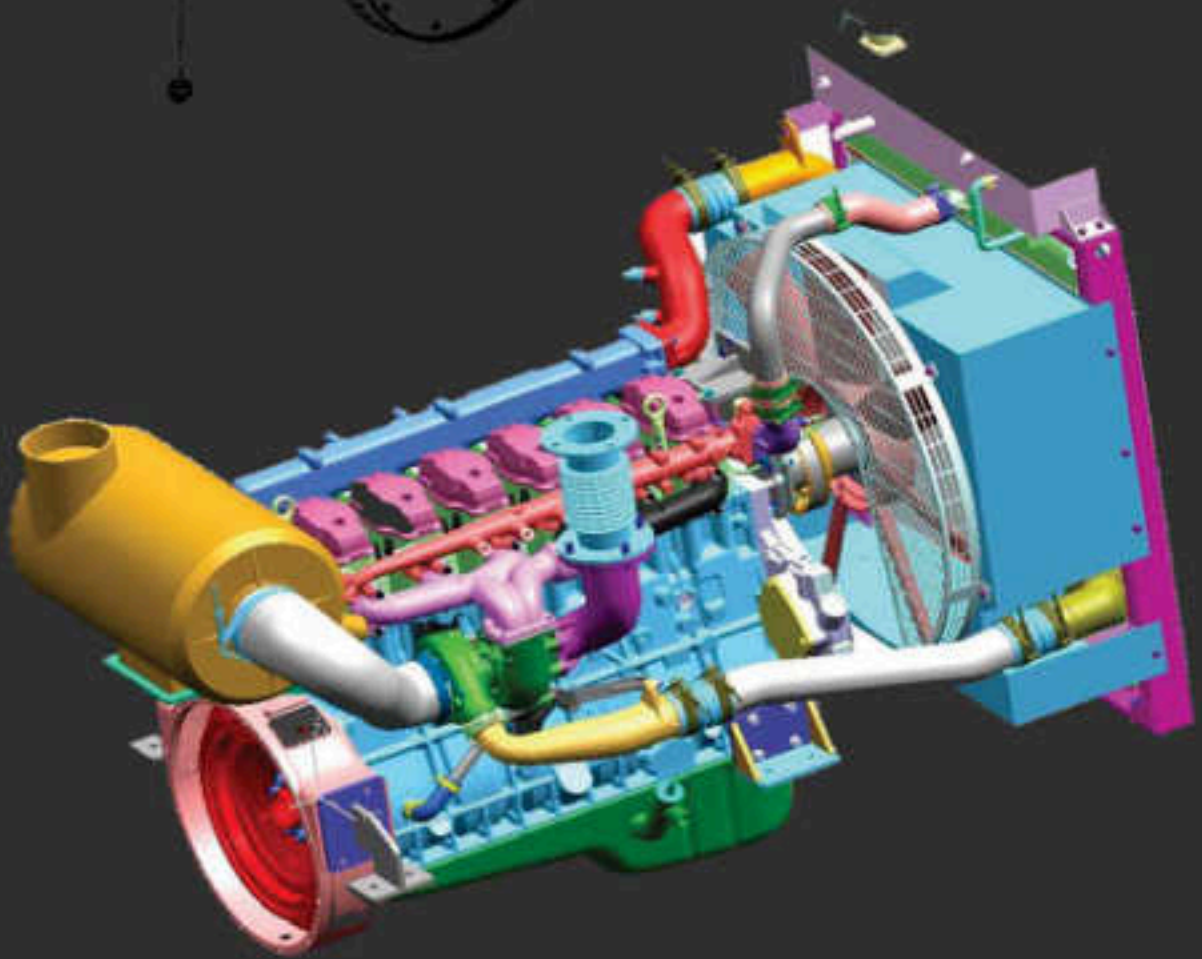
Mahindra NAVISTAR Engines (P) Limited



ACTEON 6.12 MECHANICAL

WORKSHOP MANUAL

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Lubrication System

Description	MAXXFORCE 7.2
Oil pressure • Nominal speed • Idling speed	 5.3 bar (hot engine) 3.5 bar (hot engine)
Oil temperature • Nominal • Maximum	 90 - 110 °C 120 °C
Oil capacity	18 ℓ

Cooling System

Description	MAXXFORCE 7.2
Volume of water in the engine, without radiator	9 ℓ
Water temperature • Nominal • Maximum	 80 - 90 °C 100 °C

