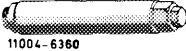


Tightening torques	Nm	(kpm)
Cap nuts for injection lines	25	(2.5)
Bolts for valve cover (engine 615)	5	(0.5)
Nuts for valve cover (engines 615, 616, 617)	15	(1.5)
Screw collar for precombustion chamber in cylinder head	150-180	(15-18)
Injection nozzle in precombustion chamber	70-80	(7-8)

**Special tools**

Box-wrench socket open, 17 mm, 1/2" drive for injection lines  11004-6359 000 589 68 03 00

Socket 27 mm, 1/2" drive  11004-6193 001 589 65 09 00

Pin wrench for screw collar of precombustion chamber  11004-6360 615 589 00 07 00

Extractor for precombustion chambers  11004-6365 615 589 00 33 00

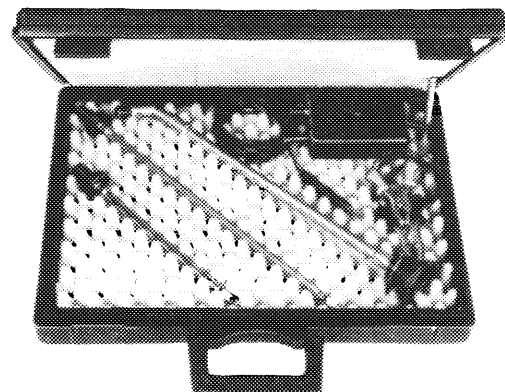
**Commercially available tool**

Cylinder inspection lamp e. g. Autoskop TW 8/330 and TW 8/190  
Franz Welger, Südstrasse 9, 3280 Bad Pyrmont

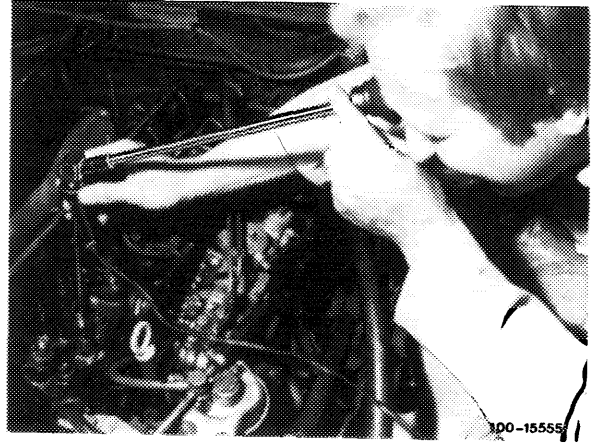
Cylinder inspection lamp e. g. Aviaskop, SWV 120 L  
Karlheinz Hinze, Elbgastrasse 112,  
2000 Hamburg 53

**Note**

A visual inspection is to be carried out with a cylinder inspection lamp, the cylinder head being in situ. To do so, first remove the precombustion chambers (05-117).



Workshops often find it difficult to assess whether a scored or streaky cylinder liner is so seriously damaged that the engine needs removing or repairing or whether the marks are insignificant. The following notes are intended to help you make a correct, professional decision.



First examine cylinder liner marks to distinguish between "optical streaks" and "seizing marks". "Optical streaks" are normally up to 3 mm wide. They are due to the ring gap but still show signs of honing. In contrast, "seizing marks" make the honing traces disappear completely.

"Streaks at the land side" (in the direction of the piston pin) cannot be due to piston skirt slurring or seizing because there are no points of contact between the piston skirt and cylinder liner.