

Document Title: Engine, removal	Function Group: 210	Information Type: Service Information	Date: 31-07-2025
Profile: BL60 Volvo			

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Engine, removal

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
BL60 Volvo	Wroclaw	10001	11314

Op nbr 21070-1

[14360000 Vacuum pump](#)

[Lifting chains, min. 1000 kg \(2200 lb\)](#)

WARNING

To avoid severe burns, **DO NOT** attempt the next procedure when the engine is **HOT**. Wait for the engine, silencer and tailpipe to cool before proceeding.

NOTE!

In general, all strip clamps that secure hoses and electrical cables must be removed. All disconnected hoses and open connections must be plugged.

1. Remove the engine hood, see [Engine hood, removal](#).
2. Detach cable from the bracket.

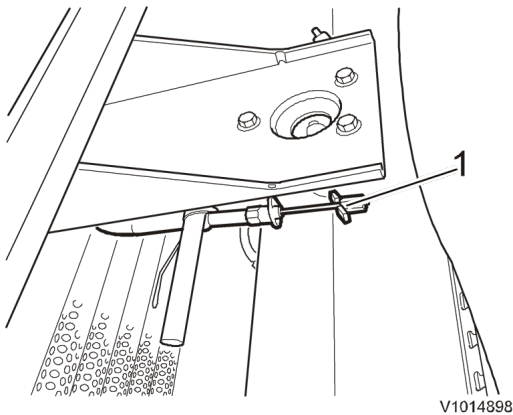


Figure 1

1. Cable

3. Remove the grille and the front plate.

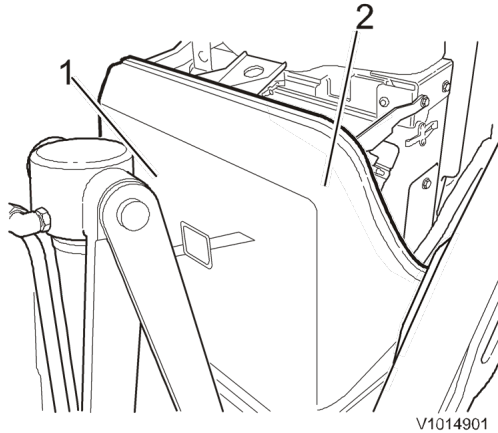


Figure 2

1. Grille
2. Front plate

4. Remove the clamps from both sides of the cooler.

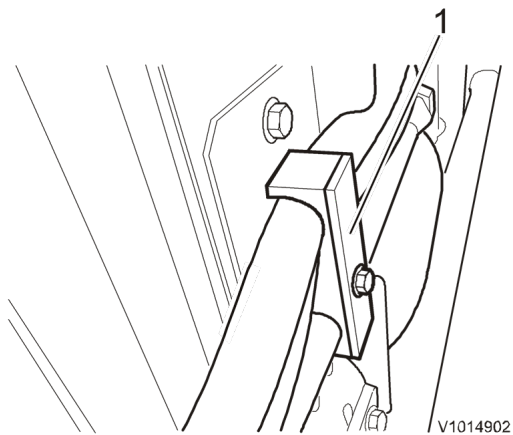


Figure 3

1. Clamp

5. Connect the vacuum pump, see [Vacuum pump connection](#).
6. Open the locking device and let down the hydraulic oil cooler. Disconnect the hoses (4 hoses) from the hydraulic oil cooler. Turn off the vacuum pump after the hoses have been plugged.

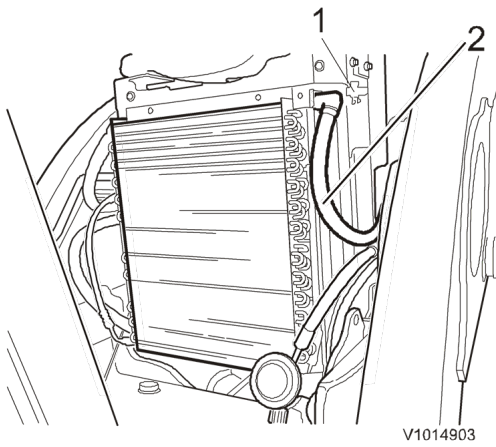


Figure 4

1. Locking device
2. Hoses

7. Connect a drain hose to the valve and place the drain hose down into a container. Open the valve and drain the coolant into the container.

