

IB_0801_01

Introduction to a Basic maintenance plan VOLVO series D9, D12 and D16 engines (continuous operation)

(Cancels and replaces Technical Bulletin IB_0703_01)

Purpose: Introduction to an SDMO maintenance plan in which we have reinforced the checks on the rocker arm assembly.

You can also find a complete maintenance plan in the following Technical Bulletin:

IB_0801_02: Basic check list for maintenance

Inspection of the cam followers and camshaft

In the VOLVO manuals, the frequency for checking and adjusting the valve clearance during normal operation for D9, D12 and D16 engines is 2,000 hours. However, it is necessary to perform checks and adjustments in the first 250 hours following a complete engine overhaul.

The oil change interval for a VDS grade oil (see user manual) and the correct fuel (sulphur content < 0.5%) is 250 hours.

Recommended adjustments to the rocker arm assembly and inspection of the cam followers and camshaft every 750 hours will ensure better monitoring of changes to wear that may have been noted in emergency or continuous operation under intensive use (rental type).

1 - For TAD 940-941 and 942 engines

Every 750 hours, remove the rocker cover and inspect the cam followers and camshaft. Use the VOLVO turning gear, SDMO ref: **330050323**, to turn the engine manually and inspect the entire profile of the cams and the cam follower bearings.

Note any potential signs of abnormal wear (flaking, cracks and scratches on the case-hardened surface).

For the following checking operations, refer to the workshop manual, SDMO ref: **33525070101**.

- Check the valve clearance and the bridges (in the case of a valve bridge version).
- Adjust the injector cam follower angle.
 - Valve clearance check: 0.15 < Inlet clearance < 0.25 mm.
 0.45 < Exhaust clearance < 0.55 mm.
 - Clearance setting: 0.2 mm Inlet
 0.5 mm Exhaust
 - Injector angle: in contact + $\frac{3}{4}$ turn (180 to 240°)

2 - For TAD 1240-1241 and 1242 engines:

Every 750 hours, remove the rocker cover and inspect the cam followers and camshaft. Use the VOLVO turning gear, SDMO ref: **330050323**, to turn the engine manually and inspect the entire profile of the cams and the cam follower bearings.

Note any potential signs of abnormal wear (flaking, cracks and scratches on the case-hardened surface).

For the following checking operations, refer to the workshop manual, SDMO ref: **33525056901**.

- Check the valve clearance and the bridges (in the case of a valve bridge version).
- Check or adjust the injector rocker => using the gauge, SDMO ref: **330051617**, the dial gauge, SDMO ref: **330051629** and the magnetic base, SDMO ref: **330051628**.
 - Valve clearance check: 0.15 < Inlet clearance < 0.25 mm.
 0.45 < Exhaust clearance < 0.55 mm.
 - Clearance setting: 0.2 mm Inlet
 0.5 mm Exhaust
 - Injector angle: in contact with the gauge

3 - For TAD 1640-1641 and 1642 engines:

Every 750 hours, remove the rocker cover and inspect the cam follower and camshaft. Use the VOLVO turning gear, SDMO ref: **330050323**, to turn the engine manually and inspect the entire profile of the cams and the cam follower bearings.

Check that there are no potential signs of abnormal wear (flaking, cracks and scratches on the case-hardened surface).

For the following checking operations, refer to the workshop manual, SDMO ref: **33525071801**.

- Check the valve clearance and the bridges (in the case of a valve bridge version).
- Adjust the injector cam follower angle.
 - Valve clearance check: 0.25 < Inlet clearance < 0.35 mm.
 0.55 < Exhaust clearance < 0.65 mm.
 - Clearance setting: 0.3 mm Inlet
 0.6 mm Exhaust
 - Adjusting the valve connections: in contact + 1/6 turn
 - Injector angle: in contact + 2/3 turn (180 to 240°)