1. General Description

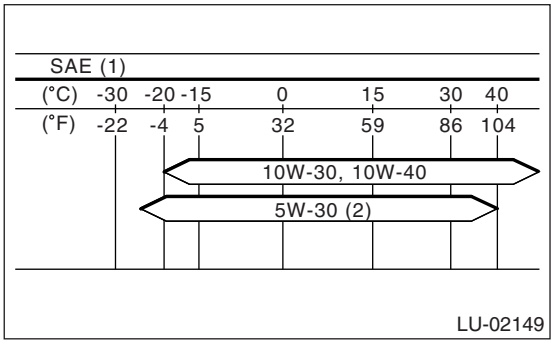
A: SPECIFICATION

Lubrication method			Forced lubrication
Oil pump	Pump type		Trochoid type
	Number of teeth	Inner rotor	7
		Outer rotor	8
	Outer rotor diameter × thickness	mm (in)	86 × 13 (3.39 × 0.51)
	Tip clearance between inner and outer rotors	mm (in)	0.04 — 0.14 (0.0016 — 0.0055)
	Side clearance between inner rotor and pump case	mm (in)	0.020 — 0.046 (0.0008 — 0.0018)
	Case clearance between outer rotor and pump case	mm (in)	0.110 — 0.175 (0.0043 — 0.0069)
Oil filter	Filter type		Full-flow filter type
	Filtration area	cm^2 (sq in)	1,300 (201.5)
	By-pass valve opening pressure	kPa (kg/cm^2, psi)	160 (1.63, 23.2)
	Outer diameter × width	mm (in)	80 × 75 (3.15 × 2.95)
	Installation screw specifications		M 20 × 1.5
Relief valve working pressure		kPa (kg/cm^2, psi)	708 (7.2, 102.7)
Oil pressure switch	Type		Immersed contact point type
	Operating voltage — Power consumption		12 V — 3.4 W or less
	Warning light operating pressure	kPa (kg/cm^2, psi)	15 (0.15, 2.2)
	Proof pressure	kPa (kg/cm^2, psi)	980 (10.0, 142) or more
Engine oil	Capacity (at overhaul)	ℓ (US qt, Imp qt)	7.2 (7.6, 6.3)
	When replacing engine oil and oil filter	ℓ (US qt, Imp qt)	5.7 (6.0, 5.0)
	When replacing engine oil only	ℓ (US qt, Imp qt)	5.5 (5.8, 4.8)

Recommended oil:

Those with an API standard SM "Energy Conserving" logo.

ILSAC standard GF-4 "Star burst mark" label on the container



(1) SAE viscosity No. and applicable temperature

(2) Recommended

CAUTION:

