6 mm)	Crankcase Half	0.9-1.3	6.5-9.5
Crankcase Half (8 mm)	Crankcase Half	2-2.4	14.5-17
Cylinder Head (Cap Screws)	Crankcase	3.8	27.5
Cylinder Head (6 mm)	Cylinder	1.1	8
Cylinder Head (8 mm)	Cylinder	2.5	18
Driven Pulley Nut	Fixed Face	10.4-11.8	75-85
Fixed Driven	Clutch Shaft	10.4-11.8	75-85
Ground Wire	Engine	1.1	8
Magneto Cover	Crankcase	1.1	8
Mechanical Water Pump Impeller	Pump Shaft	1.05	7.5
Movable Drive Face	Driveshaft	10.4-11.8	75-85
Oil Pump Drive Gear	Crank Balancer Shaft	5	36
Output Shaft Gear	Output Shaft	10	72
Recoil Starter	Left-Side Cover	0.8	6
Rotor/Flywheel Nut	Crankshaft	16	116
Cam Sprocket	Camshaft	1.5	11
Starter Cup	Crankshaft	3.5	25
V-Belt Cover	Crankcase	1.1	8
Plenum***	Engine	1.1	8
Spark Plug	Engine	1.7	12

* w/Blue Loctite #243

** w/Red Loctite #271

*** w/Green Loctite #609

650 H1

ENGINE/TRANSMISSION

Part	Part Bolted To	Torque	
		kg-m	ft-lb
Clutch Shoe	Crankshaft	13.5	97.5
Clutch Cover/ Housing Assy	Crankcase	1.1	8
Crankcase Half (6 mm)	Crankcase Half	0.9-1.3	6.5-9.5
Crankcase Half (8 mm)	Crankcase Half	2.8	20
Cylinder Head (Cap Screws)	Crankcase	3.8	27.5
Cylinder Head (6 mm)	Cylinder	1.1	8
Cylinder Head (8 mm)	Cylinder	2.5	18
Driven Pulley Nut	Fixed Face	13.5	97.5
Fixed Driven	Clutch Shaft	13.5	97.5
Ground Wire	Engine	1.1	8
Magneto Cover	Crankcase	1.1	8
Mechanical Water Pump Impeller	Pump Shaft	1.05	7.5
Movable Drive Face	Driveshaft	10.4-11.8	75-85
Oil Pump Drive Gear	Crank Balancer Shaft	8.5	61.5
Output Shaft Gear	Output Shaft	8.5	61.5
Recoil Starter	Left-Side Cover	0.8	6
Rotor/Flywheel Nut	Crankshaft	14.5	105
Cam Sprocket	Camshaft	1.35	9.8
Starter Cup	Crankshaft	3.8	27.5
V-Belt Cover	Crankcase	1.1	8
Plenum***	Engine	1.1	8
Spark Plug	Engine	1.7	12

* w/Blue Loctite #243

** w/Red Loctite #271

*** w/Green Loctite #609

Torque Specifications

(650 V-Twin)

