031C9–01

TORQUE SPECIFICATION

14B

Part tightened		N·m	kgf·cm	ft·lbf
Injection pump assy x Timing gear case		18.5	189	14
Injection pipes x Injection pump		25	255	18
Generator x Generator bracket	14 mm head	35	360	26
	17 mm head	37.5	382	28
Idler gear thrust plate x Cylinder block sub–assy		47.5	484	35
Oil nozzle for timing gears x Cylinder block sub–assy		13	132	9.5
Flywheel x Cylinder block sub–assy		160	1,635	121
Engine mounting nut		98	100	72
Shift and select transmission control calbe assy x Floor shift assy		12	120	9
Vacuum pump assy x Timing gear case assy		39	400	29
Oil pressure switch assy x Oil cooler case assy		15	150	11
Intake manifold x Cylinder head		18.5	189	14
Water outlet housing x Cylinder head sub–assy		18.5	189	14
Nozzle holder and nozzle set x Cylinder head sub–assy		18.5	189	14
Oil cooler assy x Cylinder block		21	214	15
Oil filter bracket sub–assy x Cylinder clock sub–assy		44	449	32
Exhaust manifold x Cylinder head sub–assy		47.5	484	35
Exhaust manifold heat insulator No. 1 x Exhaust manifold		18.5	189	14
Generator bracket sub–assy x Cylinder block		98	1,000	72
Fan belt adjusting bar x Cylinder head		44	449	32
Cylinder head sub–assy x Cylinder block sub–assy		49	500	36
Valve rocker shaft assy x Cylinder head sub–assy		25	255	18
Cylinder head cover x Cylinder head sub–assy		10.5	107	8
Timing gear x Camshaft		37.5	382	28
Timing gear cover x Timing gear case	12 mm head	21	214	15
	14 mm head	44	449	32
Crankshaft pulley x Crankshaft		294	3,000	217
Valve lifter set bolt x Cylinder block sub–assy	Bolt A	9.4	96	83 in.·lbf
	Bolt B	37.5	382	28
Engine service hole cover sub–assy x Body		11.5	115	8.5
Floor shift assy x Body		18	183	13
Parking brake lever assy x Body		18	185	13

15B–FTE

Part tightened	N·m	kgf·cm	ft·lbf
Injection pump assy x Timing gear case	18.5	189	14
Injection pipes x Injection pump	25	255	18
Exhaust pipe assy front x Exhaust manifold	62	630	46
Vacuum pump assy x Timing gear case assy	39	400	29
Oil pressure switch assy x Oil cooler case assy	15	150	11
Water outlet housing x Cylinder head sub–assy	18.5	189	14
Oil cooler assy x Cylinder block	21	214	15
Oil filter bracket sub–assy x Cylinder clock sub–assy	44	449	32
Engine mounting bracket front No. 1 LH x Cylinder block sub–assy	44	449	32

Engine mounting bracket front No. 1 RH x Cylinder block sub–assy		44	449	32
Cylinder head sub–assy x Cylinder block sub–assy		49	500	36
Valve rocker shaft assy x Cylinder head sub–assy		25	255	18
Cylinder head cover x Cylinder head sub–assy		10.5	107	8
Timing gear x Camshaft		57	581	42
Idler gear No. 1 x Cylinder block sub–assy		47.5	484	35
Injection pump drive gear x Injection pump		137	1,400	101
Timing gear cover x Timing gear case	Bolt A	44	449	32
	Bolt B, C	21	214	15
Crankshaft pulley x Crankshaft		403	4,110	297
Valve lifter set bolt x Cylinder block sub–assy	Bolt A	9.4	96	83 in.·lbf
	Bolt B	37.5	382	28
Flywheel x Cylinder block sub–assy		160	1,635	121
Shift and select transmission control calbe assy x Floor shift assy		12	120	9
Intake manifold x Cylinder head		18.5	189	14
Nozzle holder and nozzle set x Cylinder head sub–assy		18.5	189	14
Exhaust manifold x Cylinder head sub–assy		47.5	484	35
Engine service hole cover sub–assy x Body		11.5	115	8.5
Floor shift assy x Body		18	183	13
Parking brake lever assy x Body		18	185	13

S05C–B

Part tightened		N·m	kgf·cm	ft·lbf
Injector assy x Cylinder head		25	255	18
Valve clearance adjusting screw		25	250	18
Cylinder head cover x Cylinder head sub–assy		28.5	290	21
Engine mounting nut		100	1,020	74
Radiator	Nut	7.5	76	63 in.·lbf
	Bolt	18	184	13
Manual transmission	Clutch housing bolt	43.1	440	32
	Mounting rubber mounting nut	65	650	48
Propeller shaft flange nut		63.9 – 85.5	650 – 870	47 – 63
Propeller shaft center bearing support nut		37.4 – 49.2	380 – 500	27 – 36
Front exhaust pipe x Exhaust manifold		70	700	52
Front exhaust pipe x Muffler		29.5	301	22
PS vane pump x Engine		47	480	35
Water pump x Cylinder block		28.5	290	21
Thermostat case x Water pump		55	560	41
Fan spacer x Water pump		28.5	290	21
Fan x Fluid coupling		11	110	8
Generator x Bracket	Through bolt	83	850	61
Vacuum pump x Engine		55	560	41
Intake manifold x Cylinder head		28.5	290	21
Intake pipe x Intake manifold		28.5	290	21
Exhaust manifold x Cylinder head		59	600	44
Starter x Engine		154	1,570	114
Starter cable x Starter		13.5	137	10

