

# SERVICE SPECIFICATIONS

## SERVICE DATA

Thermostat	Valve opening temperature			80–84°C	176–183°F
	Valve lift at 95°C (203°F)			10 mm	0.39 in.
Radiator cap	Relief valve opening pressure STD			74–103 kPa (0.75–1.05 kgf/cm, 10.7–14.9 psi)	
	Limit			59 kPa	0.6 kgf/cm 8.5 psi
On–vehicle inspection for hydraulic cooling fan	Oil pressure			1,177–2,452 kPa (12–25 kgf/cm, 171–356 psi)	
Hydraulic pump	Spool valve			45.8 mm	1.803 in.
	Rotor side clearance	STD	Drive rotor	0.02 mm	0.0008 in.
			Driven rotor	0.03 mm	0.0012 in.
	Limit	Drive rotor	0.03 mm	0.0012 in.	
		Driven rotor	0.04 mm	0.0016 in.	
	Rotor body clearance	STD	0.05–0.09 mm		0.0020–0.0035 in.
		Limit	0.10 mm		0.0039 in.
	Rotor tip clearance	STD	0.02 mm		0.0008 in.
		Limit	0.03 mm		0.0012 in.
	Drive shaft bushing inside diameter			17.00–17.05 mm	0.6693–0.6713 in.
	Drive shaft diameter			16.97–16.98 mm	0.6681–0.6685 in.
	Drive shaft oil clearance	STD	0.02–0.08 mm		0.0008–0.0031 in.
		Limit	0.08 mm		0.0031 in.
	Drive shaft preload (rotating torque)			0.3 N·m	3.0 kgf·cm 2.6 in.·lbf
	Solenoid valve resistance at cold			7.5–8.5 Ω	
Hydraulic motor	Rotor side clearance	STD	0.01–0.04 mm	0.0004–0.0016 in.	
		Limit	0.05 mm	0.0020 mm	
	Drive shaft hole inside diameter			14.000–14.011 mm	0.5512–0.5516 in.
	Drive shaft diameter			13.973–13.984 mm	0.5501–0.5506 in.
	Drive shaft oil clearance	STD	0.016–0.038 mm		0.0006–0.0015 in.
		Limit	0.04 mm		0.0031 in.
	Drive shaft preload (rotating torque)			0.3 N·m	3.0 kgf·cm 2.6 in.·lbf
Water temp. sensor	Resistance at 80°C (176°F)			1.48–1.58 kΩ	

## TORQUE SPECIFICATIONS

Part tightened	N·m	kgf·cm	ft·lbf
Engine drain plug X Cylinder block	18	180	13
Coolant filler plug X Water inlet housing	44	450	33
Water pump X Cylinder block	18	185	13
Water inlet housing X Water pump	18	185	13
Water inlet X Water inlet housing	18	185	13
Radiator fan shroud X Radiator	4.9	50	43 in·lbf
Radiator X Body	12	120	9
Cooling fan reservoir tank X Radiator fan shroud	4.9	50	43 in·lbf
Cooling fan inlet pipe X Radiator fan shroud	4.9	50	43 in·lbf
Cooling fan pressure hose X Hydraulic motor	64	650	47
Radiator reservoir tank X Upper radiator support	4.9	50	43 in·lbf
Radiator reservoir tank X Radiator reservoir tank support	4.9	50	43 in·lbf
Hydraulic pump rear housing X End plug (for spool valve)	19	200	14
Hydraulic pump front housing X Rear housing	21	210	15
Hydraulic pump pulley X Drive shaft	59	600	43
Solenoid valve X Hydraulic pump rear housing	39	400	28
Hydraulic pump suction port union X Rear housing	13	135	10
Hydraulic pump X Cylinder block			
12 mm head	16	160	12
14 mm head	20	310	22
Cooling fan pressure hose X Hydraulic pump	64	650	47
RH No.2 timing belt cover X Cylinder block	16	160	12
Drive belt idler pulley X Hydraulic pump	37	380	27
A/C compressor X Hydraulic pump	49	500	36
A/C compressor X Cylinder block	49	500	36
A/C compressor stay X Oil filter bracket	29	300	22
Hydraulic motor cover X Motor housing	28	290	21
Hydraulic motor X Radiator fan shroud	4.9	50	43 in·lbf
Cooling fan X Hydraulic motor	15	150	11
Cooling fan oil cooler X Body	18	180	13
Water temperature sensor X Radiator	7.4	75	65 in·lbf