

Disassembling the crankshaft assembly

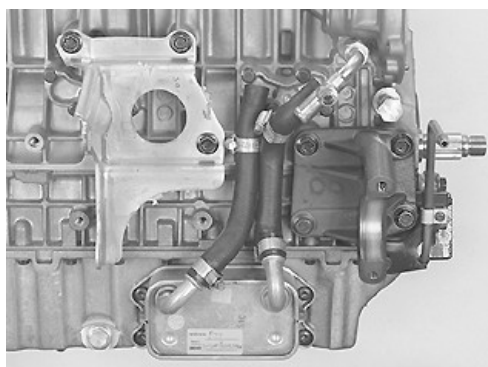
Special tools: [999 5458](#) , [999 5679](#)

Note! The illustrations in this service information are used for different model years and / or models. Therefore there may be some variation. However, the essential information in the illustrations is always correct.

Preparation

Remove

- oil trap
- knock sensors (KS)
- the front engine mounting
- the bracket for the gearbox mounting
- the bearing seat for the right drive shaft
- the oil cooler and rubber seals.



Removing the oil filter and oil pan

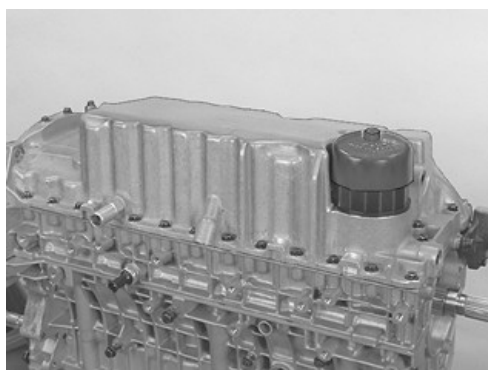
Remove the oil filter. Use tool [999 5679](#) .

Remove

- the lower torque rod bracket
- the retaining screws holding the oil pump to the intermediate section.

Carefully tap the side of the oil pan with a rubber mallet.

Lift out the oil pan.



Removing the suction pipe from the oil pump

Remove the suction pipe.

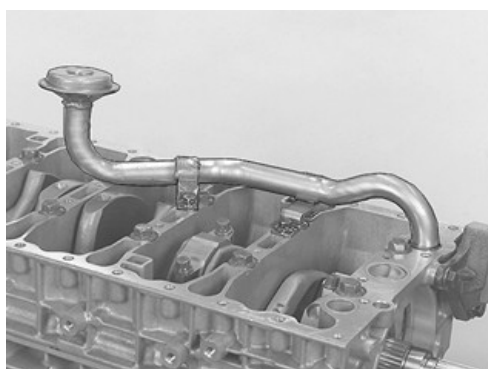
Remove the O-rings from the oil ducts.

Remove the screws securing the suction pipe to the intermediate section.

Work loose and lift out the suction pipe.

Remove the suction pipe O-ring.

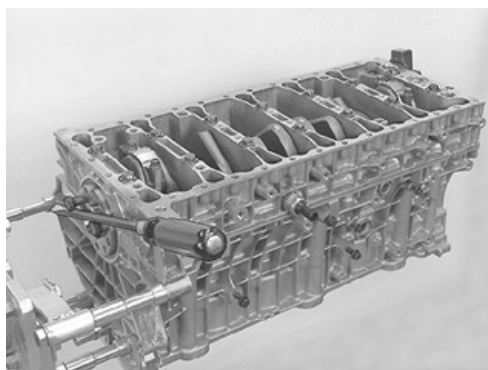
Check the pipe and the strainer. Clean thoroughly.



Checking markings

Install the two old screws for the flywheel and carrier plate at the rear edge of the crankshaft. Turn the crankshaft so the piston in cylinder 1 is at bottom dead centre (BDC).

Check that there are markings on the cap and



connecting rods and check which way the markings are positioned (exhaust / intake side). Note this.

If necessary mark with a centre punch or a number punch (see later section).

New connecting rod

A new connecting rod has been introduced on B6294S engines.

The mating surface between the cap and the connecting rod is not machined. It is aligned through a dedicated fracture surface.

Caution! If the cap is turned the wrong way and tightened, the structure of the fracture surface will be damaged and the connecting rod must then be discarded.

Note! Blow the fracture surfaces clean with compressed air before reinstalling the cap.

Removing the pistons from the cylinder block

Remove the screws for the connecting rod cover.

