

03–350 Removal and installation of crankshaft sprocket

Tightening torques

	Nm
Bolt M 18 x 1.5 x 45 on crankshaft	400–450
Bolts and capped nuts for cylinder head cover	5

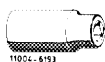
Special tools

Torque wrench 150–500 Nm (15–50 kpm),
3/4" square



001 589 31 21 00

Socket 27 mm, 1/2" square



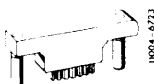
001 589 65 09 00

Detent



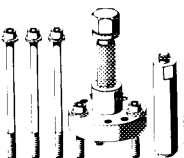
110 589 00 40 00

Detent



116 589 01 40 00

Puller for balancing disc



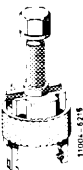
116 589 10 33 00

Puller for spacing ring



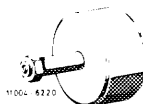
102 589 00 33 00

Crankshaft sprocket extractor



615 589 01 33 00

Bearing pin impact extractor (basic unit)



116 589 20 33 00

Threaded pin M 6 x 50 for impact extractor



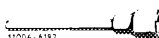
116 589 01 34 00

Threaded pin M 10 x 100 for impact extractor



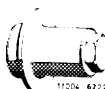
116 589 03 34 00

Stud socket 10 mm,
1/2" square, 140 mm long



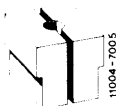
000 589 05 07 00

Radial oil seal installer



110 589 07 61 00

Chain tensioner holder



110 589 02 31 00

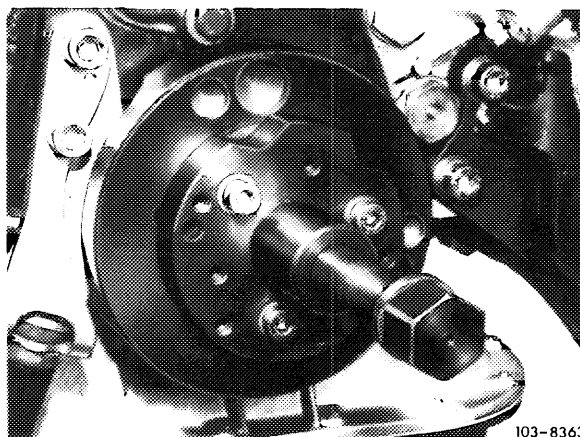
Knocking-out mandrel 9 mm dia



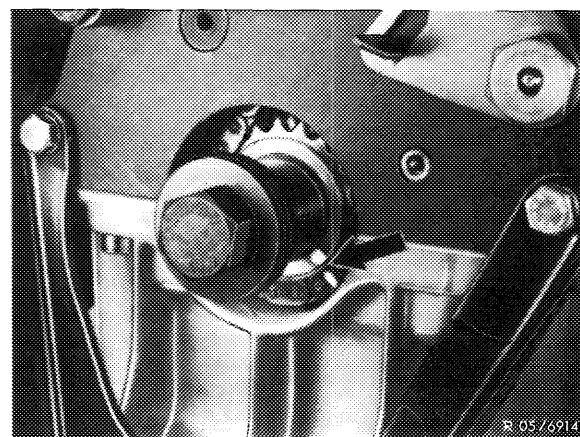
110 589 02 15 00

Removal

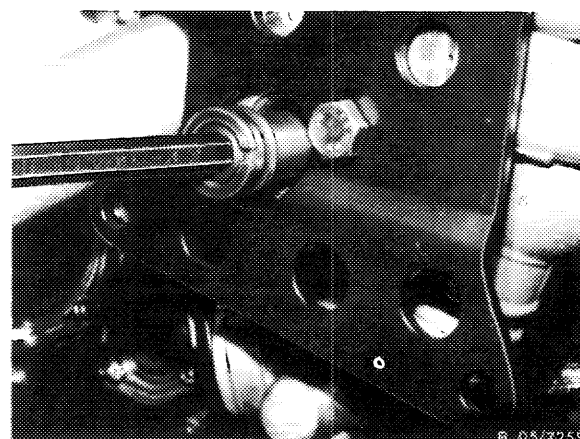
- 1 Remove radiator and fan.
- 2 Remove front crankshaft radial oil seal (03-324).



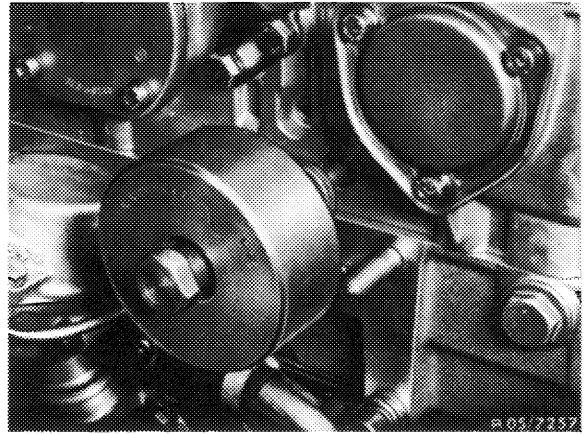
- 3 Use paint to mark both camshaft sprockets and camshaft sprocket to timing chain (arrow).



- 4 Remove chain tensioner (05-310).



