Data

Valve stem dia.		Intake	8.955–8.970
		Exhaust	8.935–8.960
Valve length		Intake	116.8–117.2
		Exhaust	117.8–118.2
Sodium charge		Intake	without
		Exhaust	with
Valve seat plating		Intake	with
		Exhaust	with
Height (h) of valve retainer	When new	Intake	1.5
		Exhaust	2.5
	Limit value	Intake	1.0
		Exhaust	2.0
Adjusting angle (α) for machining of valves			45^{o}
Permissible runout on valve stem and valve seat max.			0.03
Permissible runout on face of valve stem when mounted at valve stem			0.015

Conventional tools

Valve cone grinding machine or Valve cone turning machine	e.g. Krupp, D–5320 Bad Godesberg Model VS e.g. Hunger, D–8000 München 55 Type VKDR 1 A, order No. 203.00.200

Note

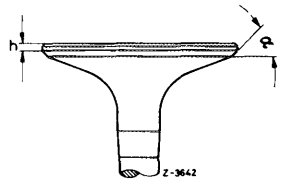
The exhaust valves are filled with sodium!
When scrapping these valves, **observe safety regulations.** Do not melt valves filled with sodium as there is a risk of explosion and do not use such valves for making tools (punch etc.) without first removing the sodium filling.

Be careful when removing the sodium from the valves, since sodium mixed with water and watery solutions causes an extremely severe and explosive reaction and the resulting hydrogen gas may start a fire.

Sodium from cut or broken-up valves can be neutralized in a mixture of 2 liters of spirit of alcohol and 1 liter of water in a container in the open air.

Sodium-filled valves can be collected and sent for neutralizing to the Garantieprüfstelle Werk Stuttgart-Untertürkheim.

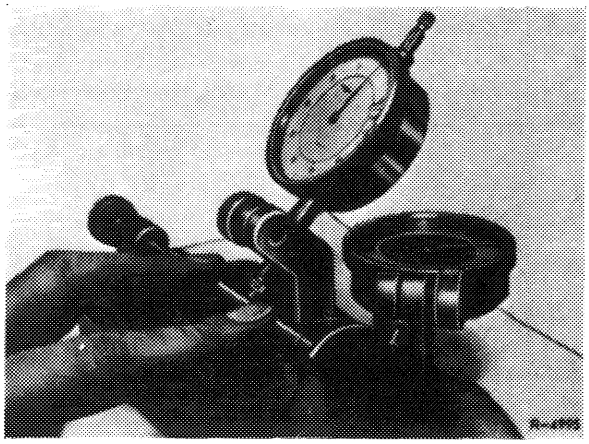
Checking and machining



1 Clean valves and check visually.

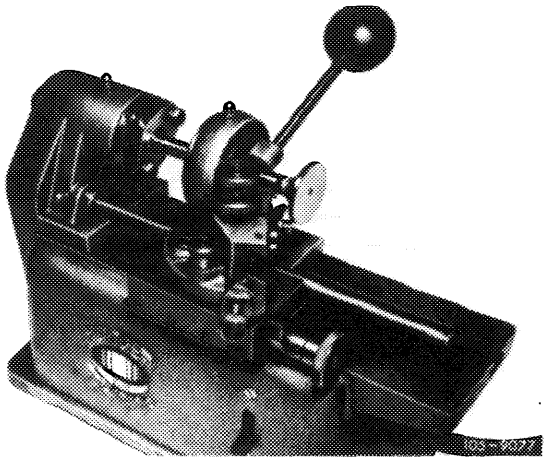
Valves with a burnt valve disk, with insufficient height „h" of the valve disk and valves with worn out or scored valve stem should be replaced.

2 Measure runout on valve stem. If runout exceeds 0.03 mm, replace valve.



3 Machine valve seat and face of valve stem.

Observe operating instructions of machine tool and adjusting angle.



4 Measure runout on valve seat and height „h" of the valve disk.

If the limit values are reached, renew valve.

5 Machine valve seats (05–291).

Note: Observe checking valve springs and valve spring preload (05–260).