

Document Title: Spark plug, checking	Function Group: 254	Information Type: Service Information	Date: 2015/2/12
Profile: EXC, EC300D LD [GB]			

Spark plug, checking

Op nbr 254-047

1. Place the machine in service position B, see, [091 Service positions](#).
2. Turn off the battery disconnection switch.
3. Open the engine hood.



Risk of electrocution.

Contact with live parts will cause death or serious injury.

Never touch live electrical parts.



Risk of burns as well as damage to the spark plug cables when removing them before the parts have cooled down.



Risk of electrocution.

Contact with live parts will cause death or serious injury.

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4. Remove the spark plug cables from the spark plugs.

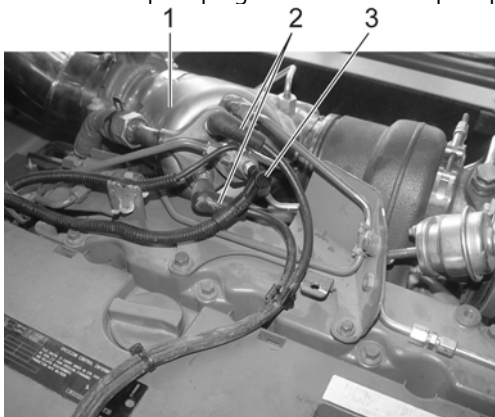


Figure 1

1. Burner
2. Spark plug cable
3. Glow plug cable

5. Remove the spark plugs.
6. Check the electrode gap on the spark plugs, see [254 Exhaust aftertreatment system. specifications](#).
7. Install the spark plugs. Tightening torque, [254 Exhaust aftertreatment system. tightening torques](#).
Install the spark plug cables.
8. Restore the machine.

Document Title: Spark plug, replacing	Function Group: 254	Information Type: Service Information	Date: 2015/2/12
Profile: EXC, EC300D LD [GB]			

Spark plug, replacing

Op nbr 254-046



Risk of electrocution.

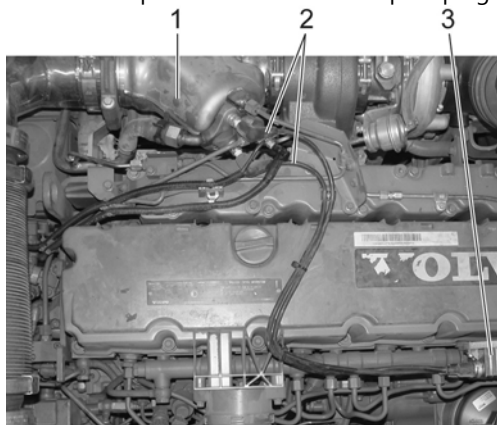
Contact with live parts will cause death or serious injury.

Never touch live electrical parts.



Risk of burns as well as damaging the spark plug cables when removing them before the parts have cooled down.

1. Park the machine in service position B, see [091 Service positions](#).
2. Open the engine hood.
3. Switch off the battery disconnect switch.
4. Cut the clamps and disconnect the spark plug cables from the burner side.



V1097255

Figure 1

1. Burner
 2. Spark plug cable
 3. Spark plug control unit
5. Remove the spark plugs.

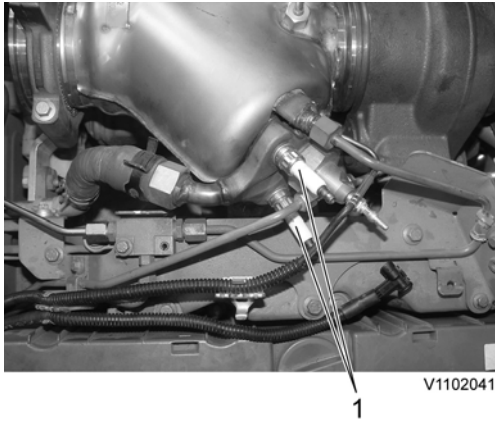


Figure 2

1. Spark plug
6. Check the electrode gap on the new spark plugs, see [254 Exhaust aftertreatment system. specifications](#).
7. Install the new spark plugs. Tightening torque, [254 Exhaust aftertreatment system. tightening torques](#)
Install the spark plug cables.
8. Close the engine hood.

