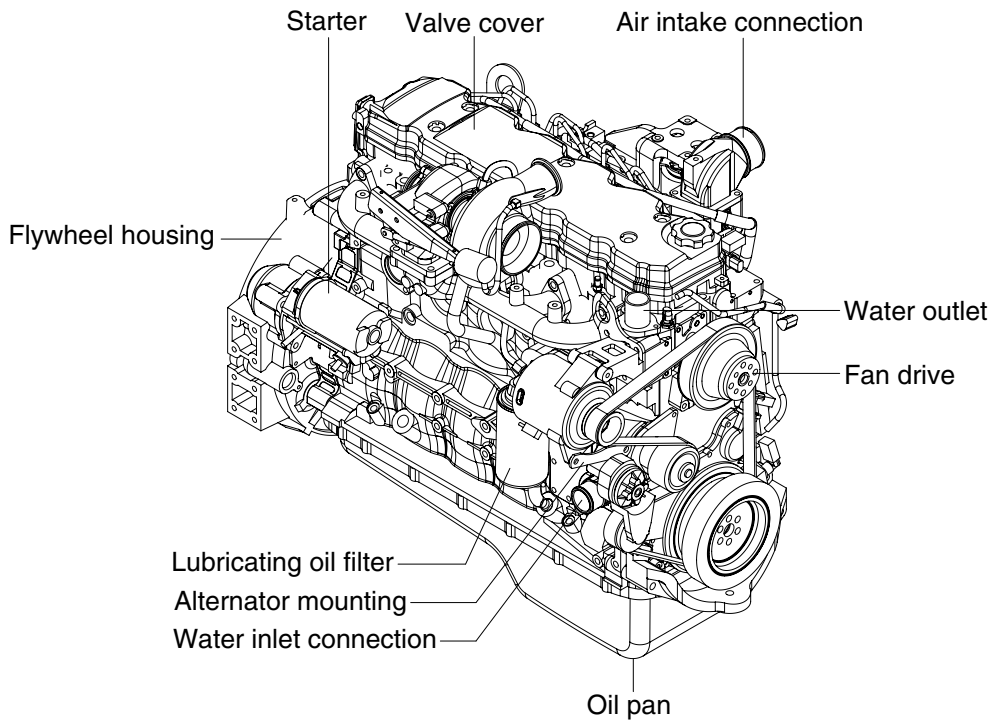
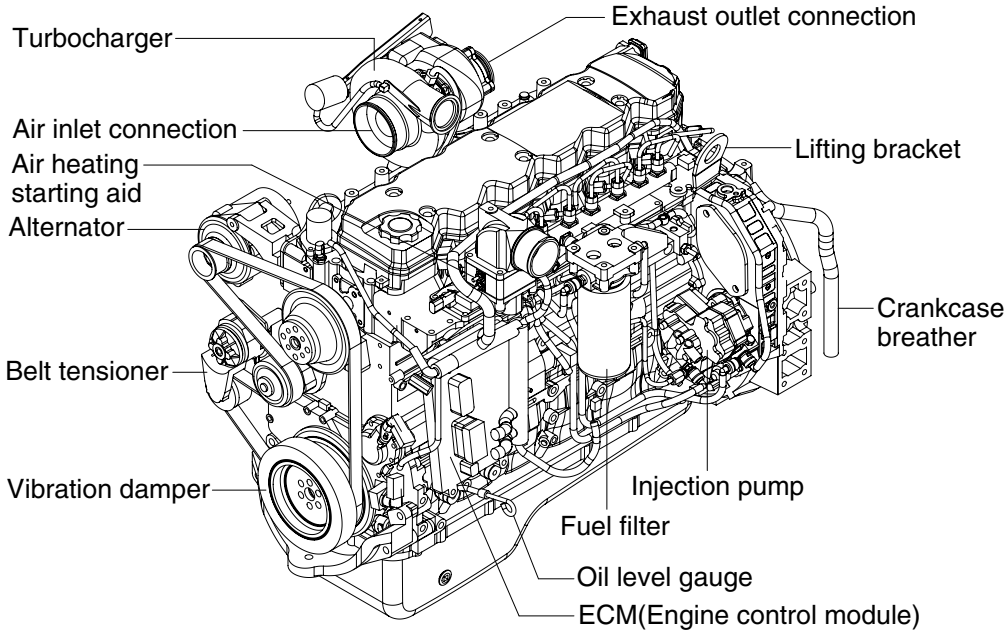