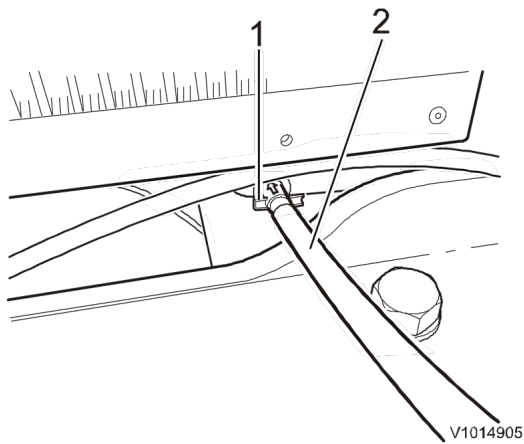


Figure 5

1. Valve
2. Drain hose

8. Disconnect the radiator hoses and the lower hose (hidden). Remove the screws radiator-radiator casting.

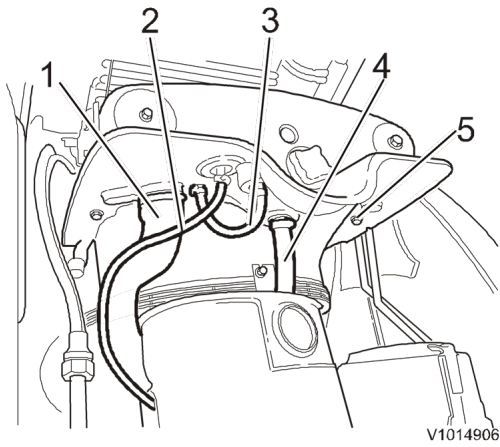


Figure 6

1. Hose
2. Hose
3. Hose
4. Hose
5. Screws

9. Remove the screws from both sides and lift out the hydraulic oil cooler and the radiator.

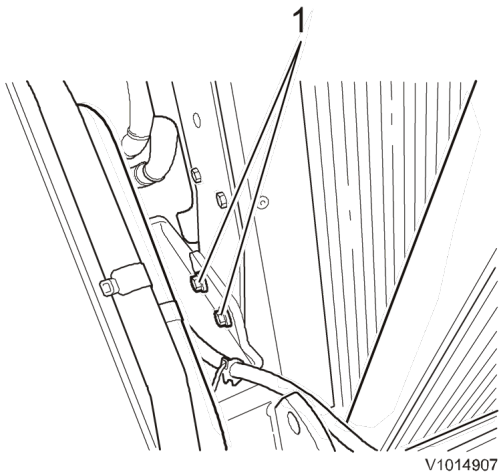


Figure 7

1. Screw

10. Remove the fan guard and the radiator casting.

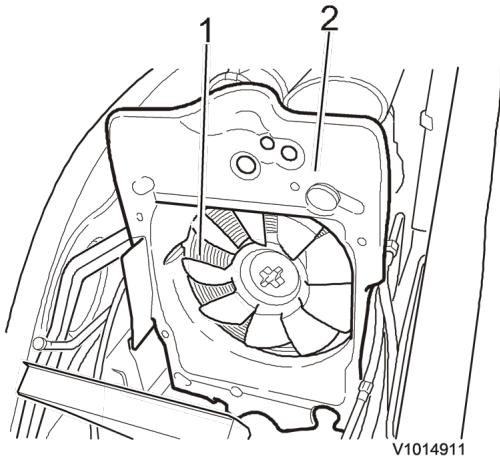


Figure 8

1. Fan guard
2. Radiator casting

11. Remove the fan.

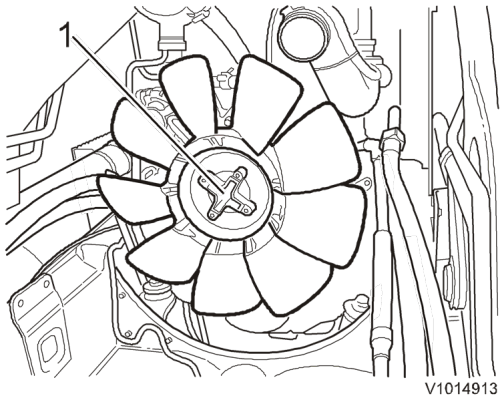


Figure 9

1. Fan

12. Remove the attaching screws (4 attaching screws, 2 underneath).
Remove the nuts and remove the silencer.

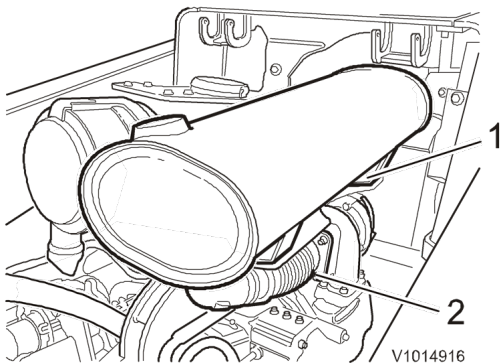


Figure 10

1. Attaching screws
2. Nuts

13. Loosen the hose clamp. Remove the screws and remove the air cleaner. Remove the screws (3 pcs) and remove the bracket.

