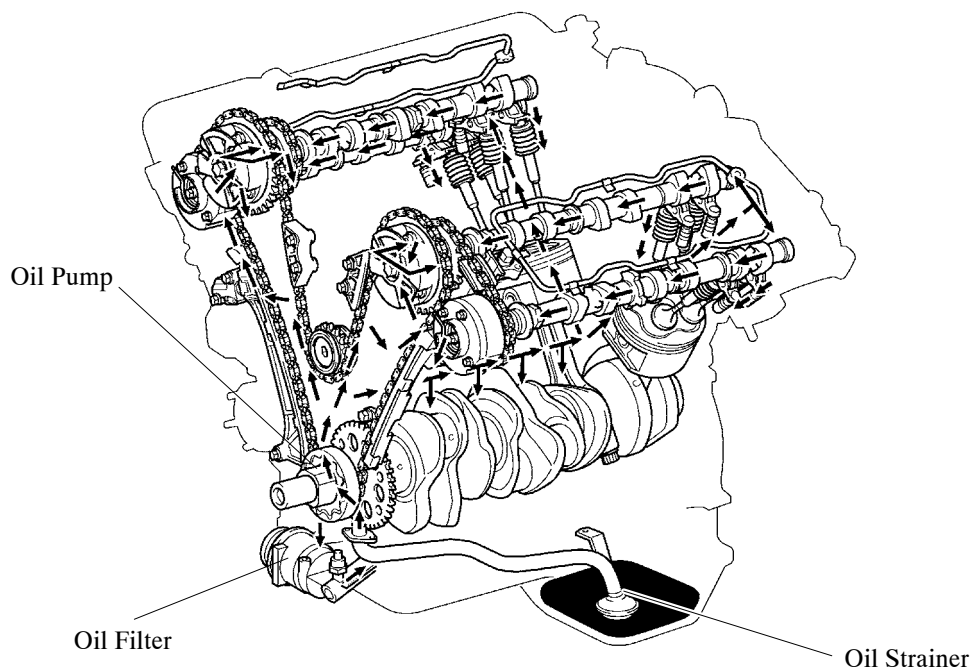


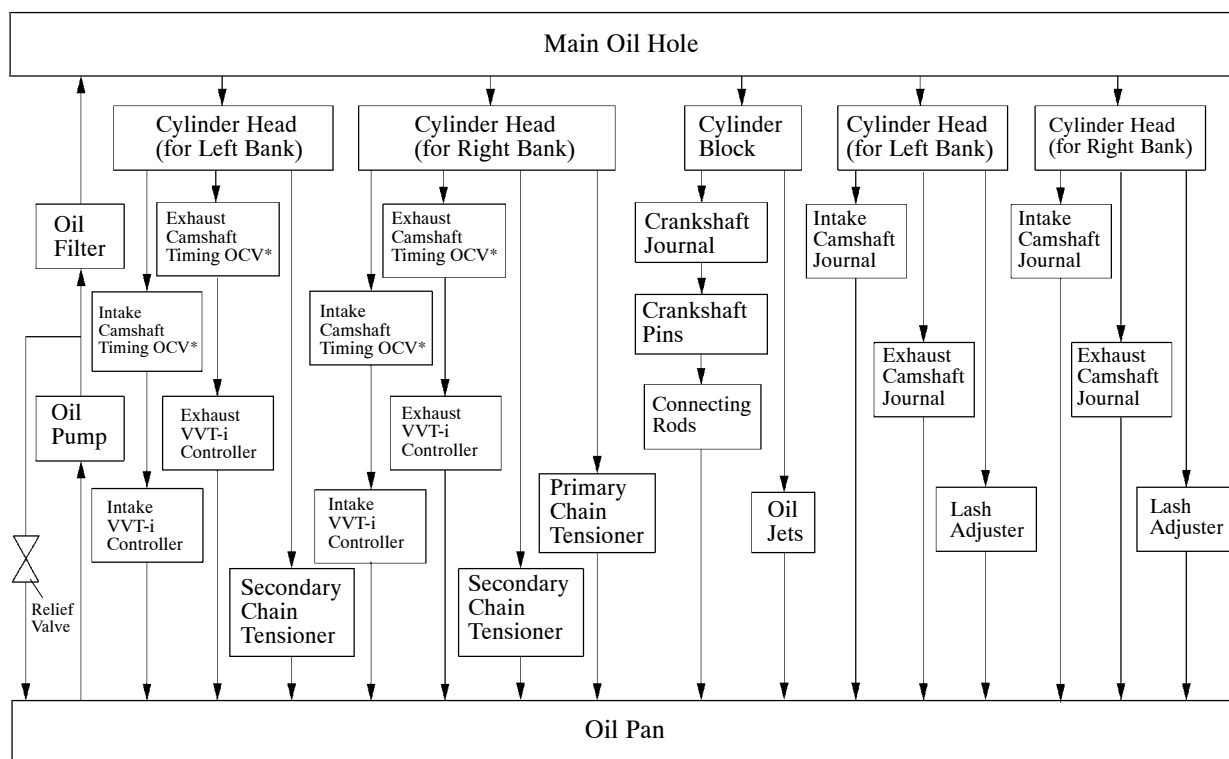
■ LUBRICATION SYSTEM

1. General

- The lubrication circuit is fully pressurized and all