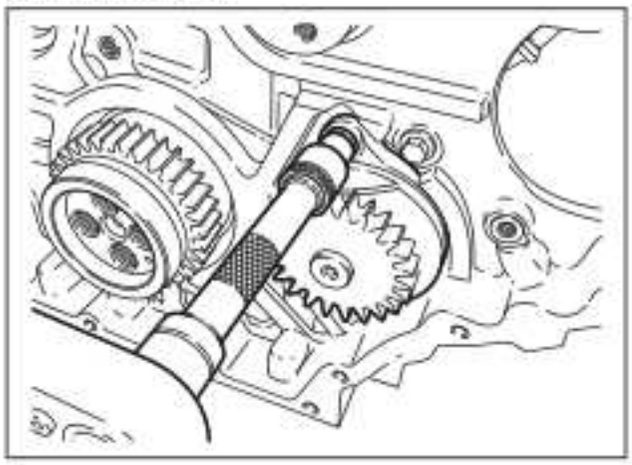
Thermostat

Thermostat	Opening beginning	Total opening	Maximum opening course
0304CAV00010N	79 ± 2°C	90°C	10.0 mm

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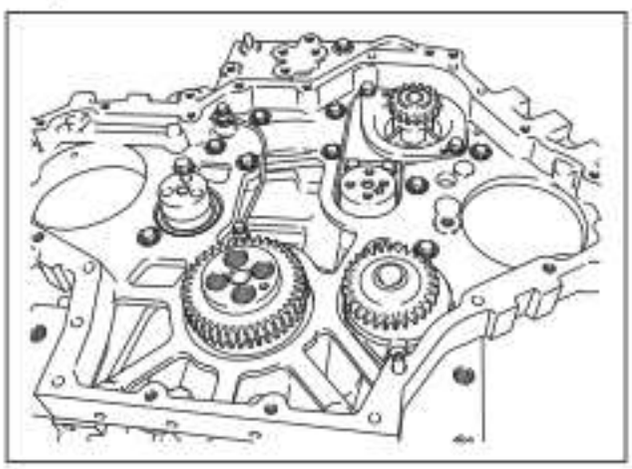
Install lubricant oil pump tightening according to the specification.Take care to do not damage the sealing ring.

Torque: 20 ± 5 Nm



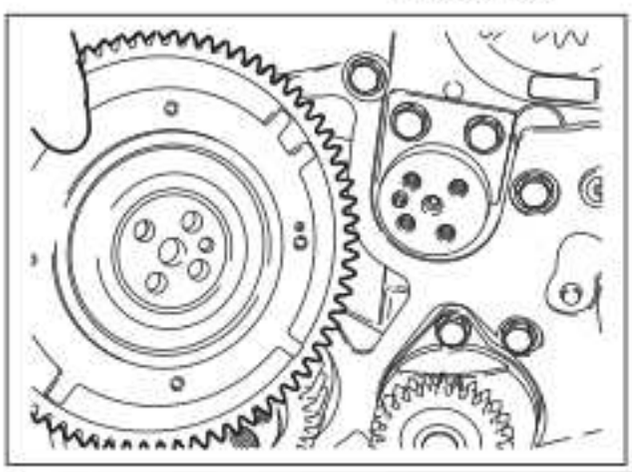
Install lubrication pipes tightening according to the specification (electronic engine shown).

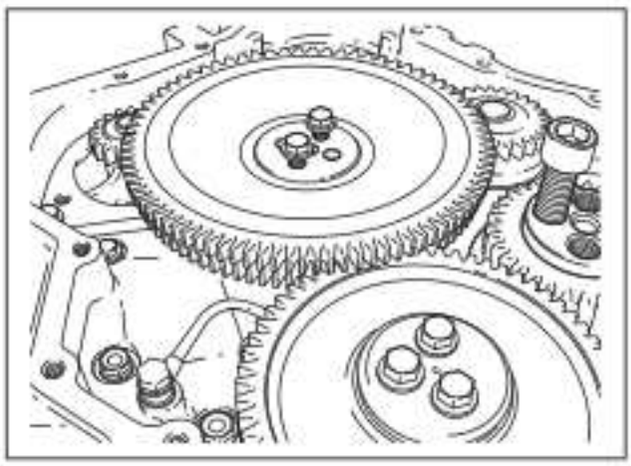
Torque: 5 ± 5 Nm



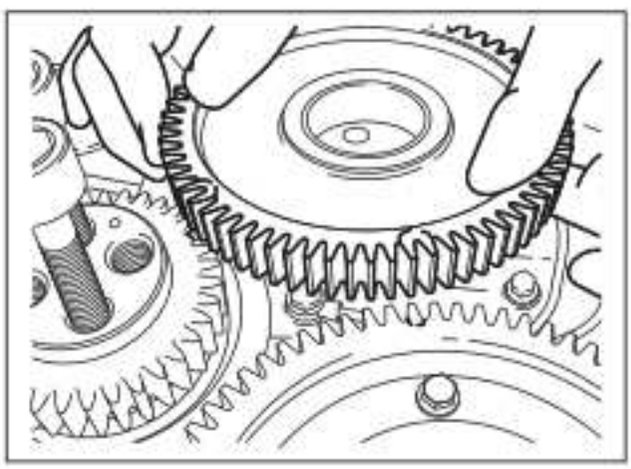
Assembly camshaft gear and tighten the bolts according to the specification.

