

GENERAL

LUBRICATION

1. General

- The lubrication system force-circulates engine oil throughout the engine using an oil pump. The oil pressure is regulated by the relief valve*¹ built into the oil pump.
- The oil pump is a thin, large-diameter trochoid rotor type which can accommodate the engine's high output. The pump is directly driven by the crankshaft.
- The engine oil is cleaned by a full-flow, paper element type oil filter. The filter has a bypass valve*² which allows the engine oil to flow bypassing the filter if it is clogged.
- The inside of the oil pan is fitted with a baffle plate which reduces changes in the oil level due to movement of the vehicle, thus ensuring uninterrupted suction of oil.
- The engine oil discharged from the oil pump is delivered to the journal bearings, connecting rod bearings, and other parts requiring lubrication and cooling via the vertical passage in the right bank of the cylinder block, the oil filter, and the oil galleries in the right and left banks of the cylinder block.
- The engine oil is also distributed to each cylinder head valve mechanism at a proper flow rate achieved by metering by the orifice provided in each oil gallery.
- An oil cooler is installed to keep the engine oil in an optimum temperature range and prevent degradation of lubrication performance.

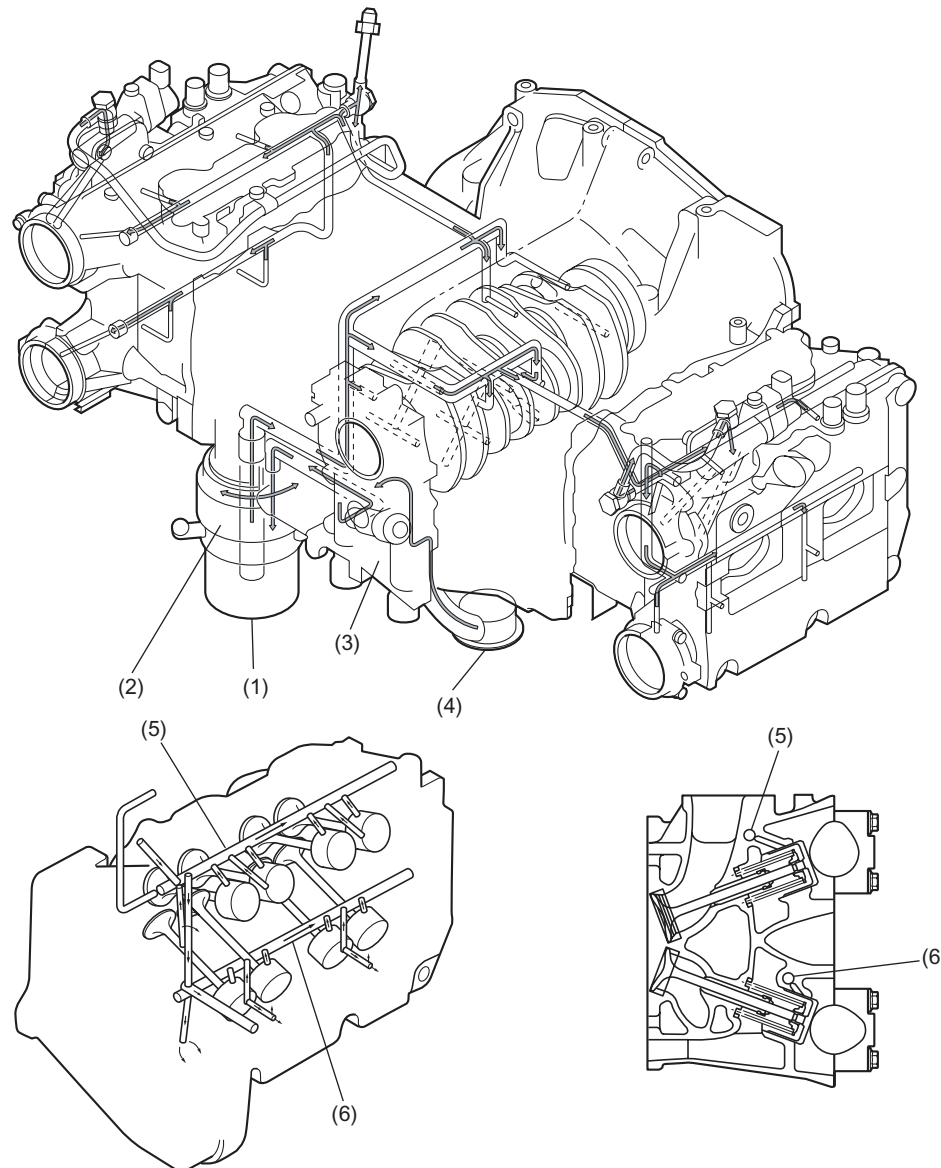
*1: Relief valve opening pressure: 588 kPa (6.0 kgf/cm², 85 psi)

*2: Bypass valve opening pressure: 157 kPa (1.6 kgf/cm², 23 psi)

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GENERAL

LUBRICATION



LU-00212

- (1) Oil filter
- (2) Oil cooler (water cooled)
- (3) Oil pump

- (4) Oil strainer
- (5) Intake gallery
- (6) Exhaust gallery

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