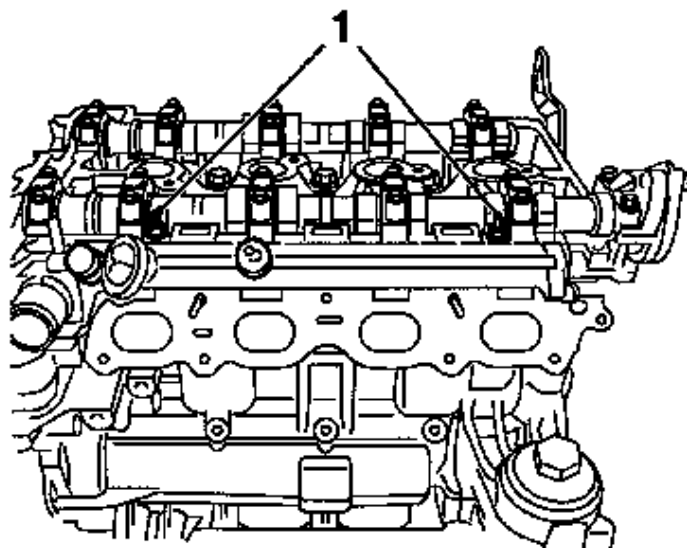


Attaching Parts, Cylinder Head, Remove and Install (Z 22 SE)



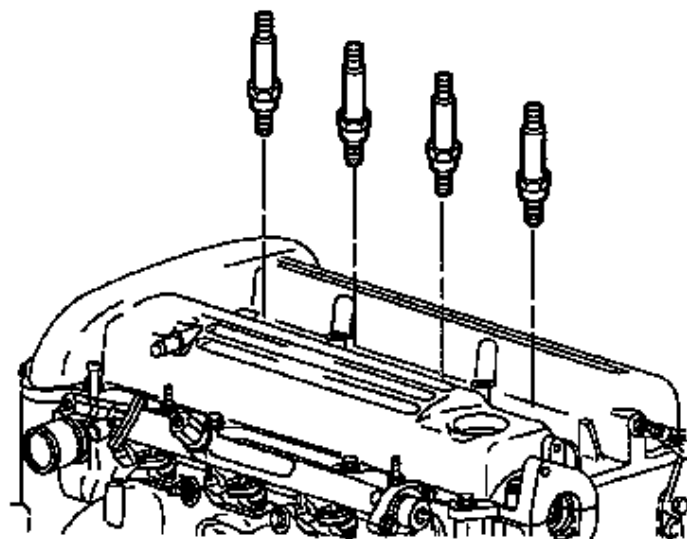
Remove

1. Detach the exhaust gas recirculation valve.
 - 2 bolts
 - Remove the gasket.
2. Detach the fuel distribution pipe.
 - 2 bolts (1)



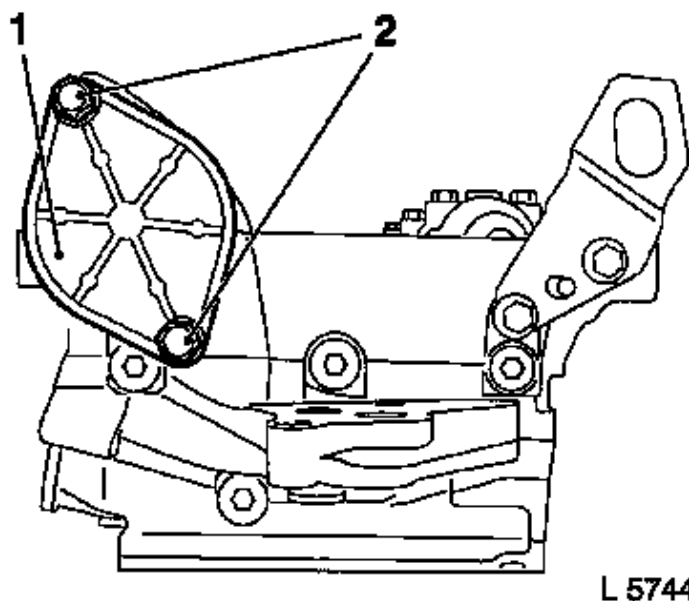
L 5979

3. Remove the coolant flange connection.
4. Remove the spark plugs.
 - Use spark plug socket **KM-194-E**



L 6019

5. Detach the camshaft connecting flange cover (1).
 - 2 bolts (2)



6. Remove the intake camshaft.

- Remove the camshaft bearing caps.

