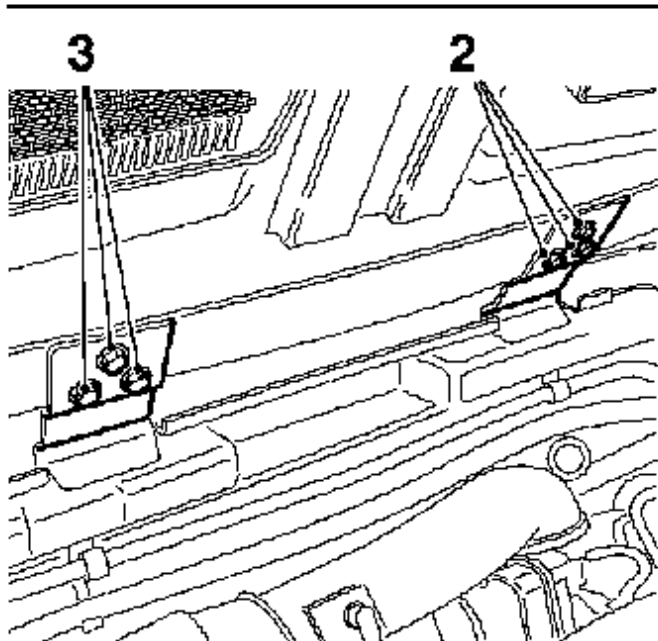
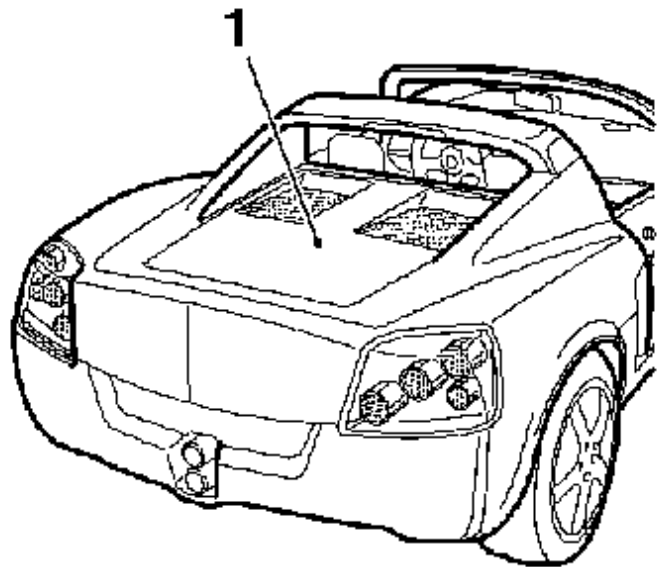


Timing Chain Tensioner, Camshaft, Replace (Z 22 SE)



