

LUBRICATION SYSTEM**1538-01****GENERAL INFORMATION****1. SPECIFICATIONS**

Category	Specifications	Remarks
Oil pump	Lubrication	Gear pump, forced circulation
	Type	Vane type + Solenoid valve (VOP)
	Number of sprocket teeth	33
	Pressure valve opening pressure	7.0 ± 1 bar
	VOP pressure (at about 140°C)	2.0 bar (SOL. ON) 4.0 bar (SOL. OFF)
Oil filter module	Type	Water and thermostat housing + Oil filter module
	Oil flow rate	About 40 L/min (80°C)
	Bypass valve opening pressure	1.0 ± 0.2 bar
	Non-return valve opening pressure	0.2 ± 0.04 bar
	Filter service interval	- When changing engine oil - After 15,000 km of driving (After initial check 7,500 km of driving) - 12 months after previous replacement
Engine oil	Specifications	- Ssangyong genuine engine oil (ZIC SYMC 5W-30, ZIC SYMC FE 5W-20) - Approved by MB 229.51 5W30, MB 229.52 5W30, API SN / ILSAC GF-5 5W20
	Capacity	4.0 l (4.5 l at initial fill)
	Service interval	After initial 10,000 km of driving → At every 15,000 km of driving or 12 months

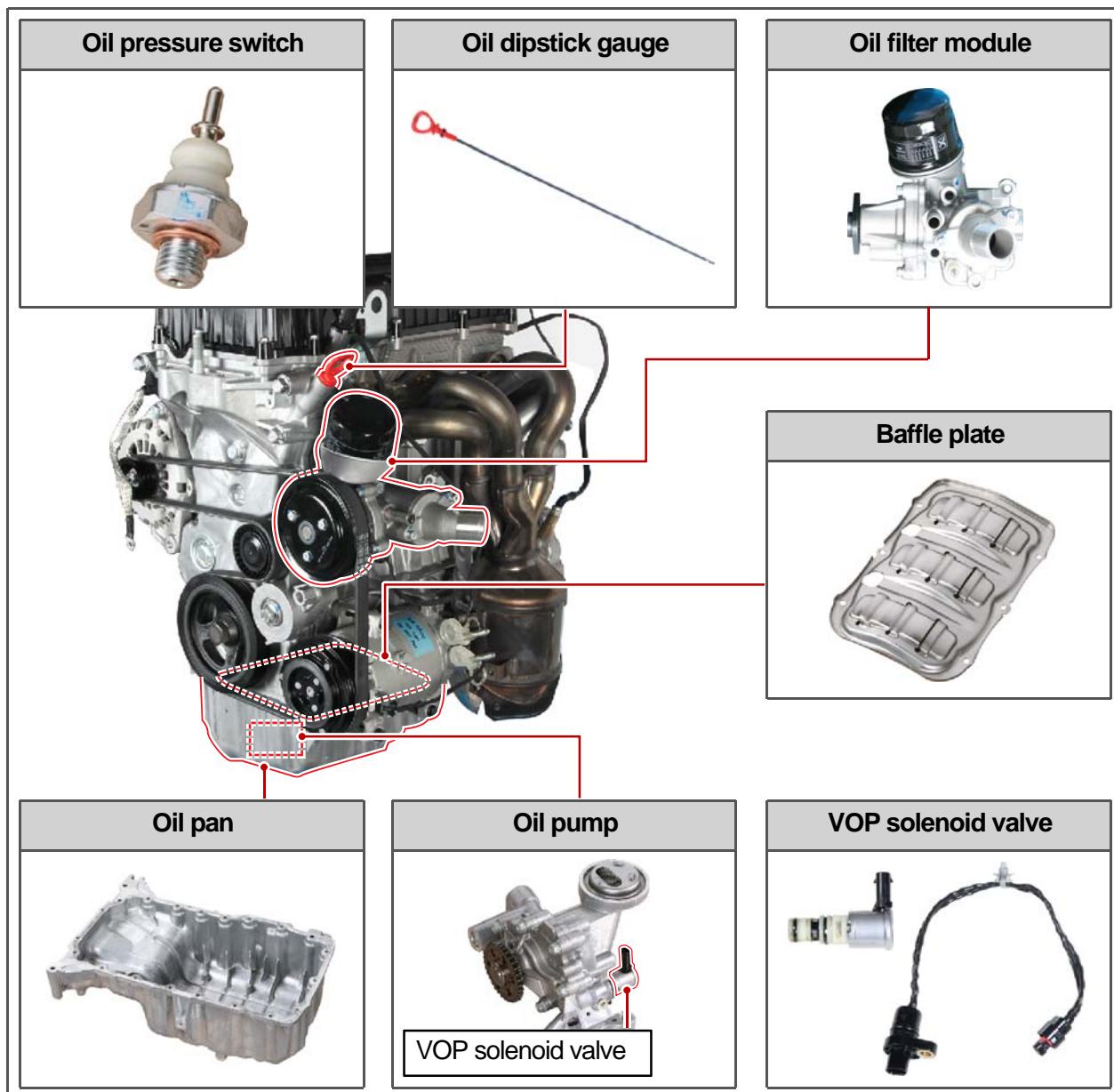
Modification basis	
Application basis	
Affected VIN	