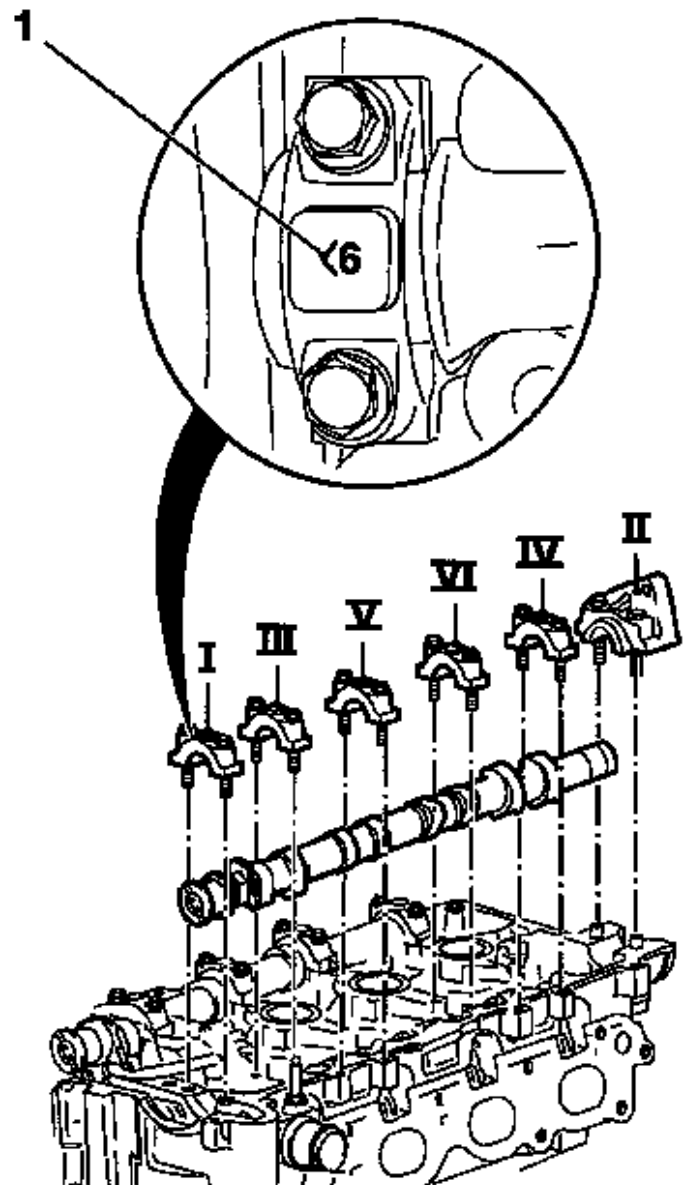
Note: Note identification marking (1).

- Working in a spiral pattern from the outside towards the middle, release the bolts on the camshaft bearing caps (I to VI) 1/2 to 1 turn at a time.

Note: The camshaft must be released evenly from the bearings.

- Take out the camshaft.
- Visually inspect the camshaft and the camshaft bearings for wear.

Note: The cylinder head should be replaced if the camshaft bearings are defective.

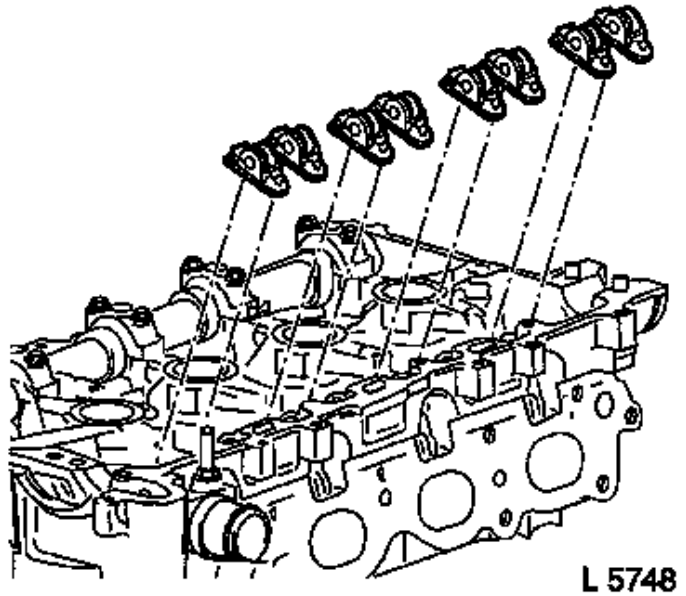
**L 5747**

7. Take out the roller cam followers.

Important: Note the correct allocation.

