ltem	Description	Value (Ft	ltem	Description	Value (Ft lbs)	<u>Item</u>	Description	Value (Ft lbs)
All bolts not otherwise specified	Bolt head or nut diameter (mm)		Airpump mounting bolt	M8 x 110	15	COOLING SYSTEM		
M 6	10	7	lower tensioner roller mounting bolt	M8 x 55	15	90o thermostat outlet neck bolts (2)	M6 x 25	7
M 8	13	15	oilpan blockoff plate bolts (2)	M6 x 20	7			
M 10	17	29	GTS oilpan baffle bolts (5)			water crossover hex head bolts (3)	M8 x 35 -1st stage	7
							2nd stage	15+1
ENGINE BLOCK PROPER			CYLINDER HEAD					
			Cylinder head bolts (91+, with longer bolts)	1 st stage	15	right rear water crossover hex head bolt	M8 x 70- 1st stage	7
Main bearing bolt M 12 x 1.5 x 130 (1), M12 x 1.5 x 120 (9)	M 12 x 130 , M12 x 120		M12 x 1.5 x 199	2 nd stage	90° torquing angle		2nd stage	15+1
	1 st stage	22	M12 x 1.5 x 149	3 rd stage	90° torquing angle			
	2 nd stage	41	Camshaft bearing saddles to cylinder head, XZN bolts	M8 x 35	15	Temp II sensor to water crossover		9
	3 rd stage	55+4	socket head bolts for chain tensioner	M6 x 22	7	reservoir mounting self tapping screws (2)	M6 x 16	
			banjo bolt for chain tensioner	M8 x 1	7	oil cooler hose screw-in flange on radiator		52
Main bearing bolt	M 10 x 95 (10)		check valve for chain tensioner	M10 x 1	11	oil cooler hose on screw-in flange to top section of crankcase	M26 x 1.5	52
	1 st stage	15	cylinder head cover / valve covers	M6	7	upper radiator mounting bumper hex head bolts	M8 x 16	15
	2 nd stage	37 + 4	cam gear backing plate to cylinder head bolts (6)	M6 x 18	7	radiator drain plug	M10	1
			camshaft to cam gear bolts	M10 x 1.5 x 55	48	temp switch to radiator		29
Girdle bolts	M 8 x30, M8 x65	15	cylinder head cover	M6	7	engine block drain plugs	M12 x 1.5	26
			spark plugs	M14 x 1.25	18 to 22			
			5-8 cylinder head rear coolant blockoff cover bolt #1	M8 x 25	15			
starter bracket bolts - upper	M8 x 48 (2)	15	5-8 cylinder head blockoff cover bolt #2	M8 x 22	15	A/C COMPRESSOR: (10PA20C)		
starter bracket bolts - lower	M8 x 30 (2)	15	1-4 cylinder head rear water outlet bolts	M8 x 25	15	forward big bolt M10x33	M10 x 33	29
			Cam seal cover bolts M6 x 22	M6 x 22		rear big bolt M10 x 45	M10 x 45	29
Oil pump body bolt	M8 x 48 (3)		Hall sensor bolts	M5 x 12	6	bracket to block bolts M8x x40 (top goes thru heat shield) need 4	M8 x40	15
	1 st stage	11	engine hoist bolts M8 x 20 need 2	M8 x 20	15	comp tension bracket to block M8 x 28	M8 x 28	15
	2 nd stage	15	crank position sensor hex head bolt	M6 x 16		comp tension bracket thru eyebolt M10 x 33	M10 x 33	29
						comp tension bracket thru eyebolt washers A10,5		
crank bolt	M18 x 1.5 x 45	218	INTAKE MANIFOLD			Compressor inlet line	7/8 x 14 UNF	24
Conrod nut (verbusrip)	M 10 x 1.25	55	intake side cover hex head bolts (16)	M6 x 25	7	Compressor pressure line	3/4 x 16 UNF	18
flyhweel bolts	M10 x 1.25 (9)	29 then 66	flappy solenoid mount to driver's side TB cover bolt	M6 x 30	7	Condensor input line	3/4 x 16 UNF	18
oil drain plug	M20 x 1.5	37 59	remote temp sensor- water temp		18-22 22	Condensor fluid reservoir	3/4 x 16 UNF	18 13
screw plug of oil thermostat housing, lower girdle	M48 x 1.5 M 18 x 1.5	26	air line temp sensor NTC II to water crossover housing		0	Evaporator fluid tank Prosecure line expansion value	5/8 x 18 UNF 5/8 x 18 UNF	13
oil pressure sender	M 18 x 1.5	30		M6	3	Pressure line expansion valve	7/8 x 18 UNF	24
screw plug of oil pressure relief valve cylinder block drain valve	M12 x 1.5	26	ISV mounting bracket nuts Intake manifold to cylinder head studs	M8 x 1	11	Intake line expansion valve Evaporator expansion valve	3/4 x 18 UNF	18
screw in flange on engine		52	Lower to upper intake plenum bolts (4), black oxide	M8 x 40			3/4 × 10 0101	10
oil hose on screw-in flange to top section of crankcase	M24 x 1.5, M20 x 1.5	52	attachment of CO sensor to exhaust manifold	100 × 40	+	AIR PUMP		
To radiator	M26 x 1.5	52	cap nut to front of right fuel rail	M12 x 1.5	9	diverter to bracket M6 x12 need 2	M6 x 12	7
Attachment of knock sensor	M8 x 30	15	union nuts to fuel distributor pipe	M16 x 1.5	22	AP tension bracket to block M8 x 22	M8 x 22	15
Oil pan bolts (long)	M6 x 28 (25)	5	oil filler neck bolts	M6 x 50 (2)	7	AP tension thru eyebolt M8 x 40	M8 X 40	15