OVERVIEW AND OPERATING PROCESS

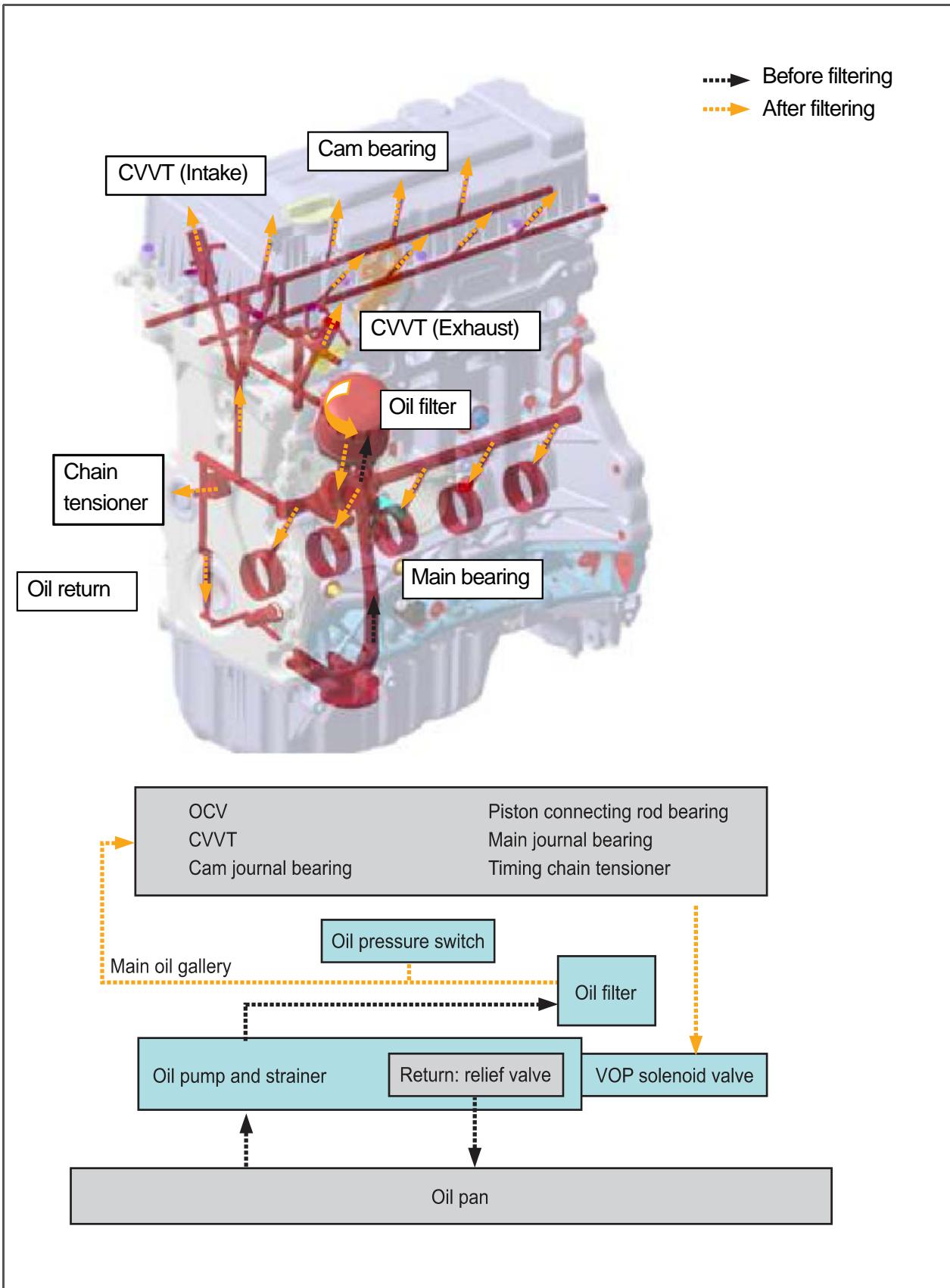
1. OVERVIEW

The lubrication system supplies oil to various parts of the engine that require lubrication to reduce friction, wear, heat on the surfaces in contact with each other. When the engine is running, frictional heat is generated by moving parts. If this heat builds up, the bearing can be stuck. The lubrication system creates an oil film on each contact surface of the two moving parts to convert solid friction to liquid friction in order to reduce wear and prevent the temperature from increasing. The lubrication system is equipped with a variable oil pump (VOP) which improves the fuel economy in low/moderate speed range and ensures the reliability in high speed range.