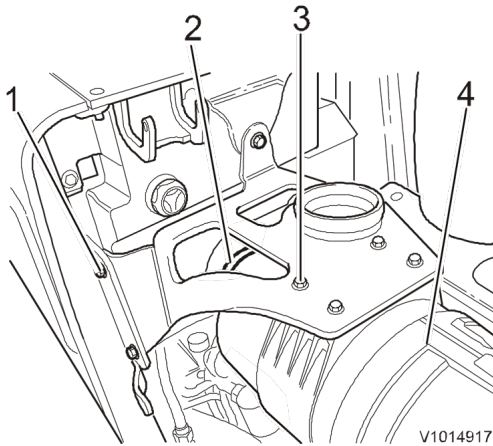


Figure 11

1. Screws
2. Hose clamp
3. Screws
4. Air cleaner

14. Disconnect hose from the engine.

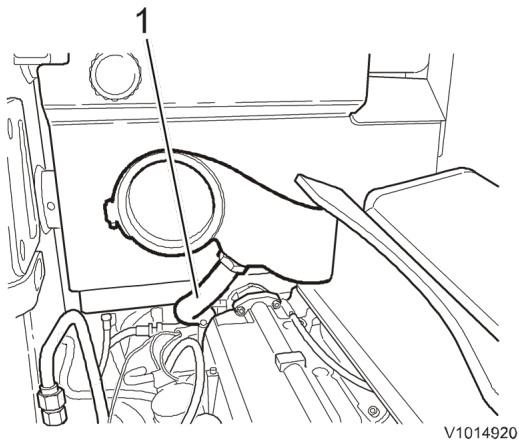


Figure 12

1. Hose

15. Disconnect the hoses (2 hoses, one hidden) from the engine and release the fuel filter/pump from the hydraulic tank.

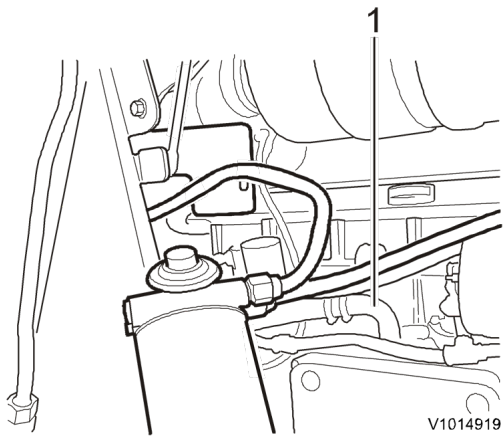


Figure 13

1. Hoses

16. Detach the seat , move the seat back, and lift up the rubber mat from the floor against the seat.

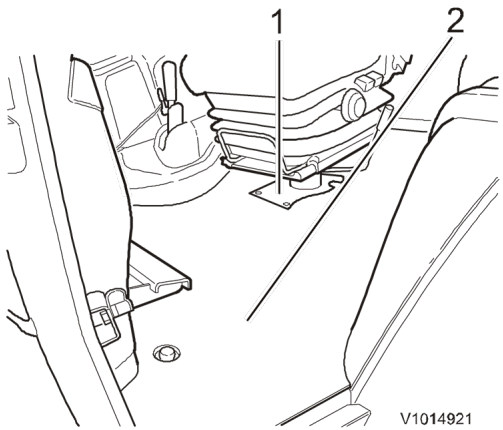


Figure 14