SECTION 2 ENGINE

GROUP 1 STRUCTURE AND FUNCTION

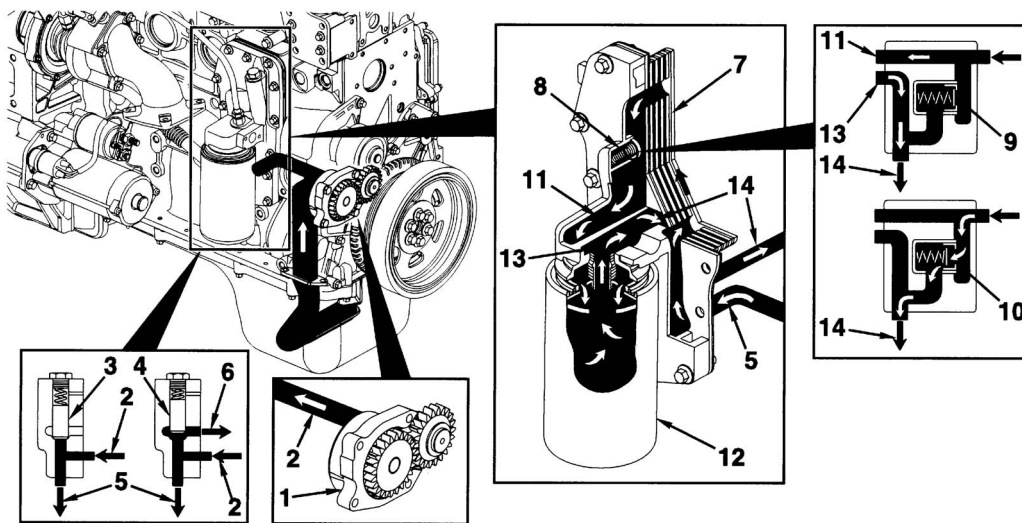
1. STRUCTURE



7577AEG01

- Direct 4-stroke, 6-cylinders, water-cooling and charge air cooled diesel engine in installed, cylinder block and cylinder head are made of case iron and turbocharger is attached.