2. COMPONENTS

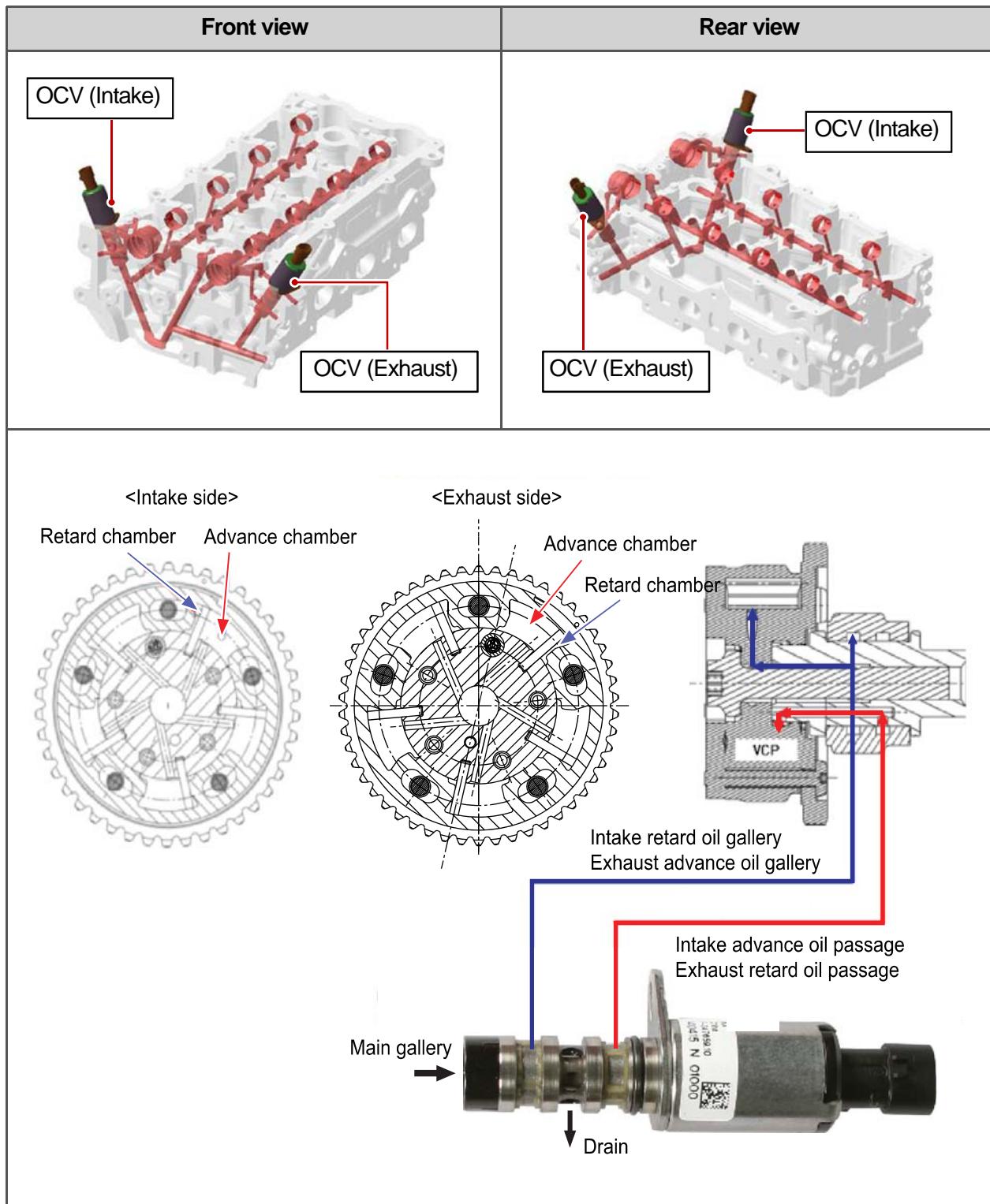


3. SYSTEM DIAGRAM



Modification basis	
Application basis	
Affected VIN	

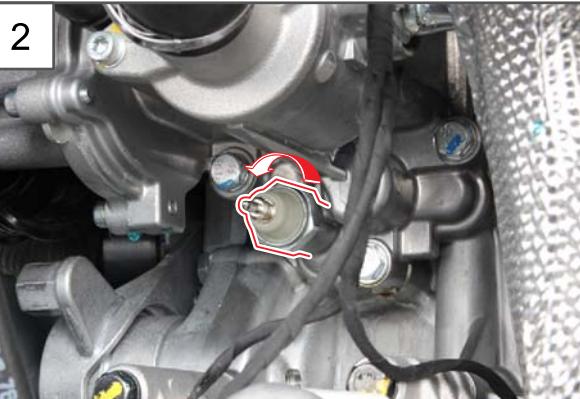
► CVVT and camshaft oil passages



! NOTE

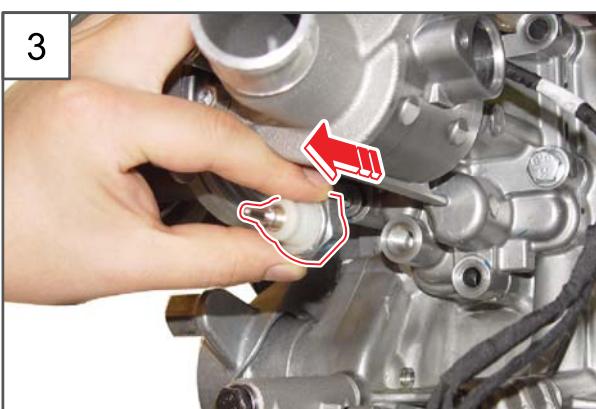
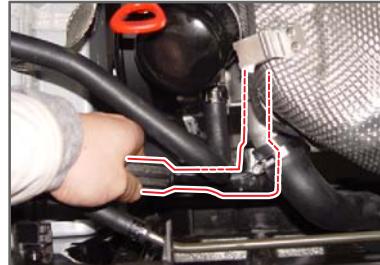
Refer to "ENGINE CONTROL" section in "G16DF ENGINE" chapter for detailed operation process of the CVVT.

Modification basis	
Application basis	
Affected VIN	

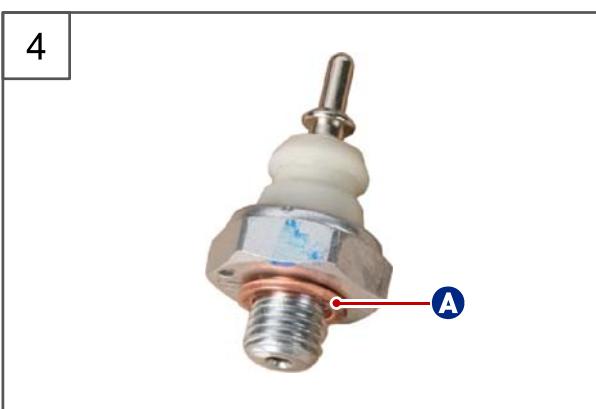


2. Turn the oil pressure switch (24 mm) anti-clockwise.

Tightening torque 50 Nm



3. Remove the oil pressure switch.



4. Install in the reverse order of removal.

NOTE

When fitting the oil pressure switch, always replace the washer (A) with a new one.

Modification basis	
Application basis	
Affected VIN	