Document Title: Burner, replacing	Function Group: 254	Information Type: Service Information	Date: 2015/2/12
Profile: EXC, EC300D LD [GB]			

Burner, replacing

Op nbr 254-033

WARNING

Risk of burns - stop the diesel engine and allow it to cool down before starting any work.

WARNING

Exhaust system components get very hot and can cause severe burns.

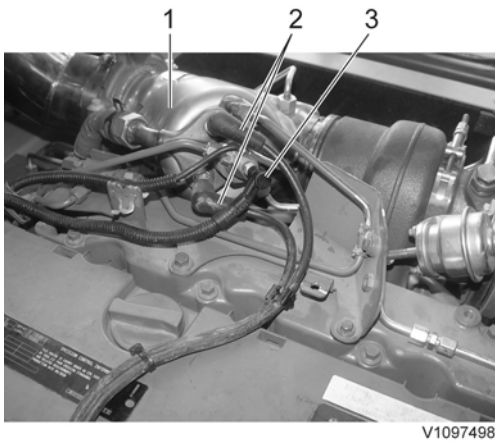
1. Place the machine in the service position B. See [091 Service positions](#).
2. Turn the battery disconnect switch to off position.
3. Open the engine hood.
4. Remove the clamps on both side.



V1097499

Figure 1

1. Clamp
5. Remove the spark plug cables and the glow plug cable.

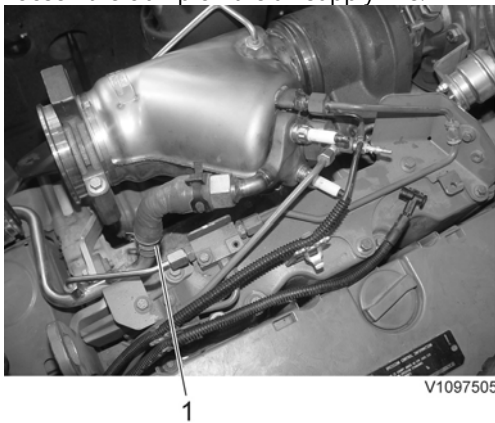


V1097498

Figure 2

1. Burner
2. Spark plug cable
3. Glow plug cable

6. Loosen the clamp on the air supply line.

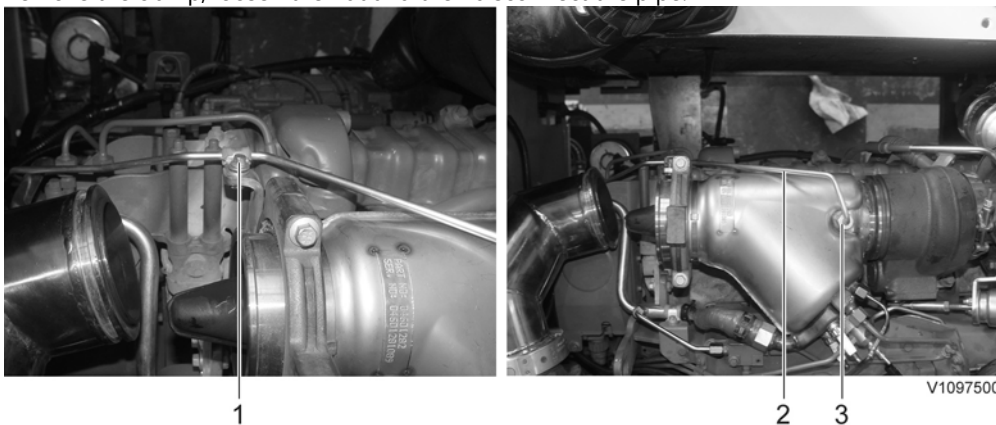


V1097505

Figure 3

1. Clamp

7. Remove the clamp, loosen the nut and then disconnect the pipe.



