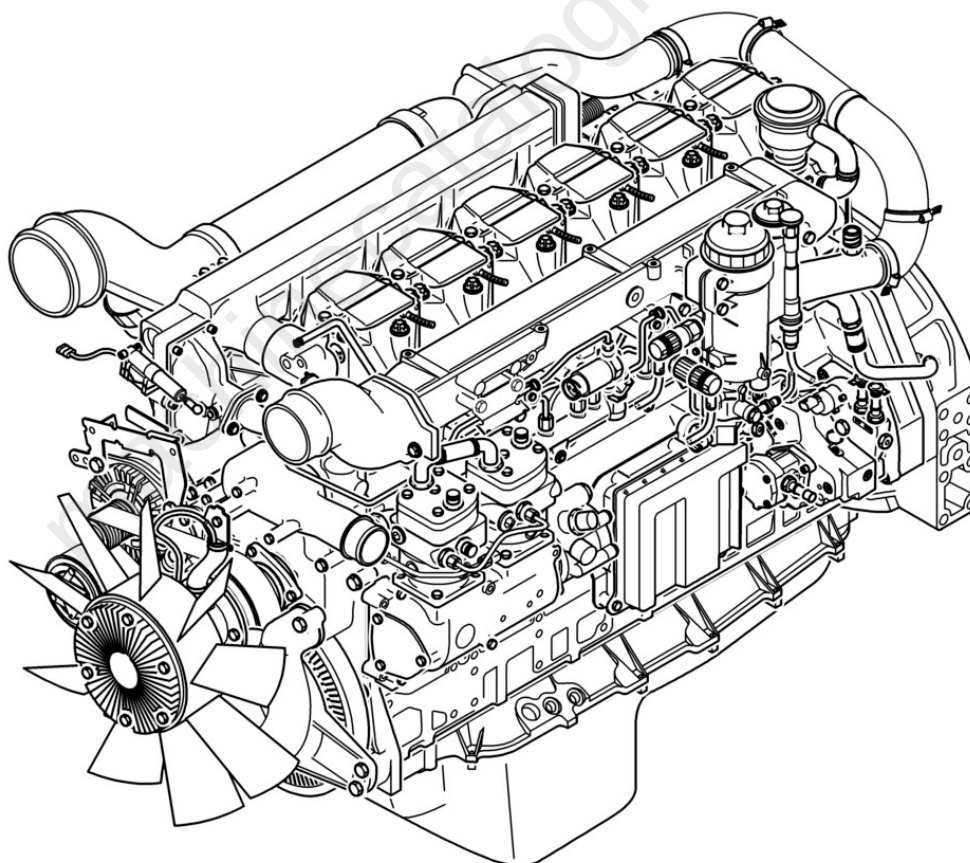


LIEBHERR Diesel engine

D846 A7

BAL: 9739303-02-en

Operating manual



en

Operating manual

Diesel engine

D 846

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Manufacturer

Name: LIEBHERR MACHINES BULLE S.A

2.8 Observe the safety precautions for diesel engines featuring electronic control units

1. Only start up the diesel engine with the batteries securely connected.
2. Do not disconnect batteries while the diesel engine is running.
3. The diesel engine may only ever be started with the control unit connected.
4. Do not use a fast charger to start the diesel engines. Only use jump leads with separate batteries.
5. The battery terminal clips must be disconnected for fast charging of the batteries. Observe the operating instructions of the fast charger.
6. When carrying out electrical welding tasks, the batteries must be disconnected and both cables (+ and —) must be securely connected with each other. Connection to the engine electronics is to be cut via both interface plugs.
7. Connections of the control units may only be connected or disconnected with the electrical system switched off. Tighten the fastening screws of the interface plugs with the prescribed tightening torque.
8. Incorrect polarity of the control units voltage or supply voltage (e.g. via incorrect polarity of the batteries) can lead to ruination of the control units.
9. Tighten the connections to the injection system with the prescribed tightening torque.
10. If temperatures exceeding 80 °C (e.g. drying kiln) are expected, the control units must be removed.
11. Only use suitable test leads for measurements at the plug connections.
12. Neither sensors nor actuators may be connected individually to, or between, external voltage sources for inspection or test purposes, but rather always with the electronic control unit, otherwise there is a risk of the diesel engine malfunctioning or even becoming ruined.
13. The electronic control unit is only sufficiently protected against dust and water if the mating connector is mounted and attached. If no mating connectors have been attached, the control unit must be sufficiently protected against dust and water.
14. Telephones and radio equipment which are not connected to an exterior aerial could lead to functional failure of the vehicle's electronics, and thus jeopardise operational safety of the diesel engine.