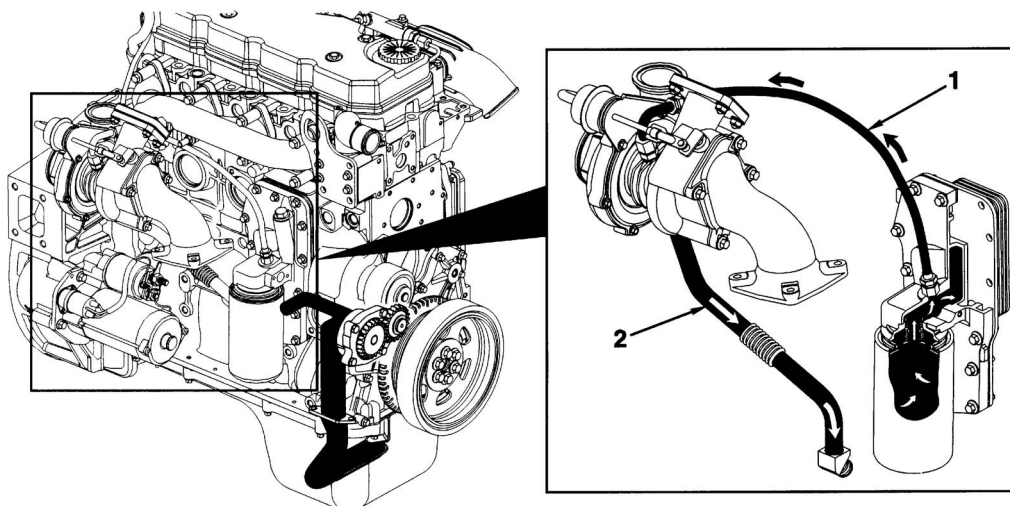
2) LUBRICATING OIL SYSTEM



7607AEG03

- | | | | |
|---|----------------------------------|----|----------------------------------|
| 1 | Gerotor lubricating oil pump | 8 | Filter bypass valve |
| 2 | From lubricating oil pump | 9 | Filter bypass valve closed |
| 3 | Pressure regulating valve closed | 10 | Filter bypass valve open |
| 4 | Pressure regulating valve open | 11 | To lubricating oil filter |
| 5 | To lubricating oil cooler | 12 | Full-flow lubricating oil filter |
| 6 | To lubricating oil pump supply | 13 | From lubricating oil filter |
| 7 | Lubricating oil cooler | 14 | Main lubricating oil rifle |

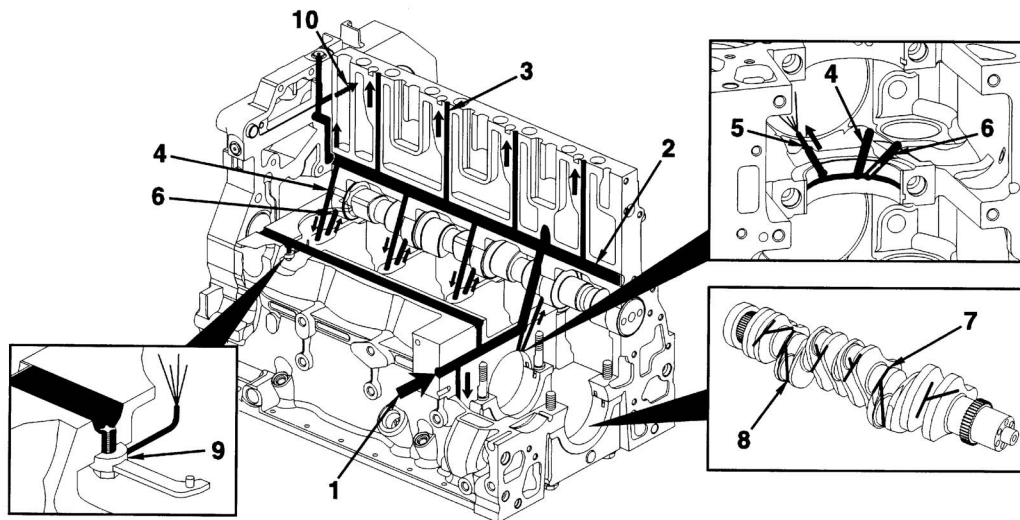
(1) Lubrication for the turbocharger



7607AEG04

- | | | | |
|---|-------------------------------------|---|------------------------------------|
| 1 | Turbocharger lubricating oil supply | 2 | Turbocharger lubricating oil drain |
|---|-------------------------------------|---|------------------------------------|

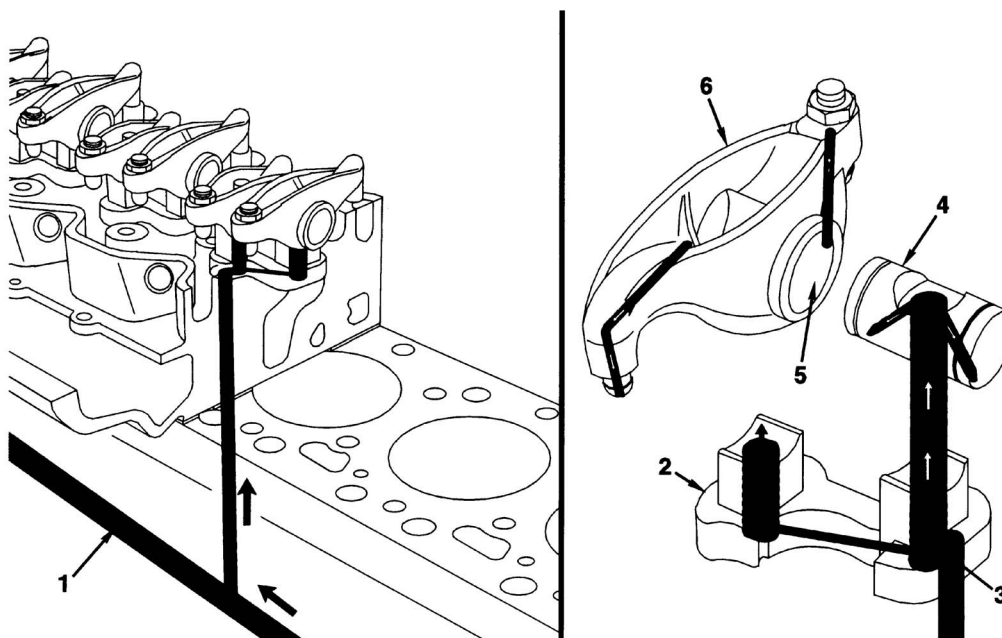
(2) Lubrication for the power components



