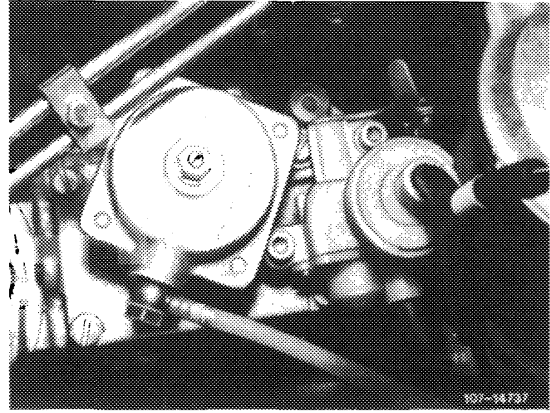


Removal

- 1 Detach vacuum line at vacuum control unit and at vacuum control valve for automatic transmission.
- 2 Unscrew delivery line at aneroid compensator.

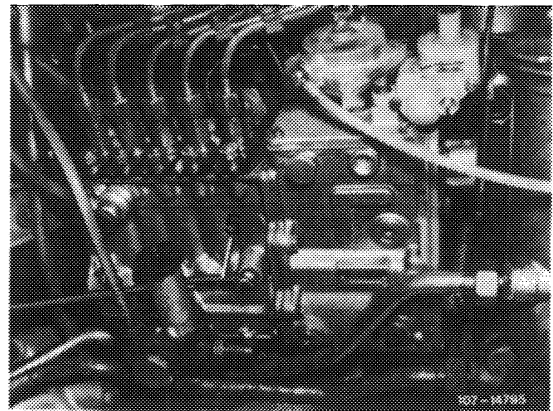


- 3 Disconnect electric cable at temperature sensor, detach control rod, unscrew injection lines and fuel lines at injection pump. Clip caps onto connections for injection lines and fuel hoses at injection pump.

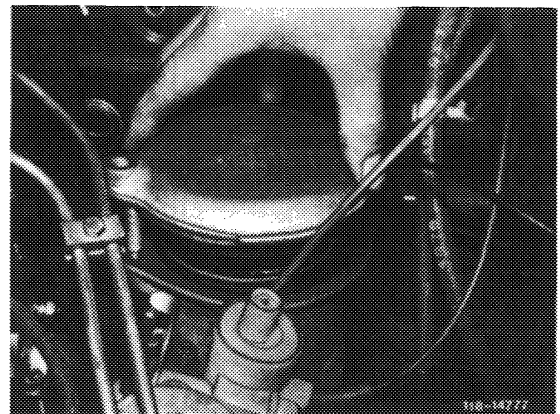
- 4 Unscrew lubricating oil line (5).

Attention:

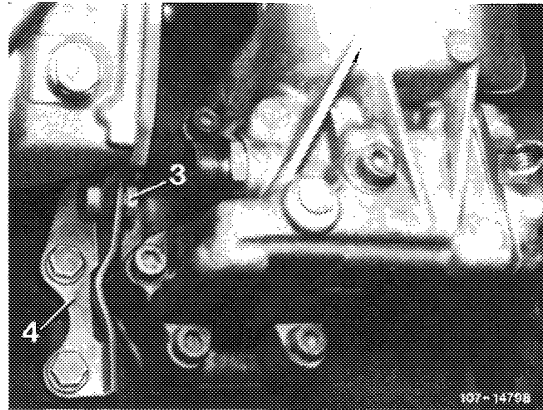
Prior to removal of lubricating oil line (5), clean connecting points.



- 5 Unscrew and remove upper part of oil filter so that engine oil can return to oil pan.



6 Unscrew hex-head bolts at supporting holder (4) as well as 3 nuts holding injection pump. Release fastening bolt (3) to provide adjustment within oblong hole.



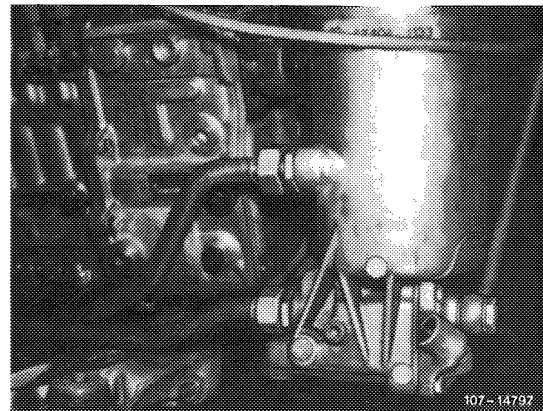
7 Unscrew all engine oil lines at oil filter body, releasing clamps for this purpose.

