TORQUE SPECIFICATIONS

Part Tightened		N*m	kgf*cm	ft.*lbf
Vane pump assembly x Pump bracket		43	439	32
Vane pump assembly x Adjust strut		43	439	32
Generator bracket No.2 x Generator assembly		58	591	43
Fan belt adjusting slider x Generator assembly		18	184	13
Front wheel		103	1,050	76
Cylinder head cover x Cylinder head		8.0	80	71 in.*lbf
Engine wire harness x Cylinder head cover		8.4	85	74 in.*lbf
Engine wire harness protector x Cylinder head cover	er	8.4	85	74 in.*lbf
Ignition coil assembly x Cylinder head cover		8.0	80	71 in.*lbf
Intake air surge tank x Intake manifold		28	286	21
Surge tank stay No.2 x Intake air control valve asse	embly	20	199	14
Surge tank stay No.2 x Cylinder head		20	199	14
Surge tank stay No.1 x Intake air surge tank		20	199	14
Surge tank stay No.1 x Cylinder head		20	199	14
Engine hanger No.1 x Intake air surge tank		20	199	14
Engine hanger No.1 x Cylinder head		20	199	14
PS pressure tube x Engine hunger No.1		7.8	80	69 in.*lbf
Emission control valve set x Emission control valve	bracket	8.0	82	71 in.*lbf
V-bank cover x Cylinder head cover		7.9	81	70 in.*lbf
Engine hanger No.2 x Cylinder head		20	199	14
Engine oil pressure switch assembly x Cylinder blo	ck	15	153	11
Generator bracket No.1 x Cylinder block		58	591	43
Pump bracket x Cylinder head		32	326	24
Engine mounting bracket RH x Cylinder block		54	551	40
Manifold stay No.2 x Cylinder block		49	500	36
Engine mounting bracket RR x Cylinder block		64	653	47
Engine mounting insulator RH x Engine mounting b	oracket RH	95	969	70
Engine mounting insulator LH x Automatic transaxle assembly		95	969	70
Engine mounting insulator FR x Engine mounting b	racket FR	87	887	64
Engine mounting insulator RR x Engine mounting bracket RR		75	765	55
Power steering link assembly (4WD) x Front frame assembly		70	714	52
Stabilizer bar front (4WD) x Front frame assembly		29	296	21
Adjust strut x Engine mounting bracket RH		43	439	32
Frame side rail plate sub-assembly x Front	Bolt A	85	867	63
frame assembly	Bolt B	32	326	24
F	Nut	32	326	24
Front suspension member brace rear x Front	Bolt C	85	867	63
frame assembly	Bolt D	32	326	24
	Nut	32	326	24
Height control sensor link sub-assembly front (w/ Air suspension) x Front frame assembly		5.4	55	48 in.*lbf
Exhaust pipe support bracket No.1 x Oil pan sub-assembly		21	214	15
Cam shaft sub-gear x Main gear		5.4	55	48 in.*lbf
Engine rear oil seal retainer x Cylinder block		8.0	82	71 in.*lbf
Oil pump assembly x Cylinder block	Bolt A	8.0	82	71 in.*lbf
	Bolt B	20	199	14
	Bolt C	43	439	32
Crankshaft position sensor x Oil pump assembly				