V1097500

Figure 4

1. Clamp

2. Pipe
3. Nut

8. Remove the clamp, loosen the nut and then disconnect the fuel pipe.

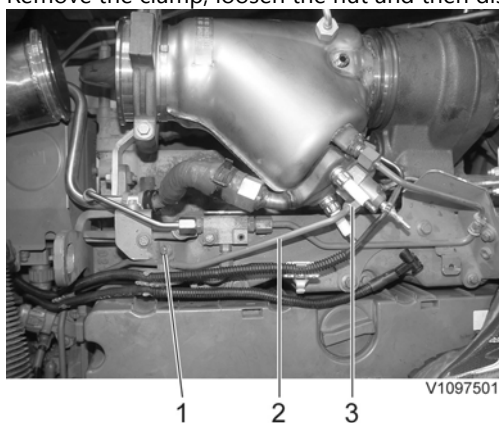


Figure 5

1. Clamp
2. Fuel pipe
3. Nut

9. Remove the clamp, loosen the nut and then disconnect the air pipe.

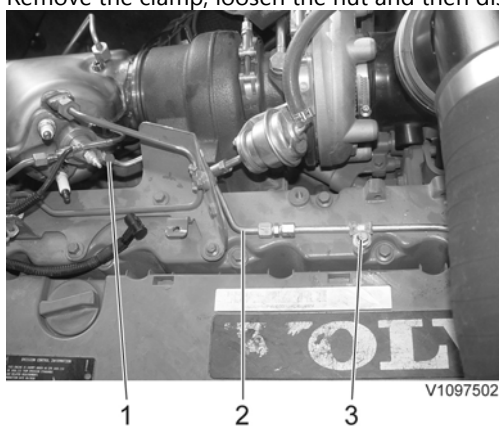


Figure 6

1. Nut
2. Air pipe
3. Clamp

10. Remove the clamp, loosen the nut and then disconnect the fuel pipe.

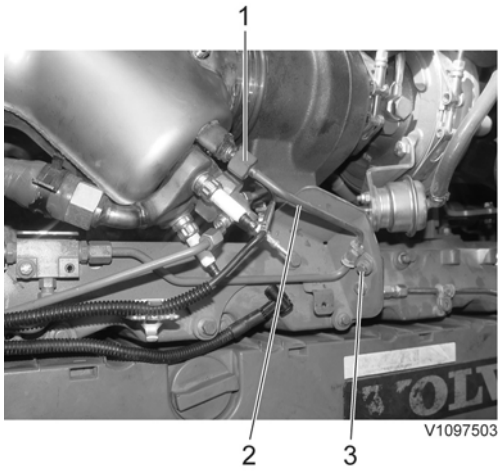


Figure 7

1. Nut
2. Fuel pipe
3. Clamp

11. Disconnect the temperature sensor.

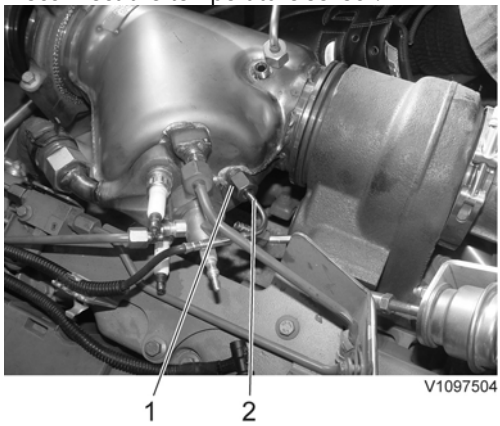


Figure 8

1. Nut
2. Frame temperature sensor

12. Remove the mounting bracket and the burner.
Move the burner to the work stand.

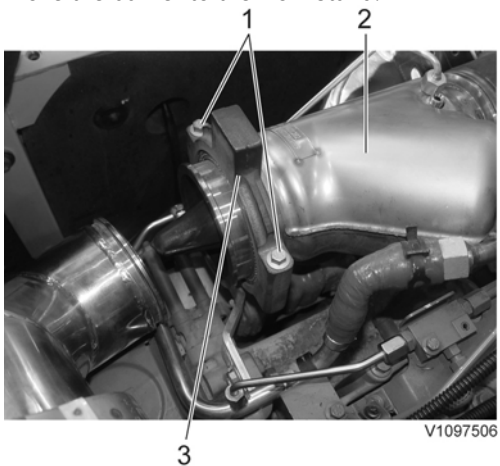


Figure 9

1. Screw
2. Burner
3. Mounting bracket

13. Remove the spark plugs, glow plug and the spark plug unit from the old burner and then transfer them to a new burner.