DRIVE TRAIN COMPONENTS			
Part	Part Bolted To	Torque	
		kg-m	ft-lb
Engine Mounting Through-Bolts	Frame	5.5	40
Engine Mount (Rear)	Frame	5.5	40
Front Differential****	Frame/Diff Bracket	5.5	40
Rear Output Joint Assy	Engine	2.8	20
Pinion Housing	Diff Housing	2.9-3.5	21-25
Diff Housing Cover***	Diff Housing	2.9-3.5	21-25
Drive Bevel Gear Nut****	Shaft	11-13	79.5-94
Lock Collar	Diff Housing	17.3	125
Hub Nut (Front) (Rear)	Shaft/Axle (max)	10.4	75
	Shaft/Axle (max)	17.3	125
Oil Drain Plug	Front Diff/Rear Dr	0.5	3.5
Oil Fill Plug	Front Diff/Rear Dr	2.2	16
Oil Drain Plug	Engine	2.0	14.5
Inspection Plug	Rear Drive	0.5	3.5
Wheel	Hub	5.5	40
EXHAUST COMPONENTS			
Part	Part Bolted To	Torque	
		kg-m	ft-lb
Muffler	Frame	2.8	20
Exhaust Pipes	Cyl Heads	1.9	14
ELECTRICAL COMPONENTS			
Part	Part Bolted To	Torque	
		kg-m	ft-lb
Coil****	Head Bracket	1.7	12
Ground Wire	Engine	1.1	8
STEERING COMPONENTS			
Part	Part Bolted To	Torque	
		kg-m	ft-lb
Handlebar Block	Steering Post	2.8	20
Steering Post Bearing Housings	Frame	2.8	20
Steering Post Bearing Flange	Frame	2.8	20
Lower Steering Bearing Washer Cap Screw****	Steering Post	5.5	40
Tie Rod End	Knuckle/Steering Post	4.2	30
BRAKE COMPONENTS			
Part	Part Bolted To	Torque	
		kg-m	ft-lb
Brake Disc****	Hub	2.1	15
Brake Hose	Caliper	2.8	20
Brake Hose	Master Cylinder	0.8	6
Master Cylinder Cover	Master Cylinder	0.9	6.5
Auxiliary Brake Pedal	Footrest	3.0	22
Hydraulic Caliper	Suspension Knuckle	2.8	20
CHASSIS COMPONENTS			
Part	Part Bolted To	Torque	
		kg-m	ft-lb
Footrest	Frame (8 mm)	2.8	20
Footrest	Frame (10 mm)	5.5	40
Reverse Shift Lever****	Frame	2.8	20

SUSPENSION COMPONENTS (Front)			
Part	Part Bolted To	Torque	
		kg-m	ft-lb
A-Arm (All)	Frame	4.8	35
Ball Joint Cap Screw	Knuckle	4.8	35
Shock Absorber	Frame	4.8	35
Shock Absorber	Upper A-Arm	4.8	35
Knuckle	A-Arm	4.8	35
SUSPENSION COMPONENTS (Rear)			
Part	Part Bolted To	Torque	
		kg-m	ft-lb
Axle Retainer Assy	Axle Housing	5.5	40
A-Arms	Frame	4.8	35
Shock Absorber (Upper)	Frame	4.8	35
Shock Absorber (Lower)	A-Arm	2.8	20
Knuckle	A-Arm	4.8	35
ENGINE/TRANSMISSION			
Part	Part Bolted To	Torque	
		kg-m	ft-lb
Crankcase Half (6 mm)	Crankcase Half	1.0	7
Crankcase Half (8 mm)	Crankcase Half	2.0	14.5
Cylinder Head (Cap Screws)	Crankcase	5.0	36
Cylinder Head (6 mm)	Cylinder	1.0	7
Driven Pulley Nut	Fixed Face	9.5	69
Fixed Driven	Clutch Shaft	9.5	69
Ground Wire	Engine	1.1	8
Magneto Cover	Crankcase	0.9	6.5
Mechanical Water Pump Impeller	Pump Shaft	0.8	6
Recoil Starter	Left-Side Cover	1.2	9
Rotor/Flywheel Nut	Crankshaft	13	94
Starter Flange	Crankshaft	0.85	6.5
V-Belt Cover	Crankcase	0.9	6.5
Spark Plug	Engine	1.3	9.5
Cam Chain Guide	Cylinder	2.0	14.5
Connecting Rod Nuts	Connecting Rod	3.5	25
Thermostat Housing	Lower Body	0.9	6.5
Shift Shaft Spring Bolt**	Shift Shaft Lever	2.5	18
Shift Shaft Positioning Bolt	Crankcase	2.5	18
Bearing Retainer*	Bearing Housing	12	87
Drive Bevel Gear Retainer Nut*	Bearing Housing	16	116
Output Bearing Retainer*	Bearing Housing	14	101
Output Shaft Retainer Nut*	Bearing Housing	16	116
Driven Gear Assy	Crankcase	2.7	19.5
Drive Bevel Gear Housing	Crankcase	2.7	19.5
Intermediate Shaft	Crankcase	4.5	32.5
Position Plate	Crankcase	0.9	6.5
Chain Tensioner Assy	Crankcase	0.9	6.5
Drive Clutch	Crankshaft	9.5	69
Oil Pump	Crankcase	0.9	6.5
Chain Guide Attaching Bolts	Crankcase	0.9	6.5
Oil Pump Tensioner Bolt	Crankcase	2.5	18
Oil Pipe	Crankcase	0.9	6.5
Water Pump Cover	Alternator Cover	0.9	6.5
Pick-Up Coil	Alternator Cover	1.3	9.5
Stator	Alternator Cover	1.3	9.5
Alternator Cover	Alternator Housing	0.9	6.5
Drive Clutch Cover	Drive Clutch	1.3	9.5
Cylinder	Crankcase	0.9	6.5
Cam Chain Tensioner	Cylinder	0.9	6.5
Chain Tensioner Cap Bolt	Chain Tensioner	2.2	16
One-Way Clutch*	Rotor/Flywheel	3.5	25
Tappet Cover	Rocker Case	0.9	6.5