8 Unscrew and remove oil filter body from crankcase (18-110).

Attention:

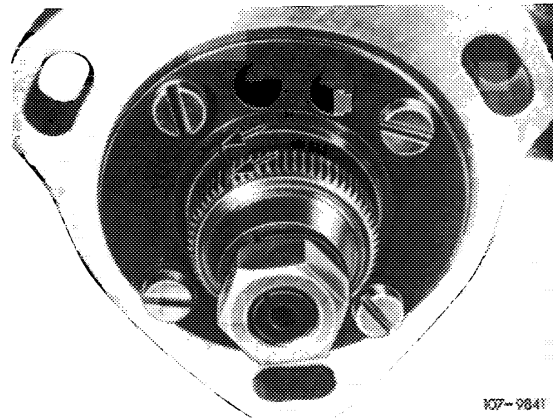
When removing gasket, make sure that no remains drop into oil passages.

9 Withdraw injection pump from crankcase. Detach coupling sleeve from injection pump driver or from drive shaft.



Note: If driver is to be exchanged, lock driver with serrated wrench and release hexagon nut. Then remove driver from injection pump shaft using puller. Clean axle stub and driver, making sure that both cones are absolutely clean and dry.

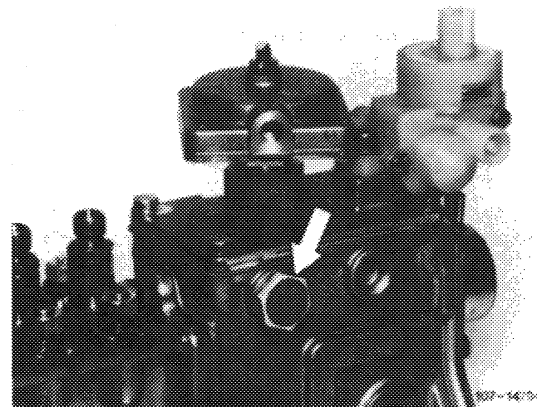
When fitting a new driver, note Woodruff key and marks (arrows).



Installation

Attention:

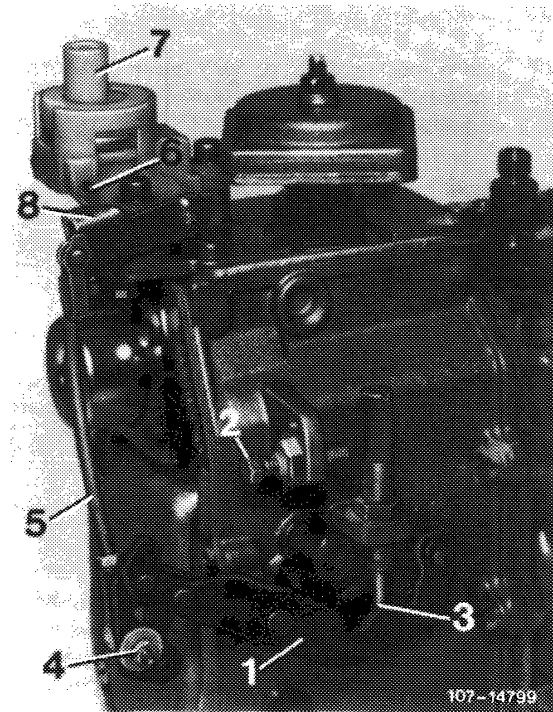
Prior to installing a replacement injection pump, remove screw plug (arrow) and fill with 0.4 l engine oil (first filling).



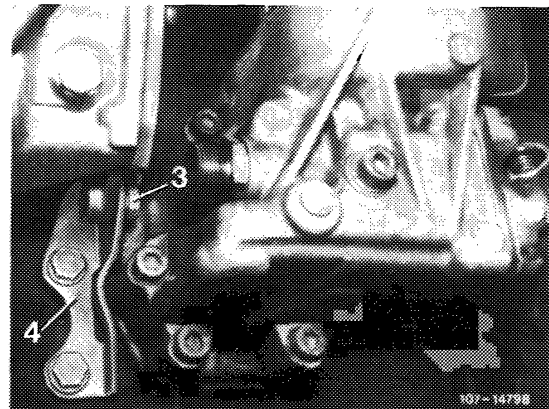
10 Check whether connecting rod (5) is correctly set, moving control lever (1) to full-load stop (2) for this purpose. Operating lever (8) must have approx. 0.5 mm clearance from full-load stop (6).