1. Seat
2. Rubber mat

17. Remove the plate.

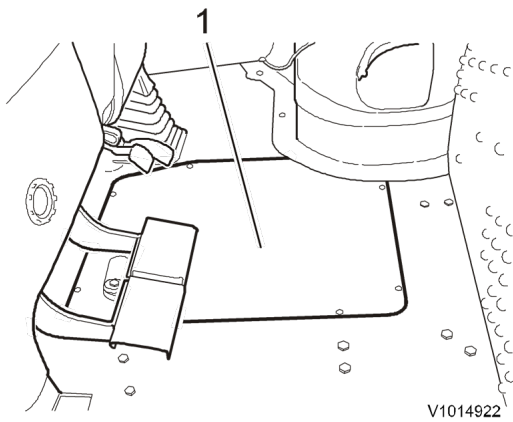


Figure 15

1. Plate
18. Remove the shift lever.

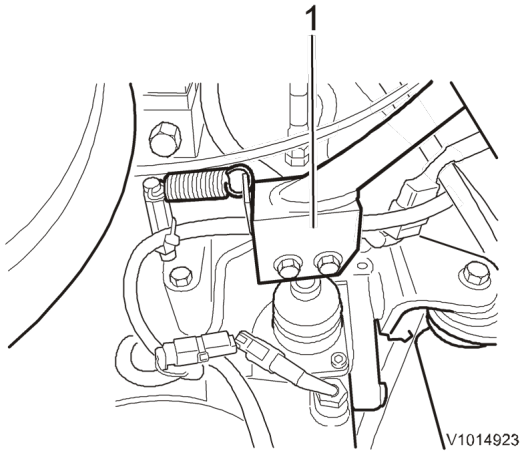


Figure 16

19. Disconnect the hoses from the gearbox.

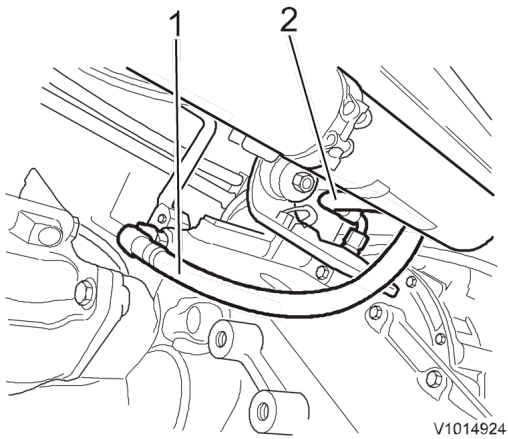


Figure 17

1. Hose
 2. Hose
20. Disconnect the hoses from the gearbox.

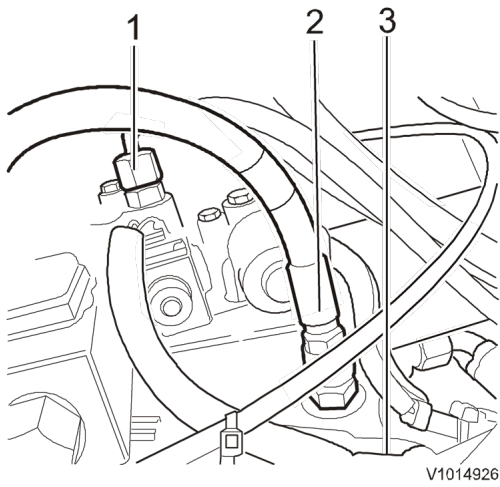


Figure 18

1. Hose
2. Hose
3. Hose

21. Disconnect the hose from the gearbox.

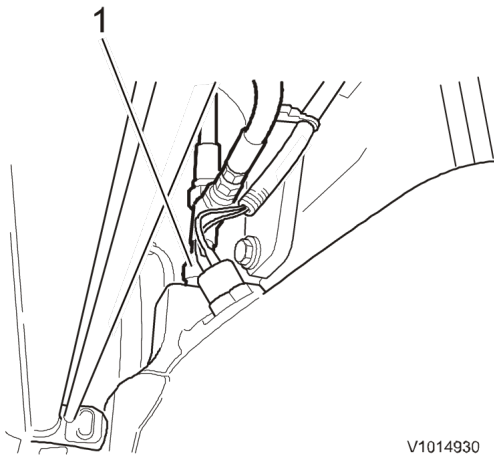
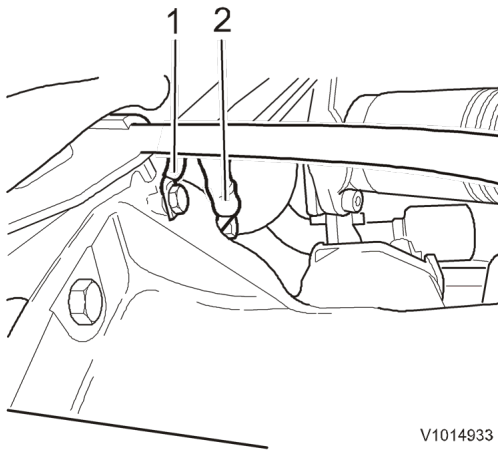