Torque: 1st: 15±01
2nd: 28° to 32° (torque range from 35 to 65 Nm)

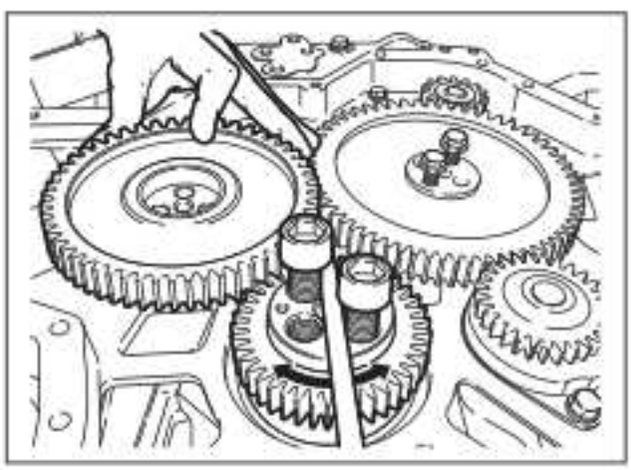




Assembly the idle gear.



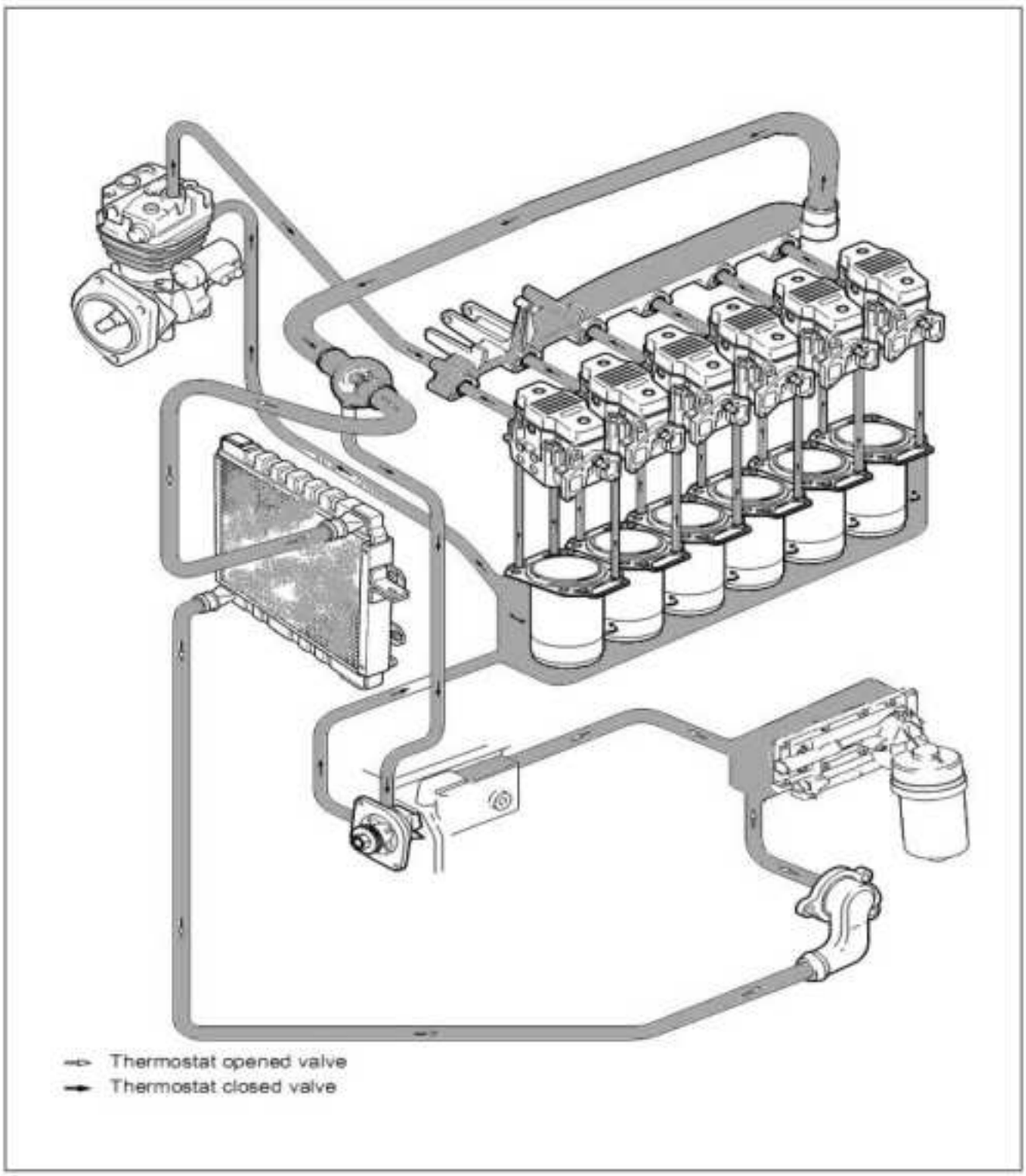
To assembly the gears in the correct timing position, use a screwdriver to make short turns. Observe the timing gear marks.



