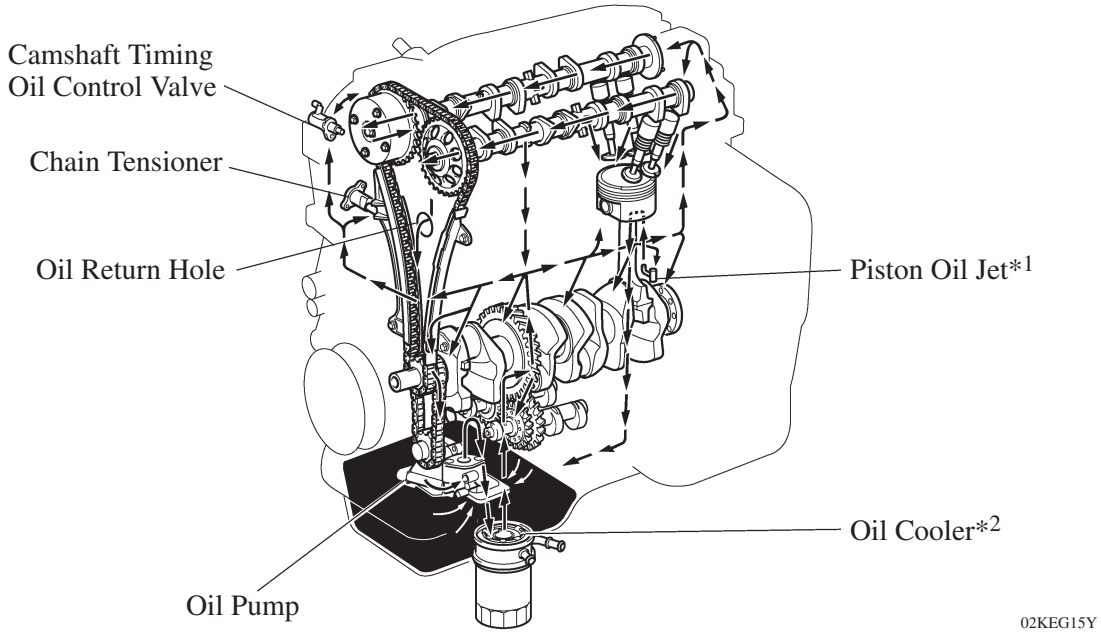
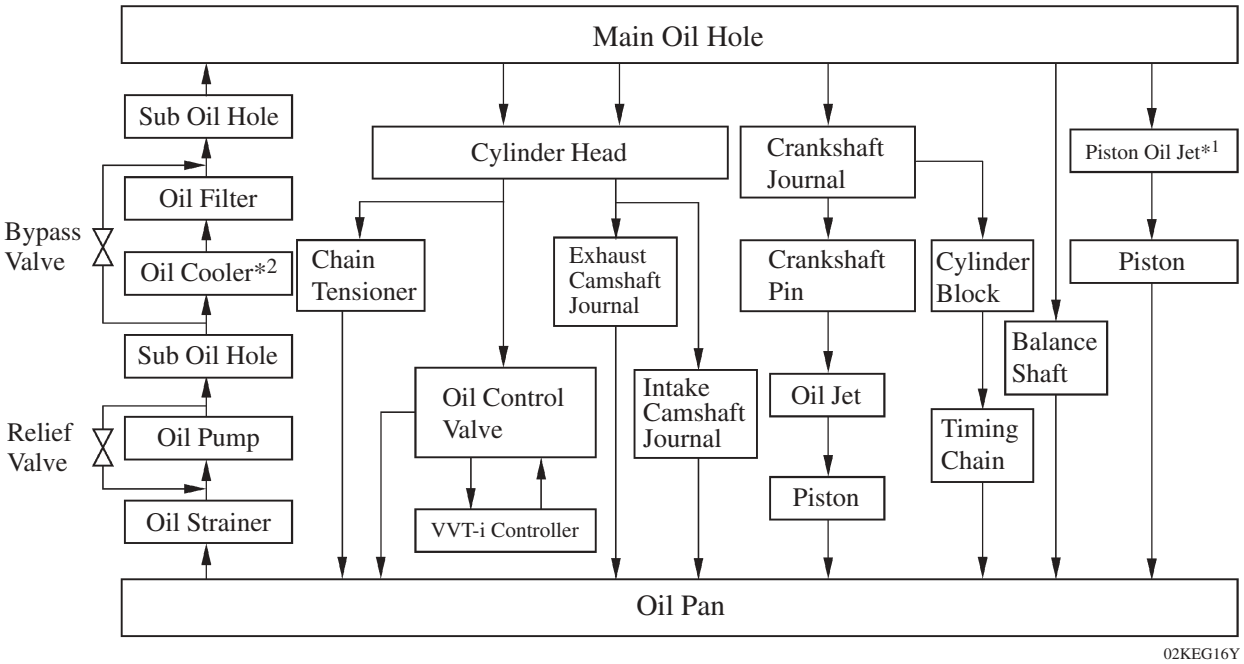
■LUBRICATION SYSTEM