Figure 19

1. Hose

22. Disconnect ground cables from the gearbox.

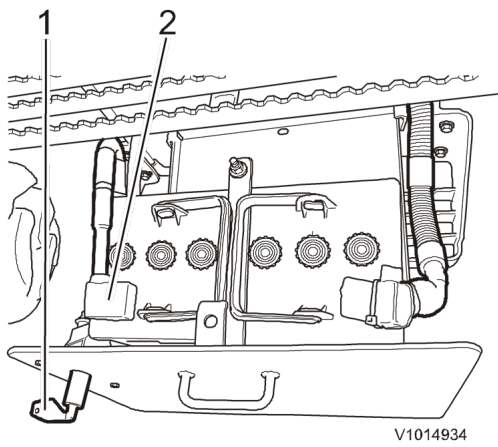


V1014933

Figure 20

1. Ground cable
2. Ground cable

23. Turn off the electric power with the battery disconnect switch and disconnect the ground cable.

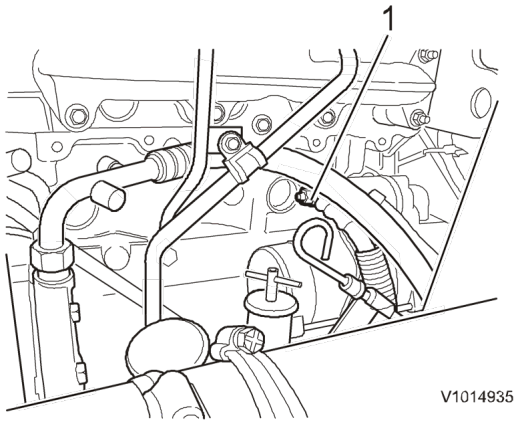


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Figure 21

1. Battery disconnect switch
2. Ground cable

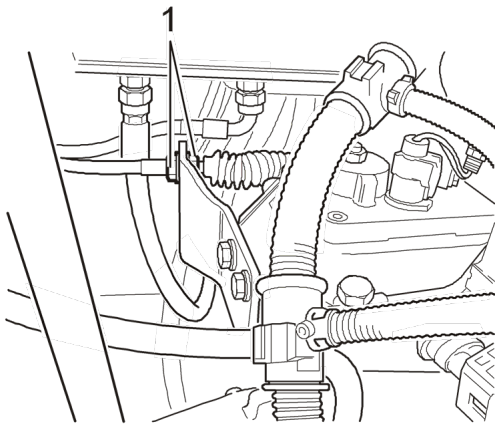
24. Disconnect the electrical cables from the starter motor.