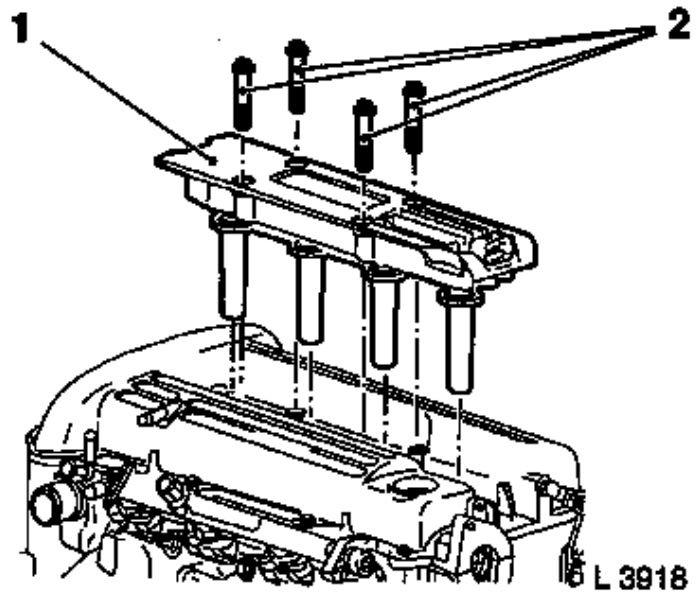
Remove

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



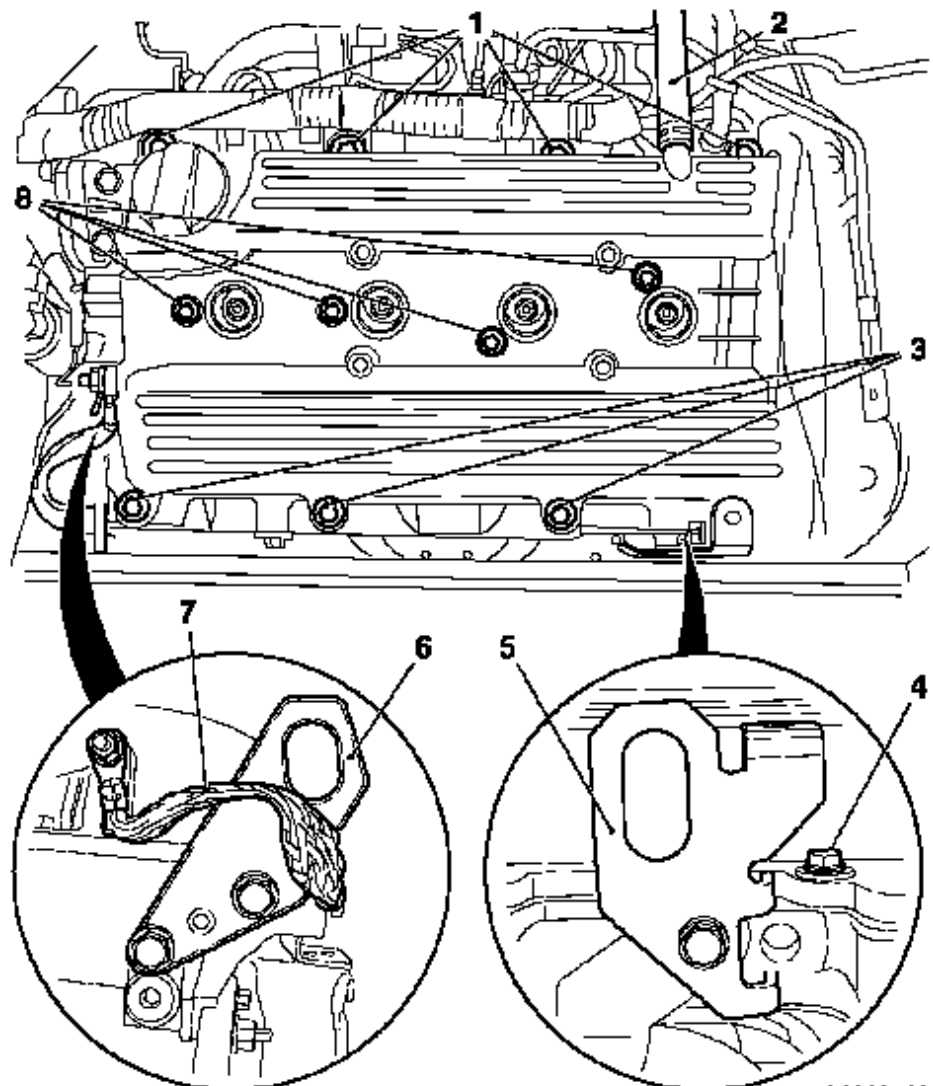
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5. Detach the ignition module (1).
 - Release and detach the wiring harness connector.
 - 4 bolts (2)



6. Remove the cylinder head cover.

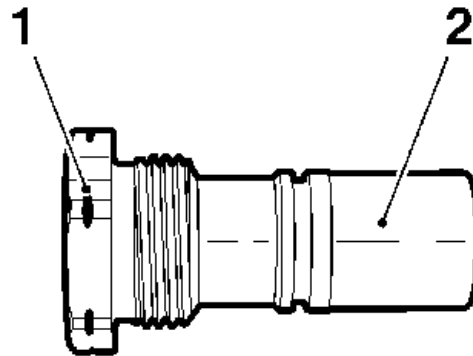
- Detach the engine breather hose (2).
- Detach the engine lifting eyes (5) and (6).
 - 2 bolts, 1 nut
- Detach the ground cable (7).
 - 1 bolt
- 12 bolts (1), (3), (4) and (8)



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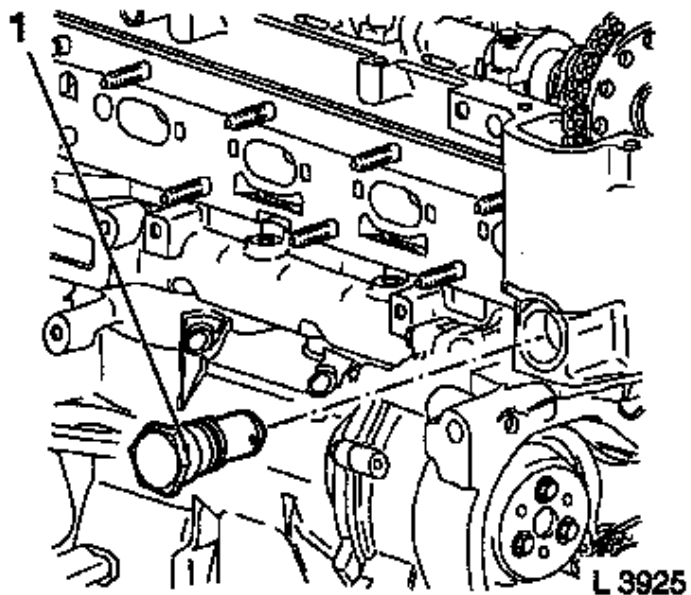
7. Note:

If there is no marking (1) on the camshaft timing chain tensioner (2), then it should be replaced with a new camshaft timing chain tensioner (part number 24 448 509) including a new camshaft timing chain tensioner rail (part number 24 449 448).



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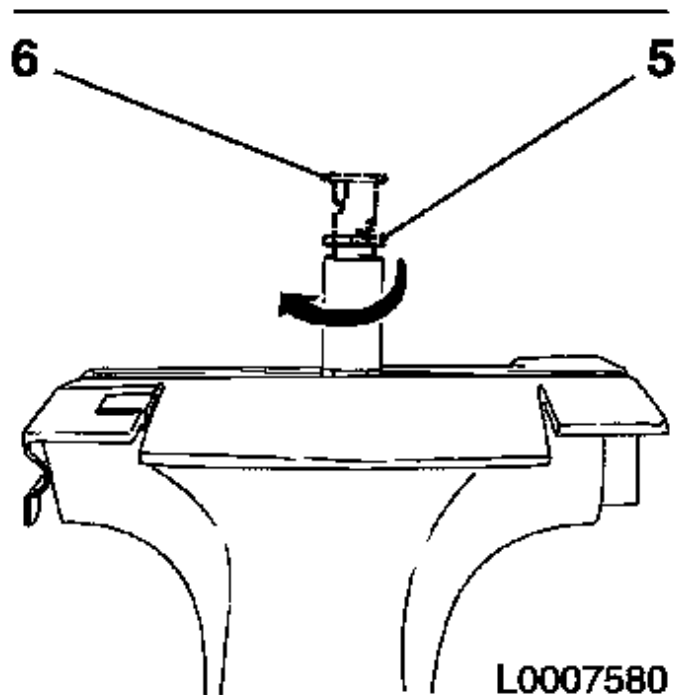
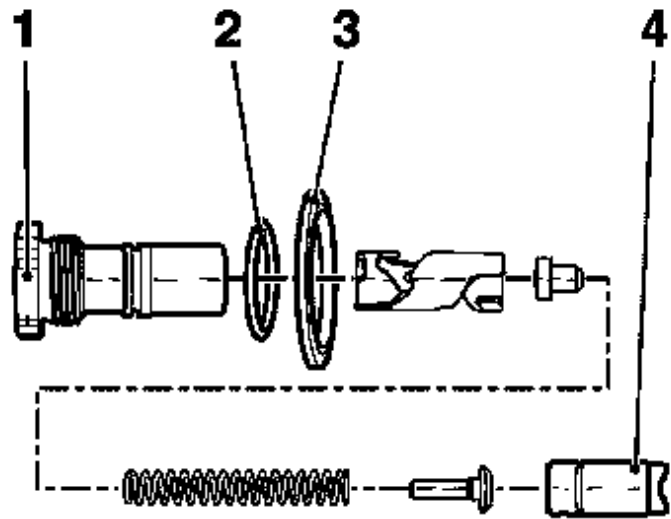
8. Remove the camshaft timing chain tensioner (1).

**Install**

9. Install the camshaft timing chain tensioner.

- Pull out the piston (4) from the housing (1).
 - Clamp the piston at the square into a vice.
 - Turn clockwise to lock the internal piston (6) in the last latch position (5).