1. General

- The lubrication circuit is fully pressurized and oil passes through an oil filter.
- The trochoidal type oil pump is chain-driven by the crankshaft.
- The oil filter is attached downward from the crankcase to improve serviceability.
- Along with the adoption of the VVT-i system, the cylinder head is provided with a VVT-i controller and a camshaft timing oil control valve. This system operates using the engine oil.
- The piston oil jets for cooling and lubricating the pistons are used in the cylinder block, on 2AZ-FE engine models except for Australia and G.C.C. countries.
- A water-cooled oil cooler has been installed between the crankcase and the oil filter, on models for Australia and G.C.C. countries.



▶ Oil Circuit ◀



*1: 2AZ-FE engine models except for Australia and G.C.C. countries
*2: Models for Australia and G.C.C. countries

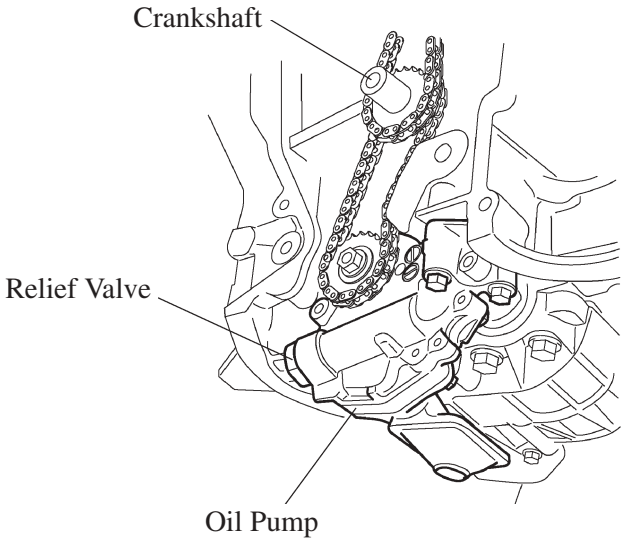
▶ Oil Capacity ◀

Liters (US qts, Imp. qts)

Engine Type	1AZ-FE	2AZ-FE	
		Models except for Australia and G.C.C. Countries	Models for Australia and G.C.C. Countries
Dry	5.0 (5.3, 4.4)	5.0 (5.3, 4.4)	5.0 (5.3, 4.4)
with Oil Filter	4.3 (4.5, 3.8)	4.3 (4.5, 3.8)	4.3 (4.5, 3.8)
without Oil Filter	4.1 (4.3, 3.6)	4.1 (4.3, 3.6)	4.1 (4.3, 3.6)

2. Oil Pump

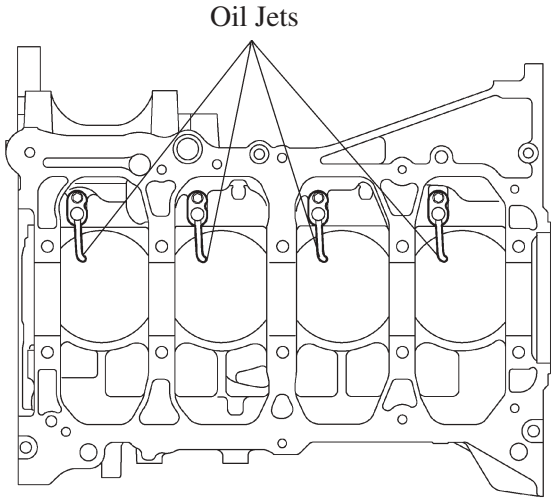
- The trochoidal type oil pump is chain-driven by the crankshaft, and fits compactly inside the oil pan.
- Friction has been reduced by means of 2 relief holes in the internal relief system.



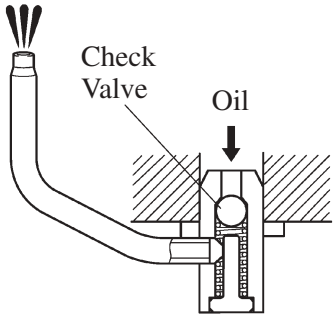
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3. Piston Oil Jet

Piston 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.



Bottom Side View



Oil Jet Cross Section

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