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Figure 22

1. Electrical cable
25. Disconnect the fuel hoses from the fuel filter. Remove the fuel filter from the hydraulic tank.
26. Unscrew the nuts and remove the throttle control cable from the engine.



V1014936

Figure 23

1. Nut
27. Disconnect the front propeller shaft from the gearbox unit.

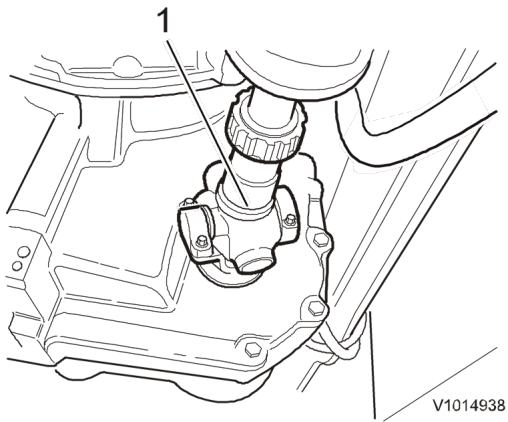


Figure 24

1. Propeller shaft

28. Disconnect the rear propeller shaft from the gearbox unit.

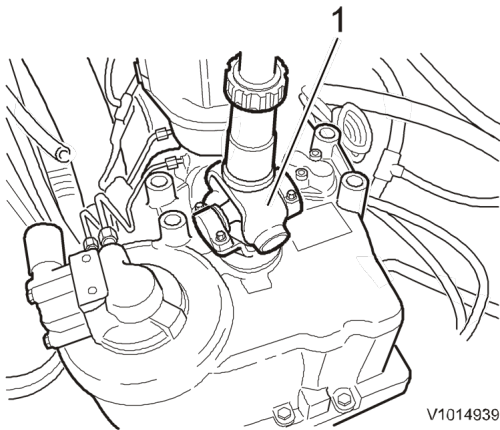


Figure 25

1. Propeller shaft

29. Disconnect the connector from the working pump.

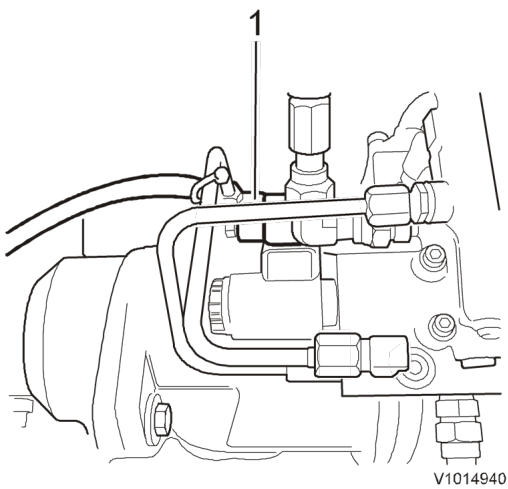


Figure 26

1. Connector
30. Remove the screws (2 screws) gearbox unit - working pump.

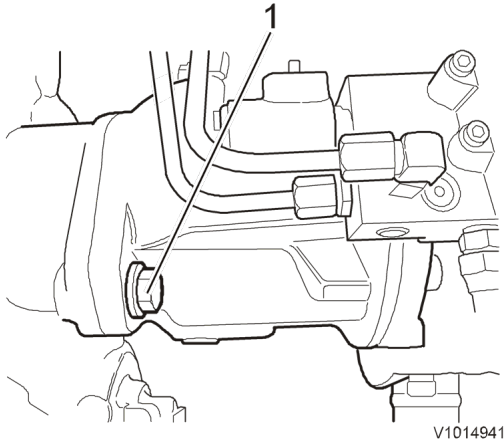


Figure 27

1. Screw
31. Arrange a strap around the working pump and tighten the string using a pinch-bar. Pull the working pump away from the gearbox.

