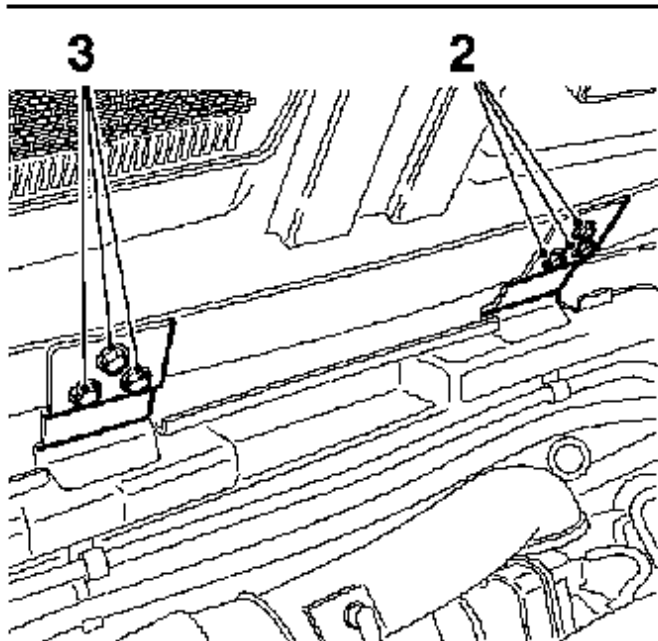
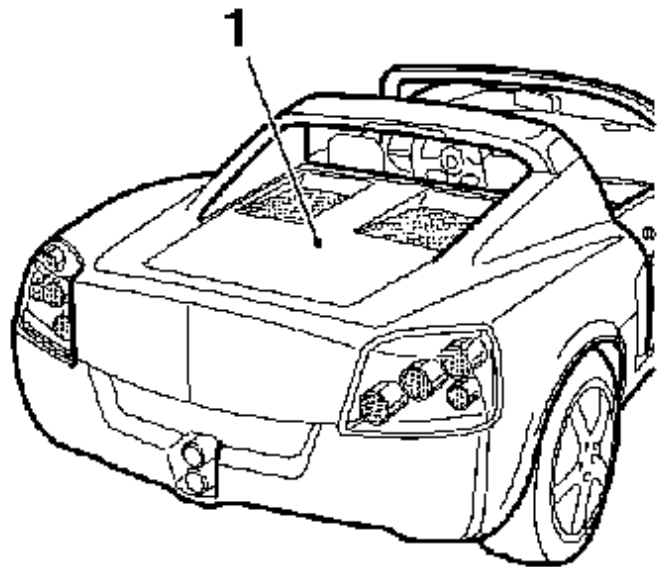


Coolant Pump, Remove and Install (Z 22 SE)



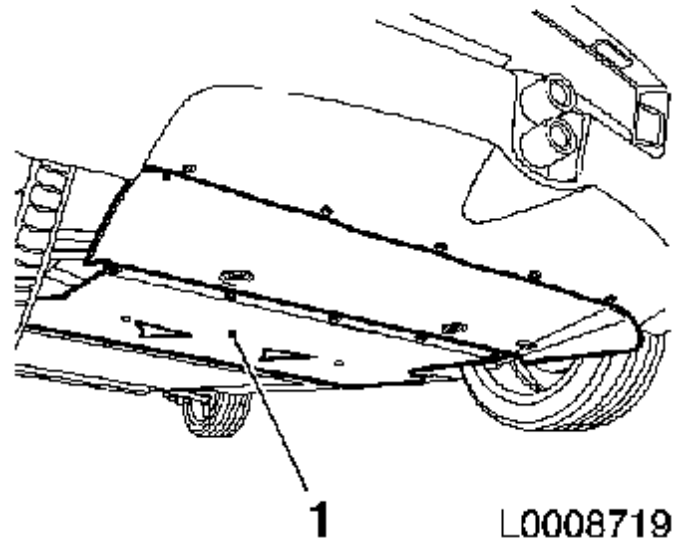
Remove

1. Open the bonnet.
2. Disconnect the battery.
3. Open the rear engine cover (1).
4. Detach the rear engine cover.
 - 6 bolts (2) and (3)