Oil pan bolts (short)	M6 x 25 (5)	5	flappy vacuum actuator mouting bolts	M6 x 16	7	AP upper big bolt M8 x 110	M8 x 110	15
dipstick bolt	M6 x 12	7	intake temp senor into top-rear of intake	22 mm deep socket	????	AP heat shield M6 x 12 need 5	M6 x 12	7
oil pickup mounting bolts (2) to girdle	M6 x 12	7	Fuel rail mounting nuts	M6	7	thick washer btw eyebolt and bracket 8.5 x 19 x 6		
oil pickup neck to block mounting allen screw	M8 x 30	15	Fuel rail cover bolts	M6 x 16	7			
Oil level sender to oilpan mounting bolts (3)	M5 x 12	_	airbox 10mm nuts	M6	7	DIVERTER VALVE ASSEMBLY	140 40	-
oil cooler mounting bracket allen screws (4)	M6 x 16	7	fuel line to front FPR	M9 v 10	??????	diverter valve to bracket mounting bolts (2)	M6 x 12	/
waterpump mounting bolts- long (8)	M6 x 25	7	rear damper ratining bolt, under rear fuel damper	M8 x 12	11	diverter valve downpipe-to exhaust flange bracket bolts POWER STEERING PUMP BOLTS	M5 x 10	
waterpump mounting bolts- short (5) waterpump timing mark mounting philips screws	M6 x 20 M5 x 18	1	Fuel rail to intake mounting throttle quadrant to intake side cover mounting bolts (3)	M8 x 20	11	PS tensioner adj bolt: M8 x 65	M8 x 65	15
WP to tensioner arm bracket upper bolt	M6 x 16	7	attachment of intake manifold	M8 nuts (10)	11	medial cassette to block: M8 x 35 (2)	M8 x 35	15
WP to tensioner arm bracket countersunk hex bolt	M6 x 12	7				PS pump bracket to cassette bolts M8 x 42 (3)	M8 x 42	15
Front engine hoist bracket to WP hex head bolts	M8 x 35	15	FRONT FUEL DAMPER			ALTERNATOR/PS PUMP CASSETTE		
throttle cable wheel mounting bracket to block bolts	M8 x 20	15	Z-shpaed bracket, A17 washer, then M16 x 1.5 hex nut			top alt bolt M10 x 130	M10 x 130	29
						alt tensioner to cassette M10 x 25	M10 x 25	29
BELT TENSIONER	1		LEFT REAR DAMPER			alt tensioner adj bolt M8 x 60	M8 x 60	15
tensioner shoulder bolt countersunk screw	6 x 12		L shaped bracket, then 8,4 washer, then M8 x 12 bolt	928.110.602.01	0 280 161 035	alt tensioner threaded hex thru lower flange M10 x ????		
lower medial tensioner mounting bolt	M8 x 60	15				big cassette to block M10 x 130	M10 x 130	29
belt tensioner tension adjusting bolt	M8 x ????		RIGHT REAR FUEL PRESSURE REGULATOR:					
lower lateral tensioner mounting bolt	M8 x 45	15	funky bracket then A17 washer then M16 x 1.5 hex nut	928.110.198.02	0 280 161			
			•		297			

ltem	Description	Value (Ft Ibs)	<u>ltem</u>	Description	Value (Ft Ibs)	ltem	Description	Value (Ft lbs)
TIMING BELT COVER			PSD slave cylinder to tranny M8 x 28	M8 x 28		Brake master cylinder to booster	M8 nuts	17
upper L+R cover bolts M6 x 18 need 5	M6 x 18	7	PSD hardline to right output flange bracket bolt	M8 x 30		Screw-in regulator to ABS unit	M10 x 1	10
upper left cover long bolt M6 x 55	M6 x 55	7	front oil line flange bolt M6 x 16	M6 x 16		ABS unit bracket to wheelwell	M8	17
center cover short bolt M6 x 18	M6 x 18	7	tranny mount to tranny case bolt M12 x 1.5 x 50	M12 x 1.5 x50	63	ABS unit to bracket	M6	7
center cover long bolt M6 x 73	M6 x 73	7	tranny mount to crossmember bolt- square washer	M12 x 1.5 x 40	63	T-distributor to bracket	M6	7
crank pulley shrould bolts (2)	M6 x 30	7	rear tranny cover bolts (12) M8 x 30	M8 x 30	16			
dirver side engine ground mounting bolt	M 6 x 20	7	PSD slave cylinder mounting bolts M8 x 28	M8 x 28		FRONT BRAKES		
			Securing nut to drive pinions	M32 x 1.5	221	front ABS speed sensor mounting pan head screw	M6 x 30	
ENGINE SUSPENSION			Bearing cover to tranny case	M8 x 1.25	22	Brake caliper to steering knuckle	M12 x 1.5	63
Rear LCA bracket thru crossmember bolt	M10 x 55	33	Drain plug	M12 x 1.5	15	Brake disk to wheel hub	M6	1
horizontal front upper crossmember bolt	M12 x 1.5 x 70 M10 x 30	????? 29	reverse lamp switch to tranny case	M18 x 1.5	16	Filister head screw to clamping nut lugnuts	M7 M14 x 1.5	11 96
driver's end of crossmember bottom plate bolt		29	bearing body to inner shift rod lockscrew- blue loctite!	M8 x 1.25	18	0	W14 X 1.5	48
engine mount heat shield bolts	M6 x 16	7	angled joint to guide tube	BM 10	18	outer tie rod ball joint to steering knuckle		48
			shifter bracket on top of TT	M6	7			
