

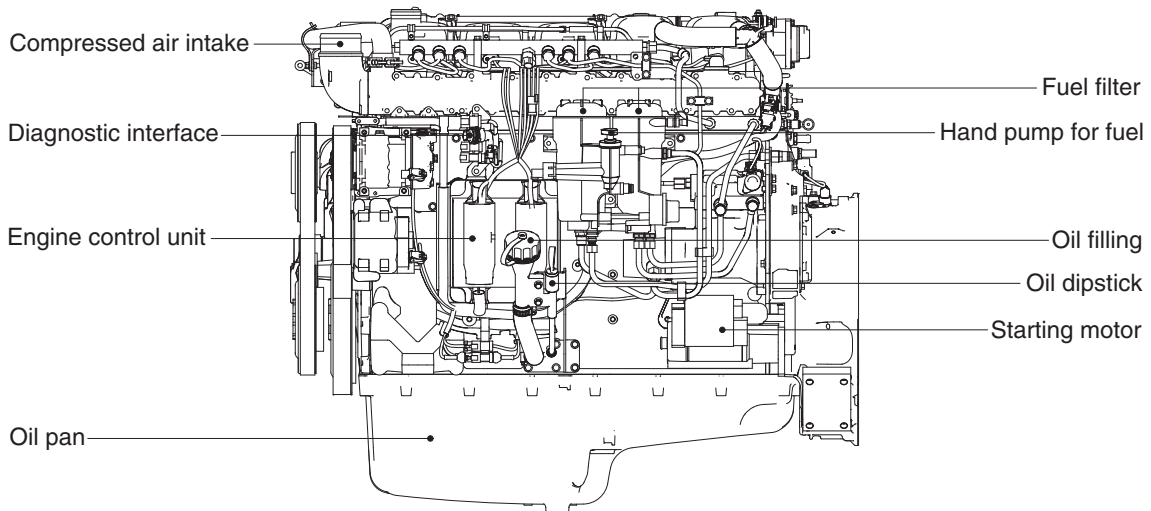
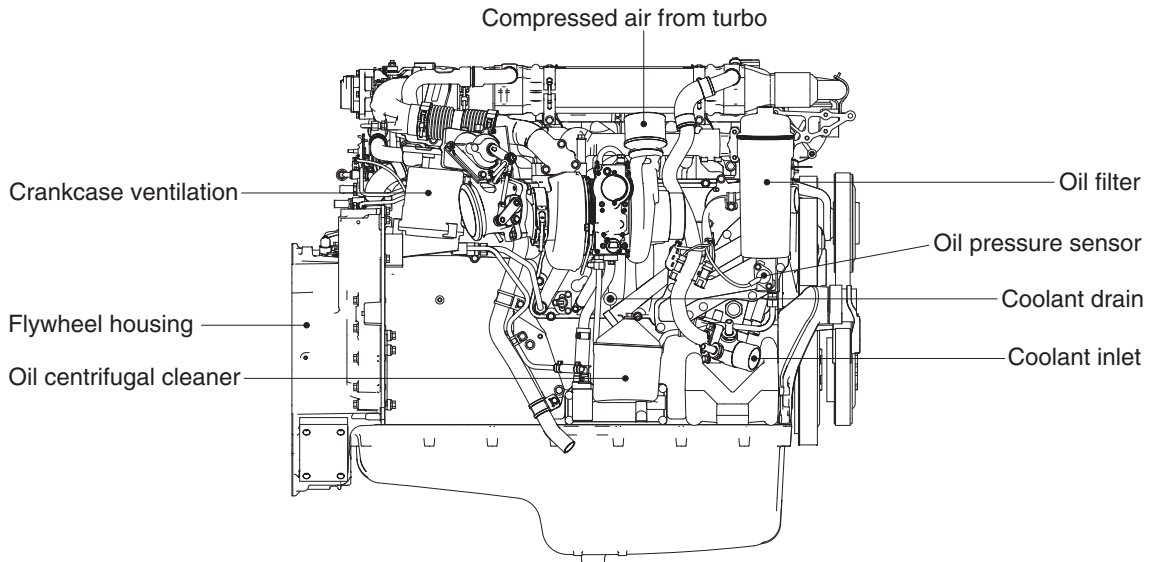
## SECTION 2 ENGINE