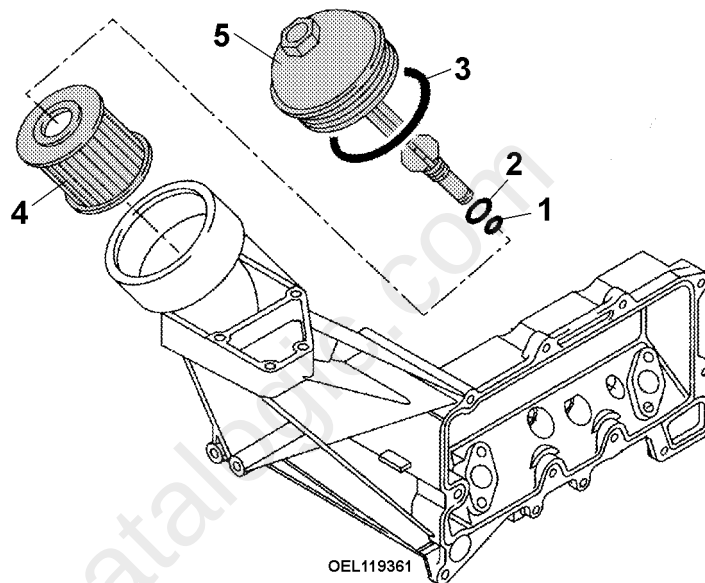
2.9 Safety and emergency run program for diesel engines featuring electronic control units

1. The diesel engine features an electronic regulating system, which monitors the diesel engine as well as the electronic regulating system itself (self-diagnosis).

- Screw the oil drainage hose onto the oil drain valve, the oil drain valve opens.
- Drain used oil into the prepared container.

Replacing the oil filter element

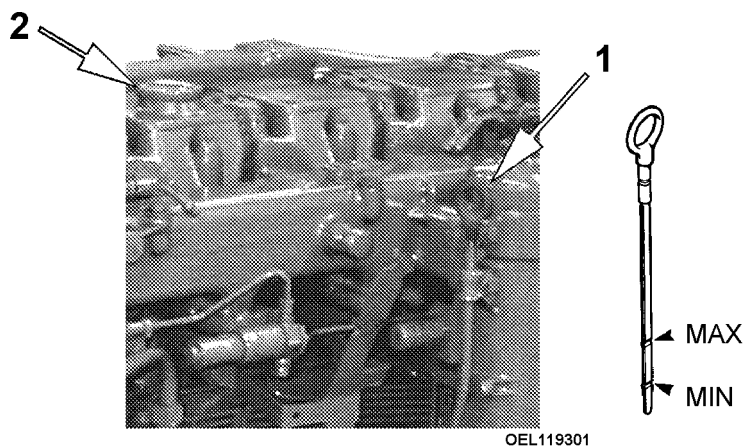
- Remove oil filter cover **5** with oil filter element
- Remove the old oil filter element **4** from the cover and ensure proper disposal. Observe the safety guidelines in order that harm to the environment is avoided.