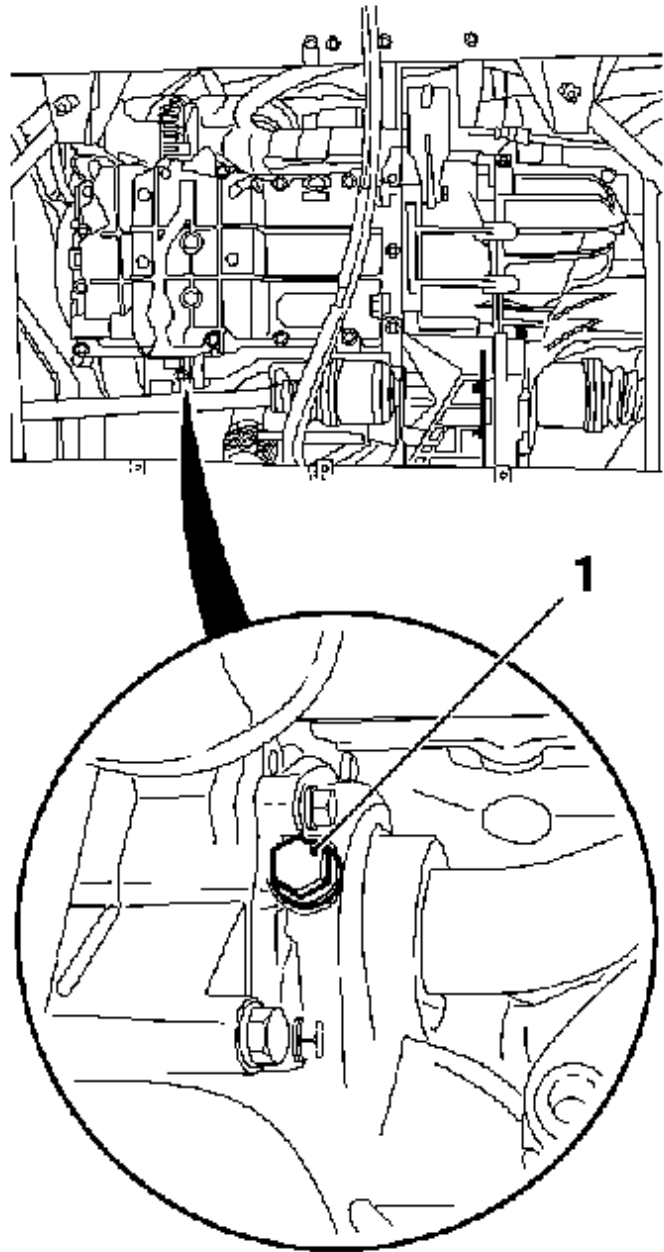


L0008715

5. Raise the lifting ramp.
6. Remove the lower engine splash shield (1).
 - 13 bolts

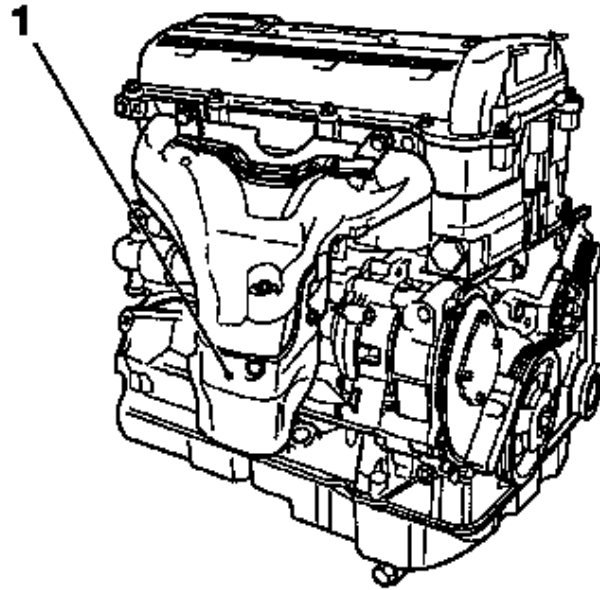


7. Place a drip tray underneath.
8. Drain the coolant.
 - Open the coolant drain plug at the radiator and the coolant pump (1).
 - Tighten the coolant drain plugs.
 - Tightening torque **20 Nm**
9. Lower the lifting ramp.