7607AEG05

- | | | | |
|---|---------------------------------|----|---|
| 1 | From lubricating oil cooler | 6 | To camshaft |
| 2 | Main lubricating oil rifle | 7 | Crankshaft main journal |
| 3 | To valve train | 8 | Oil supply to rod bearings |
| 4 | From main lubricating oil rifle | 9 | Directed piston-cooling nozzle |
| 5 | To piston-cooling nozzle | 10 | To internal lubrication of air compressor |

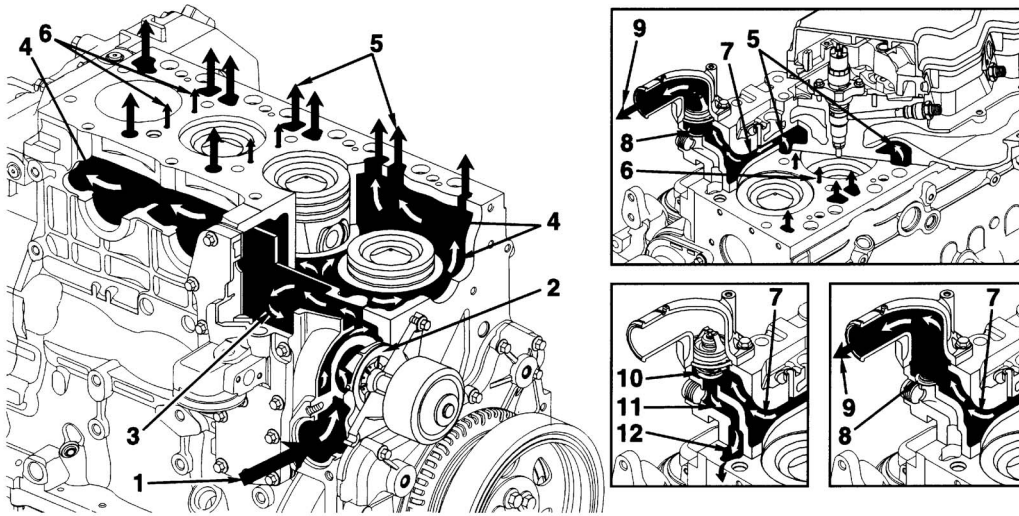
(3) Lubrication for the overhead



7607AEG06

- | | | | |
|---|----------------------------|---|--------------------|
| 1 | Main lubricating oil rifle | 4 | Rocker lever shaft |
| 2 | Rocker lever support | 5 | Rocker lever bore |
| 3 | Transfer slot | 6 | Rocker lever |

