

GENERAL DESCRIPTION

LUBRICATION

1. General Description

A: SPECIFICATIONS

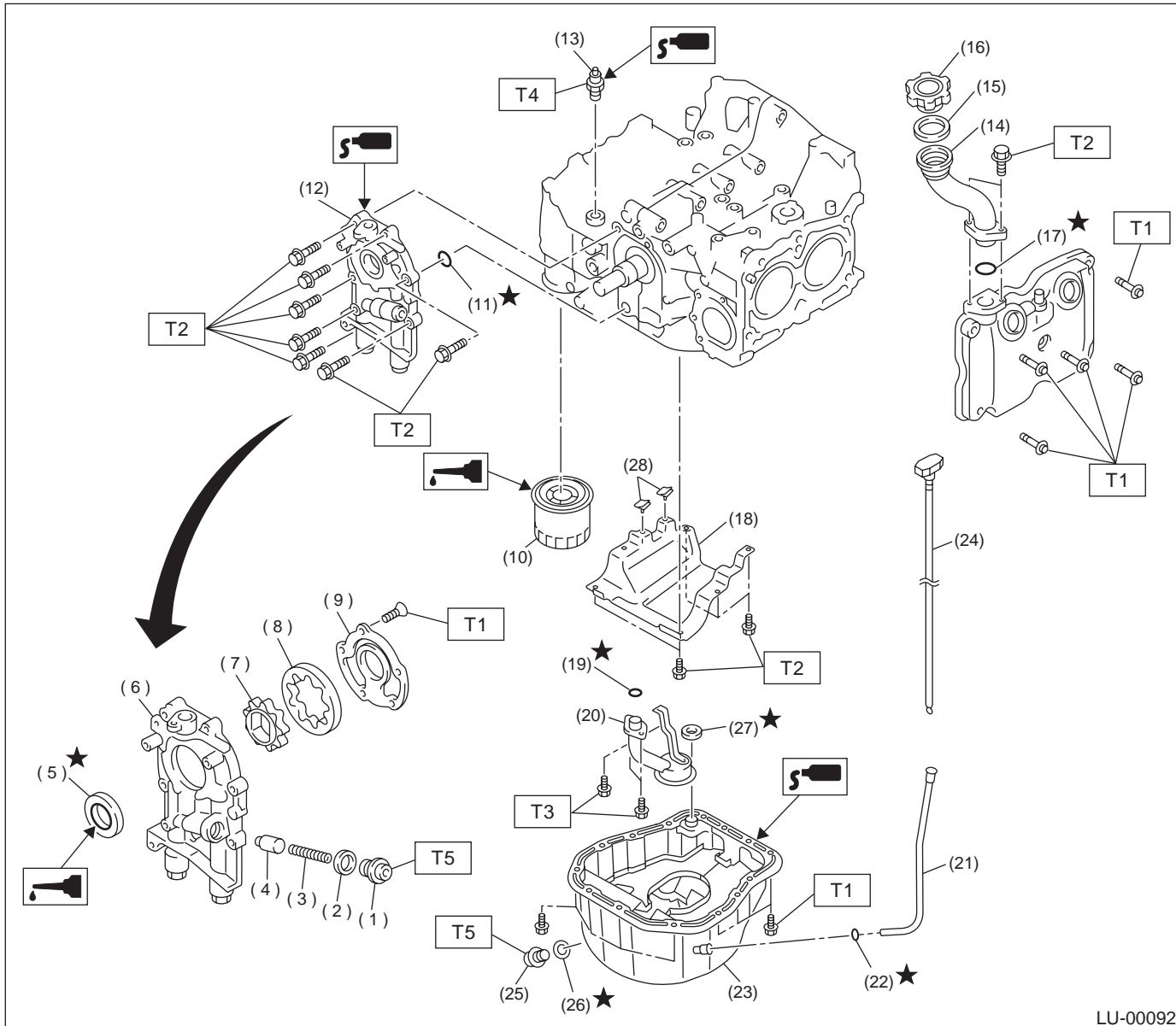
Lubrication method			Forced lubrication	
Oil pump	Pump type		Trochoid type	
	Number of teeth	Inner rotor	9	
		Outer rotor	10	
	Outer rotor diameter × thickness		78 × 7 mm (3.07 × 0.28 in)	
	Tip clearance between inner and outer rotor		STANDARD	0.04 — 0.14 mm (0.0016 — 0.0055 in)
			LIMIT	0.18 mm (0.0071 in)
	Side clearance between inner rotor and pump case		STANDARD	0.02 — 0.07 mm (0.0008 — 0.0028 in)
			LIMIT	0.12 mm (0.0047 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)	600 rpm	- Discharge pressure	98 kPa (1.0 kg/cm ² , 14 psi)
- Discharge quantity			3.2 ℓ (3.4 US qt, 2.8 Imp qt)/min.	
5,000 rpm		- Discharge pressure	294 kPa (3.0 kg/cm ² , 43 psi)	
		- Discharge quantity	32.6 ℓ (8.61 US gal, 7.17 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		910 cm ² (141 sq in)	
	By-pass valve opening pressure		157 kPa (1.6 kg/cm ² , 23 psi)	
	Outer diameter × width		80 × 75 mm (3.15 × 2.95 in)	
	Installation screw type		M 20 × 1.5	
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 (when replacing oil)			Approx. 4.0 ℓ (4.2 US qt, 3.5 Imp qt)	

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B: COMPONENT



LU-00092

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| <ul style="list-style-type: none"> (1) Plug (2) Gasket (3) Relief valve spring (4) Relief valve (5) Oil seal (6) Oil pump case (7) Inner rotor (8) Outer rotor (9) Oil pump cover (10) Oil filter (11) O-ring (12) Oil pump ASSY | <ul style="list-style-type: none"> (13) Oil pressure switch (14) Oil filler duct (15) O-ring (16) Oil filler cap (17) O-ring (18) Baffle plate (19) O-ring (20) Oil strainer (21) Oil level gauge guide (22) O-ring (23) Oil pan (24) Oil level gauge | <ul style="list-style-type: none"> (25) Drain plug (26) Metal gasket (27) Gasket (28) Seal |
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Tightening torque: N·m (kgf-m, ft-lb)

- T1: 5 (0.5, 3.6)**
- T2: 6.4 (0.65, 4.7)**
- T3: 10 (1.0, 7.2)**
- T4: 25 (2.5, 18.1)**
- T5: 44 (4.5, 33)**

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C: CAUTION

- Wear working clothing, including a cap, protective goggles, and protective shoes during operation.
- Remove 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 ground cable from battery.

D: PREPARATION TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
<p>ST-499977100</p>	499977100	CRANKSHAFT PULLEY WRENCH	Used for stopping rotation of crankshaft pulley when loosening and tightening crankshaft pulley bolt.
<p>ST-498547000</p>	498547000	OIL FILTER WRENCH	Used for removing and installing oil filter.
<p>ST-499587100</p>	499587100	OIL SEAL INSTALLER	Used for installing oil pump oil seal.