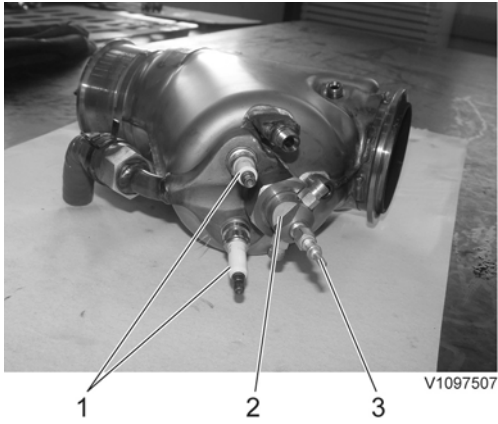


Figure 10

1. Spark plug
2. Spark plug unit
3. Glow plug

14. Install the new burner to the machine.
15. For assembling, reverse the disassembly procedure.
16. Close the engine hood.

Document Title: Turbocharger, description	Function Group: 255	Information Type: Service Information	Date: 2015/2/12
Profile: EXC, EC300D LD [GB]			

Turbocharger, description

The function of the turbocharger is to compress air and press it into the engine cylinders. Turbocharging increases the temperature of the air so that the compressed air is cooled before entering the inlet manifold.

The turbocharger is pressure-lubricated from the engine's oil system. For more information, see:

- [220 Lubrication system, description](#)

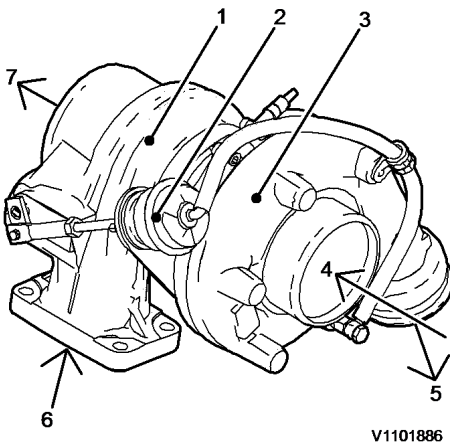


Figure 1
Turbocharger with wastegate valve

1. Turbine housing
2. Wastegate valve
3. Compressor rotor housing
4. Air inlet
5. Compressed air outlet
6. Exhaust inlet
7. Exhaust outlet

The turbocharger is driven by the exhausts that pass through the turbine housing on their way out into exhaust system. The exhaust flow causes the turbine rotor in the turbine housing to rotate.

The compressor rotor is mounted on the same shaft as the turbine rotor. The compressor rotor is located in a housing which is connected between the air cleaner and the charge-air cooler. When the compressor rotor turns, air is sucked from the air cleaner. The air is compressed and forced into the engine cylinders.

Wastegate valve

The turbocharger is equipped with a wastegate valve, in the form of a pneumatic actuator connected via a rod to a valve unit mounted inside the turbine housing. The wastegate valve is controlled by the charge-air pressure. It lets a small amount of the exhausts to by-pass the turbine wheel at high engine speeds (high charge-air pressure). This allows the turbo to limit its maximum charge-air output.

Parameters

There are no parameters for this function.

Supplementary information

- [250 Inlet and exhaust system, description](#)

Function check

There are no function checks for this function.

Diagnostics

Detailed information about the following relevant warnings and error codes is available under the diagnostics tab.