ENGINE MOUNT BOLTS	140 05					REAR SUSPENSION		<u>.</u>
small M8 x 35 need 4	M8 x 35	15	STEERING:		34	crossmember to body-lateral	M10 x 75	34
Big M10 x 105 need 4	M10 x 105	30	steering gear to engine crossmember	M10 x 45	34	crossmember to body-medial	M12 x 1.5 x 45	
heat shield bolts M6 x 16	M6 x 16	7	U-joint to steering gear	M8 x 38	21	rear control arm fore mounts	2 x M10x 75, M10 x 50	34
EXHAUST SYSTEM:			tenal sad te hall inizt	M14 x 1.5	22			62
air pump diverter valve to cat pipes		22	track rod to ball joint steering tie rod to steering rack	M14 x 1.5 M16 x 1.5	33 111	crossmember to tranny Rear RDK bracket mount bolt	M12 x 1.5 x 40 M6 x 20	63
	M18 x 1.5	41	U joints to steering and universaal shafts	M16 X 1.5	21	Rear swaybar to body mount	M10 x 85	34
oxygen sensor			Power steering Pressure and return hoses to PS pump			Real swaybar to body mount		
screw plug for exhaust sample pickup to cat	M8 x 1	11	banjo bolts	M14 x 1.5	22	Rear swaybar to upper droplink	M10 x 55	34
5 M8x35 exhaust manifold bolts	M8 x 35	15	Steering wheel to steering shaft	M18 x 1.5	37	Forward rear trailing arm mount to body bolts M10 x 20	M10 x 20	34
1 M8x45 exhaust manifold bolt	M8 x 45	15	stabilizer clip to side member	M10	44	Forward rear trailing arm mount to body bolt M10 x 75 x 1	M10 x 75	34
attachment of O2 sensor to exhaust manifold		18	V-belt pulley to power steering (servo) pump	M14 x 1.5	22	2 countersunk philips screews holding GTS spacer		
exhaust manifold to cylinder head nuts (22)	M8	15	Steering guard to body	M6 with 4 mm hex	7	rear wiring harness bracket mounting bolts	M6 x 18	
exhaust manifold heat shield bolts (3)	M6 x 12	7	Ring hose nipple for suction hose to servo pump	M18 x 1.5	44	rear PSD bracket bolts M6 x 20	M6 x 20	
lower exhaust donut bracket to resonator M8 x 16	M8 x 16	15	steering rack mounting bolts M10 x 45	M10 x 45		rear upper control arm to crossmember medial bolt	M10 x 70	34
cat to resonator pipes M10 x 50	M10x 50	29				rear upper control arm to wheel carrier lateral bolt	M10 x 105	34
rear aeroquip pipe to muffler clamp bolt M8 x 60	M8 x 60	15	FRONT SUSPENSION		,	swaybar to body mounting bolt M10 x 85	M10 x 85	34
underbody Heat shields	(8mm) B5,5 x 16	7	upper control arm to front frame rail front LCA bolts M12 x 1.5 x 100	M14 x 1.5 M12 x 1.5 x 100	103 63	swaybar to upper stabilizer bolt M10 x 55 lower rear stabilizer bolt to LCA M10 x 45	M10 x 55 M10 x 45	34 34
BELLHOUSING BOLTS:			front LCA tow bracket bolts M10 x 25	M10 x 25	30	axle mounting pan head bolts to tranny output flanges	M10 x 50	60
upper M12 x 1.5 x 50	M12 x 1,5 x 50	63	Rear LCA bolts M12 x 1.5 x 80	M12 x 1.5 x 80	88	LCA to crossmember (camber eccentric)	M14 x 1.5	147
lower M12 x 1.5 x 70 need 2	M12 x 1,.5 x 75	63	Protective bar to side member	M10	34	LCA to body (toe eccentric)	M12 x 1.5	88
lower housing cover bolts M8 x 30 need 6	M8 x 30	15	Top shock mount studs to body nuts	M10	34	rear hub carrier to LCA (lower shock thru bolt)	M14 x 1.5	103
			Lower front shock to LCA bracket bolt	M12 x 1.5 x 125	63	rear axle bolt	M22 x 1.5	339
TORQUE TUBE			Stabilizer clip to side member	M10	34	rear upper shock mount studs to body	M10	34
Upper bellhousing to manual tranny TT, front (4)	M10 x 45	32	stabilizer suspension to stabilizer	M12 x 1.5	63	bearing pivot to LCA	M12 x 1.5	63
Central tube to transmission	M10 x 1.5 x 50	43	UCA and LCA to steering knuckle	M12 x 1.5	48	ABS sensor to rear hub carrier	M6 x	7
front TT/central tunnel support bracket - 2 washers ea	M8 x 20		Protective panel to steering knuckle	M7	11	wiring brackets to rear hub carrier	M6 x	7
rear TT/central tunnel support bracket bolts M8 x 20	M8 x 20		wiring retainer to steering knuckle	M7	11	e-brake brackets to cross member	M6 x 50	4
			lugnuts	M14 x 1.5	96			
AUTOMATIC TRANSMISSION:			track rod to steering arm	M12 x 1.5	48	REAR BRAKES		
Primary pump to front cover	M8	15	rubber bearing (shock mount?) on piston rod of macpherson strut	M12 x 1.5	44	2 countersunk GTS spacer philips screws		
Drain Plug (Touque Converter)	M10x1	10	Ball joint to LCA	M12 x 1.5	88	rear dust shield mounting bolts M6 x 20	M6 x 20	7
Front Cover to transmission case	M8	10	supporting ring on UCA	M12 x 1.5	63	rear ABS speed sensor mounting pan head screw	M6 x 16	
