

# TORQUE SPECIFICATION

Part Tightened	N-m	kgf·cm	ft·lbf
Engine under cover sub-assy No. 1 x Frame assy	29	296	21
Camshaft bearing cap x Cylinder head sub-assy	10 mm (0.39 in.) head	9.0	80 in.·lbf
	12 mm (0.47 in.) head	24	18
Chain tensioner No. 1 x Cylinder head sub-assy	9.0	92	80 in.·lbf
Chain tensioner No. 2 x Cylinder head sub-assy	19	194	14
Chain tensioner No. 3 x Cylinder head sub-assy	19	194	14
Camshaft timing gear assy x Camshaft	100	1,020	74
Camshaft timing gear or sprocket x Camshaft	100	1,020	74
Timing chain cover plate x Timing chain or belt cover sub-assy	9.0	92	80 in.·lbf
Ignition coil assy x Cylinder head cover sub-assy	9.0	92	80 in.·lbf
V-bank cover x Intake air surge tank	7.5	76	66 in.·lbf
Engine hanger No. 1 x Cylinder head sub-assy RH	33	336	24
Engine hanger No. 2 x Cylinder head sub-assy LH	33	336	24
Spark plug x Cylinder head sub-assy	20	204	15
Oil filler cap housing x Cylinder head cover sub-assy LH	9.0	92	80 in.·lbf
Camshaft timing oil control valve assy x Cylinder head cover sub-assy	9.0	92	80 in.·lbf
Oil filter bracket sub-assy x Timing chain or belt cover sub-assy	19	194	14
Engine mounting bracket front No. 1 RH x Cylinder block sub-assy	43	435	31
Engine mounting bracket front No. 1 LH x Cylinder block sub-assy	43	435	31
Engine mounting insulator front No. 1 RH x Frame assy	38	387	28
Engine mounting insulator front No. 1 LH x Frame assy	38	387	28
Engine wire No. 2 (ground cable) x Cylinder block sub-assy	13	133	9
Hood sub-assy x Hood hinge assy RH & LH	13	133	10
Hood support RH & LH x Body	18	184	13
Engine rear oil seal retainer x Cylinder block sub-assy	9.0	92	80 in.·lbf
Knock sensor x Cylinder block sub-assy	20	204	15
Water outlet pipe No. 1 x Cylinder block sub-assy	9.0	92	80 in.·lbf
Cylinder head sub-assy RH x Cylinder block sub-assy	1st	36	27
	2nd	Turn 180°	Turn 180°
Cylinder head sub-assy LH x Cylinder block sub-assy	Recessed head 1st	36	27
	2nd	Turn 180°	Turn 180°
	14 mm (0.55 in.) head	30	22
Chain vibration damper No. 1 x Cylinder block sub-assy	19	194	14
Idle gear No. 1 x Cylinder block sub-assy	60	612	44
Timing chain or belt cover sub-assy x Cylinder head and block	23	235	17
Water pump assy x Timing chain or belt cover sub-assy	10 mm (0.39 in.) head	9.0	80 in.·lbf
	12 mm (0.47 in.) head	23	17
Oil pan stud bolt x Oil pan sub-assy	4.0	41	35 in.·lbf
Oil pan sub-assy x Cylinder block and timing chain or belt cover	10 mm (0.39 in.) head	9.0	80 in.·lbf
	12 mm (0.47 in.) head	19	14
Oil strainer sub-assy x Oil pan sub-assy	9.0	92	80 in.·lbf
Oil pan sub-assy No. 2 x Oil pan sub-assy	9.0	92	80 in.·lbf
Oil pan drain plug x Oil pan sub-assy No. 2	40	408	30
Crankshaft pulley x Crankshaft	250	2,549	184
Cylinder head cover sub-assy x Cylinder head sub-assy RH	9.0	92	80 in.·lbf
Cylinder head cover sub-assy LH x Cylinder head sub-assy LH	9.0	92	80 in.·lbf
Ventilation valve x Cylinder head cover sub-assy LH	27	275	20
Oil control valve filter plug x Cylinder head sub-assy	62	632	46

## SERVICE SPECIFICATIONS - ENGINE MECHANICAL

Part Tightened		N·m	kgf·cm	ft·lbf
Crankshaft position sensor x Cylinder block sub-assy		9.0	92	80 in.·lbf
VVT sensor x Timing chain or belt cover sub-assy		8.0	82	71 in.·lbf
Cylinder block water drain cock sub-assy x Cylinder block sub-assy		25	255	18
Oil level gauge guide x Cylinder head sub-assy		9.0	92	80 in.·lbf
Oil pan sub-assy x Transmission		37	377	27
Idler pulley sub-assy No. 1 x Timing chain or belt cover sub-assy		54	551	40
Idler pulley sub-assy No. 2 x Timing chain or belt cover sub-assy		39	398	29
V-ribbed belt tensioner assy x Cylinder block sub-assy		36	367	27
Vane pump assy x Cylinder block sub-assy		43	438	32
Intake air surge tank x Intake manifold		28	286	21
Surge tank stay x Intake air surge tank and cylinder head		21	214	15
Throttle body bracket x Throttle body w/ motor and cylinder head		21	214	15
Oil baffle plate x Surge tank stay No. 1		9.0	92	80 in.·lbf
Ground cable x Cylinder head sub-assy		8.0	82	71 in.·lbf
Water by-pass joint RR x Cylinder head sub-assy		9.0	92	80 in.·lbf
Intake manifold x Cylinder head sub-assy		28	286	21
Exhaust manifold sub-assy RH x Cylinder head sub-assy RH		30	306	22
Exhaust manifold sub-assy LH x Cylinder head sub-assy LH		30	306	22
Manifold stay x Exhaust manifold sub-assy RH and transmission		40	408	30
Manifold stay No. 2 x Exhaust manifold sub-assy LH and transmission		40	408	30
Transmission oil filler tube sub-assy x Cylinder head sub-assy		12	122	9
Cool air inlet No. 1 x Body		12	122	9
Drive plate & ring gear sub-assy x Crankshaft		83	846	61
Stud bolt x Cylinder head sub-assy and cylinder head LH (See page 14-73)	A	4.0	41	35 in.·lbf
	B	20	199	14
Union x Cylinder head sub-assy and cylinder head LH		15	150	11
W/ Head taper screw plug x Cylinder head sub-assy and cylinder head LH		80	816	59
Connecting rod cap x Connecting rod	1st	25	250	18
	2nd	Turn 90°	Turn 90°	Turn 90°
Main bearing cap x Cylinder block sub-assy	12 pointed head 1st	61	622	45
	2nd	Turn 90°	Turn 90°	Turn 90°
	12 mm head	35	357	26
Stud bolt x Cylinder block sub-assy (See page 14-91)	A	11	112	8.1
	B	4.5	46	40 in.·lbf
	C	4.0	41	35 in.·lbf
Sub-assy oil nozzle No.1 x Cylinder block sub-assy		9.0	92	80 in.·lbf