

TORQUE SPECIFICATIONS

Part Tightened	N*m	kgf*cm	ft.*lbf
Front suspension member reinforcement RH x Front crossmember	95	969	70
Front suspension member reinforcement RH x Front suspension crossmember	95	969	70
Radiator reservoir tank x Bract	5.0	51	44 in.*lbf
Engine coolant temperature sensor x Water outlet	20	204	14
Engine oil pressure sensor x Oil pan	21	214	15
No. 1 front engine mounting bracket LH x Timing chain cover	54	551	40
No. 2 idler pulley x Timing chain cover	43	438	32
No. 2 timing gear cover x Timing chain cover	6.0	61	53 in.*lbf
V-ribbed belt tensioner x Timing chain cover	43	438	32
V-ribbed belt tensioner x Cylinder block	43	438	32
Drive shaft bearing bracket x Cylinder block	64	653	47
Exhaust manifold LH x Cylinder head	21	214	15
No. 2 exhaust heat insulator x Exhaust manifold	8.5	87	75 in.*lbf
No. 2 manifold stay x Exhaust manifold	34	347	25
No. 2 manifold stay x Cylinder block	34	347	25
No. 1 oil dipstick guide x Cylinder block	21	214	15
No. 2 oil dipstick guide x Cylinder head	21	214	15
Exhaust manifold RH x Cylinder head	21	214	15
Intake manifold x Cylinder head	21	214	15
No. 2 engine mounting stay RH x Intake manifold	21	214	15
No. 2 engine mounting stay RH x Timing chain cover	21	214	15
Ignition coil x Cylinder head cover	10	102	7
Intake air surge tank x Intake manifold	5 mm hexagon wrench	18	13
	for Bolt	21	15
	for Nut	16	12
Vacuum hose clamp x Intake air surge tank	5.4	55	48 in.*lbf
Drive plate and ring gear x Crankshaft	178	1,815	132
Engine mounting bracket RR x Engine mounting insulator RR	95	969	70
Engine mounting bracket FR x Engine mounting insulator FR	145	1,479	107
Engine mounting bracket LH x Engine mounting insulator LH	56	571	41
Engine mounting insulator RH x Front No. 1 engine mounting bracket	for Bolt and nut A	95	70
	for Nut B	52	38
Front crossmember x Body	for Bolt A	96	71
	for Bolt B	145	107
Front suspension member brace rear x Body	for Bolt C	145	107
	for Bolt D	93	69
Air cleaner case x Engine mounting insulator LH	5.0	51	44 in.*lbf
Battery bracket reinforcement x Body	19	194	14
Front battery bracket x Body	19	194	14
Front battery bracket x Battery bracket reinforcement	19	194	14
Battery clamp x Body	5.0	51	44 in.*lbf

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Part Tightened		N*m	kgf*cm	ft.*lbf
Connecting rod x Connecting cap	1st	25	255	18
	2nd	Turn 90°	Turn 90°	Turn 90°
Cylinder block x Crankshaft bearing cap	1st	61	622	45
	2nd	Turn 90°	Turn 90°	Turn 90°
	Main bearing cap bolt	52	530	38
Camshaft timing gear x Intake camshaft		100	1,020	74
Camshaft timing exhaust gear x Exhaust camshaft		100	1,020	74
Stud bolt x Cylinder block		10	102	7
Stud bolt x Cylinder head	for Stud bolt A and B	10	102	7
	for Stud bolt C	4.0	41	35 in.*lbf
No. 1 oil nozzle x Cylinder block		9.0	92	80
Cylinder block water drain cock x Cylinder block	1st	25	255	18
	Adjusting position	45 or less	459 or less	33 or less
Water drain cock plug x Water drain cock		13	130	9
Crankshaft position sensor x Cylinder block		10	102	7
No. 2 straight screw plug x Cylinder head		80	816	59
No. 1 straight screw plug x Cylinder head		44	449	32
Water inlet pipe x Cylinder block		10	102	7
Cylinder head (for Bank 1) x Cylinder block	1st	36	367	27
	2nd	Turn 90°	Turn 90°	Turn 90°
	3rd	Turn 90°	Turn 90°	Turn 90°
Cylinder head (for Bank2) x Cylinder block	1st	36	367	27
	2nd	Turn 90°	Turn 90°	Turn 90°
	3rd	Turn 90°	Turn 90°	Turn 90°
	Except bolt	30	306	22
Camshaft bearing cap x Camshaft housing (for Bank 1)	1st	10	102	7
Camshaft housing x Cylinder head (for Bank 1)		28	286	21
Camshaft bearing cap x Camshaft housing (for Bank 1)	2nd	16	163	12
Camshaft bearing cap x Camshaft housing (for Bank 2)	1st	10	102	7
Camshaft housing x Cylinder head (for Bank 2)		28	286	21
Camshaft bearing cap x Camshaft housing (for Bank 2)	2nd	16	163	12
No. 2 chain tensioner x Camshaft housing (for Bank 1)		21	214	15
No. 3 chain tensioner x Camshaft housing (for Bank 2)		21	214	15
No. 1 chain vibration damper x Cylinder block		23	235	17
Idle sprocket x Cylinder block		60	612	44
No. 1 chain tensioner x Cylinder block		10	102	7
Engine rear oil seal retainer x Cylinder block		10	102	7
Crankshaft pulley x Crankshaft		250	2,549	184
Oil pan baffle plate x Cylinder block		10	102	7
Front No. 1 engine mounting bracket x Timing chain cover		54	551	40

Part Tightened		N*m	kgf*cm	ft.*lbf
Cylinder head cover x Cylinder head (for Bank 1)	for Bolt A	21	214	15
	for Except bolt A	10	102	7
Oil pipe bracket x Cylinder head (for Bank 1)		10	102	7
Oil pipe union bolt x Cylinder head cover (for Bank 1)		65	663	48
Oil pipe union bolt x Cylinder head (for Bank 1)		65	663	48
Cylinder head cover x Cylinder head	for Bolt A	21	214	15
	for Except bolt A	10	102	7
No. 1 oil pipe union bolt x Cylinder head cover (for Bank 2)		65	663	48
No. 1 oil pipe union bolt x Cylinder head (for Bank 2)		65	663	48
Water outlet x Cylinder head		10	102	7
Camshaft timing oil control valve x Cylinder head cover		10	102	7
VVT sensor x Cylinder head cover		10	102	7
Spark plug x Cylinder head		18	184	13

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