Component	Control unit	Message ID
FX1007	MID128	PID102
	MID128	PID105

Document Title: Turbocharger, replacing	Function Group: 255	Information Type: Service Information	Date: 2015/2/12
Profile: EXC, EC300D LD [GB]			

Turbocharger, replacing

Op nbr 255-071

WARNING

Risk of burns - stop the diesel engine and allow it to cool down before starting any work.

WARNING

Exhaust system components get very hot and can cause severe burns.

1. Place the machine in the service position B, see [091 Service positions](#)
2. Turn the battery disconnect switch to off position.
3. Remove the burner, see [254 Burner, replacing](#).
4. Remove the clamp on the air pipe.

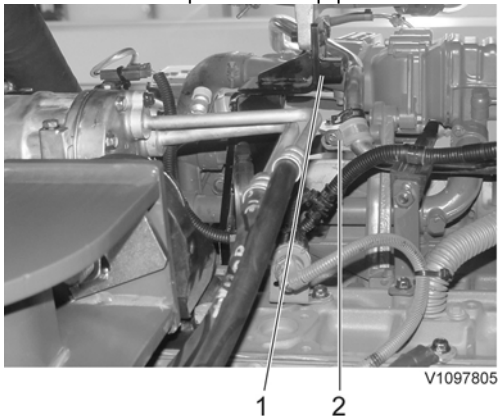


Figure 1

1. Bracket
2. Clamp

5. Remove the clamp and air inlet hose from the turbocharger.

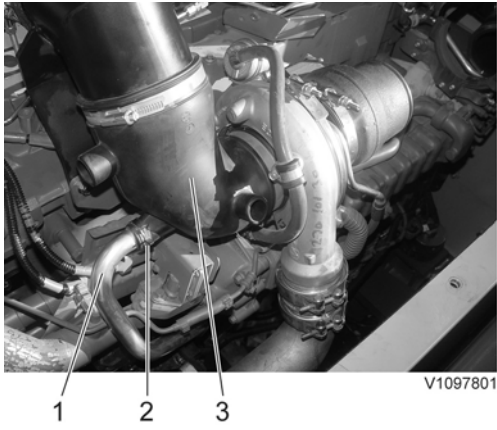


Figure 2

1. Pipe
2. Clamp
3. Air inlet hose

6. Remove the clamps on the turbocharger outlet hose and disconnect the lubrication line pipes.

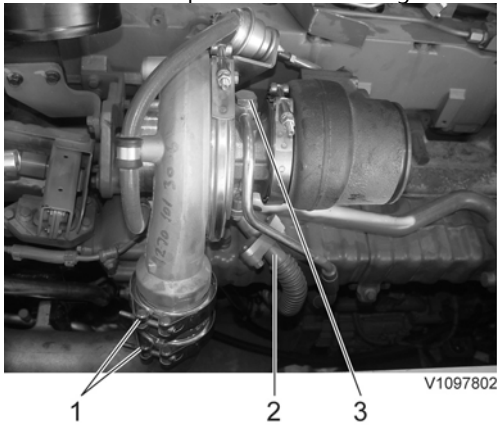


Figure 3

1. Clamp
2. Pipe (Oil supply line)
3. Pipe (Oil return line)

7. Remove the four nuts and then remove the turbocharger with the gasket.

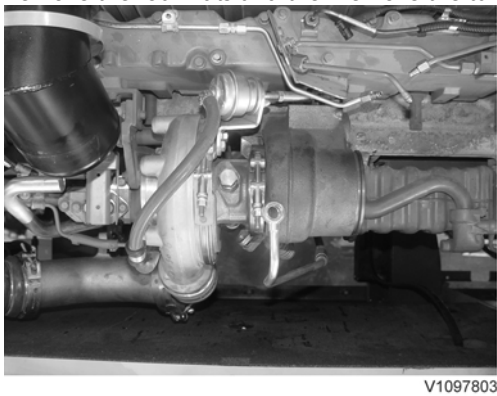


Figure 4

8. Install a new turbocharger with new gaskets.

9. For assembling, reverse disassembly procedure.

NOTE!

Use only new gaskets and copper washer when installing.

10. After the work is completed, start the engine and check for leaks.

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