Support Flange to Transmission Case	M6	8	air deflector bracket to LCA M6 x 60	M6 x 60	7	Rear caliper bolts M12 x 1.5 x 37	M12 x 1.5 x 37	63
				M7 x 12	11	lugnuts	M14 x 1.5	94
Screw Plug (counter-bearing brake band B1)	m27x1.5	52	front RDK bracket bolts M7 x 12					1
Anti-retart and backuplight switch to trans case	M6	6	swaybar to body M10 x 30	M10 x 30	34			
Anti-retart and backuplight switch to trans case Kick-down solenoid valve	M6 M14	6 15	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55	M10 x 30 M12 x 1.5 x 55	63	HOOD		
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission	M6 M14 M6	6	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125	63 63	HOOD hinge to hood bolts M8 x 20	M8 x 20	15
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission ATF Filter to cover	M6 M14 M6 M5	6 15 6 3	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125 Rear LCA to body M12 x 1.5 x 80	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125 m12 x 1.5 x 80	63 63 88	HOOD hinge to hood bolts M8 x 20 hood hinge to body M8 x 12	M8 x 12	15 15
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission ATF Filter to cover Transmission pan drain plug	M6 M14 M6 M5 M10	6 15	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125	63 63	HOOD hinge to hood bolts M8 x 20		
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission ATF Filter to cover Transmission pan drain plug ATF Pan to transmission case	M6 M14 M6 M5 M10 M8	6 15 6 3 10 6	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125 Rear LCA to body M12 x 1.5 x 80 front caliper bolts M12 x 1.5 x 80	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125 m12 x 1.5 x 80	63 63 88	HOOD hinge to hood bolts M8 x 20 hood hinge to body M8 x 12 hood cable bracket screw M6 x12	M8 x 12	
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission ATF Filter to cover Transmission pan drain plug ATF Pan to transmission case Front Torque converter case to transmission case	M6 M14 M6 M5 M10 M8 M8	6 15 6 3 10 6 17	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125 Rear LCA to body M12 x 1.5 x 80 front caliper bolts M12 x 1.5 x 80 BRAKING SYSTEM:	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125 m12 x 1.5 x 80 M12 x 1.5 x 80	63 63 88 63	HOOD hinge to hood bolts M8 x 20 hood hinge to body M8 x 12 hood cable bracket screw M6 x12 FRONT SPOILER	M8 x 12 M6 x 12	
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission ATF Filter to cover Transmission pan drain plug ATF Pan to transmission case	M6 M14 M6 M5 M10 M8 M8 M8	6 15 6 3 10 6 17 34	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125 Rear LCA to body M12 x 1.5 x 80 front caliper bolts M12 x 1.5 x 80	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125 m12 x 1.5 x 80	63 63 88	HOOD hinge to hood bolts M8 x 20 hood hinge to body M8 x 12 hood cable bracket screw M6 x12	M8 x 12	
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission ATF Filter to cover Transmission pan drain plug ATF Pan to transmission case Front Torque converter case to transmission case	M6 M14 M6 M5 M10 M8 M8	6 15 6 3 10 6 17	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125 Rear LCA to body M12 x 1.5 x 80 front caliper bolts M12 x 1.5 x 80 BRAKING SYSTEM:	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125 m12 x 1.5 x 80 M12 x 1.5 x 80 M8	63 63 88 63	HOOD hinge to hood bolts M8 x 20 hood hinge to body M8 x 12 hood cable bracket screw M6 x12 FRONT SPOILER	M8 x 12 M6 x 12	
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission ATF Filter to cover Transmission pan drain plug ATF Pan to transmission case Front Torque converter case ro transmission case Driver plate to torque converter	M6 M14 M6 M5 M10 M8 M8 M8	6 15 6 3 10 6 17 34	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125 Rear LCA to body M12 x 1.5 x 80 front caliper bolts M12 x 1.5 x 80 BRAKINGSYSTEME Brake booster to bulkhead studs	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125 m12 x 1.5 x 80 M12 x 1.5 x 80 M8	63 63 88 63	HOOD hinge to hood bolts M8 x 20 hood hinge to body M8 x 12 hood cable bracket screw M6 x12 FRONT SPOILER vertical wing to body bolt M6 x 15	M8 x 12 M6 x 12 M6 x 15	