- Insert the piston into the housing.
- Use new oil seals (2) and (3).
- Tightening torque **75 Nm**



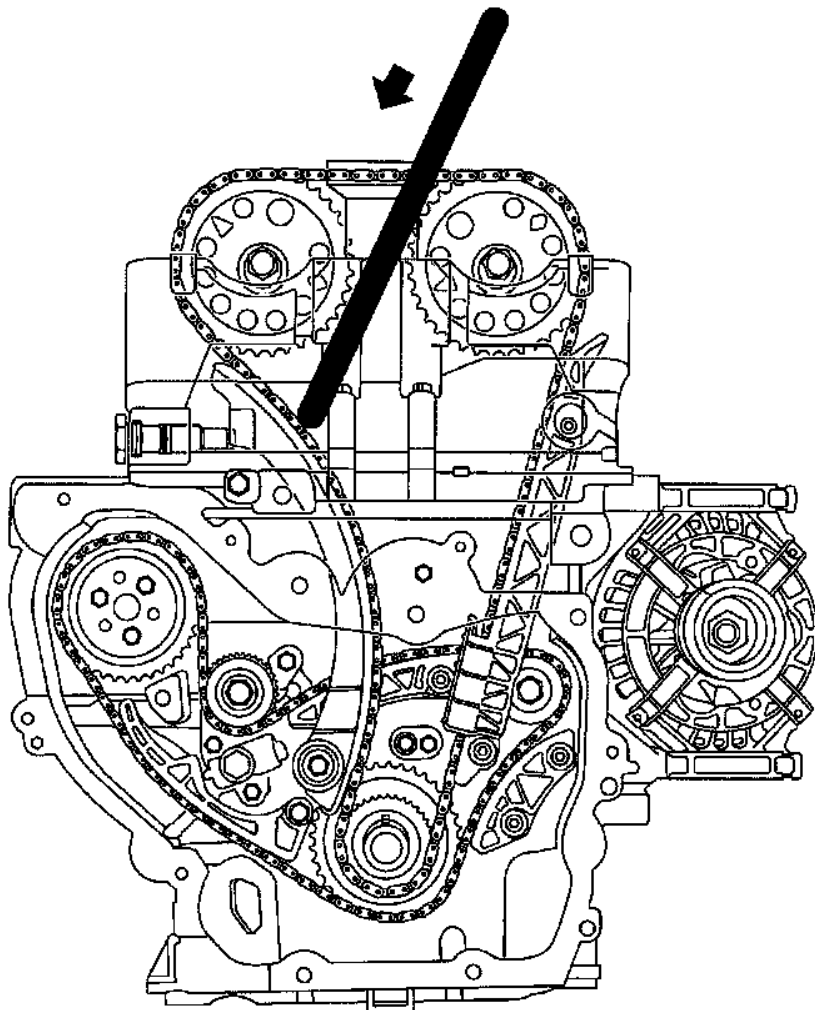
Important: Engines up to 48 000 km

10. The chain tensioner is released when the engine is started.

Important: Engines above 48 000 km

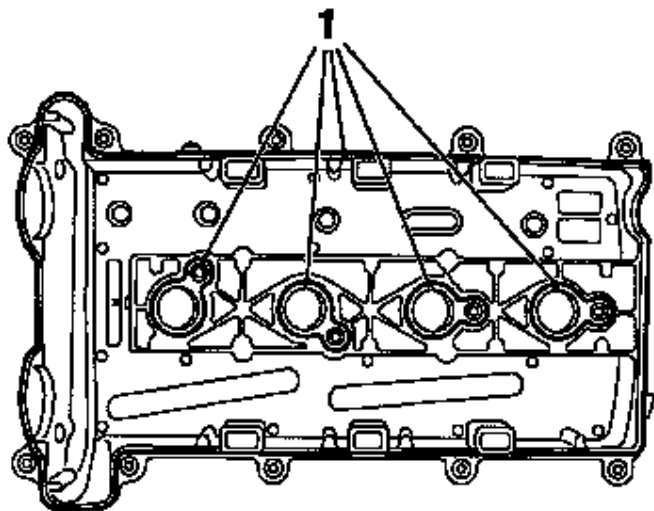
11. Release the camshaft timing chain tensioner by pressing on the tensioner rail or the camshaft timing chain (using a blunt tool – e.g. a rounded assembly lever).

Note: Failure to follow this instruction could cause the camshaft timing chain to jump.



J 0935

12. Attach the cylinder head cover
 - Clean the sealing surfaces.
 - Use new gaskets.
 - Note:** The sealing lips of the seals (1) must be inserted into the groove on the cylinder head cover.
 - Tightening torque **9 Nm**
 - Attach the ground cable
 - Tightening torque **9 Nm**
 - Attach the engine lifting eyes.
 - 2 bolts, 1 nut
 - Attach the engine breather hose.



13. Attach the ignition module.
 - Tightening torque **9 Nm**
 - Attach and secure the wiring harness connector.
14. Install the rear engine cover.
 - Check the alignment.

L 5706

- 6 bolts, tightening torque **14 Nm**
- 15.** Close the rear engine cover.
 - 16.** Connect the battery.
 - 17.** Close the bonnet.
 - 18.** Reprogram the volatile memories.