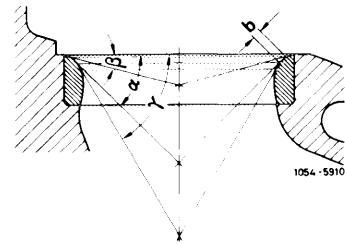




| Data                             | Intake  | Exhaust |
|----------------------------------|---------|---------|
| Valve seat width $b$             | 1.3-2.0 | 1.5-2.0 |
| Valve seat angle $\alpha$        | 45°     |         |
| Correction angle top $\beta$     | 15°     |         |
| Correction angle bottom $\gamma$ | 60°     |         |
| Permissible runout of valve seat | 0.04    |         |



**Special tools**

|                                       |   |                  |
|---------------------------------------|---|------------------|
| Magnetic finger for valve cone halves |  | 116 589 06 63 00 |
| Plug gauge 9 mm dia.                  |  | 117 589 03 23 00 |

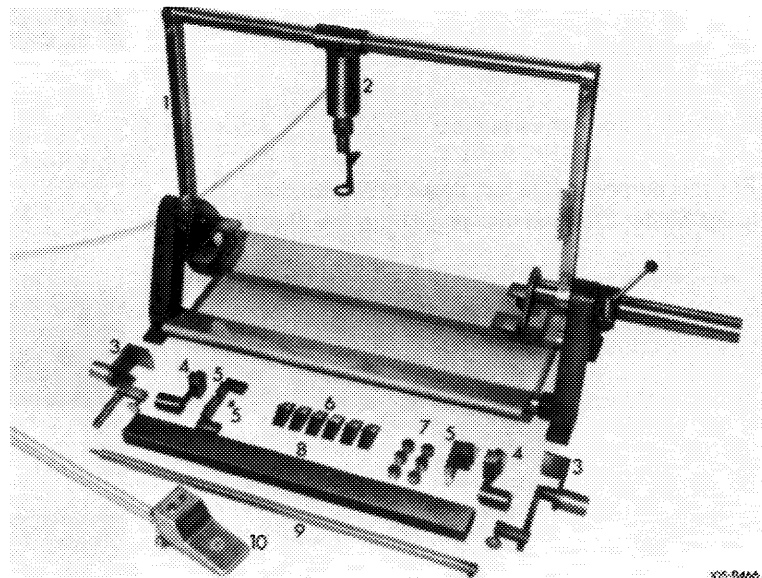
**Conventional tools**

|  |   |
|--|---|
| Cylinder head clamping device                          | e.g. Rothenberger, D-6233 Kelkheim                                      |
| Valve seat turning tool                                | e.g. Hunger, D-8000 München<br>Type VDSNL 1/45/30, order No. 236.03.308 |
| Test set for valve seats                               | e.g. Hunger, D-8000 München<br>Order No. 216.93.300                     |
| 60° correction tool No. 13 for correction angle bottom | e.g. Hunger, D-8000 München<br>Order No. 216.64 622                     |

**Note**

Clamp cylinder head into clamping device for disassembling and machining.

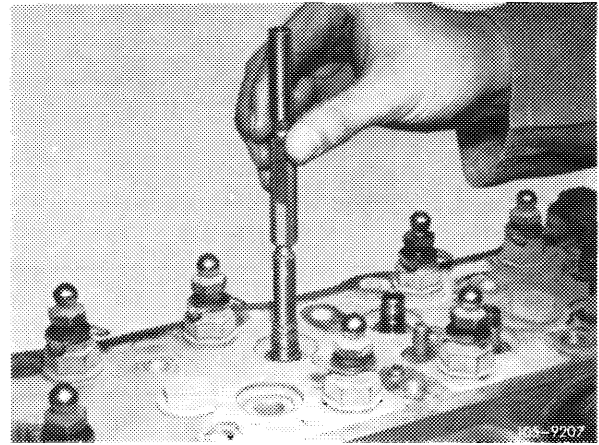
Machine valve seats with valve seat turning tool, with valve seat grinder or with valve seat cutter.



## Machining valve seats

---

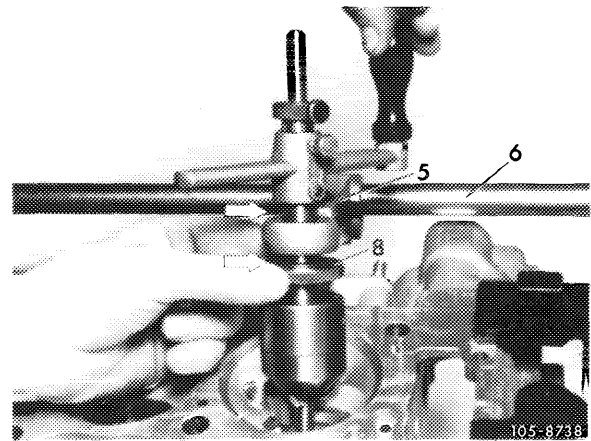
1 Check valve guides and replace if required (05-285).



2 Machine valve seats (see operating instructions of machine tool manufacturer).

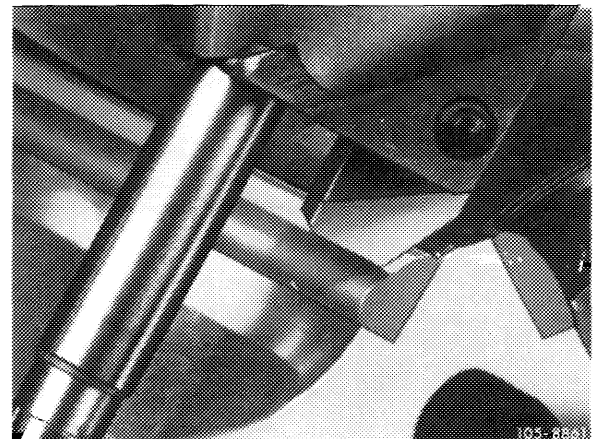
### Caution!

Loosen pilot only after the runout of the valve seat has been checked (item 3).



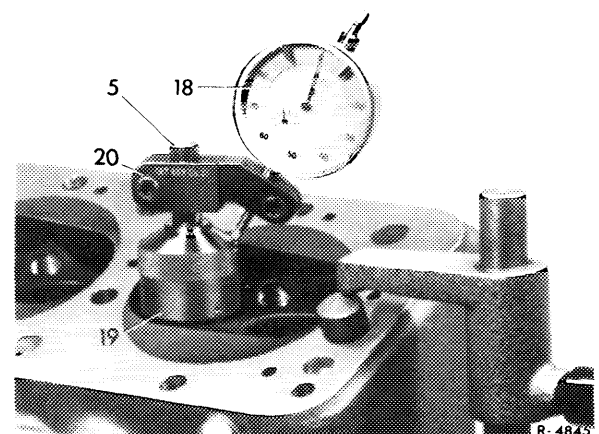
### Caution!

Do not turn down the bead at the lower end of the valve seat.



3 Check runout of valve seat.

For this purpose, slide test sleeve (19) with dial gauge holder (20) and dial gauge onto the pilot (5).



- 5 Pilot
- 18 Dial gauge
- 19 Test sleeve
- 20 Dial gauge holder

4 Measure valve seat width „b“ and correct at top with 15° and at bottom with 60° if required.

When machining with the Hunger turning tool, use the 60° correction steel No. 13 for the lower valve seat correction.

5 Observe valve springs and valve spring preload (05–260).