- 8 off

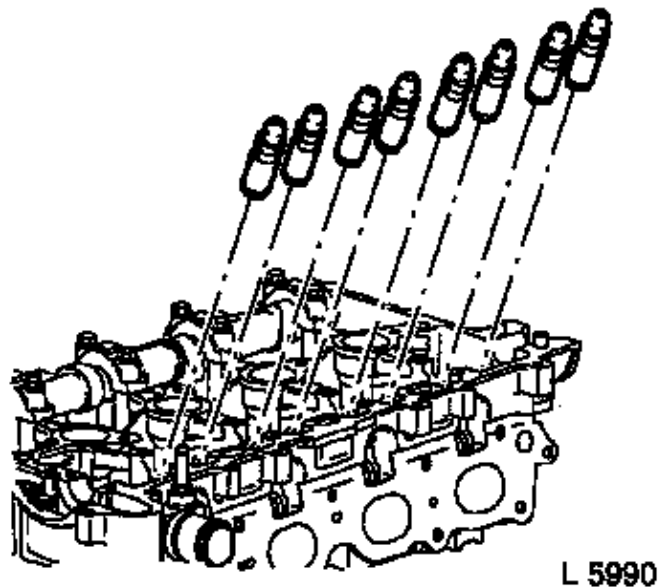
Note: The roller cam followers must be renewed when installing a new camshaft.



8. Take out the hydraulic tappets.

Important: Note the correct allocation.

- 8 off

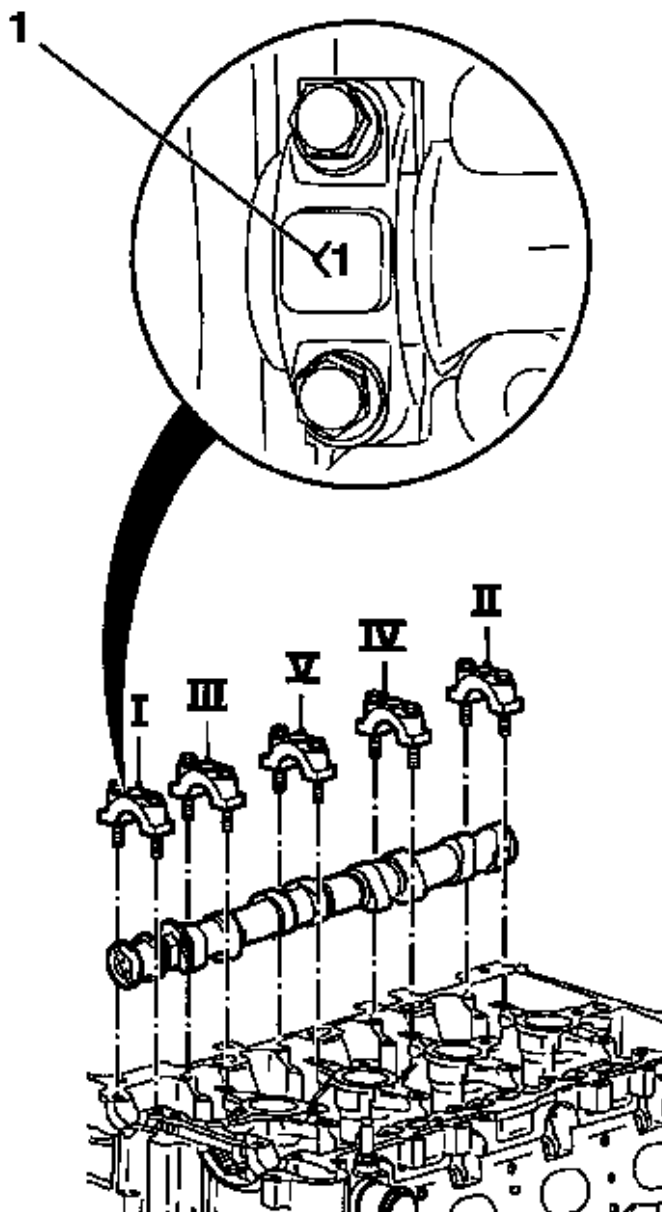


9. Remove the exhaust camshaft.

- Remove the camshaft bearing caps.
 - Note:** Note identification marking (1).
 - Working in a spiral pattern from the outside towards the middle, release the bolts on the camshaft bearing caps (I to VI) 1/2 to 1 turn at a time.
 - Note:** The camshaft must be released evenly from the bearings.
 - Take out the camshaft.
 - Visually inspect the camshaft and

the camshaft bearings for wear.