oil passes through an oil filter.
- A cycloid rotor type oil pump is used.



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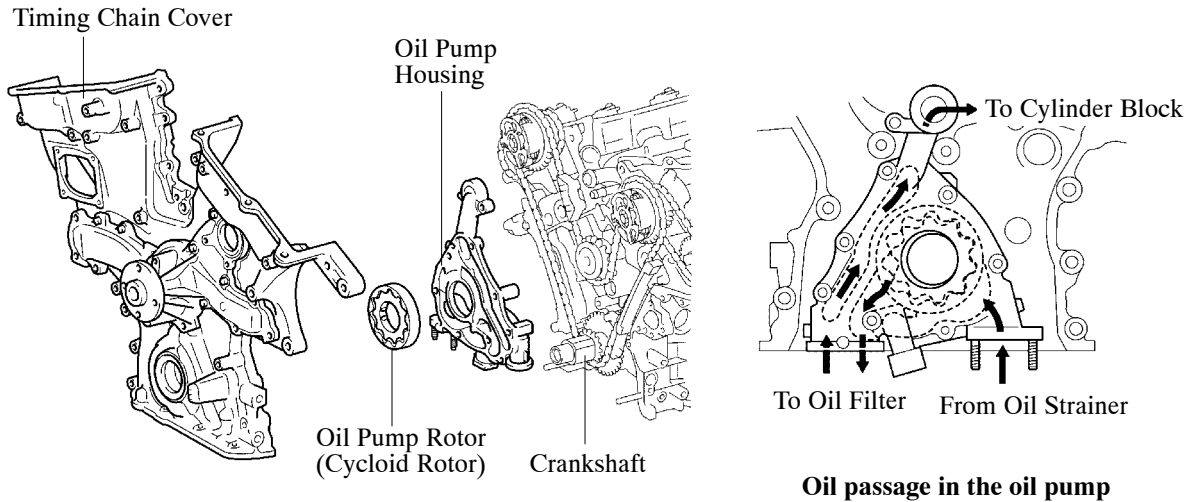