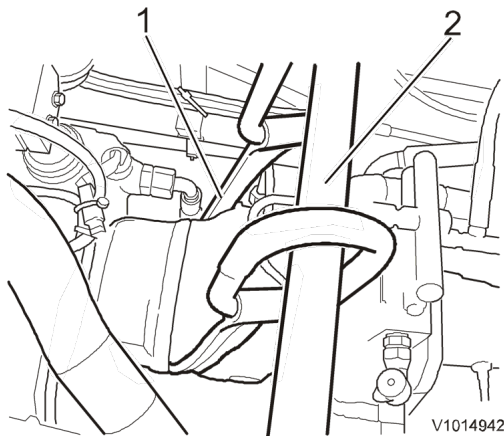


Figure 28

1. Strap
 2. Iron-bar lever
32. Remove the attaching screws for the engine.

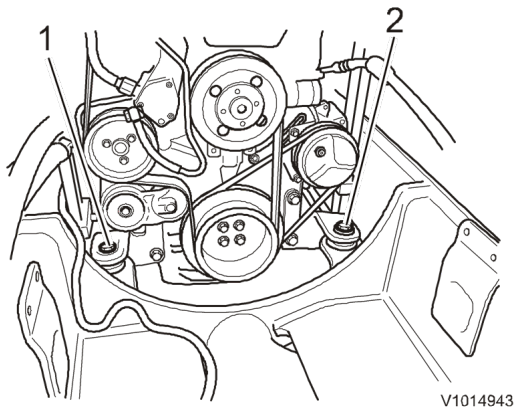


Figure 29

1. Attaching screw
2. Attaching screw

33. Remove the attaching screw from both sides of the gearbox.

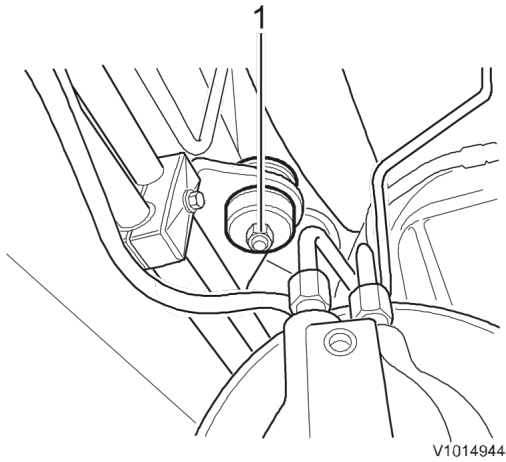


Figure 30

1. Attaching screw

34. Connect a lifting chain between the lifting eyes and a lifting device.
Carefully lift and balance the engine/gearbox unit when the unit is lifted out.

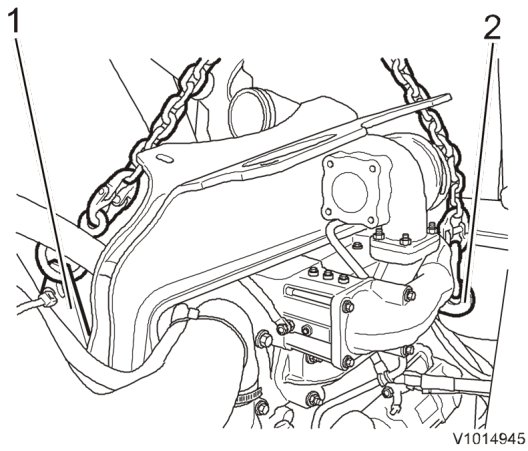


Figure 31

- 1. Lifting eye
- 2. Lifting eye

35. Place the engine on stable supports.
Make sure that the gearbox unit is dismountable.
See **.Gearbox, removal in Section 4**

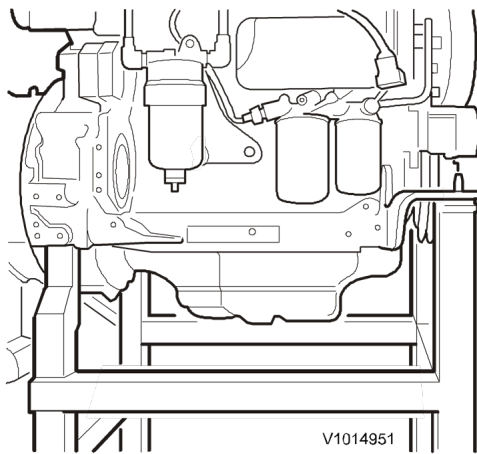


Figure 32