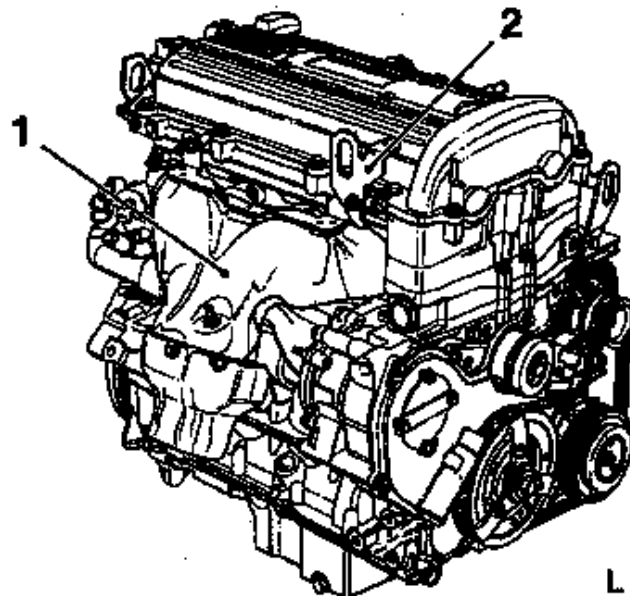
L0008724

10. Detach the lower heat shield (1).
 - 3 bolts



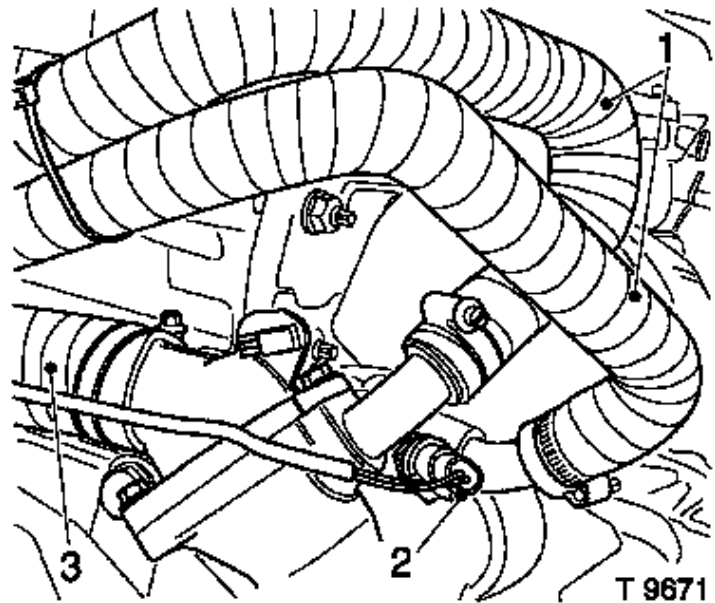
L 3920

11. Remove the upper heat shield (1).
 - Detach the engine lifting eye (2).
 - 1 nut
 - 3 studs

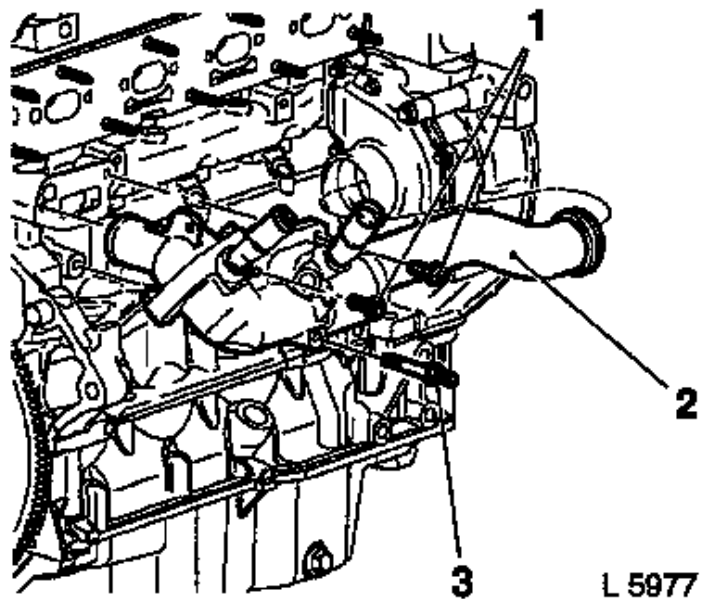


L 5975

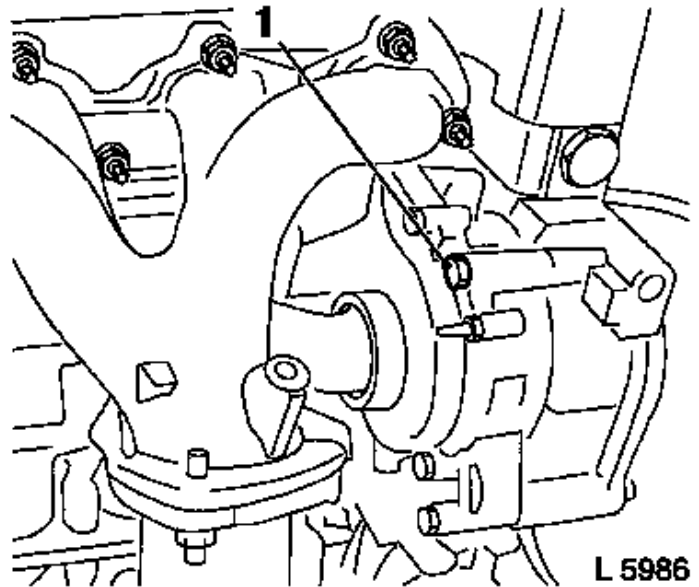
12. Detach the coolant hoses.
 - 3 off – (1) and (3)
