

### Conventional tool

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Cylinder illuminating lamp

e.g. Karl Storz GmbH, D—7200 Tuttlingen  
Motoskop TW (cold light)  
with lens probe 103 26 CW (570 mm)  
and lens probe 103 26 CT (210 mm)<sup>1)</sup>

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<sup>1)</sup> Required for 3rd cylinder.

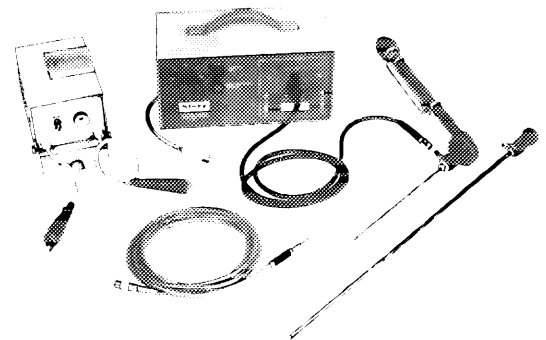
### Note

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With a cylinder illuminating lamp it is possible to carry out the visual check while the cylinder heads are installed.

To evaluate the cylinder bore, the lens probe is introduced through the spark plug bore while the respective piston is at BDC position.

To check cylinders with difficult access (left engine side), the lens probe 10326 CT (210 mm) must first be introduced into the spark plug bore before connecting it to the extension.



Motoskop TW  
12 volts and 220 volts

103 - 15-713

After boring and honing, the cylinder running surfaces are treated electrolytically. The result of this is that the piston rings and the chrome or iron-plated light metal pistons are only in contact with the silicon crystals (0.02 mm to 0.05 mm in size), which provide a wear-resistant running surface. Honing traces are not visible on these cylinder running surfaces.

When evaluating scored or streaky cylinder running surfaces, it is often hard for the workshop to decide whether the damage is already serious enough to require engine removal or repair, or whether the marks are insignificant. The following information will help to make expert and correct decisions.

**Note:** With „streaks in direction of land“ (in direction of piston pin), shaft streaks or seizures are not possible, since there is no contact between piston skirt and cylinder liner. The first difference on cylinder running surfaces is between „optical streaks“ or „seizure streaks“. „Optical streaks“ are up to 3 mm wide and without significance; with „seizure streaks“ however, the cylinder running surface is rough. If there is any doubt, remove the cylinder head.

Brown discoloration (oil lacquer) is a normal occurrence with aluminum cylinder running surfaces.