SERVICE SPECIFICATIONS - 3MZ-FE ENGINE MECHANICAL

Part Tightened		N*m	kgf*cm	ft.*lbf
Dil pan baffle plate x Oil pan sub-assembly		8.0	82	71 in.*lbf
Oil pan sub-assembly x Cylinder block	10 mm head	8.0	82	71 in.*lbf
	12 mm head	20	199	14
Oil strainer sub-assembly x Oil pan sub-assembly	1	8.0	82	71 in.*lbf
Oil pan sub-assembly No.2 x Oil pan sub-assemb	ly	8.0	82	71 in.*lbf
Oil pan drain plug x Oil pan sub-assembly No.2		45	459	33
Water inlet housing x Cylinder block		8.0	82	71 in.*lbf
Cylinder head x Cylinder block	12 pointed head 1st	54	550	40
	2nd	Turn 90°	Turn 90°	Turn 90°
	Recessed head	19	189	14
Oil control valve filter x Cylinder head		45	459	33
Cylinder head cover rear x Cylinder head		10	102	7
Camshaft timing gear assembly (VVT-i) x Camsh	aft	150	1,530	111
Camshaft bearing cap x Cylinder head		16	163	12
Timing belt plate x Oil pump assembly		8.0	82	71 in.*lbf
Water pump assembly x Cylinder block		8.0	82	71 in.*lbf
Oil level gage guide x Cylinder block		8.0	82	71 in.*lbf
Oil filter union x Cylinder block		30	306	22
Timing belt idler bracket x Cylinder block		28	286	21
Timing belt No.3 cover x Cylinder head		8.5	87	76 in.*lbf
Camshaft timing pulley x Camshaft		125	1,275	92
Timing belt idler sub-assembly No.2 x Timing belt idler bracket		43	438	32
Timing belt idler sub-assembly No.1 x Cylinder block		34	347	25
Chain tensioner assembly No.1 x Oil pump assembly		27	280	20
Engine mounting bracket RH x Cylinder block		28	286	21
Timing belt No.2 cover x Timing belt No.3 cover		8.5	87	76 in.*lbf
Timing belt No.1 cover x Oil pump assembly		8.5	87	76 in.*lbf
Crankshaft pulley x Crankshaft		220	2,250	162
VVT sensor x Cylinder head		8.0	82	71 in.*lbf
Camshaft timing oil control valve assembly x Cylinder head		8.0	82	71 in.*lbf
Spark plug x Cylinder head		25	250	18
Generator bracket No.2 x Engine mounting bracket RH		28	286	21
Engine mounting stay No.2 RH x Engine mounting	g bracket RH	64	653	47
Engine moving control rod	Bolt A to C	64	653	47
	Bolt D	23	235	17
Exhaust manifold converter sub-assembly x Cylinder head		49	500	36
Manifold stay x Exhaust manifold converter sub-assembly		34	347	25
Manifold stay x Automatic transaxle assembly		34	347	25
Exhaust manifold heat insulator No.1 x Exhaust manifold converter sub- assembly		8.5	87	75 in.*lbf
Water outlet x Cylinder head		15	153	11
Intake manifold x Cylinder head		15	153	11
Ground cable x Intake manifold		8.4	86	74 in.*lbf
Wire harness clamp bracket x Cylinder head		5.4	55	48 in.*lbf
Ground cable x Cylinder head		5.4	55	48 in.*lbf
Exhaust manifold converter sub-assembly No.2 x Cylinder head		49	500	36
Exhaust manifold heat insulator No.2 x Exhaust manifold converter sub- assembly No.2		8.5	87	75 in.*lbf
Manifold converter insulator No.3 x Exhaust manifold converter sub-assembly No.2		8.5	87	75 in.*lbf

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SERVICE SPECIFICATIONS - 3MZ-FE ENGINE MECHANICAL

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Part Tightened		N*m	kgf*cm	ft.*lbf
Drive plate & ring gear sub-assembly x Crankshaft		83	846	61
W/ head straight screw plug No.1 x Cylinder head		44	449	32
W/ head straight screw plug No.2 x Cylinder head		44	449	32
Connecting rod cap x Connecting rod	1st	25	255	18
	2nd	Turn 90°	Turn 90°	Turn 90°
Main bearing cap x Cylinder block	12 pointed head 1st	22	224	16
	2nd	Turn 90°	Turn 90°	Turn 90°
	6 pointed head	27	275	20
Cylinder block w/ head straight screw No.1 plug x Cylinder block		30	306	22
Cylinder block w/ head straight screw No.2 plug x Cylinder block		30	306	22
Cylinder block w/ head straight screw No.3 plug x Cylinder block		50	510	37
Water seal plate x Cylinder block		18	184	13
Cylinder block water drain cock sub-assembly x Cylinder block		39	398	29