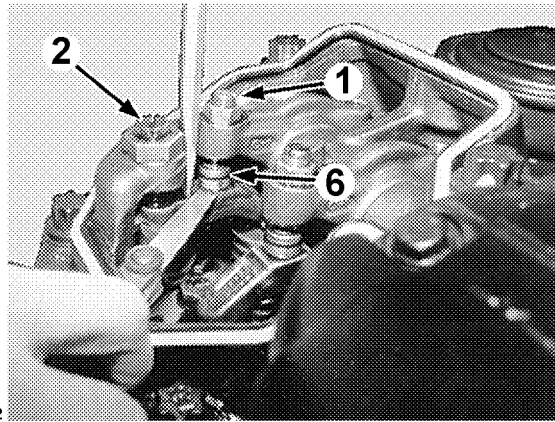
- Insert the new sealing rings **1,2,3**.
- Install the new oil filter element **4**.
- Screw in the new oil filter cover **5** with oil filter insert and tighten with 25Nm.

Filling in diesel engine oil

- Unscrew the oil drainage hose and screw the sealing cap onto the oil drain valve



Diesel engine-oil filler nozzle



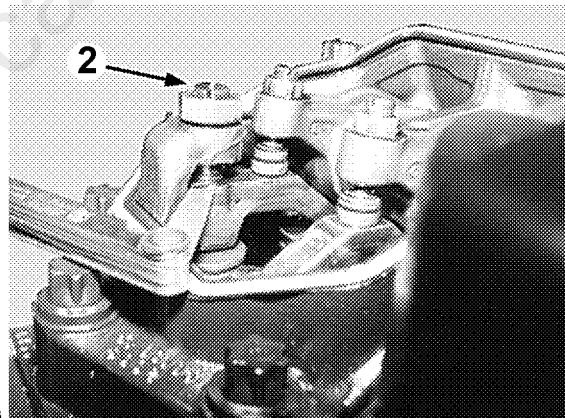
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Adjusting the exhaust valve clearance

- Turn back the adjusting screw **2** until the contact face of the adjusting screw disappears inside the retainer.
- Turn back the adjusting screw **1** until it becomes possible to insert the feeler gauge 0.80 mm.
- Screw in the adjusting screw **1** until the piston in the valve fitting reaches the stop and the feeler gauge becomes clamped

If the residual oil is forced out of the ball socket-rocker arm / elephant foot **6**.

- Loosen the adjusting screw **1** until the feeler gauge can be withdrawn against moderate resistance (suction).
- Tighten the lock nut with 45 Nm.



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Adjusting the exhaust valve clearance

- Screw in the adjusting screw **2** with feeler gauge inserted 0.60 mm until the piston of the valve fitting reaches the stop and the feeler gauge becomes clamped.
- Loosen the adjusting screw **2** until the feeler gauge can be withdrawn against moderate resistance (suction).
- Tighten lock nut with 45 Nm.

Turn the push rod to check whether adjustment was successful, the push rod must indicate clearance.

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**Warning**

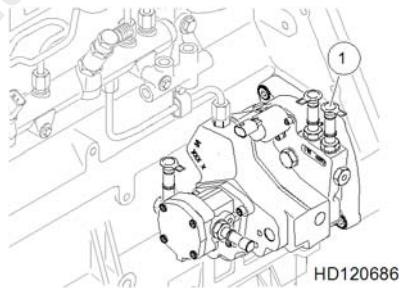
Dirt can cause ruination of the Common Rail System !

- ! Do not allow any dirt to enter into the clean side of the filter.
- ! Do not reuse used filter elements.

- Insert a new original Liebherr filter element bearing the "Common Rail" inscription.
- Screw in filter element and cover and tighten (tightening torque 25 Nm).
- Open the fuel shut-off valve.
- Bleed fuel system

5.3.15 Bleeding the fuel system

- All tasks on components of the Common Rail System may only be carried out by specially trained personnel.
- Before commencing any work, the diesel engine must be switched off for at least 1 minute in order that any pressure still in the rail has time to dissipate (pressure pipe).
- Utmost cleanliness must be observed for all tasks in all respective areas (e.g. hands have been washed, clean overalls). Avoid moisture at all costs.

Bleeding the fuel system

- Open the return-flow line 1 at the high-pressure pump.
- Close the return-flow line 1 using a plug.

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Liebherr D 846 Engine Operator Manual

Liebherr D 846 engine operator manual covering safe operation, handling, malfunctions and routine maintenance. 3 manuals in PDF. Instant PDF download.

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