*: Oil Control Valve

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2. Oil Pump

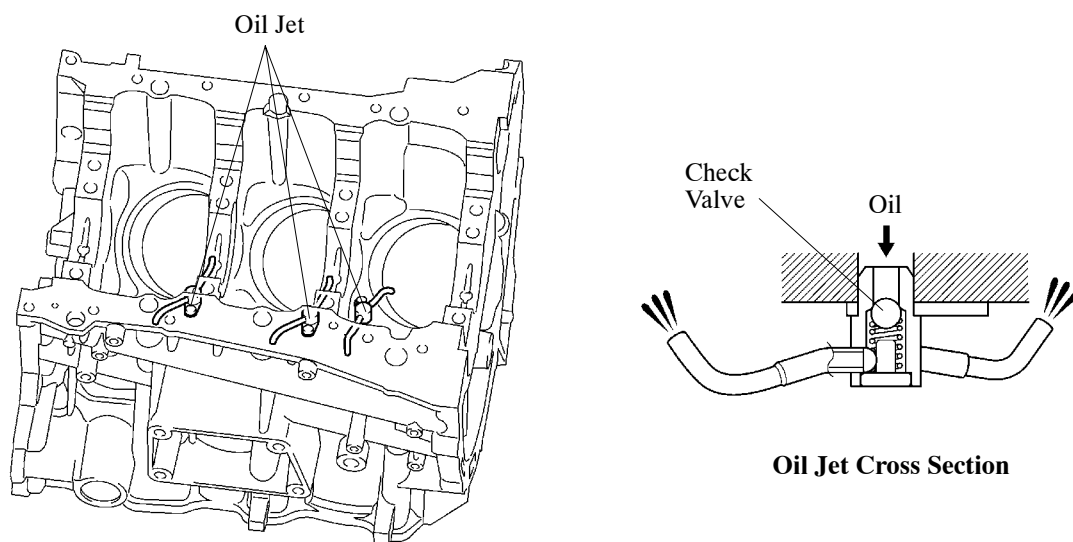
- A compact cycloid rotor type oil pump directly driven by the crankshaft is used.
- This oil pump has used an internal relief method which circulates relief oil to the suction passage in the oil pump. This aims to minimize oil level change in the oil pan, reduce friction, and reduce air mixing rate in the oil.



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3. Oil Jet

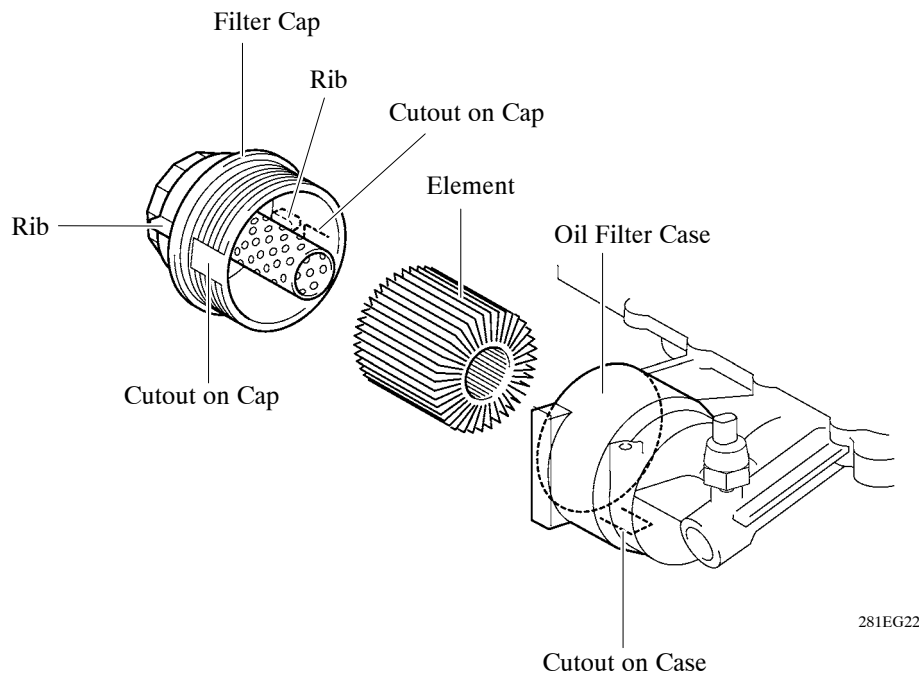
- Oil jets for cooling and lubricating the pistons are provided in the cylinder block, in the center of the right and left banks.
- These oil jets contain a check valve to prevent oil from being fed when the oil pressure is low. This prevents the overall oil pressure in the engine from dropping.



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4. Oil Filter

- A newly developed 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.
- A drain construction is provided to suppress the splashing of the oil during the replacement of the oil filter element. Oil can be drained by matching the thread cutout on the cap against the thread cutout on the case.



Service Tip

- To drain oil, rotate the cap about four turns, and align the cutouts on the cap and the case by using the rib as a reference.
- The engine oil maintenance interval for a model that has an oil filter with a replaceable element is the same as that for the conventional model.

For details, refer to the LEXUS IS250/220d Repair Manual (Pub. No. RM0151E).