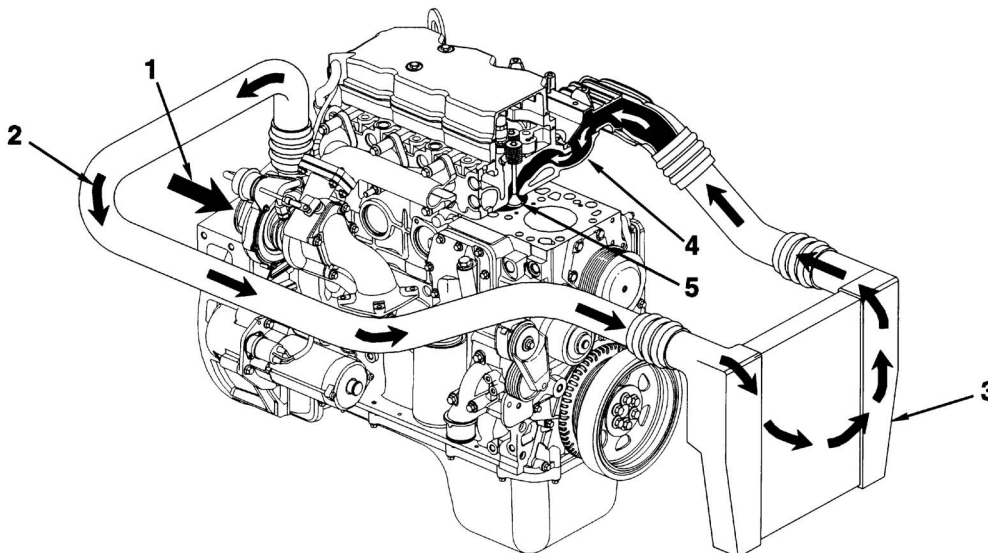
3) COOLING SYSTEM



7607AEG07

- | | | | |
|---|---|----|------------------------------------|
| 1 | Coolant inlet | 7 | Coolant flow to thermostat housing |
| 2 | Pump Impeller | 8 | Coolant bypass passage |
| 3 | Coolant flow past lubricating oil cooler | 9 | Coolant flow back to radiator |
| 4 | Coolant flow past cylinders | 10 | Bypass closed |
| 5 | Coolant flow from cylinder block to cylinder head | 11 | Coolant bypass in cylinder head |
| 6 | Coolant flow between cylinders | 12 | Coolant flow to water pump inlet |

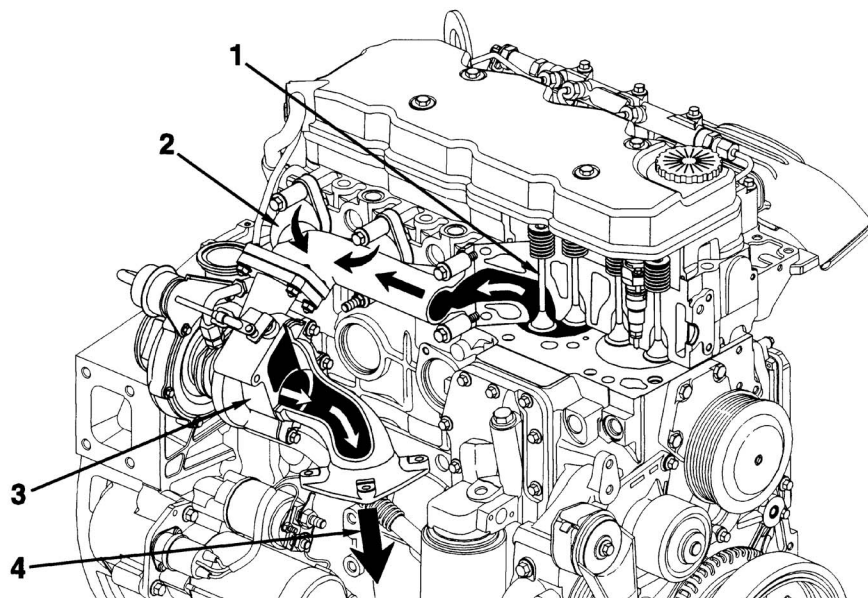
4) AIR INTAKE SYSTEM



7607AEG08

- | | | | |
|---|---------------------------------------|---|---|
| 1 | Intake air inlet to turbocharger | 4 | Intake manifold
(Integral part of cylinder head) |
| 2 | Turbocharger air to charge air cooler | 5 | Intake valve |
| 3 | Charge air cooler | | |

5) EXHAUST SYSTEM



7607AEG09

1 Exhaust valve

2 Exhaust manifold

3 Turbocharger

4 Turbocharger exhaust outlet