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission ATF Filter to cover Transmission pan drain plug ATF Pan to transmission case Front Torque converter case to transmission case Driver plate to torque converter Rear Transmission case to trans case	M6 M14 M6 M5 M10 M8 M8 M8 M8 M8 M10	6 15 6 3 10 6 17 34 31	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125 Rear LCA to body M12 x 1.5 x 80 front caliper bolts M12 x 1.5 x 80 Brake booster to bulkhead studs Brake booster to bulkhead studs Brake hardlines to MC, hoses, ABS unit, bias valves, etc	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125 m12 x 1.5 x 80 M12 x 1.5 x 80 M12 x 1.5 x 80 M8 M10 x 1	63 63 88 63 17 9	HOOD hinge to hood bolts M8 x 20 hood hinge to body M8 x 12 hood cable bracket screw M6 x12 FRONTSPOILER vertical wing to body bolt M6 x 15 lateral horiz tapping screw 4.8 x 19 - 2 per side (4)	M8 x 12 M6 x 12 M6 x 15 B 4.8 x 19	
Anti-retart and backuplight switch to trans case Kick-down solenoid valve Valve Body to transmission ATF Filter to cover Transmission pan drain plug ATF Pan to transmission case Front Torque converter case to transmission case Driver plate to torque converter Rear Transmission case to trans case Bearing Assy to rear transmission case	M6 M14 M5 M5 M10 M8 M8 M8 M8 M8 M10 M10 M10 M8	6 15 6 3 10 6 6 17 34 31 24	swaybar to body M10 x 30 sway bar to front droplink M12 x 1.5 x 55 front lower shock bolt M12 x 1.5 x 125 Rear LCA to body M12 x 1.5 x 80 front caliper bolts M12 x 1.5 x 80 BRAKING SYSTEM Brake booster to bulkhead studs Brake hardlines to MC, hoses, ABS unit, bias valves, etc Brake hose to front calipers	M10 x 30 M12 x 1.5 x 55 M12 x 1.5 x 125 m12 x 1.5 x 125 m12 x 1.5 x 80 M12 x 1.5 x 80 M8 M10 x 1 M10 x 1	63 63 88 63 17 9 12	HOOD hinge to hood bolts M8 x 20 hood hinge to body M8 x 12 hood cable bracket screw M6 x12 ERONT SPOILER vertical wing to body bolt M6 x 15 lateral horiz tapping screw 4.8 x 19 - 2 per side (4) vertical lateral underneath tapping screws B 4.8 x 16 (6)	M8 x 12 M6 x 12 M6 x 15 B 4.8 x 19 B 4.8 x 16	

Item	Description	Value (Nm)	<u>ltem</u>	Description	Value (Nm)	ltem	Description	Value (Nm)
All bolts not otherwise specified	Bolt head or nut		Airpump mounting bolt	M8 x 110	20	COOLING SYSTEM		
M 6	diameter (mm) 10	0	lower tensioner roller mounting bolt	M8 x 55	20	900 thermostat outlet neck bolts (2)	M6 x 25	13
M 8	13	20	oilpan blockoff plate bolts (2)	M6 x 20	9		IVIO X 2.5	13
M 10	17	39	GTS oilpan baffle bolts (5)	100 x 20	5	water crossover hex head bolts (3)	M8 x 35 -1st stage	13
							2nd stage	20+2
ENGINE BLOCK PROPER			CYLINDER HEAD				-	
			Cylinder head bolts (91+, with longer bolts)	1 st stage	20	right rear water crossover hex head bolt	M8 x 70- 1st stage	13
Main bearing bolt M 12 x 1.5 x 130 (1), M12 x 1.5 x 120 (9)	M 12 x 130 , M12 x 120		M12 x 1.5 x 199	2 nd stage	90° torquing angle		2nd stage	20+2
	1 st stage	30	M12 x 1.5 x 149	3 rd stage	90° torquing angle			
	2 nd stage	56	Camshaft bearing saddles to cylinder head, XZN bolts	M8 x 35	20	Temp II sensor to water crossover		17
	3 rd stage	75+5	socket head bolts for chain tensioner	M6 x 22	9	reservoir mounting self tapping screws (2)	M6 x 16	
			banjo bolt for chain tensioner	M8 x 1	9	oil cooler hose screw-in flange on radiator		96
Main bearing bolt	M 10 x 95 (10)		check valve for chain tensioner	M10 x 1	15	oil cooler hose on screw-in flange to top section of crankcase	M26 x 1.5	96
	1 st stage	20	cylinder head cover / valve covers	M6	9	upper radiator mounting bumper hex head bolts	M8 x 16	28
	2 nd stage	50+5	cam gear backing plate to cylinder head bolts (6)	M6 x 18	9	radiator drain plug	M10	2
			camshaft to cam gear bolts	M10 x 1.5 x 55	65	temp switch to radiator		53
Girdle bolts	M 8 x30, M8 x65	20.337269	cylinder head cover	M6	9	engine block drain plugs	M12 x 1.5	48
			spark plugs	M14 x 1.25	25-30			
stants has dotted as the standard		00.007000	5-8 cylinder head rear coolant blockoff cover bolt #1	M8 x 25	20			
starter bracket bolts - upper	M8 x 48 (2)	20.337269	5-8 cylinder head blockoff cover bolt #2	M8 x 22	20	A/C COMPRESSOR: (10PA20C)	M40 22	52
