

A. OM 636

The removal and installation of the oil pans is similar for the engines of all types. The different design versions, however, have to be taken into consideration when replacing the oil pan, because the different oil pans are not interchangeable.

The oil pan of the types 636.919 and 636.934 is equipped with a cast-in pipe provided for the oil dipstick (see Figure 07-25/2); the other engines do not have this cast-in pipe.

The oil pans of the engines of the type 636.912, 636.914 and part of the built-in engines have at the front side of the oil pan two threaded sleeves for the mounting of the engine front supports.

The description of the removal and installation of the oil pan contains operations which are necessary if the engine has been removed. The removal and installation is also possible while the engine is still installed. However, while the engine is installed in the vehicle this work should only be done in very urgent cases, because the timing housing cover must be removed and this is difficult due to the restricted space in the vehicle.

Removal:

1. Drain the oil in the oil pan and pull out the oil dipstick.
2. Remove the timing housing cover with injection pump (see Job No. 01-15, Paragraph 1, 3, 4, 5, 6, 8, 9 and 10.
3. Unscrew all fixing screws and remove the oil pan from the crankcase. If the oil pan sticks to the crankcase, it has to be loosened with light hammer punches. For this purpose the contact surface of the crankcase has been provided with two recesses in the rear on either side, where the oil pan protrudes.
4. On a levelling plate, also check the separating surface of the oil pan for evenness and remachine, if necessary.
5. Apply tallow or oil to a new fabric sealing ring half and insert it in the groove of the oil pan. Cut the sealing ring at the contact surface, so that it protrudes slightly.
6. Grease the fabric sealing ring and apply some sealing compound to the contact surface of the oil pan.
7. Put the oil pan against the crankcase, the oil pan should pass over the dowel pins without resistance.
8. Mount all hexagon screws with washers.

Caution! Do not damage the contact surface of the oil pan.

Installation:

4. Thoroughly clean the contact surfaces of the crankcase and the oil pan. Make sure that all threaded sleeves are securely seated in the oil pan, caulk the loose sleeves if necessary.
9. Lightly tighten 2 hexagon screws on each side. Check the alignment between oil pan and crankcase at the sealing surface to the timing housing cover. A slight dislocation can be set right by light hammer

punches to the oil pan. Caution! Only a slight shifting of the oil pan is possible if the fit boreholes in the oil pan are properly fitted. If the oil pan cannot be adjusted correctly, enlarge the fit boreholes. The fit holes are now serially machined somewhat larger.

After aligning the oil pan tighten all hexagon screws.

10. Set the piston of the 1st cylinder to top dead center. The marked teeth of the camshaft and crankshaft timing gear must be engaged (see Figure 05-31/6).

11. Install the timing housing cover with injection pump (see Job No. 01-15, Paragraph 22 to 29).

Note: The checking and adjusting of the feed beginning is not necessary, because the injection pump was not loosened and removed from the timing housing cover.

12. Connect the injection lines to the injection pump with the cap nuts. For this purpose tighten the cap nuts with a torque of 2.5 mkg. If tightened too firmly, the sealing cones are compressed and begin to leak.

13. Connect the vacuum line and the fuel hoses with the injection pump.

Table of the installed Oil Pans

Part No.	Oil Capacity in lit. max. min. Part No. of oil dipstick	Engine Type Designation
636 010 06 13	6.25 3.5 636 010 02 72	636. { 912 914 932 933 936 } 636.917/ { 0 2 4 6 9 10 11 13 14 15 16 17 18 19 20 21 22 24 25 26 27 30 31 32 } 636.917- { 00 050 090 120 180 190 240 251 252 253 260 270 271 272 280 290 300 320 330 350 360 }
636 010 16 13	3.6 2.5 636 010 20 72	636. { 919 934 917-340 }
636 010 23 13	4.0 2.5 636 010 08 72	636.930
636 010 12 13 and/or since recently 636 010 25 13	4.75 2.75 636 010 04 72	636.935 636.917/ { 3 12 23 28 29 33 } 636.917- { 021 022 023 221 222 223 210 }
636 010 18 13	6.25 3.5 636 010 02 72	636.917/5 and/or 917-040
181 010 10 13	4.0 2.5 636 010 04 72	636. { 915 916 918 931 }

14. Install fuel main filter (see Job No. 09-1).
15. Clean the oil filter (see Job No. 18-9).
16. Fill in motor oil (4.5 or 7 lit. depending on design of oil pan, see capacities Page 0-1/11 and next page).
17. After a trial run or a road test check the separating lines of the oil pan, but especially the rear crankshaft sealing and all pipe connectors for leaks.

B. OM 621

Removal:

1. Drain motor oil, pull out oil dipstick and remove the guide tube after loosening the mounting nut.
2. Unscrew the cover plate for the clutch housing. Unscrew the two mounting screws M 10 for the clutch housing to the oil pan.
3. Loosen the hex. socket screws for mounting the oil pan on the cylinder crankcase and remove oil pan. When removing the oil pan, see to it that the dowel pin in the intermediate plate does not project. If necessary, use a hammer to knock the dowel pin back.

Note: When removing the oil pan in the vehicle, the following additional operations have to be carried out before unscrewing the oil pan:

Loosen the steering shock absorber on the drag link and turn to the side, also unscrew the drag link on the intermediate steering arm and turn to the side.

Installation:

4. Before installing the oil pan, check the rear seal ring for the crankshaft. Coat the sep-

arating line for the front seal ring with sealing compound and then fit the oil pan and tighten by screws.

5. Again screw on the cover plate for the clutch housing; screw in the two mounting screws M 10. Fit the guide tube and insert the oil dipstick.
6. If the oil pan has been installed in the vehicle, again mount drag link on the intermediate steering arm and also mount the steering shock absorber; fill in 4 lit. of motor oil.
7. After a test run or a road test, check the separating line of the oil pan, especially the front and rear crankshaft seals as well as the line connections for leaks.

Note: The oil pan of type 190 Dc consists of two parts, the top section is made of cast iron, the bottom section is a sheet metal pan. **On the vehicle only the sheet metal pan can be removed.** A cork seal 1.5 mm thick was attached between top section and sheet metal pan. The bottom section is mounted to the top section by means of hex. socket screws (for torque see Job No. 00-1). If the cork seal was replaced, retighten hex. socket screws after 300 miles and 1800 miles.