031EJ–04

TORQUE SPECIFICATION

2TR–FE:

Part Tightened	N·m	kgf·cm	ft·lbf
Timing gear case plug x Timing chain cover	17	169	12
Timing chain cover x Cylinder head sub–assy and cylinder block sub–assy			
Bolt A	36	367	27
Bolt B	21	214	15
Bolt C	21	214	15
Bolt D	21	214	15
Bolt E	21	214	15
Oil pan drain plug x Oil pan sub–assy No.2	40	408	30

1GR–FE:

Part Tightened	N·m	kgf·cm	ft·lbf
Timing chain cover sub–assy x Cylinder head sub–assy and cylinder block sub–assy	23	235	17
V–bank cover x Intake air surge tank	7.5	76	66 in.·lbf

1KD–FTV:

Part Tightened	N·m	kgf·cm	ft·lbf
Oil pan x Drain plug	34	347	25
Oil cooler assy x oil cooler cover	16	163	12
Oil cooler calve sub–assy x Cylinder block	13	133	10
Oil cooler cover sub–assy x Vacuum switching valve assy	20	204	15
Electric EGR control valve assy x Intake manifold	20	204	15
Vane pump oil reservoir x Timing gear case assy and intake manifold	18	184	13
Timing belt No. 1 cover x Timing belt No. 2 cover	6.0	61	53 in.·lbf
Water hose clamp x Cylinder head	18	184	13
Intercooler protector x Intercooler assy	6.0	61	53 in.·lbf
Fanshroud x Radiator assy	5.0	51	44 in.·lbf
Fan w/ fluid coupling assy x Water pump assy	18	184	13
Radiator reserve tank x Radiator assy and fanshroud	5.0	51	44 in.·lbf
Idle gear No. 1 x Service bolt	8.0	82	71 in.·lbf
Timing gear case assy x Cylinder block			
Bolt	13	130	9.0
Union bolt	16	160	12
Timing gear case assy x Vacuum transmitting pipe No. 1	8.0	82	71 in.·lbf
Oil pan sub–assy x Cylinder block	15	148	17
Oil pan sub–assy x Oil strainer	8.0	82	71 in.·lbf
Oil pan sub–assy x Oil pan sub–assy No. 2	9.0	92	80 in.·lbf
Oil pan sub–assy x Oil pan cover sub–assy	9.0	92	80 in.·lbf
Rear end plate x Cylinder block	8.0	82	71 in.·lbf
Timing gear case assy x Plug	44	449	33
Supply pump x Supply pump stay	21	214	16
Supply pump stay x Cylinder block	21	214	16
Supply pump x Timing gear case assy	21	214	16
Idle gear No. 1 x Cylinder block	50	510	37
Timing gear case x Timing gear case assy	13	133	10
Timing gear case x Crank position sensor	8.5	87	75 in.·lbf
Timing gear case x Crank position sensor No. 2	8.5	87	75 in.·lbf
Supply pump x Supply gear	64	635	47
Camshaft timing pulley flange No. 2 x Pump drive shaft pulley	31	316	23
Vane pump oil reservoir x Timing gear case assy and Intake manifold	18	184	13
Vane pump assy x Cylinder block	39	398	29
Timing belt idler No.1 x Cylinder block	35	355	26

Part Tightened	N·m	kgf·cm	ft·lbf
Fan w/ fluid coupling x Water pump assy	18	184	13
Air cleaner assy x Body	12	122	9.0
Engine under cover assy rear x Frame assy	29	296	21
Engine under cover sub–assy No. 1 x Frame assy	29	296	21
Camshaft timing pulley x Camshaft	78	1,000	72
Compressor and Magnetic clutch x Compressor mounting bracket No.1	25	250	18