

Valves

The gastight seat of the valves is of decisive importance for the performance of an engine. This can only be achieved by reworking valves, valve seats and valve guides with utmost accuracy. The required tools are described in detail.

The valve guides and valve seats must be strictly concentric, and the valve cone must bear on its entire surface.

Removal, Installation and Grinding of Valves

Types 220 and 220a

Operation No.
M 22

Special Tool:

Valve lifter, 4 parts 186 589 02 31

two oil wiper rings with sealing ring retainer ring must also be removed (see Operation No. M 26b).

Equipment:

Spring testing scale 000 589 00 65

2. Remove the valves.

Procedure:

1. Remove valve cone halves, spring retainers, inner and outer springs and spring supporting ring by means of valve lifter 186 589 02 31 (Fig. M 22/1).

Checking and Reconditioning:

The dimensions of both intake and exhaust valves are given in Table 12.

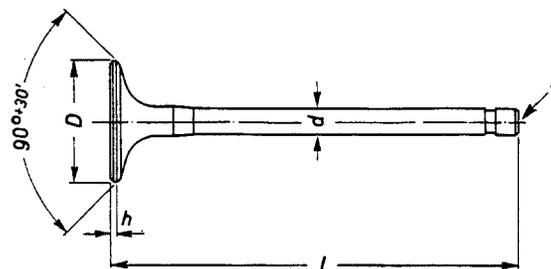


Fig. M 22/00

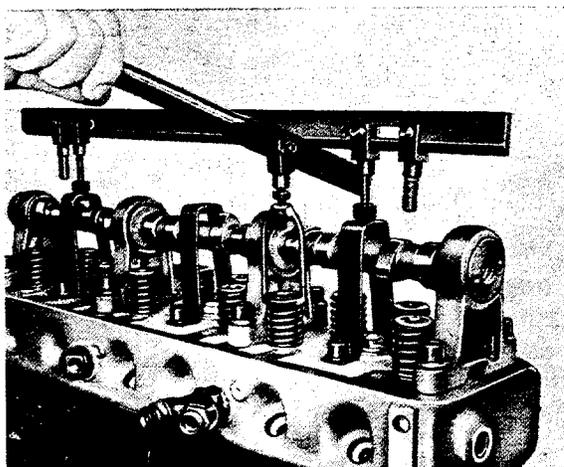


Fig. M 22/1

Valve Dimensions
in mm (in.)

Table 12

	Valve head dia. D	Stem dia. d	Length L	Valve seat angle
Intake	39.2 (1.543)	$\frac{8.97}{8.95}$ (0.3531) (0.3524)	128 (5.039)	90° + 30'
Exhaust	35.2 (1.386)	$\frac{9.95}{9.93}$ (0.3917) (0.3910)	112.75 (4.439)	

Note: If the former valve packing is used, the sealing ring retainer with sealing ring or the