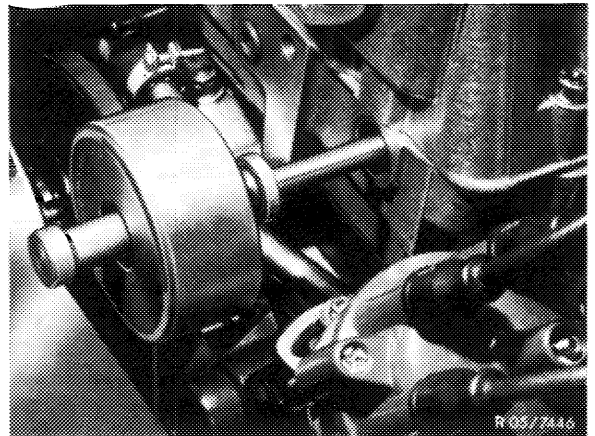
5 Remove guide rail in camshaft housing.



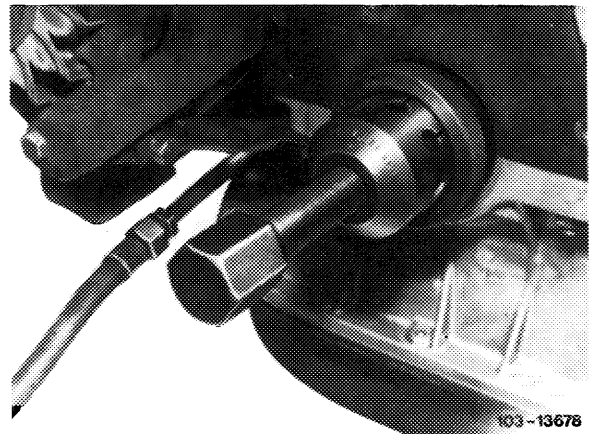
6 Remove reversing wheel. This requires unscrewing the plug and knocking out the bearing pin with an impact extractor (M 10 threaded pin).

7 Remove reversing wheel with a wire hook upward.

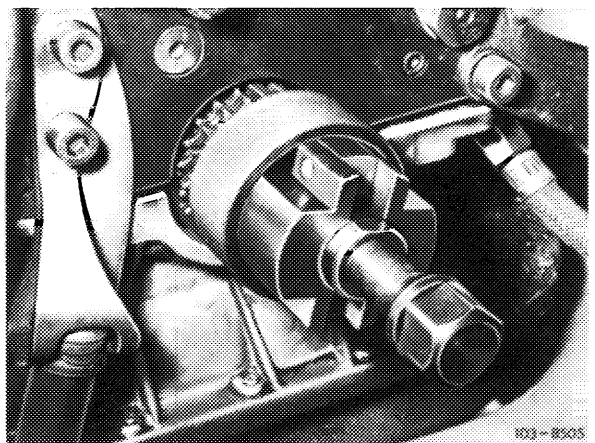
8 Remove oil pan to an extent that the timing chain can be taken off of the crankshaft sprocket.



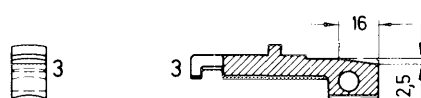
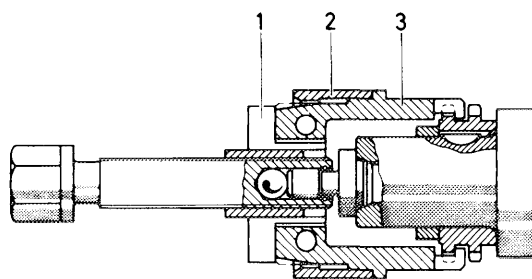
9 Pull-off spacing ring with puller.



10 Pull off crankshaft sprocket with an extractor.

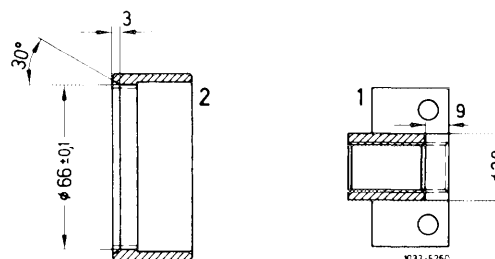


Note: Change puller 615 589 01 33 00 to dimensions shown in drawing.



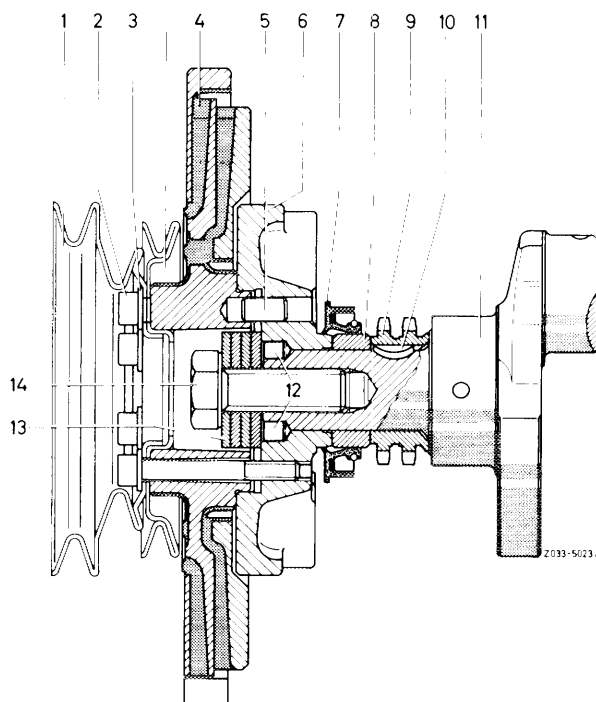
Installation

11 Transfer color marks from old to new crankshaft gear.



12 Heat crankshaft gear on a hot plate (approx. 80 °C) and slip on crankshaft.

13 Slip spacing ring on crankshaft.



14 For further installation proceed vice versa, paying attention to pertinent color marks.