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# SECTION 2 ENGINE

## GROUP 1 STRUCTURE AND FUNCTION

### 1. STRUCTURE

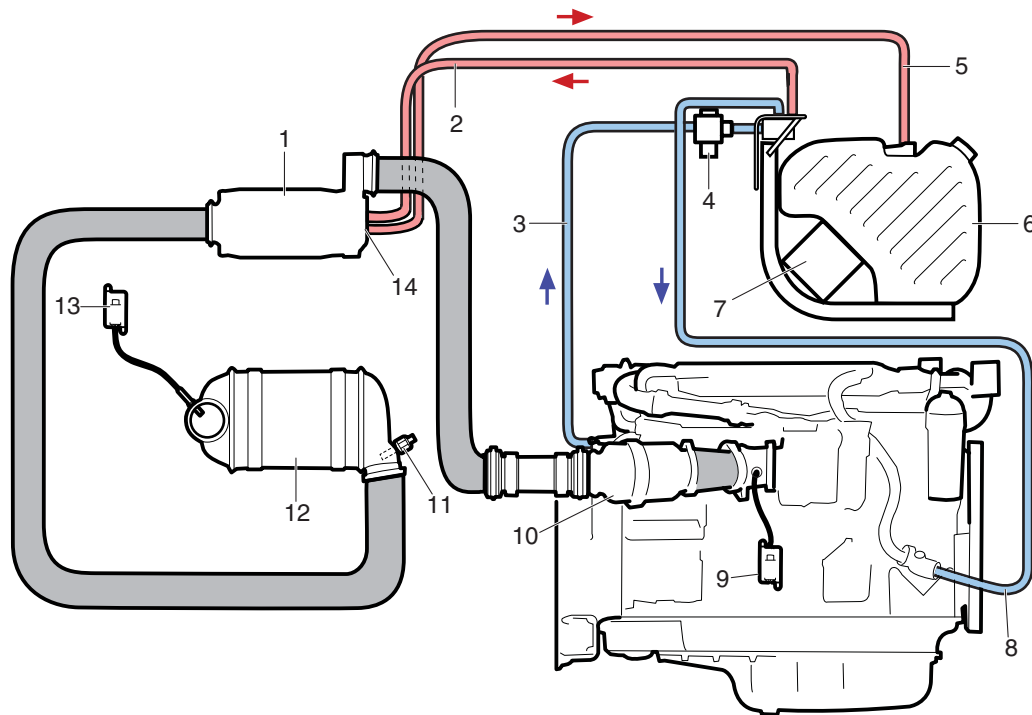


770F2EG01

- 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. SCR SYSTEM

The following drawing provides an overview of SCR system components.



770F2EG06

- |   |  |    |   |
|---|--|----|---|
| 1 | Evaporator                             | 8  | Coolant hose, return from tank and pump heating |
| 2 | Pressure line for reductant            | 9  | NOx sensor with control unit                    |
| 3 | Coolant hose for tank and pump heating | 10 | Oxidation catalytic converter                   |
| 4 | Coolant valve                          | 11 | Exhaust gas temperature sensor                  |
| 5 | Reductant return line                  | 12 | SCR catalytic converter                         |
| 6 | Reductant tank                         | 13 | NOx sensor with control unit                    |
| 7 | Reductant pump and control unit        | 14 | Reductant doser                                 |

## GROUP 2 ENGINE SPEED & STALL RPM

### 1. TEST CONDITION

- 1) Normal temperature of the whole system
  - Coolant : Approx 80°C (176°F)
  - Hydraulic oil : 45 ± 5°C (113 ± 10°F)
  - Transmission oil : 75 ± 5°C (167 ± 10°F)
- 2) Normal operating pressure : See page 6-56.

### 2. SPECIFICATION

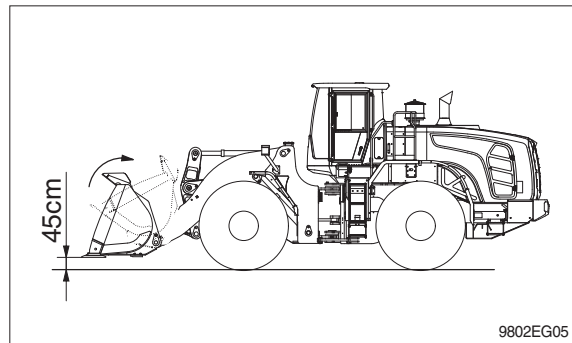
| Engine speed (P mode), rpm |           |            |                 |            |           | Remark |
|----------------------------|-----------|------------|-----------------|------------|-----------|--------|
| Low idle                   | High idle | Pump stall | Converter stall | Full stall | Fan motor |        |
| 750±25                     | 2100±50   | 2100±70    | 2050±70         | 2000±100   | 850±50    |        |

### 3. ENGINE RPM CHECK

Remark : If the checked data is not normal, it indicates that the related system is not working properly. Therefore, it is required to check the related system pressure : See page 6-56.

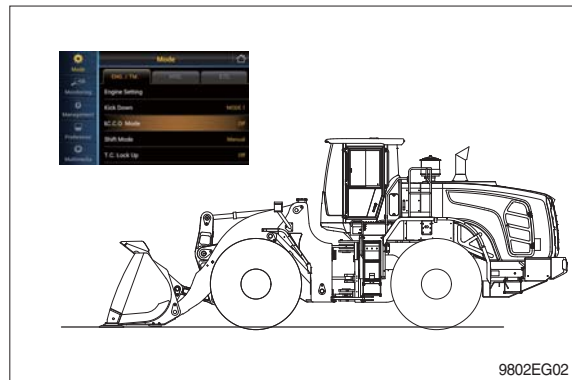
#### 1) Pump stall rpm

- Start the engine and raise the bucket approx 45 cm (1.5 ft) as the figure.
- Press the accelerator pedal fully and operate the bucket control lever to the retract position fully.
- Check the engine rpm at the above condition.



#### 2) Converter stall rpm

- Start the engine and lower the bucket on the ground as the figure.
- Set the I.C.C.O. mode at the OFF position.
- Press the brake pedal and accelerator pedal fully.
- Shift the transmission lever to the 4th forward position.
- Check the engine rpm at the above condition.



#### 3) Full stall rpm

- Start the engine and raise the bucket approx 45 cm (1.5 ft) as the figure.
- Set the I.C.C.O. mode at the OFF position.
- Press the brake pedal and accelerator pedal fully .
- Shift the transmission lever to the 4th forward position and operate the bucket lever to the retract position fully.
- Check the engine rpm at the above condition.

