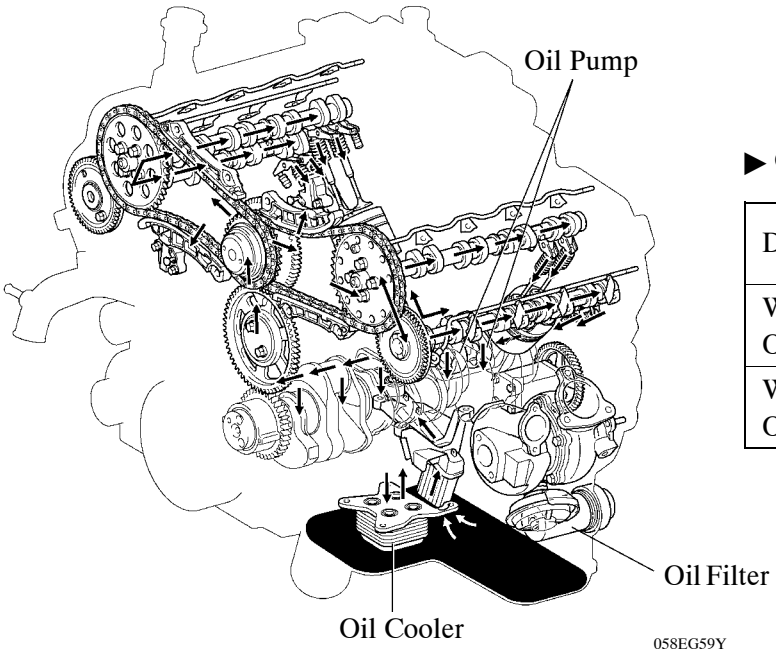
■LUBRICATION SYSTEM

1. General

- The lubrication circuit is fully pressurized and all oil passes through an oil cooler and oil filter.
- A trochoid oil pump driven by a gear engaged with the crankshaft is used.
- A water-cooled type oil cooler is installed on oil pan No. 1.
- Piston oil jets that lubricate and cool the pistons are provided.



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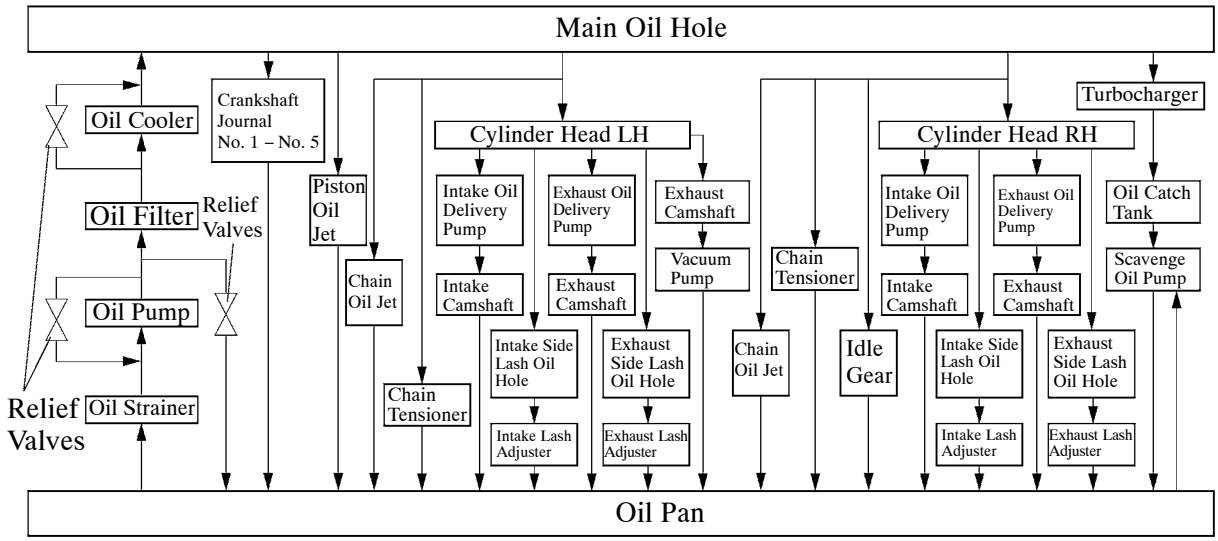
▶ Oil Capacity ◀

Dry	10.5 Liters (11.1 US qts, 9.2 Imp. qts)
With Oil Filter	9.4 Liters (10.0 US qts, 8.4 Imp. qts)
Without Oil Filter	8.5 Liters (9.0 US qts, 7.5 Imp. qts)

