1KR-FE ENGINE MECHANICAL > TORQUE SPECIFICATIONS

Part Tightened		N*m	kgf*cm	ft.*lbf
Generator assembly x Timing chain or belt cover sub-assembly		54	551	40
Generator assembly x Fan belt adjusting bar		34	347	25
Terminal B wire harness x Generator assembly		7.8	80	69 in.*lbf
Camshaft bearing cap No. 1 x Cylinder head sub-assembly		15	153	11
Camshaft bearing cap No. 2 x Cylinder head sub-assembly		12.5	128	9
Camshaft timing sprocket assembly x Camshaft No. 1		47	479	35
Camshaft timing gear or sprocket x Camshaft No. 2		47	479	35
Timing gear cover tight plug x Timing chain or belt cover sub-assembly		15	153	11
Cylinder head cover sub-assembly x Cylinder head		7.7	79	68 in.*lbf
Oxygen sensor wire-harness x Cylinder head cover sub-assembly		7.7	79	68 in.*lbf
Ignition coil No. 1 x Cylinder head cover sub-assembly		9.2	94	81 in.*lbf
Radio setting condenser x Timing chain or belt cover sub-assembly		10	102	7
Intake manifold x Cylinder head		30	306	22
Wire harness clamp x Intake manifold		8.4	85	74 in.*lbf
Intake manifold stay x Intake manifold		21	214	16
Intake manifold stay x Cylinder block		21	214	16
Throttle with motor body assembly x Intake manifold		10	102	7.4
Exhaust manifold assembly x Cylinder head sub-assembly		24	245	18
Manifold stay x Exhaust manifold assembly		24	245	18
Manifold stay x Cylinder block		24	245	18
Duty vacuum switching valve x Cylinder head cover sub-assembly		8.8	90	78 in.*lbf
Flywheel assembly x Crankshaft		78	796	58
Manual transaxle assembly x Cylinder block (Click here)	Bolt A	64	653	47
	Bolt B	39	398	29
Engine moving control rod x Transaxle assembly		120	1,224	89
Engine mounting insulator LH x Transaxle assembly (Click here)	Bolt A	64	653	47
	Bolt B	52	530	38
	Nut	52	530	38
Engine mounting insulator RH x Body	Bolt A	45	460	33

(Click here)				
Engine mounting insulator RH x Timing belt or chain cover sub-assembly (Click here)	Bolt B	52	530	38
	Nut	52	530	38
Suspension cross member x Body (Click here)	Bolt A	70	714	52
	Bolt B	160	1,631	118
	Bolt C	95	969	70
With pulley compressor assembly (w/ air conditioning system) x Engine assembly		25	250	18
Steering intermediate shaft assembly No. 2		28	286	21
Clutch release cylinder assembly x Manual transaxle assembly (Click here)	Bolt A	12	120	8.7
	Bolt B	19	194	14
Release cylinder heat insulator x Clutch release cylinder assembly		12	120	8.7
Fan belt adjusting bar x Timing belt or chain cover sub-assembly		34	347	25
Cowl top panel outer x Body		6.5	66	58 in.*lbf
Exhaust pipe assembly front x Exhaust manifold		43	438	32
Exhaust pipe assembly front x Exhaust assembly rear		43	438	32
EGR inlet exhaust manifold plate x Water by-pass pipe No. 1		18	184	13
Battery carrier x body		17	174	13
Battery carrier clamp		3.5	36	31 in.*lbf
Crankshaft Bearing cap x Cylinder block		59	602	44
Connecting rod x Crankshaft		15	153	11
Cylinder head sub-assembly x Cylinder block		32	326	24
Engine rear oil seal retainer x Stud bolt		4.0	41	35 in.*lbf
Engine rear oil seal retainer x Cylinder block		10	102	7
Ventilation baffle plate x Cylinder block		24	245	18
Timing chain guide x Cylinder head sub-assembly		9.0	92	80 in.*lbf
Timing chain guide x Cylinder block		9.0	92	80 in.*lbf
Timing chain tension arm x Cylinder block		19	194	14
Chain tensioner assembly No. 1 x Cylinder block		10.5	107	8
Timing chain or belt cover sub-assembly x Cylinder block and Cylinder head sub-assembly (Click here)	M8 head bolt	24	245	18
	M10 head bolt	40	408	30
Water drain plug x Timing chain or belt cover sub-assembly		54	551	40
Crankshaft pulley x Crankshaft		170	1,734	125
Oil filter bracket x Timing chain or belt cover sub-		24	245	18

assembly			
Water pump assembly x Timing chain or belt cover sub-assembly	28	286	21
Water by-pass pipe No. 1 x Cylinder head sub-assembly	24	245	18
Water by-pass pipe No. 1 x Cylinder block	24	245	18
Water inlet x Cylinder head sub-assembly	7.0	71	62 in.*lbf
Oil strainer sub-assembly x Timing chain or belt cover sub-assembly	8.5	87	75 in.*lbf
Oil pan sub-assembly x Cylinder block	24	245	18
Oil pan sub-assembly x Timing chain or belt cover sub-assembly	10	102	7
Oil pan sub-assembly x Engine rear oil seal retainer	10	102	7
Oil pan drain plug x Oil pan sub-assembly	30	306	22
Cylinder head cover sub-assembly x Cylinder head sub-assembly	7.7	77	68 in.*lbf
Oil control valve filter x Cylinder head sub-assembly	25	250	18
Engine oil pressure switch x Cylinder block	10	102	7
Oil level gauge guide x Cylinder head sub-assembly	10	102	7
Crankshaft position sensor x Timing chain or belt cover sub-assembly	7.5	77	66 in.*lbf
Camshaft timing oil control valve assembly x Timing chain or belt cover sub-assembly	10	102	7
Engine coolant temperature sensor x Cylinder head sub-assembly	20	200	14
Camshaft position sensor x Cylinder head sub-assembly	7.5	77	66 in.*lbf
Spark plug x Cylinder head sub-assembly	25	255	18
Engine hanger x Cylinder head sub-assembly	28	285	21
Front wheel	103	1,050	76
Battery positive and negative terminal x Battery	5.4	55	48 in.*lbf