Note: The cylinder head should be replaced if the camshaft bearings are defective.



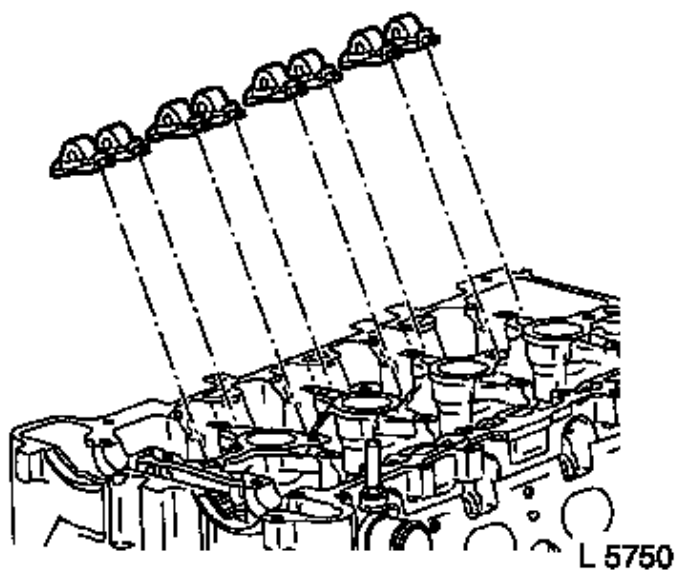
L 5749

10. Take out the roller cam followers.

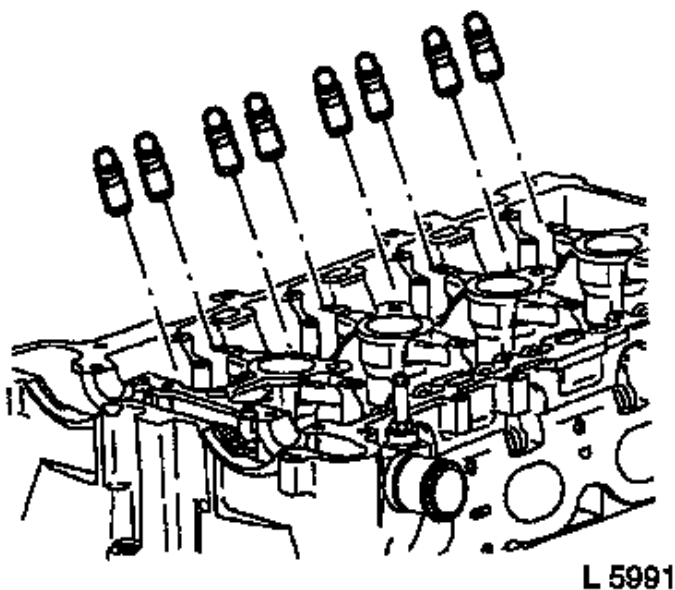
Important: Note the correct allocation.

- 8 off

Note: The roller cam followers must be renewed when installing a new camshaft.



11. Take out the hydraulic tappets.
Important: Note the correct allocation.
• 8 off



Install

12. Insert the hydraulic tappets.
Important: Note the correct allocation.
• Coat the sliding surfaces with engine oil.
13. Insert the roller cam followers.
Important: Note the correct allocation.
• Coat the sliding surfaces with engine oil.
14. Install the exhaust camshaft.
• Coat the sliding surfaces with engine

oil.

- Insert the camshaft and the camshaft bearings.

Important: Note the identification markings and the correct allocation, arrow (1) points towards the timing chain end.

- Install the camshaft bearing caps.
 - Working in a spiral pattern from the middle towards the outside, tighten the bolts on the camshaft bearing caps (I to V) in stages.
 - Tightening torque **9 Nm**