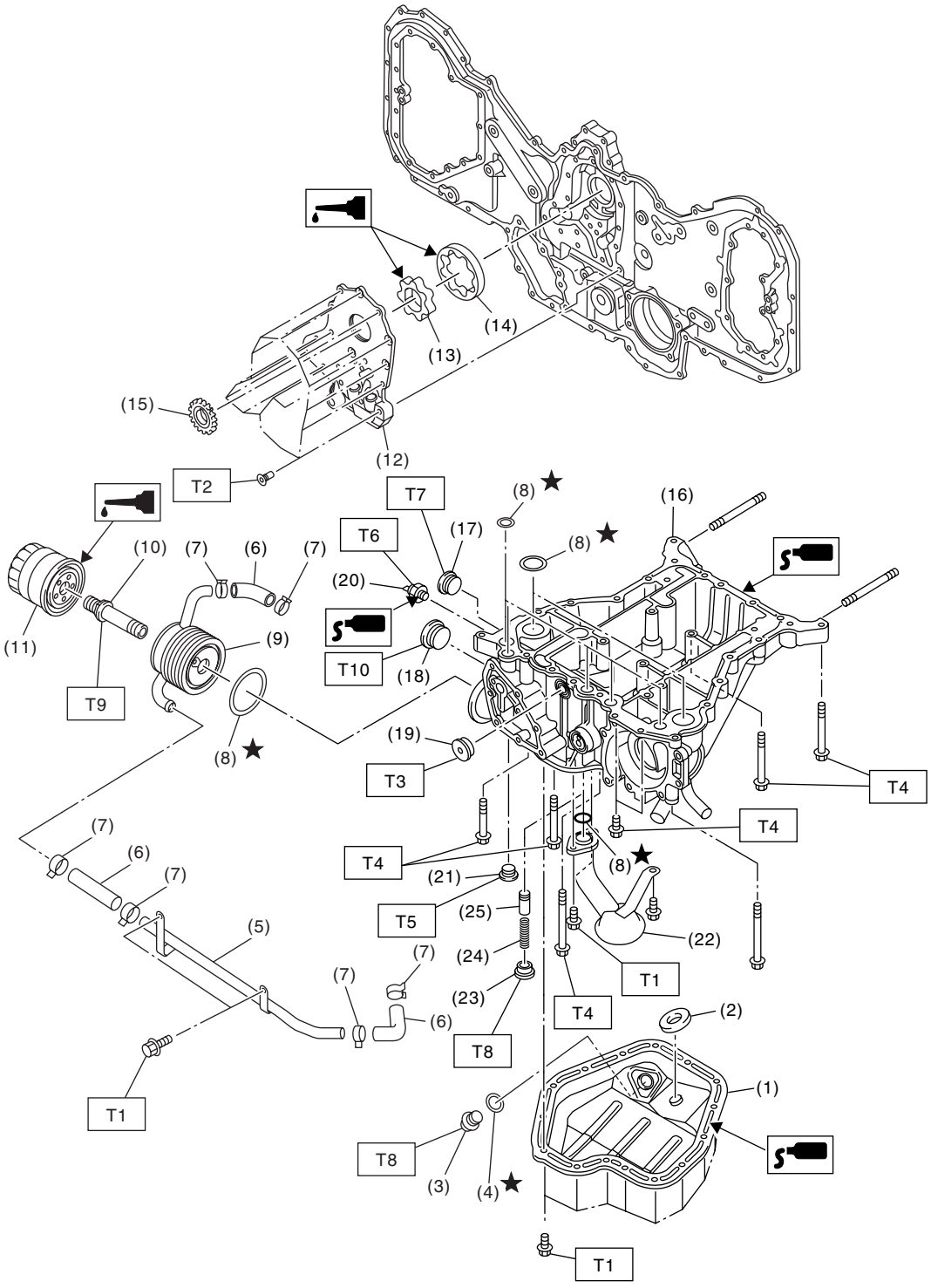
When replenishing oil, it does not matter if the oil to be added is a different brand from that in the engine; however, use oil having the API standard and SAE viscosity No. designated by SUBARU.

NOTE:

If the vehicle is used in areas with very high temperatures or for other heavy duty applications, the following viscosity oils must be used: API standard: SM or SL

SAE viscosity No.: 30, 40, 10W-50, 20W-40, 20W-50

B: COMPONENT



LU-02097

(1) Oil pan lower
(2) Magnet
(3) Drain plug
(4) Gasket
(5) Oil cooler pipe
(6) Hose
(7) Clamp
(8) O-ring
(9) Oil cooler
(10) Oil cooler connector
(11) Oil filter
(12) Oil pump cover
(13) Inner rotor
(14) Outer rotor
(15) Crank sprocket
(16) Oil pan upper
(17) Plug
(18) Plug
(19) Plug
(20) Oil pressure switch
(21) Plug
(22) Oil strainer
(23) Plug
(24) Relief valve spring
(25) Relief valve

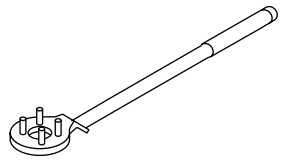
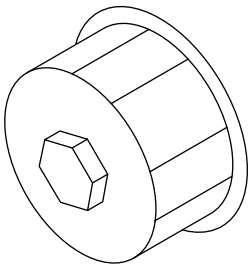
Tightening torque: N·m (kgf-m, ft-lb)
T1: 6.4 (0.65, 4.7)
T2: <Ref. to LU(H6DO)-8, INSTALLATION, Oil Pump.>
T3: 16 (1.6, 12)
T4: 18 (1.8, 13)
T5: 23 (2.3, 17)
T6: 25 (2.5, 18)
T7: 37 (3.8, 27)
T8: 44 (4.5, 33)
T9: 54 (5.5, 40)
T10: 90 (9.2, 66)

C: CAUTION

- Wear work 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 and dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Be careful not to burn yourself, because each part on the vehicle is hot after running.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery.

D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-499977100	499977100	CRANK PULLEY WRENCH	Used for stopping rotation of crank pulley when removing and tightening crank pulley bolt.
 ST-498547000	498547000	OIL FILTER WRENCH	Used for removing and installing oil filter.