Lift off the cover. Ensure that the bearing cover comes with it.

Caution! The bearing covers are not interchangeable.

Install tool **999 5746** with thread adapter 5746-1 in the connecting rod. Press out the connecting rod and piston.

Hold by hand so that the piston does not fall to the floor. Ensure that the bearing cover comes with it.

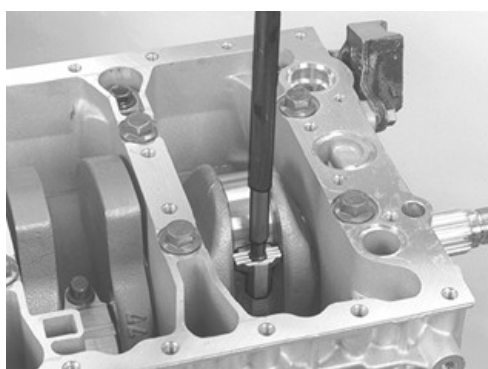
Place the piston and connecting rod in such a way that they can be reinstalled in the correct cylinder.

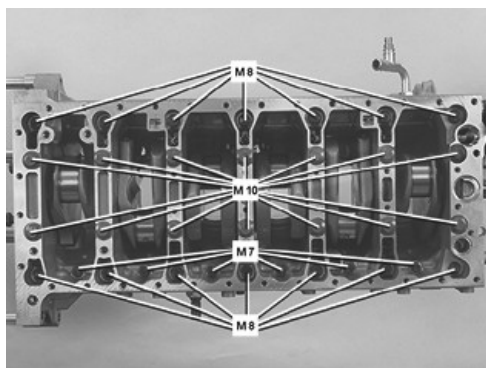
Continue with cylinders 2, 3, 4, 5 and 6 as above.

Caution! The bearing covers are not interchangeable.

Removing the screwed joint from the intermediate section

First remove the M7 screws from the intermediate section.

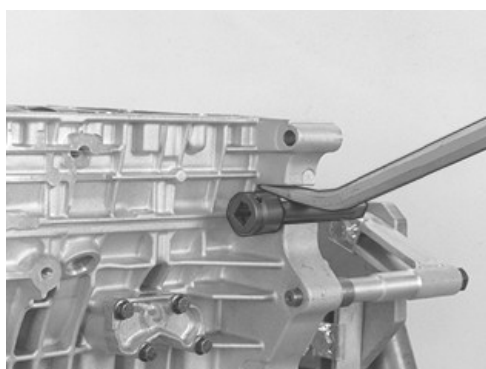




Then remove the M8 screws. Start at the outer edges and work alternately towards the centre.

Remove the M10 screws in the same way.

Separating the intermediate section from the cylinder block



Carefully pry the intermediate section from the cylinder block so that there is a gap of approximately 6-8 mm.

Then carefully tap off (on the exhaust side) the intermediate section with a rubber mallet.

Lift out the intermediate section. Ensure that the bearing covers for the intermediate section come with it.

Caution! The bearing covers are not interchangeable.

The crankshaft must not now be turned.

Ensure that the screws for the flywheel and carrier plate, which were installed earlier, are properly tightened. Lift them and the front of the crankshaft.

Carefully lift the crankshaft straight up.

Remove the remaining bearing covers.

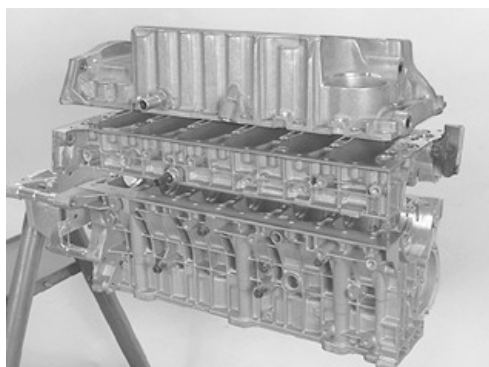
Note! The bearing covers for the different bearing recesses are not interchangeable.

Removing the piston cooling valve and nozzles



Remove the piston cooling valve at the front of the engine.

Remove the piston cooling nozzles.



Cleaning

Clean the gasket surfaces on the cylinder block, intermediate section and oil pan. Use a razor blade or a gasket scraper and gasket solvent (P/N 116 1440).

Warning! A fume bonnet or extractor must be used when using gasket solution.