13. Detach the coolant temperature sensor wiring harness (2).
14. Detach the lambda probe wiring harness.
 - 1 clip



15. Remove the thermostat housing.
 - 1 stud (3), 2 bolts (1)
 - Lift out to the top with coolant pipe (2).
16. Detach the coolant pipe.



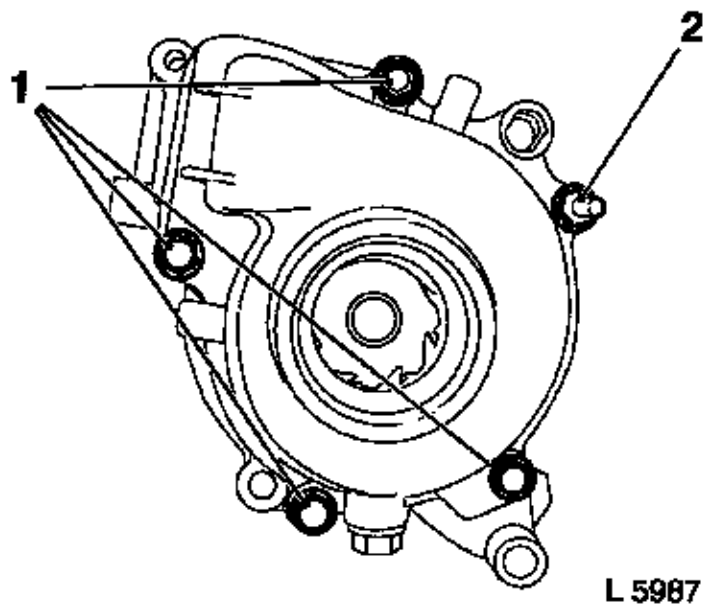
17. Unscrew the coolant pump.
 - 1 bolt (1) (transmission side)
18. Raise the lifting ramp.



