Power steering pump, 4-cylinder diesel engine

**Important**

The power steering system is extremely sensitive to contamination. Therefore, observe a high degree of cleanliness when working on the power steering system.

**To remove**

1. Remove the upper engine cover.

2. Disconnect the charge air pipe from the fan cowl and remove the upper hose.
3. Prise the engine to the left and place a wedge between the structural member and the engine mounting.
4. Remove and unplug the A/C compressor connector. Use a pair of angled needle nose pliers.

5. Raise the car.

6. Remove the right-hand wheel.

7. Remove the lower engine cover.
8. Remove the right-hand side cover and wing liner.

9. Slacken the pulley bolts so that the pulley can later be removed. Turn over the engine by hand to access the bolts in turn.
10. Lift off the drive belt and mark its direction of rotation.

11. Place the belt to one side so that it is not contaminated with oil from the power steering pump.

12. Remove the bolts and lift aside the A/C compressor.

**Note**
Suspension eye on top side of compressor.
13. Cover the A/C compressor and belt pulley with a plastic bag.

14. Remove the bolts from the power steering pump pulley.

15. Remove the power steering pump pulley.

16. Lower the car to the floor.

**Important**

Power steering fluid must not come in contact with the belt pulley or belt.

17. Place a receptacle under the car.

**Important**

The power steering system is extremely sensitive to contamination. Therefore, observe a high degree of cleanliness when working on the power steering system.

18. Pinch the supply hose with 30 07 739 Pinch-off pliers. Place a rag below the delivery hose and remove it from the power steering pump. Raise the end of the hose.
19. Remove the delivery hose from the power steering pump and raise the end of the hose.

20. Raise the car.

21. Carefully remove the power steering pump so that the free parts of the pump do not fall out.

**Note**
Fluid will run out of the pump.

To fit

**Note**
Spare part pumps have a brace holding the pump housing together. Leave this brace in place for fitting.

1. Clean the contact surface between the pump and engine.

2. **Spare part:** Carefully remove the protective cap from the pump, making sure the pump does not fall apart.

3. Fit the tow upper bolts to the pump.
4. Hold in the sprung with one finger and fit the pump to the bracket.

**Tightening torque 20 Nm (15 lbf ft)**

5. Lower the car to the floor.

6. Fit the delivery hose. Fit new seals to the banjo nipple.

**Tightening torque 30 Nm (22 lbf ft)**
7. Fit the supply hose.

**Note**
Turn the pinch-off pliers on the hose so that they can be accessed from above. The white line on the hose should face upward.

8. Remove the pinch-off pliers.

9. Raise the car.

10. Remove the plastic bag and wipe away any oil.

11. Fit the pulley and thread the bolts.

12.

Fit the A/C compressor.

**Note**
Make sure the suspension eye is correctly positioned.

**Tightening torque** 24 Nm (18 lbf ft)
13. Positions the A/C compressor's electrical connector.

**Note**
Check that the pulleys are oil free.
14. Fit the drive belt.

15. Tighten the pulley bolts so that the pulley can later be removed. Turn over the engine by hand to access the bolts in turn.

   **Tightening torque 9.5 Nm (7.0 lbf ft)**

16. Wipe away any oil from the subframe.

17. 

Fit the wing liner and engine covers.
18. Fit the wheel, refer to Wheels.

**Tightening torque 110 Nm (81 lbf ft)**

19. Lower the car to the floor.

20.

Remove the wedge from between the engine mounting and structural member.
21. Fit the charge air pipe.
22. Plug in the A/C compressor.

23. Fit the upper engine cover.

24. Fill the system with power steering fluid and bleed the system. Refer to Bleeding the power steering system.