starter bracket bolts - lower	M8 x 30 (2)	20.337269	1-4 cylinder head rear water outlet bolts Cam seal cover bolts M6 x 22	M8 x 25 M6 x 22	20	forward big bolt M10x33 rear big bolt M10 x 45	M10 x 33 M10 x 45	53 53
					0	bracket to block bolts M8x x40 (top goes thru heat		
Oil pump body bolt	M8 x 48 (3)		Hall sensor bolts	M5 x 12	8	shield) need 4	M8 x40	28
	1 st stage	15	engine hoist bolts M8 x 20 need 2	M8 x 20	20	comp tension bracket to block M8 x 28	M8 x 28	28
	2 nd stage	20	crank position sensor hex head bolt	M6 x 16		comp tension bracket thru eyebolt M10 x 33	M10 x 33	53
						comp tension bracket thru eyebolt washers A10,5	=/2 / / / / / / / / /	<u> </u>
crank bolt	M18 x 1.5 x 45	296	INTAKE MANIFOLD	140 05	0	Compressor inlet line	7/8 x 14 UNF	44
Conrod nut (verbusrip) flyhweel bolts	M 10 x 1.25 M10 x 1.25 (9)	75 40 then 90	intake side cover hex head bolts (16) flappy solenoid mount to driver's side TB cover bolt	M6 x 25 M6 x 30	9	Compressor pressure line Condensor input line	3/4 x 16 UNF 3/4 x 16 UNF	33 33
oil drain plug	M10 x 1.25 (9) M20 x 1.5	40 men 90	remote temp sensor- water temp	IVID X 30	25-30	Condensor linput line Condensor fluid reservoir	3/4 x 16 UNF	33
screw plug of oil thermostat housing, lower girdle	M20 x 1.5	80	air line		30	Evaporator fluid tank	5/8 x 18 UNF	24
oil pressure sender	M 18 x 1.5	35	temp sensor NTC II to water crossover housing		12	Pressure line expansion valve	5/8 x 18 UNF	24
screw plug of oil pressure relief valve	M 18 x 1.5	41	ISV mounting bracket nuts	M6	1	Intake line expansion valve	7/8 x 18 UNF	44
cylinder block drain valve	M12 x 1.5	35	Intake manifold to cylinder head studs	M8 x 1	15	Evaporator expansion valve	3/4 x 18 UNF	33
screw in flange on engine	M24 x 1.5, M26 x 1.5	71	Lower to upper intake plenum bolts (4), black oxide	M8 x 40				
oil hose on screw-in flange to top section of crankcase	M26 x 1.5	71	attachment of CO sensor to exhaust manifold			AIR PUMP		
To radiator	M26 x 1.5	71	cap nut to front of right fuel rail	M12 x 1.5	12	diverter to bracket M6 x12 need 2	M6 x 12	13
Attachment of knock sensor	M8 x 30	20	union nuts to fuel distributor pipe	M16 x 1.5	30	AP tension bracket to block M8 x 22	M8 x 22	28
Oil pan bolts (long)	M6 x 28 (25)	7	oil filler neck bolts	M6 x 50 (2)	9	AP tension thru eyebolt M8 x 40	M8 X 40	28
Oil pan bolts (short)	M6 x 25 (5)	7	flappy vacuum actuator mouting bolts	M6 x 16	9 ????	AP upper big bolt M8 x 110	M8 x 110	28
dipstick bolt	M6 x 12 M6 x 12	9	intake temp senor into top-rear of intake Fuel rail mounting nuts	22 mm deep socket	7777	AP heat shield M6 x 12 need 5	M6 x 12	13
oil pickup mounting bolts (2) to girdle oil pickup neck to block mounting allen screw	M8 x 30	20	Fuel rail mounting huts	M6 M6 x 16	9	thick washer btw eyebolt and bracket 8.5 x 19 x 6		+
Oil level sender to oilpan mounting bolts (3)	M5 x 12	20	airbox 10mm nuts	M6	9	DIVERTER VALVE ASSEMBLY		
oil cooler mounting bracket allen screws (4)	M6 x 16	9	fuel line to front FPR		???????	diverter valve to bracket mounting bolts (2)	M6 x 12	13
waterpump mounting bolts- long (8)	M6 x 25	9	rear damper ratining bolt, under rear fuel damper	M8 x 12		diverter valve downpipe-to exhaust flange bracket bolts	M5 x 10	
waterpump mounting bolts- short (5)	M6 x 20	9	Fuel rail to intake mounting		15	POWER STEERING PUMP BOLTS		
waterpump timing mark mounting philips screws	M5 x 18		throttle quadrant to intake side cover mounting bolts (3)	M8 x 20	20	PS tensioner adj bolt: M8 x 65	M8 x 65	28
WP to tensioner arm bracket upper bolt	M6 x 16	9	attachment of intake manifold	M8 nuts (10)	15	medial cassette to block: M8 x 35 (2)	M8 x 35	28
WP to tensioner arm bracket countersunk hex bolt	M6 x 12	9				PS pump bracket to cassette bolts M8 x 42 (3)	M8 x 42	28
Front engine hoist bracket to WP hex head bolts	M8 x 35	20	FRONT FUEL DAMPER	1	1	ALTERNATOR/PS PUMP CASSETTE		
throttle cable wheel mounting bracket to block bolts	M8 x 20	20	Z-shpaed bracket, A17 washer, then M16 x 1.5 hex nut			top alt bolt M10 x 130	M10 x 130	53
	<u> </u>					alt tensioner to cassette M10 x 25	M10 x 25	53
BELT TENSIONER tensioner shoulder bolt countersunk screw	6 x 12		LEFT REAR DAMPER L shaped bracket, then 8,4 washer, then M8 x 12 bolt	928.110.602.01	0 280 161	alt tensioner adj bolt M8 x 60 alt tensioner threaded hex thru lower flange M10 x ????	M8 x 60	28