19. Remove the coolant pump housing cover.

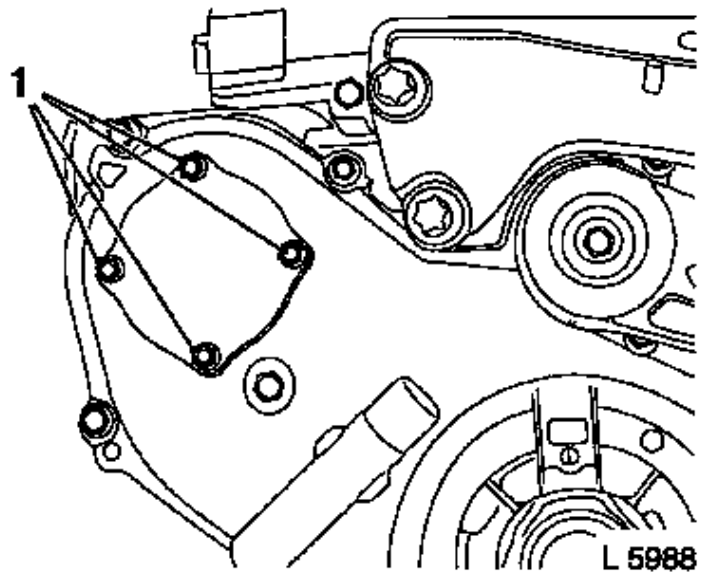
- 1 stud (2), 4 bolts (1)

Note: Note the centring sleeves.