15. Insert the hydraulic tappets.

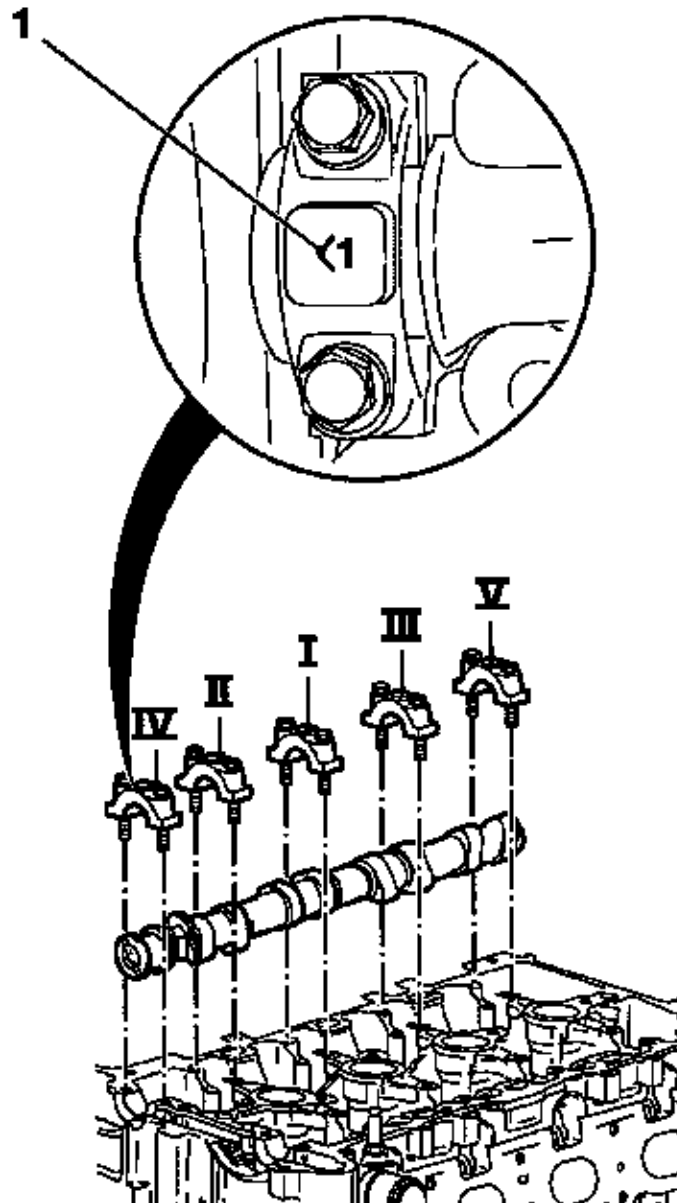
Important: Note the correct allocation.

- Coat the sliding surfaces with engine oil.

16. Insert the roller cam followers.

Important: Note the correct allocation.

- Coat the sliding surfaces with engine oil.