			ב המספט שומטגפו, נוופון ט,א Washel, נוופון ואס ג 12 Doll	320.110.002.01	035			
lower medial tensioner mounting bolt	M8 x 60	15			 	big cassette to block M10 x 130	M10 x 130	53
belt tensioner tension adjusting bolt	M8 x ????		RIGHT REAR FUEL PRESSURE REGULATOR:					
lower lateral tensioner mounting bolt	M8 x 45	15	funky bracket then A17 washer then M16 x 1.5 hex nut	928.110.198.02	0 280 161 297			
upper lateral tensioner mounting bolt	M8 x 55	15			<u> </u>		<u> </u>	

Item	Description	Value (Nm)	Item	Description	Value (Nm)	Item	Description	Value (Nm)
TIMING BELT COVER			PSD slave cylinder to tranny M8 x 28	M8 x 28		Brake master cylinder to booster	M8 nuts	31
upper L+R cover bolts M6 x 18 need 5	M6 x 18	13	PSD hardline to right output flange bracket bolt	M8 x 30		Screw-in regulator to ABS unit	M10 x 1	18
upper left cover long bolt M6 x 55	M6 x 55	13	front oil line flange bolt M6 x 16	M6 x 16		ABS unit bracket to wheelwell	M8	31
center cover short bolt M6 x 18	M6 x 18	13	tranny mount to tranny case bolt M12 x 1.5 x 50	M12 x 1.5 x50	116	ABS unit to bracket	M6	13
center cover long bolt M6 x 73	M6 x 73	13	tranny mount to crossmember bolt- square washer	M12 x 1.5 x 40	116	T-distributor to bracket	M6	13
crank pulley shrould bolts (2)	M6 x 30	13 13	rear tranny cover bolts (12) M8 x 30	M8 x 30 M8 x 28	29	FRONT DRAKES		
dirver side engine ground mounting bolt	M 6 x 20	13	PSD slave cylinder mounting bolts M8 x 28 Securing nut to drive pinions	M32 x 1.5	406	FRONT BRAKES	M6 x 30	4
ENGINE SUSPENSION			Bearing cover to tranny case	M32 x 1.5 M8 x 1.25	406	front ABS speed sensor mounting pan head screw Brake caliper to steering knuckle	M12 x 1.5	116
Rear LCA bracket thru crossmember bolt	M10 x 55	61	Drain plug	M12 x 1.5	28	Brake disk to wheel hub	M12 X 1.5	13
horizontal front upper crossmember bolt	M10 x 35 M12 x 1.5 x 70	2222	reverse lamp switch to tranny case	M12 x 1.5	29	Filister head screw to clamping nut	M7	20
driver's end of crossmember bottom plate bolt	M10 x 30	53	bearing body to inner shift rod lockscrew- blue loctite!	M8 x 1.25	20	lugnuts	M14 x 1.5	176
engine mount heat shield bolts	M6 x 16	13	angled joint to guide tube	BM 10	33	outer tie rod ball joint to steering knuckle		88
chighte mount near shield bolts		10	shifter bracket on top of TT	M6	13			
ENGINE MOUNT BOLTS				NIO	10	REAR SUSPENSION		
small M8 x 35 need 4	M8 x 35	28	STEERING:			crossmember to body-lateral	M10 x 75	63
Big M10 x 105 need 4	M10 x 105	55	steering gear to engine crossmember	M10 x 45	63	crossmember to body-medial	M12 x 1.5 x 45	
heat shield bolts M6 x 16	M6 x 16	13		M8 x 38	39	· · · · · · · · · · · · · · · · · · ·	2 x M10x 75, M10 x	63
	IVID X 10	13	U-joint to steering gear			rear control arm fore mounts	50	
EXHAUST SYSTEM:			track rod to ball joint	M14 x 1.5	61	crossmember to tranny	M12 x 1.5 x 40	116
air pump diverter valve to cat pipes		40	steering tie rod to steering rack	M16 x 1.5	204	Rear RDK bracket mount bolt	M6 x 20	
oxygen sensor	M18 x 1.5	75	U joints to steering and univerasal shafts	M8	39	Rear swaybar to body mount	M10 x 85	63
screw plug for exhaust sample pickup to cat	M8 x 1	20	Power steering Pressure and return hoses to PS pump banjo bolts	M14 x 1.5	40	Rear swaybar to upper droplink	M10 x 55	63
5 M8x35 exhaust manifold bolts	M8 x 35	28	Steering wheel to steering shaft	M18 x 1.5	68	Forward rear trailing arm mount to body bolts M10 x 20	M10 x 20	63
1 M8x45 exhaust manifold bolt	M8 x 45	28	stabilizer clip to side member	M10	81	Forward rear trailing arm mount to body bolt M10 x 75 x 1	M10 x 75	63
attachment of O2 sensor to exhaust manifold		33	V-belt pulley to power steering (servo) pump	M14 x 1.5	40	2 countersunk philips screews holding GTS spacer		
exhaust manifold to cylinder head nuts (22)	M8	28	Steering guard to body	M6 with 4 mm hex	13	rear wiring harness bracket mounting bolts	M6 x 18	
exhaust manifold heat shield bolts (3)	M6 x 12	13	Ring hose nipple for suction hose to servo pump	M18 x 1.5	81	rear PSD bracket bolts M6 x 20	M6 x 20	
lower exhaust donut bracket to resonator M8 x 16	M8 x 16	28	steering rack mounting bolts M10 x 45	M10 x 45		rear upper control arm to crossmember medial bolt	M10 x 70	63