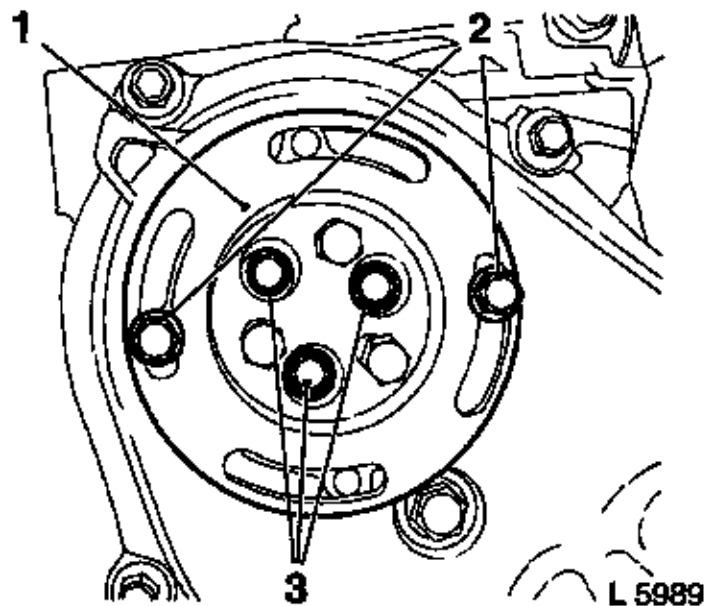


20. Detach the coolant pump service opening.

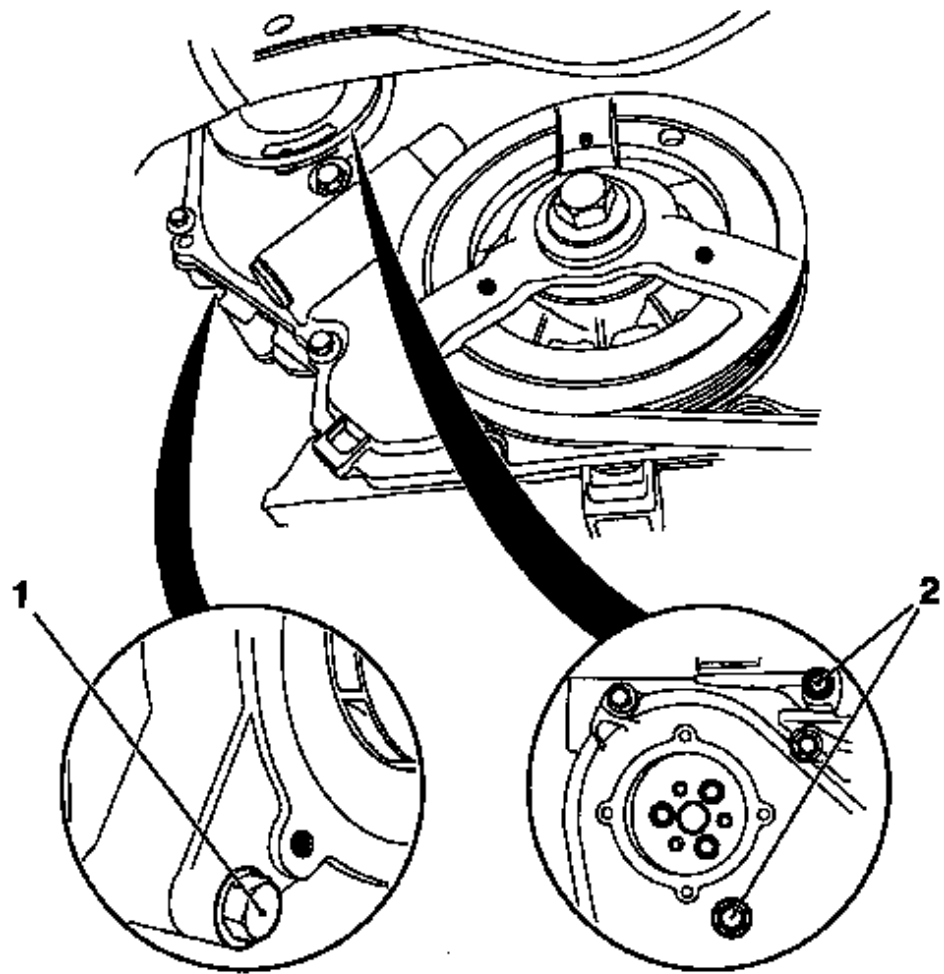
- 4 bolts (1)
 - Take out together with the gasket.



21. Secure the coolant pump sprocket with **KM-J-43651** (1).
 - Insert **KM-J-43651**.
 - Attach it to the coolant pump sprocket.
 - Attach **KM-J-43651** to the timing case.
 - Use the two bolts (2) of the coolant pump service opening.
22. Unscrew the coolant pump sprocket.
 - 3 bolts (3)



23. Remove the coolant pump.
 - 2 bolts (timing case side) (2)
 - Note:** 1 of the bolts cannot be taken out.
 - 1 bolt (transmission side) (1)

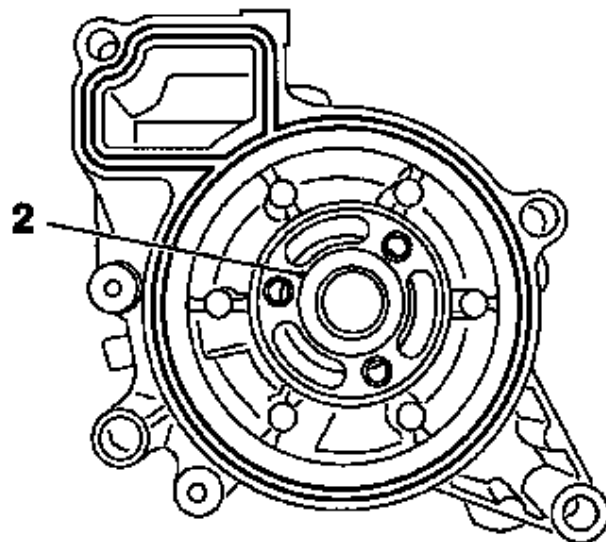
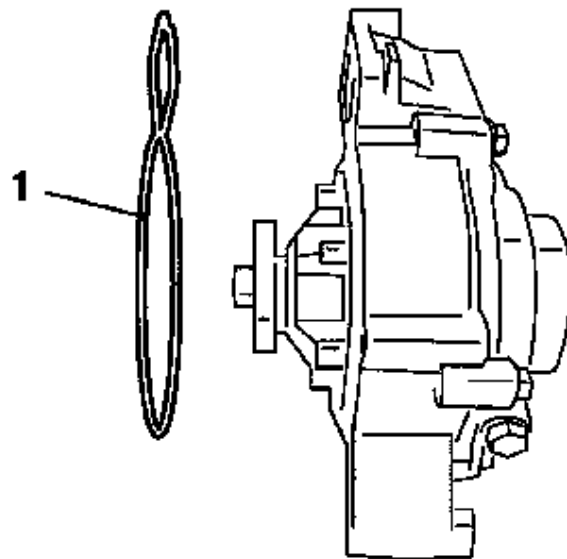