If necessary, adjust connecting rod (5) at adjustable knuckle (4).

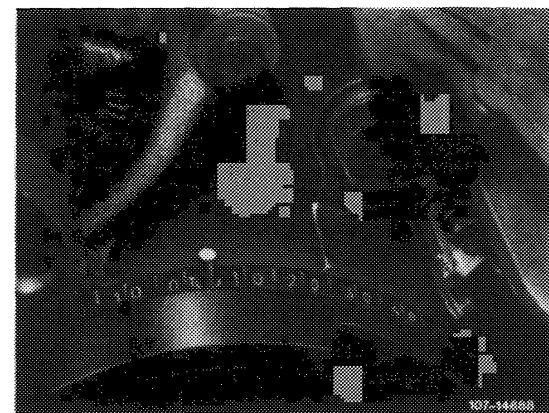
- | | |
|----------------------|--|
| 1 Control lever | 6 Full-load stop at vacuum control valve |
| 2 Full-load stop | 7 Vacuum control valve |
| 3 Idle speed stop | 8 Operating lever for vacuum control valve |
| 4 Adjustable knuckle | |
| 5 Connecting rod | |



11 Detach supporting holder (4) from removed injection pump and bolt to injection pump for installation. Do not tighten fastening bolt (3) because adjustment within oblong hole is still necessary.



12 Move crankshaft to start of delivery in compression stroke.



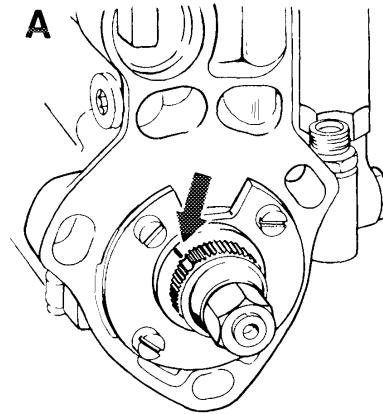
13 Fit new gasket.

14 Move injection pump to mark, turning injection pump camshaft until mark on camshaft agrees with line on flange (arrow).

Attention!

On Bosch production code number "251" (November 1982) the mark for begin of delivery may be applied to the wrong spot on bearing cap.

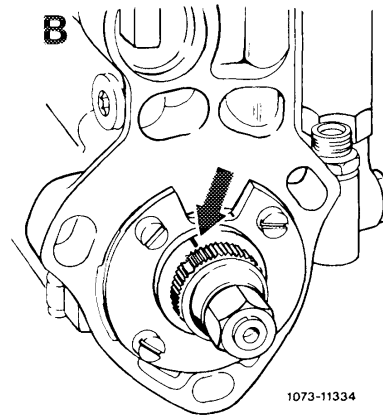
Mark on bearing cap correct
(approx. center of bearing cap screw)



Note

When installing an injection pump with wrong mark on bearing cap, the pinion should be positioned in such a manner that the recess is 3 teeth to the left on the mark of the bearing cap. In this position the injection pump is at begin of delivery (basic position). The engine should be at 24° before TDC, as usual.

Marking on bearing cap wrong
(approx. lefthand edge recess of oil overflow)



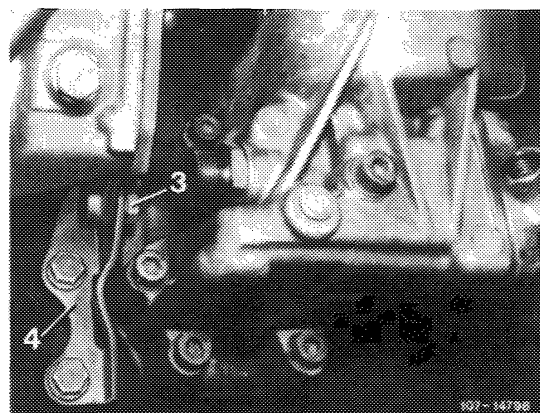
1073-11334

15 Slip coupling sleeve onto driver and insert injection pump. Fit washers and slightly tighten fastening nuts of injection pump.

16 Check and adjust start of delivery (07.1–110 and 115).

17 Tighten injection pump fastening nuts and attach supporting holder (4) to crankcase. Now tighten fastening bolt (3) in oblong hole of supporting holder. Supporting holder is to be fastened with shims as per part No. 116 990 14 40 and hex-head bolts M 8 x 16.

18 Reconnect lubricating oil line to injection pump.



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