cat to resonator pipes M10 x 50	M10x 50	53				rear upper control arm to wheel carrier lateral bolt	M10 x 105	63
rear aeroquip pipe to muffler clamp bolt M8 x 60	M8 x 60	28	FRONT SUSPENSION			swaybar to body mounting bolt M10 x 85	M10 x 85	63
underbody Heat shields	(8mm) B5,5 x 16	13	upper control arm to front frame rail	M14 x 1.5	189	swaybar to upper stabilizer bolt M10 x 55	M10 x 55	63
			front LCA bolts M12 x 1.5 x 100	M12 x 1.5 x 100	116	lower rear stabilizer bolt to LCA M10 x 45	M10 x 45	63
BELLHOUSING BOLTS:			front LCA tow bracket bolts M10 x 25	M10 x 25	55	axle mounting pan head bolts to tranny output flanges	M10 x 50	110
upper M12 x 1.5 x 50	M12 x 1,5 x 50	116	Rear LCA bolts M12 x 1.5 x 80	M12 x 1.5 x 80	162	LCA to crossmember (camber eccentric)	M14 x 1.5	270
lower M12 x 1.5 x 70 need 2	M12 x 1,.5 x 75	116	Protective bar to side member	M10	63	LCA to body (toe eccentric)	M12 x 1.5	162
lower housing cover bolts M8 x 30 need 6	M8 x 30	28	Top shock mount studs to body nuts	M10	63	rear hub carrier to LCA (lower shock thru bolt)	M14 x 1.5	189
			Lower front shock to LCA bracket bolt	M12 x 1.5 x 125	116	rear axle bolt	M22 x 1.5	623
<u>CLUTCH</u>			Stabilizer clip to side member	M10	63	rear upper shock mount studs to body	M10	63
Flywheel to crank bolts (12mm XZN)	M10 x 1.25 x ???		stabilizer suspension to stabilizer	M12 x 1.5	116	bearing pivot to LCA	M12 x 1.5	116
	1st stage	53	UCA and LCA to steering knuckle	M12 x 1.5	88	ABS sensor to rear hub carrier	M6 x	13
slave cylinder mounting boltsM8 x 30	2nd stage M8 x 1.25 x 30	121 31	Protective panel to steering knuckle wiring retainer to steering knuckle	M7 M7	20 20	wiring brackets to rear hub carrier e-brake brackets to cross member	M6 x M6 x 50	13
master cylinder to body bolts M8 x 40	M8 x 40	28		M14 x 1.5	176			
AUTOMATIC TRANSMISSION:	IVIO X 40	20	lugnuts track rod to steering arm	M14 x 1.5	88	REAR BRAKES		
Primary pump to front cover	M8	20	rubber bearing (shock mount?) on piston rod of	M12 x 1.5	81	2 countersunk GTS spacer philips screws		
Drain Plug (Touque Converter)	M10x1	14	macpherson strut Ball joint to LCA	M12 x 1.5	162	rear dust shield mounting bolts M6 x 20	M6 x 20	13
Front Cover to transmission case	M8	13	supporting ring on UCA	M12 x 1.5 M12 x 1.5	1162	rear ABS speed sensor mounting pan head screw	M6 x 16	
Support Flange to Transmission Case	M6	13	air deflector bracket to LCA M6 x 60	M12 x 1.5 M6 x 60	13	Rear caliper bolts M12 x 1.5 x 37	M12 x 1.5 x 37	116
Screw Plug (counter-bearing brake band B1)	m27x1.5	70	front RDK bracket bolts M7 x 12	M7 x 12	20	lugnuts	M12 x 1.5 x 57 M14 x 1.5	173
Anti-retart and backuplight switch to trans case	M6	8	swaybar to body M10 x 30	M10 x 30	63	iugnuto	WITE & 1.3	
Kick-down solenoid valve	M14	20	sway bar to front droplink M12 x 1.5 x 55	M12 x 1.5 x 55	116	HOOD	·	سيبي يبين
Valve Body to transmission	M6	8	front lower shock bolt M12 x 1.5 x 125	M12 x 1.5 x 125	116	hinge to hood bolts M8 x 20	M8 x 20	28
ATF Filter to cover	M5	Ă	Rear LCA to body M12 x 1.5 x 80	m12 x 1.5 x 80	162	hood hinge to body M8 x 12	M8 x 12	28
Transmission pan drain plug	M10	14	front caliper bolts M12 x 1.5 x 80	M12 x 1.5 x 80	116	hood cable bracket screw M6 x12	M6 x 12	13
ATF Pan to transmission case	M8	8	DDAKING SVETEM.		<u> </u>			
Front Torque converter case ro transmission case	M8	23	BRAKING SYSTEM:	MO	24	FRONT SPOILER	MC 45	
Driver plate to torque converter	M8	46	Brake booster to bulkhead studs	M8	31	vertical wing to body bolt M6 x 15	M6 x 15	+
Rear Transmission case to trans case	M10	42	Brake hardlines to MC, hoses, ABS unit, bias valves, etc	M10 x 1	17	lateral horiz tapping screw 4.8 x 19 - 2 per side (4)	B 4.8 x 19	
Bearing Assy to rear transmission case	М8	33	Brake hose to front calipers	M10 x 1	22	vertical lateral underneath tapping screws B 4,8 x 16 (6)	B 4.8 x 16	
Final Drive to Transmission case	M10	46	Brake hose to rear calipers	M10 x 1	18	vertical rear tapping screws to belly pan B 4,8 x 22 (3)	B 4.8 22	1
			Brake booster locknut to push rod	M10 x 1	48	vertical downward lateral tapping screws B4,8 x 19 (2)	B 4.8 x 19	
			Caliper bleed screws	M10 x 1	8 to 12			