L 5992

**Install**

24. Install the coolant pump.
 - Use a new seal (1).
 - Align the coolant pump drive gear (2).
 - 2 bolts (timing case side)
 - 1 bolt (transmission side)
 - **Note:** Note the different bolt lengths.
 - Tightening torque **23 Nm**
25. Attach the coolant pump sprocket.
 - Tightening torque **8 Nm**
26. Remove the holding tool **KM-J-43651**.
27. Attach the coolant pump service opening.
 - Use a new gasket.
 - Tightening torque **7 Nm**
28. Attach the coolant pump housing cover.

- Use a new oil seal.



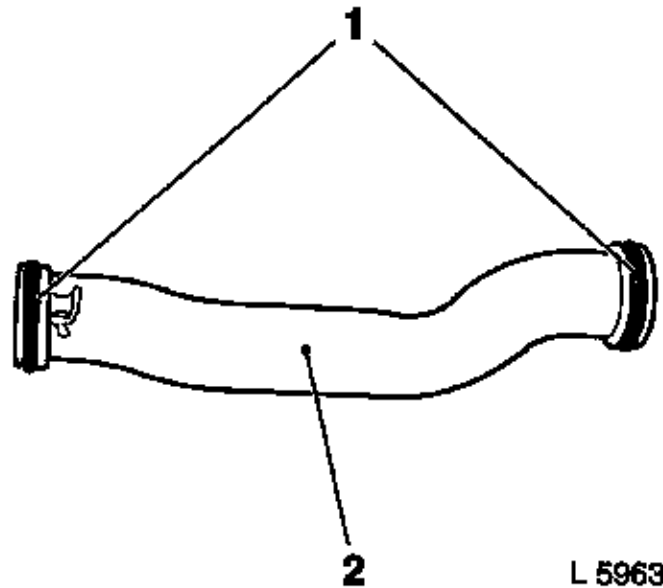
L 5993

29. Lower the lifting ramp.
30. Attach the coolant pump.
 - 1 bolt (transmission side)
 - Tightening torque **22 Nm**
31. Attach the coolant pipe (2).

Note: The lug on the coolant pipe engages in the cut-out on the thermostat housing.

 - Use new seals (1).
 - Coat the oil seals with silicone grease (white).
32. Clean the sealing surfaces.
 - Cylinder block, thermostat housing

33. Install the thermostat housing.
- Use a new oil seal.
 - Insert with the coolant pipe.
 - Tightening torque **9 Nm**
 - Attach the clip.



34. Attach the lambda probe wiring harness.
- 1 clip
35. Attach the coolant temperature sensor wiring harness connector.
36. Connect the coolant hoses.
- 3 off
37. Install the upper heat shield.
- 3 studs
 - Attach the engine lifting eye.
 - 1 nut
 - Tightening torque **23 Nm**
38. Attach the lower heat shield.
- 3 bolts
 - Tightening torque **8 Nm**
39. Fill up with coolant and correct as required.
40. Install the rear engine cover.
- Check the alignment.
 - 6 bolts, tightening torque **14 Nm**
41. Close the rear engine cover.
42. Raise the lifting ramp.
43. Attach the lower engine splash shield.
- 13 bolts
44. Lower the lifting ramp.
45. Connect the battery.
46. Close the bonnet.
47. Reprogram the volatile memories.