* w/Blue Loctite #242

** w/Red Loctite #271

*** w/Green Loctite #609

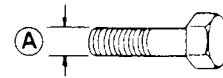
****w/Blue Loctite #243

Torque Conversions

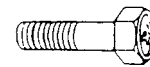
ft-lb	kg-m	ft-lb	kg-m	ft-lb	kg-m	ft-lb	kg-m	ft-lb	kg-m
1	0.1	21	2.9	41	5.7	61	8.4	81	11.2
2	0.3	22	3.0	42	5.8	62	8.6	82	11.3
3	0.4	23	3.2	43	5.8	63	8.7	83	11.5
4	0.6	24	3.3	44	6.1	64	8.9	84	11.6
5	0.7	25	3.5	45	6.2	65	9.0	85	11.8
6	0.8	26	3.6	46	6.4	66	9.1	86	11.9
7	1.0	27	3.7	47	6.5	67	9.3	87	12.0
8	1.1	28	3.9	48	6.6	68	9.4	88	12.2
9	1.2	29	4.0	49	6.8	69	9.5	89	12.3
10	1.4	30	4.2	50	6.9	70	9.7	90	12.5
11	1.5	31	4.3	51	7.1	71	9.8	91	12.6
12	1.7	32	4.4	52	7.2	72	10.0	92	12.8
13	1.8	33	4.6	53	7.3	73	10.1	93	12.9
14	1.9	34	4.7	54	7.5	74	10.2	94	13.0
15	2.1	35	4.8	55	7.6	75	10.4	95	13.1
16	2.2	36	5.0	56	7.7	76	10.5	96	13.3
17	2.4	37	5.1	57	7.9	77	10.7	97	13.4
18	2.5	38	5.3	58	8.0	78	10.8	98	13.6
19	2.6	39	5.4	59	8.2	79	10.9	99	13.7
20	2.8	40	5.5	60	8.3	80	11.1	100	13.8

Tightening Torque (General Bolts)

Type of Bolt	Thread Diameter Ⓐ (mm)	Tightening Torque	
		kg-m	ft-lb
(Conventional or 4 Marked Bolt)	5	0.2-0.4	1.5-3.0
	6	0.4-0.7	3.0-5.0
	8	1.0-1.6	7.0-11.5
	10	2.2-3.5	16.0-25.5
(7 Marked Bolt)	5	0.3-0.6	2.0-4.5
	6	0.8-1.2	6.0-8.5
	8	1.8-2.8	13.0-20.0
	10	4.0-6.0	29.0-43.5



Conventional Bolt



4 Marked Bolt



7 Marked Bolt

NOTES