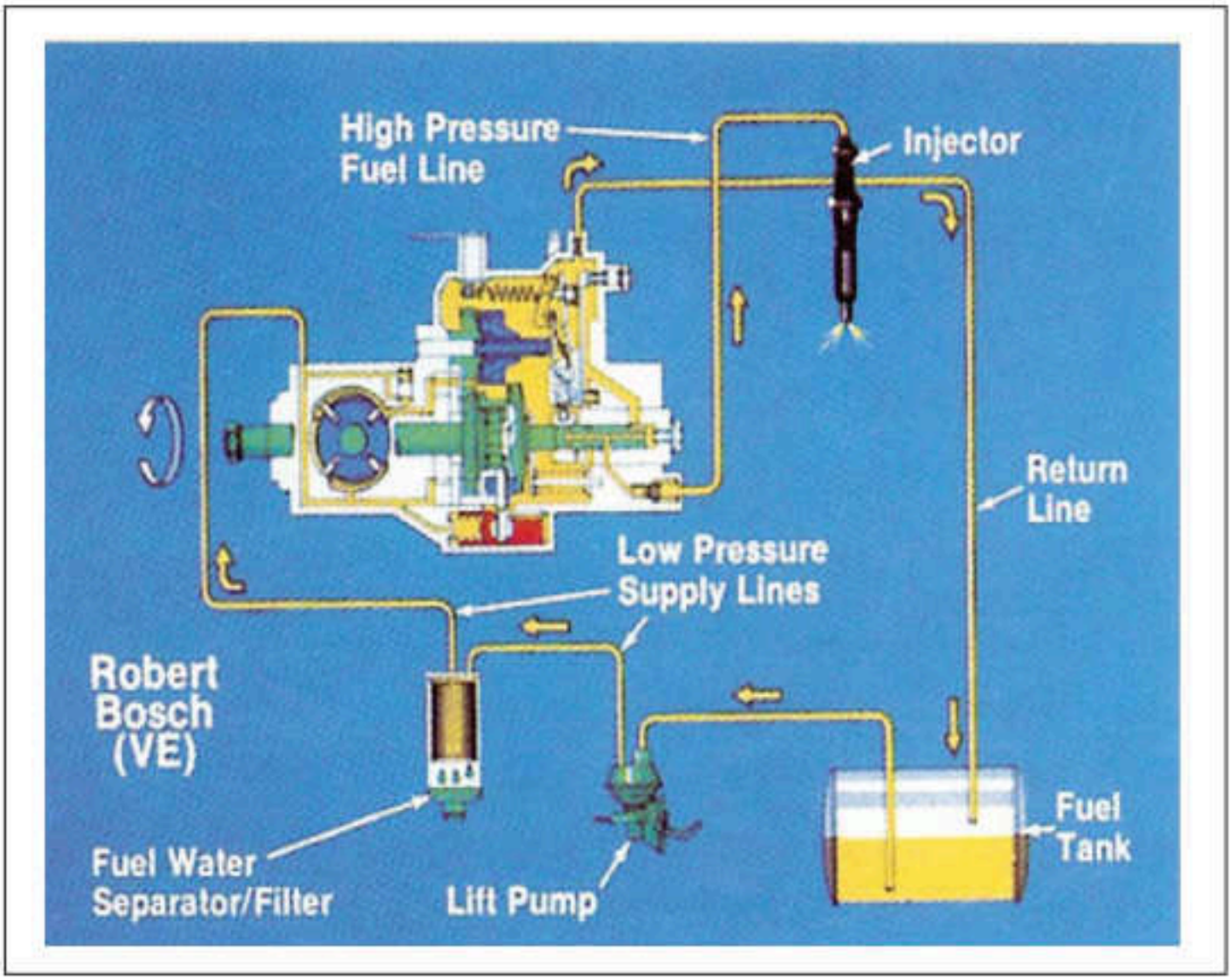
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Cooling System

