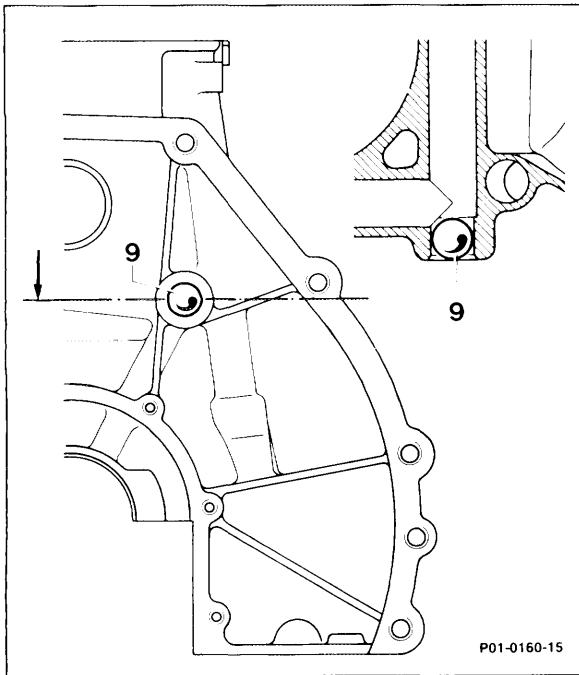


01-130 Removal and installation of steel balls in main oil duct

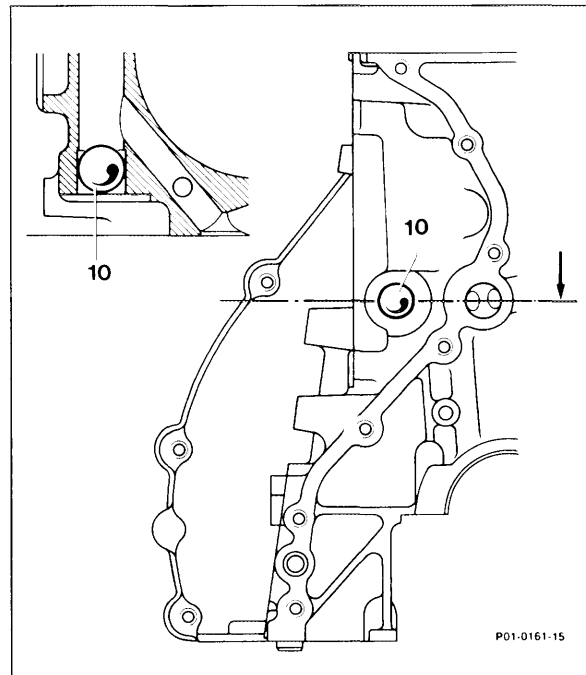
Preliminary operations:

Coolant pump removed with housing (20-230).

Flywheel removed (03-410).



Steel ball, rear, 15 mm dia. (9)



Steel ball, front, 17 mm dia. (10)

Steel balls (9, 10) knock out, insert.
 Punch 601 589 08 15 00 (items 1 – 6).

Note
 If not damaged the steel balls can be reinstalled a number of times. In the event of leakage reseal steel balls approx. 1 mm deeper (dimension marked on punch).
 Leaky steel balls replace with plug, remedy measures (items 7 – 9).
 After reassembling engine warm up engine and check for leakage in area of steel balls.

Tightening torque	Nm
Plug as replacement for steel balls	50

Replacement parts for steel balls

Part no.

Plug M 18 x 1.5 (front)

000 908 018 002

Plug M 16 x 1.5 (rear)

000 906 016 002

Gasket A 18

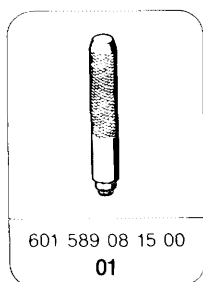
007 603 018 103

Sealant for replacement of rear steel ball

Loctite 241

002 989 94 71

Special tool

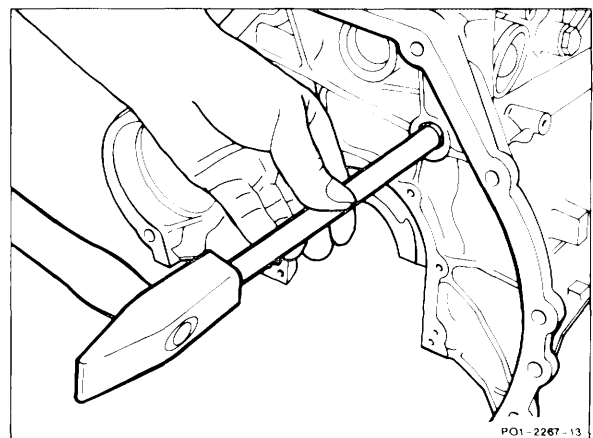


Knocking out

1 Knock out both steel balls from rear toward front with suitable steel rod.

Note

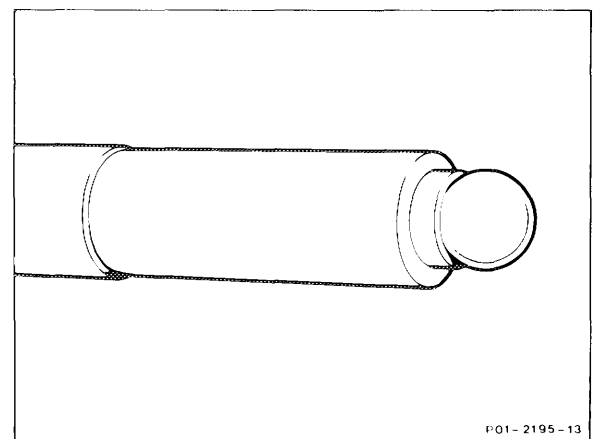
The steel balls can be reused a number of times. Replace damaged balls under all circumstances.



Inserting

2 Thoroughly clean seat for steel ball in engine block.

3 Insert steel ball with slight quantity of grease on punch 601 589 08 15 00.

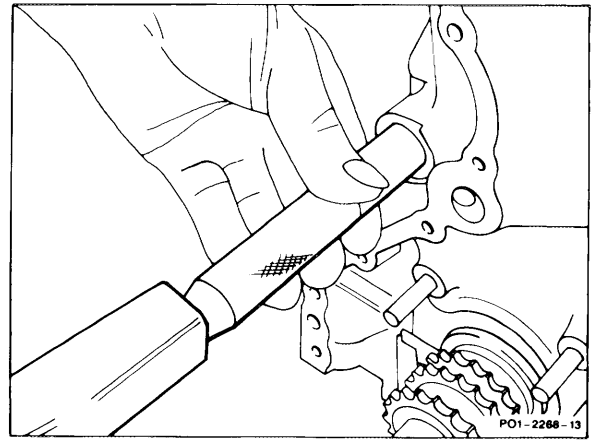


4 Position steel balls on hole and drive in to specified stop on punch.

5 After reassembling engine, warm up engine and check for leakage in area of steel balls.

Note

If one of the steel balls does not seal sufficiently after inserting or if leakage is present following leakage test, replace steel ball with plug.



Replacing steel ball with plug

6 Knock steel ball out again.

7 Cut thread in hole for leaky ball.

Note

Front bore M 18 × 1.5	10 mm deep
Rear bore M 16 × 1.5	14 mm deep

8 Thoroughly clean oil duct, screw in front plug with gasket and rear plug with sealant 002 989 94 71, tightening torque 50 Nm.