▶ System Diagram ◀



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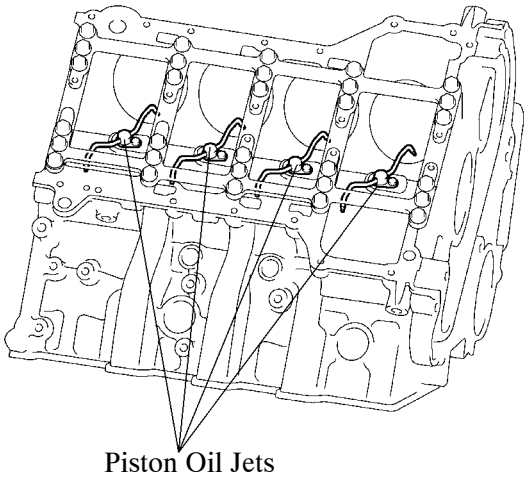
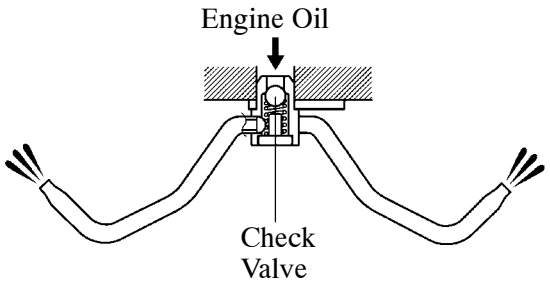
2. Piston Oil Jet

- Piston oil jets are provided at the bottom of the cylinder block to spray oil to the piston's cooling channel, thus further cooling and lubricating the pistons.
- These oil jets contain a check valve to prevent oil from being fed when the oil pressure is low. This prevents the overall oil pressure in the engine from dropping.





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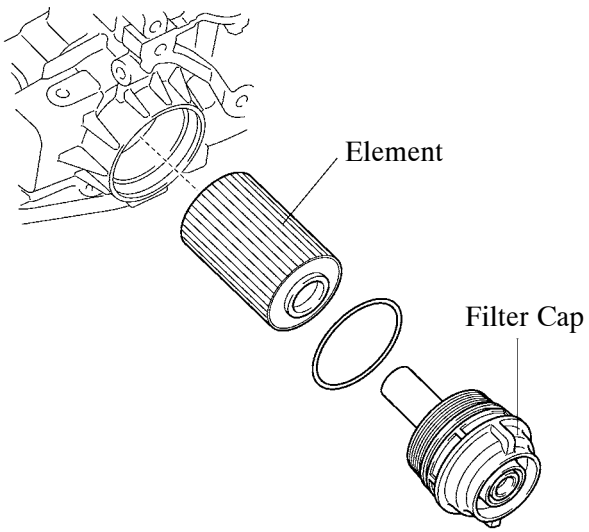
3. Oil Filter

- An oil filter with a replaceable element is used. The element uses a high-performance filter paper to improve filtration performance. It is also combustible for environmental protection.
- An aluminum alloy filter cap is used to extend its life.



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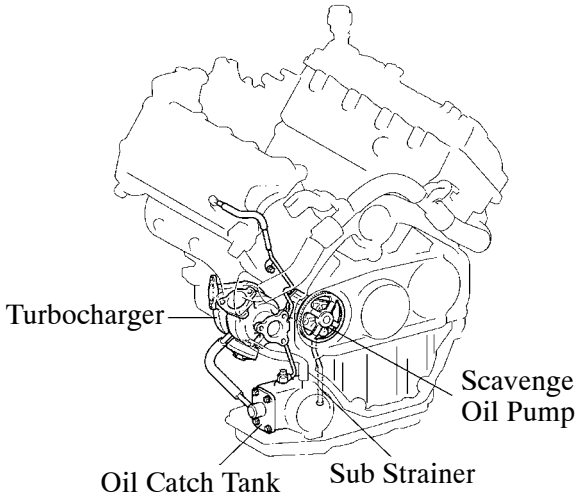
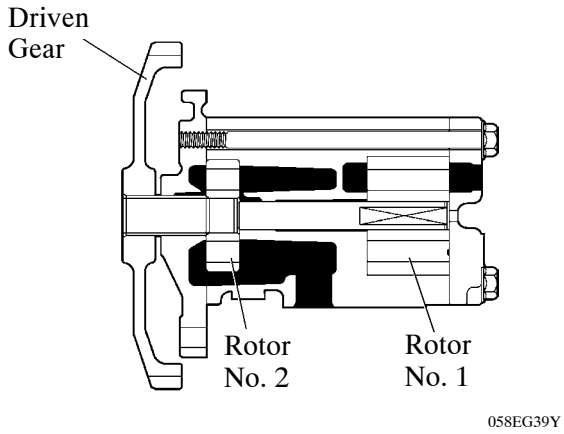
4. Scavenge Oil Pump

- A scavenge oil pump is used to suppress the accumulation of oil in the turbocharger while driving on a slope.
- The scavenge oil pump, which is located at the back end of the cylinder block, is driven by the crankshaft via gears.
- After the turbocharger discharges the oil, the scavenge oil pump (rotor No. 1) returns the oil from the oil catch tank through a forced suction and discharges it to the oil pan. Rotor No. 2 sucks the oil up from the sub strainer in order to lubricate the scavenge oil pump.





Scavenge Oil Pump Cross Section

▶ Pump Components and Functions ◀

Component		Function
Oil Catch Tank		Integrated in the oil pan, the oil catch tank separates the oil discharged by the turbocharger into gas and liquid.
Scavenge Oil Pump	Rotor No. 1	Returns the oil from the oil catch tank by suction, and discharges it to the oil pan.
	Rotor No. 2	Sucks the oil from the oil pan to lubricate the scavenge oil pump.

▶ System Diagram ◀