COOLING CIRCUIT



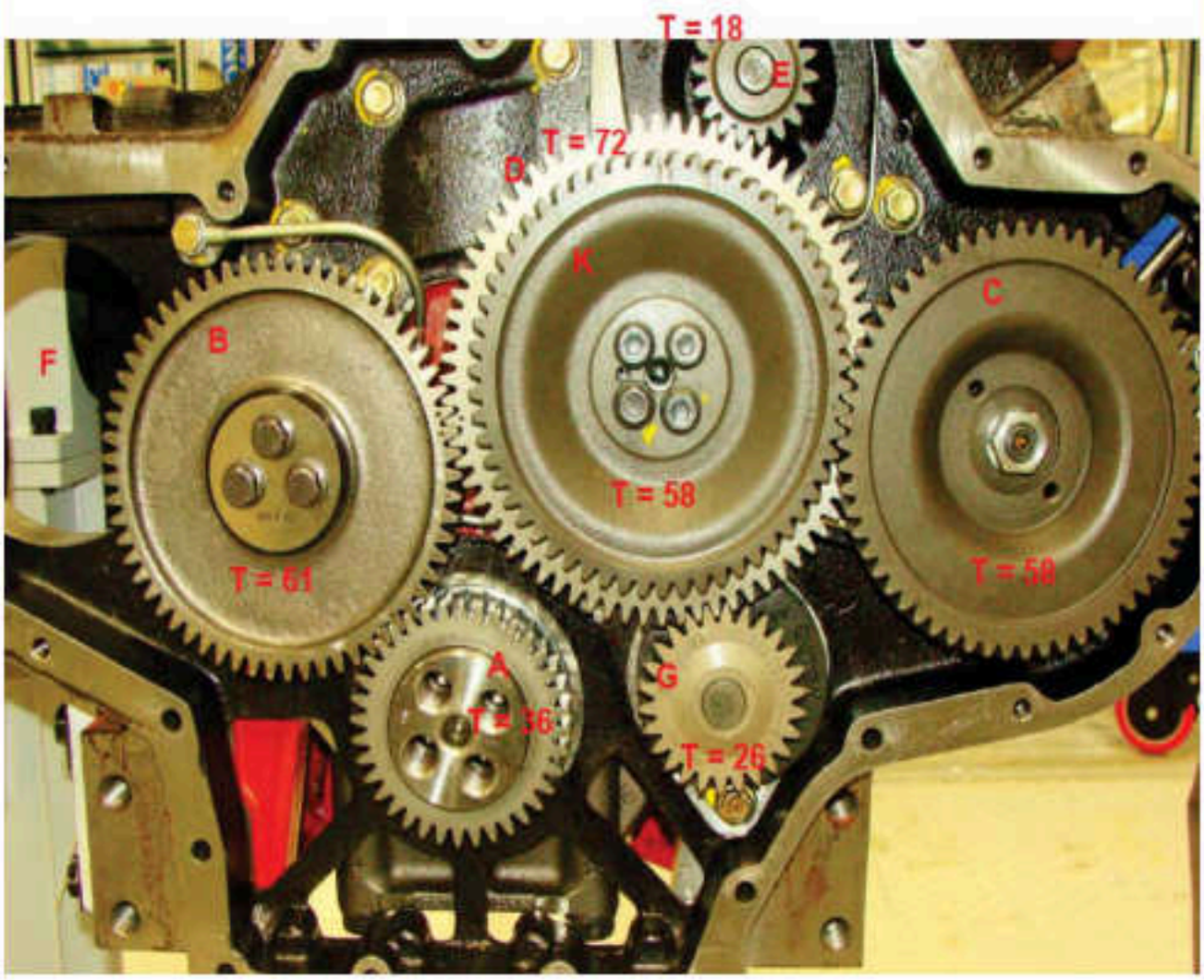
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GEARS CLEARANCES

ID	DENOMINATION
A	Crankshaft gear
B	Idle gear
C	High pressure fuel pump gear
D	Camshaft back gear
E	Water pump gear
F	Air compressor gear
G	Oil pump gear
K	Camshaft front gear



Gears backlash	0.05-0.18 mm

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