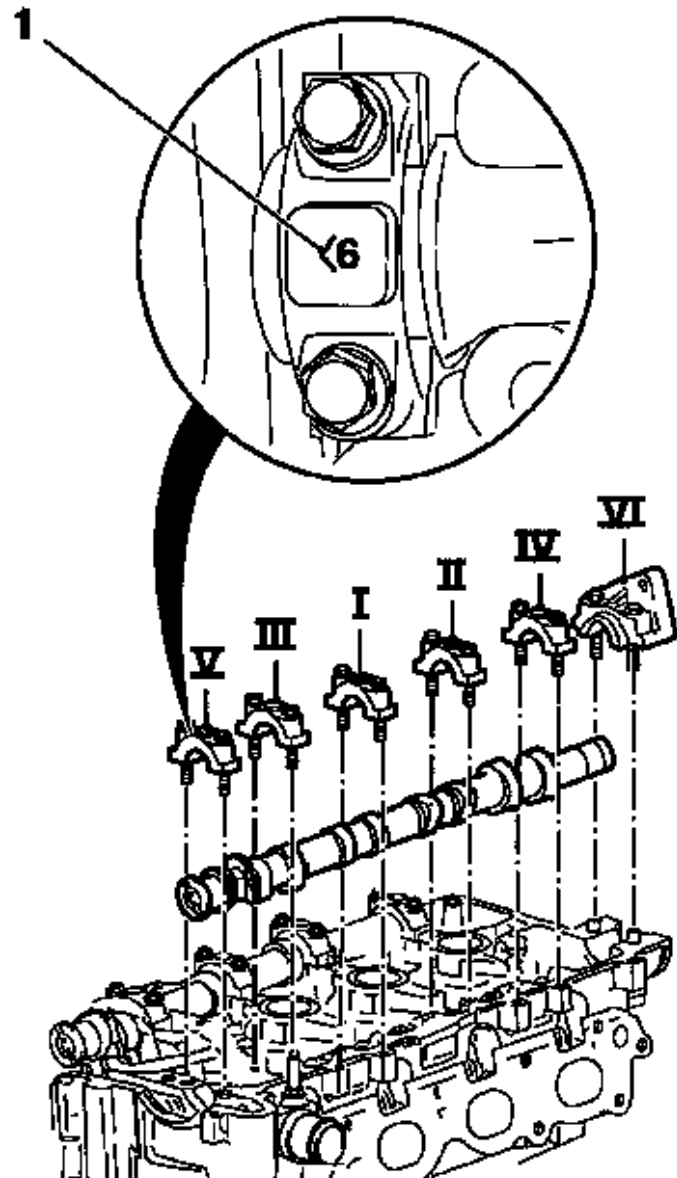
L 5752

17. Install the intake camshaft.

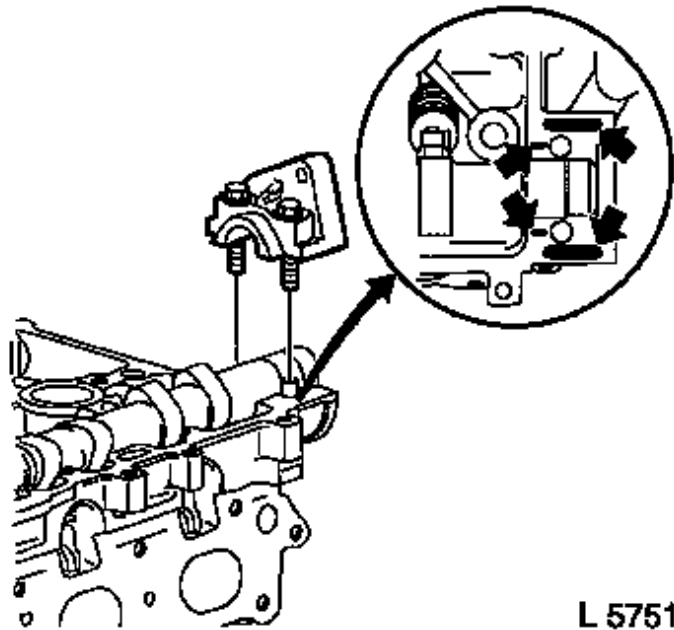
- Clean the sealing surfaces of camshaft bearing cap no. 11.
- Coat the sliding surfaces with engine oil.

Important: Note the identification markings and the correct allocation, arrow (1) points towards the timing chain end.

- Insert the camshaft and the camshaft bearings.

**L 5753**

18. Install the camshaft bearing caps.
- Coat the sealing surfaces of camshaft bearing cap no. 6 with silicone sealant (grey) (arrows).



L 5751

19. Working in a spiral pattern from the middle towards the outside, tighten the bolts on the camshaft bearing caps (I to VI) in stages.

- Tightening torque (M6) **9 Nm**, (M8) **22 Nm**

20. Attach the camshaft connecting flange cover.

- Use a new gasket.
- Tightening torque **23 Nm**

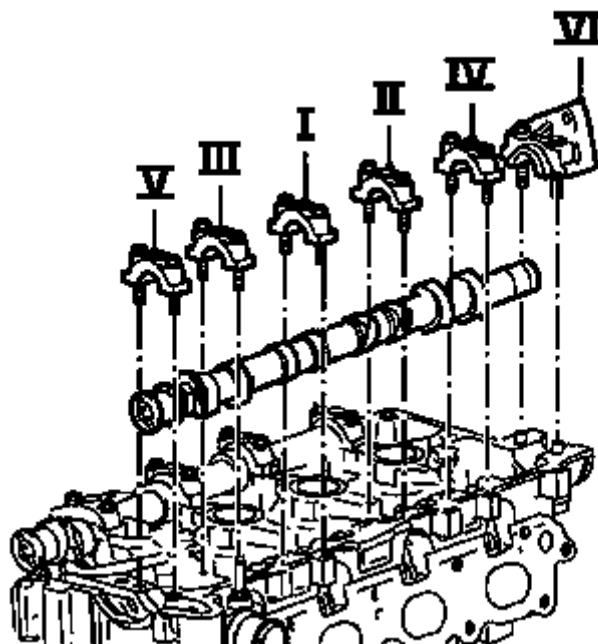
21. Install the spark plugs.

- Use spark plug socket **KM-194-E**
- Tightening torque **20 Nm**

22. Install the coolant flange connection.

23. Install the fuel distribution pipe.

- Coat the new oil seals with engine oil and insert them.
- Tightening torque **9 Nm**



L 5754

24. Clean the sealing surfaces.

25. Install the exhaust gas recirculation valve.

- Use a new gasket.
- Tightening torque **23 Nm**