

GENERAL DESCRIPTION

Lubrication

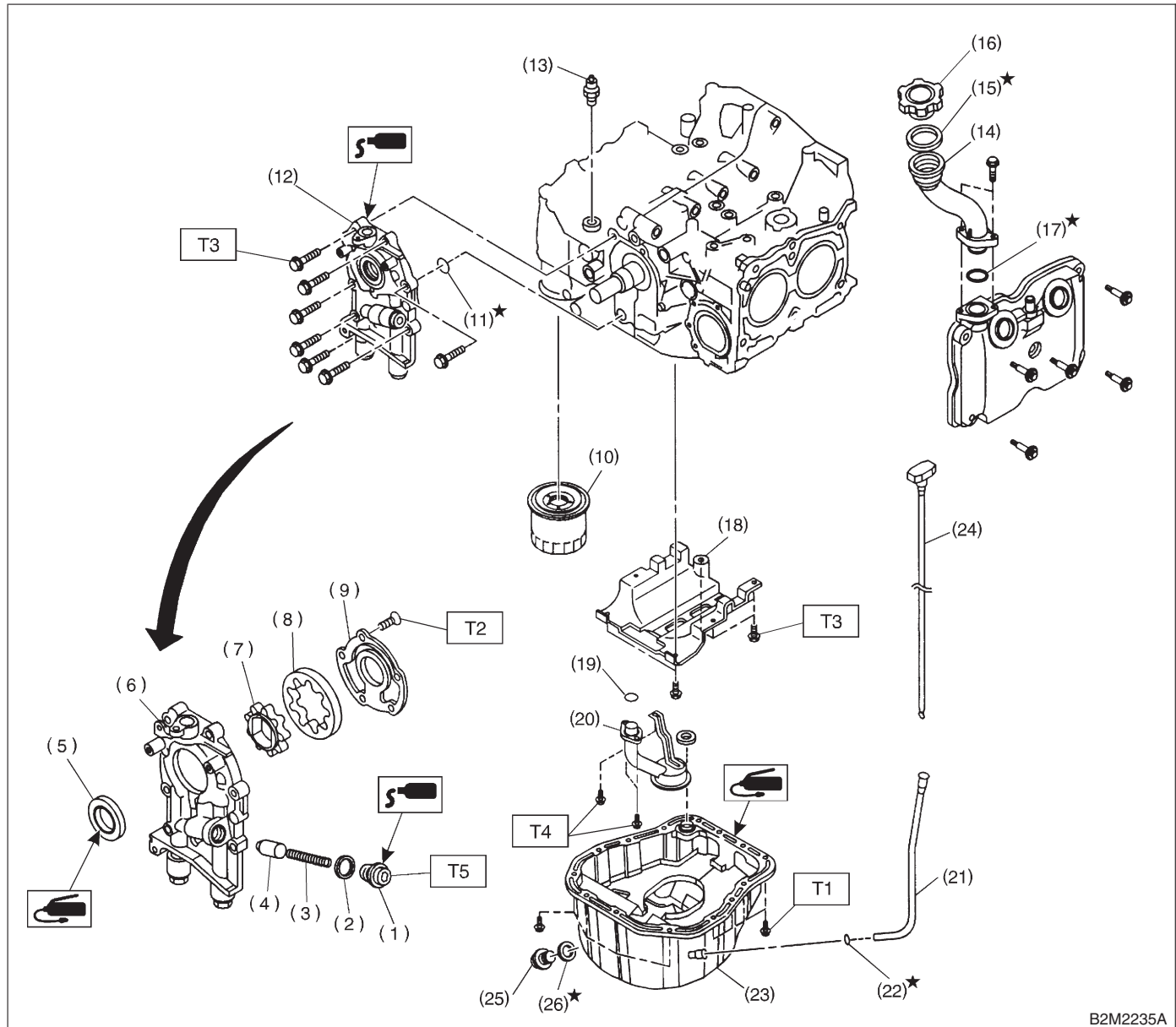
1. General Description S108001

A: SPECIFICATIONS S108001E49

Lubrication method					Forced lubrication	
Oil pump	Pump type				Trochoid type	
	Number of teeth		Inner rotor		9	
			Outer rotor		10	
	Outer rotor diameter × thickness				78 × 9 mm (3.07 × 0.35 in)	
	Tip clearance between inner and outer rotor			STANDARD	0.04 — 0.14 mm (0.0016 — 0.0055 in)	
				LIMIT	0.18 mm (0.0071 in)	
	Side clearance between inner rotor and pump case			STANDARD	0.02 — 0.07 mm (0.0008 — 0.0028 in)	
				LIMIT	0.15 mm (0.0059 in)	
	Case clearance between outer rotor and pump case			STANDARD	0.10 — 0.175 mm (0.0039 — 0.0069 in)	
				LIMIT	0.20 mm (0.0079 in)	
	Capacity at 80°C (176°F)	700 rpm	Discharge	- pressure	98 kPa (1.0 kg/cm ² , 14 psi) or more	
				- quantity	4.2 ℓ (4.4 US qt, 3.7 Imp qt)/min.	
		5,000 rpm	Discharge	- pressure	294 kPa (3.0 kg/cm ² , 43 psi) or more	
			- quantity	42.0 ℓ (11.10 US gal, 9.24 Imp gal)/min.		
Relief valve operation pressure					490 kPa (5.0 kg/cm ² , 71 psi)	
Oil filter	Type				Full-flow filter type	
	Filtration area				1,000 cm ² (155 sq in)	
	By-pass valve opening pressure				156 kPa (1.6 kg/cm ² , 23 psi)	
	Outer diameter × width				80 × 70 mm (3.15 × 2.76 in)	
	Oil filter to engine thread size				M 20 × 1.5	
Relief valve (on rocker shaft) operation pressure					69 kPa (0.7 kg/cm ² , 10 psi)	
Oil pressure switch	Type				Immersed contact point type	
	Working voltage — wattage				12 V — 3.4 W or less	
	Warning light activation pressure				14.7 kPa (0.15 kg/cm ² , 2.1 psi)	
	Proof pressure				More than 981 kPa (10 kg/cm ² , 142 psi)	
Oil capacity (at replacement)					4.5 ℓ (4.8 US qt, 4.0 Imp qt)	

B: COMPONENT

S108001A05



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|-------------------------|----------------------------|
| (1) Plug | (13) Oil pressure switch |
| (2) Washer | (14) Oil filler duct |
| (3) Relief valve spring | (15) O-ring |
| (4) Relief valve | (16) Oil filler cap |
| (5) Oil seal | (17) O-ring |
| (6) Oil pump case | (18) Baffle plate |
| (7) Inner rotor | (19) O-ring |
| (8) Outer rotor | (20) Oil strainer |
| (9) Oil pump cover | (21) Oil level gauge guide |
| (10) Oil filter | (22) O-ring |
| (11) O-ring | (23) Oil pan |
| (12) Oil pump ASSY | (24) Oil level gauge |

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|-------------------|
| (25) Drain plug |
| (26) Metal gasket |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 5 (0.5, 3.6)

T2: 5 (0.5, 3.6)

T3: 6.4 (0.65, 4.7)

T4: 10 (1.0, 7.2)

T5: 44.1 (4.5, 32.5)

C: CAUTION S108001A03

- Wear working clothing, including a cap, protective goggles, and protective shoes during operation.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust or dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly, and replacement.
- Be careful not to burn your hands, because each part in the vehicle is hot after running.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or safety stands at the specified points.
- Before disconnecting electrical connectors of sensors or units, be sure to disconnect negative terminal from battery.