## 9.23.2.6 Reassembling the transmission oil cooler after removal of the tube bundle

- O-rings can be obtained from the Customer Service department of ZF Friedrichshafen AG; please specify the ZF part number. Replace O-rings that must be removed during maintenance each time.
- 1 The figures may deviate from the ZF product.
- Lubricate O-ring (2) with suitable grease and slide it along the tube bundle (3) as far as it will go.
  - Be sure not to shear off the O-ring (2) when sliding it on.

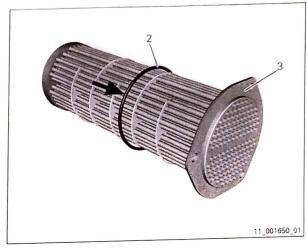


Fig. 442

- Insert the tube bundle (3) into the housing
   and push it as far as it will go.
  - Be sure not to damage the deflection plates (9) when inserting the tube bundle (3).

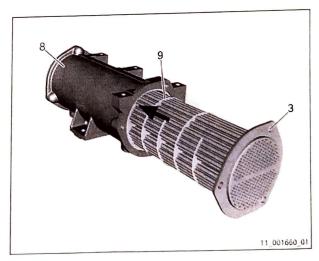


Fig. 443

3. Lubricate O-ring (4) with suitable grease and slide it onto the tube plate (7).

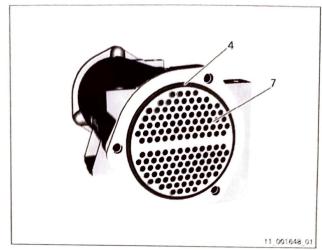


Fig. 444

4. Lubricate O-ring (10) with suitable grease and slide it onto the tube plate (13).

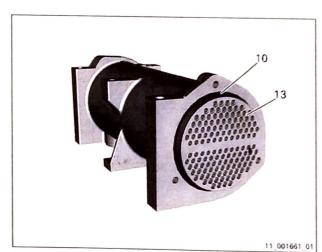


Fig. 445

5. Install spacer sheet (11).



Fig. 446

Lubricate O-ring (12) with suitable grease and slide it onto the tube plate (13).

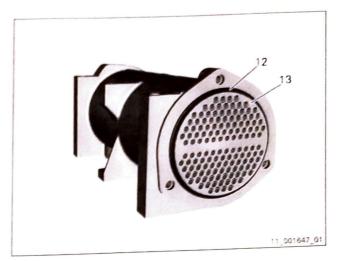


Fig. 447

- Evenly slide water supply cover (6) and cover (14) onto 0-rings (4, 12).
  - Be sure not to shear off the O-rings (4, 12) when sliding on the water supply cover (6) and the cover (14).

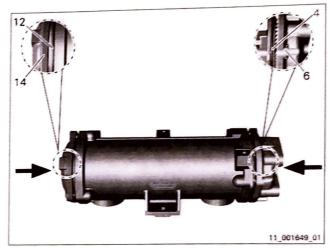


Fig. 448

Screw in screws (15) of cover (14) and tighten.

Tightening torque: 23 Nm

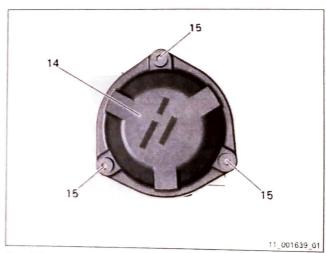


Fig. 449

9. Screw in screws (5) of water supply cover (6) and tighten.

Tightening torque: 23 Nm

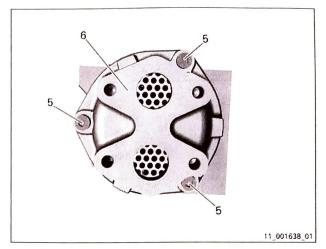


Fig. 450

- Work step only required for transmissions for which the transmission oil cooler was removed from the transmission housing.
  - Ensure that O-rings are available at the tubes on the oil end.

Attach transmission oil cooler to housing using screws (16) and tighten.
Tightening torque: 46 Nm

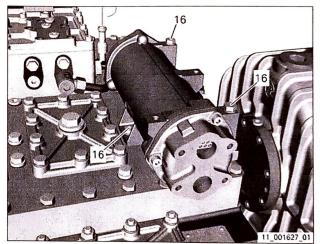


Fig. 451

- 11. Connect tubes on the water end. In doing so, observe the maximum permissible length of thread engagement in the connection threads for the cooling water *(refer to section Screwed socket, page 108)*.
- 12. Open tubes on the water end.
- 13. Start the engine and, for lubrication purposes, allow the transmission to run for at least 5 min at engine idle speed or at a slightly increased engine speed.
- 14. Bleed the transmission oil cooler on the water end.
- 15. Check oil level and, if necessary, top up oil.