Engine mounting bracket x Engine M12	125	1,280	93
Engine mounting insulator x Engine mounting bracket	98	1,000	72

S05C–TA

Part tightened	N·m	kgf·cm	ft·lbf
Injector assy x Cylinder head	25	255	18
Valve clearance adjusting screw	25	250	18
Cylinder head cover x Cylinder head sub–assy	28.5	290	21
Engine mounting nut	108	1,100	80
Radiator Nut Bolt	7.5 18	76 184	63 in.·lbf 13
Manual transmission Clutch housing bolt Mounting rubber mounting nut	43.1 65	440 650	32 48
Propeller shaft flange nut	63.9 – 85.5	650 – 870	47 – 63
Propeller shaft center bearing support nut	37.4 – 49.2	380 – 500	27 – 36
Front exhaust pipe x Exhaust manifold	70	700	52
Front exhaust pipe x Muffler	29.5	301	22
PS vane pump x Engine	47	480	35
Water pump x Cylinder block	28.5	290	21
Thermostat case x Water pump	55	560	41
Fan spacer x Water pump	28.5	290	21
Fan x Fluid coupling	11	110	8
Generator x Bracket Through bolt	83	850	61
Vacuum pump x Engine	55	560	41
Intake manifold x Cylinder head	28.5	290	21
Intake pipe x Intake manifold	28.5	290	21
Exhaust manifold x Cylinder head	59	600	44
Starter x Engine	154	1,570	114
Starter cable x Starter	13.5	137	10
Engine mounting bracket x Engine M12	125	1,280	93
Engine mounting insulator x Engine mounting bracket	98	1,000	72

S05C–TB

Part tightened	N·m	kgf·cm	ft·lbf
Injector assy x Cylinder head	25	255	18
Valve clearance adjusting screw	25	250	18
Cylinder head cover x Cylinder head sub–assy	28.5	290	21
Engine mounting nut x Engine assy	100	1,020	74
Radiator Nut Bolt	7.5 18	76 184	63 in.·lbf 13
Manual transmission Clutch housing bolt Mounting rubber mounting nut	43.1 65	440 650	32 48
Propeller shaft flange nut	63.9 – 85.5	650 – 870	47 – 63
Propeller shaft center bearing support nut	37.4 – 49.2	380 – 500	27 – 36
Front exhaust pipe x Exhaust manifold	70	700	52
Front exhaust pipe x Muffler	29.5	301	22
Water pump x Cylinder block	28.5	290	21
Thermostat case x Water pump	55	560	41

Fan spacer x Water pump	28.5	290	21
Fan x Fluid coupling	11	110	8
Generator x Bracket Through bolt	83	850	61
Vacuum pump x Engine	55	560	41
Intake manifold x Cylinder head	28.5	290	21
Intake pipe x Intake manifold	28.5	290	21
Exhaust manifold x Cylinder head	59	600	44
Starter x Engine	154	1,570	114
Starter cable x Starter	13.5	137	10
Engine mounting bracket x Engine M12	125	1,280	93
Engine mounting insulator x Engine mounting bracket	98	1,000	72

W04D–J

Part tightened	N·m	kgf·cm	ft·lbf
Valve clearance adjusting screw	44.1	450	32
Engine mounting nut	100	1,020	74
Radiator Nut Bolt	7.5 18	76 184	63 in.·lbf 13
Manual transmission Clutch housing bolt Mounting rubber mounting nut	43.1 65	440 650	32 48
Propeller shaft flange nut	63.9 – 85.5	650 – 870	47 – 63
Propeller shaft center bearing support nut	37.4 – 49.2	380 – 500	27 – 36
Front exhaust pipe x Exhaust manifold	69	700	51
Front exhaust pipe x Muffler	29.5	301	22
Rear cab mounting bracket	55	565	41
A/C compressor x Cylinder block	29.5	300	22
Water pump x Cylinder block	28.5	290	21
Thermostat case x Water pump	55	560	41
Fan spacer x Water pump	28.5	290	21
Fan x Fluid coupling	11	110	8
Generator x Bracket Through bolt	46.6	475	34
Vacuum pump x Engine	55	560	41
Intake manifold x Cylinder head	28.5	290	21
Intake pipe x Intake manifold	24.5	250	18
Exhaust manifold x Cylinder head	47.1	480	34.7
Starter x Engine	154	1,570	114
Starter cable x Starter	13.5	137	10
Engine mounting bracket x Engine	55	560	40.5
Engine mounting insulator x Engine mounting bracket	98	1,000	72