Data

Engines	Valve	Height "h" of valve retainer (Fig.)		Adjusting angle "α" for machining valve	Valve stem dia.	Valve seat plating	Filled-in sodium	Valve length
		when new	limit value					

Intake valves

Engines	Valve	Height "h" when new	limit value	Adjusting angle "α"	Valve stem dia.	Valve seat plating	Filled-in sodium	Valve length
115.923/926 115.938/939	$\frac{44.30}{44.10}$	1.5	1.0	45° + 15'	$\frac{8.97}{8.95}$	with	without	128
115.951/954	$\frac{47.10}{46.90}$					without		

Exhaust valves

Engines	Valve	Height "h" when new	limit value	Adjusting angle "α"	Valve stem dia.	Valve seat plating	Filled-in sodium	Valve length
115.923/926 115.938/939	$\frac{37.20}{37.00}$	2.5	2.0	45° + 15'	$\frac{10.96}{10.94}$	with	with	113.2
115.951/954								

Width of valve seat			intake 1.8—3		exhaust 1.5—2.5

Permissible runout on valve stem and valve seat max.				0.03	

Conventional tools

Valve cone grinder or Valve cone machining tool	e.g. made by Krupp, D—5309 Meckenheim model VS e.g. made by Hunger, D—8000 München 70 type VKDR1, order No. 203.00.200

Note

Exhaust valves are filled with sodium!

When scrapping valves, pay attention to safety rules.
Do not melt valves filled with sodium since there is
a risk of explosion and do not use such valves for
making tools (punch etc.), without first removing
filled-in sodium.

Be careful when removing sodium from valves, since
sodium mixed with water and watery solutions reacts
heavily explosive, while the resulting hydrogen gas
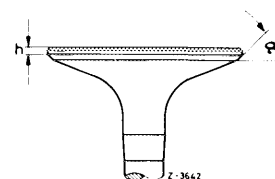may cause fires.

Sodium from cut-up or broken-up valves can be neu-
tralized in the mixture comprising 2 liters spirit of
alcohol and 1 liter of water put into a vessel and pla-
ced in the open air.

Valves filled with sodium can be collected and shipped
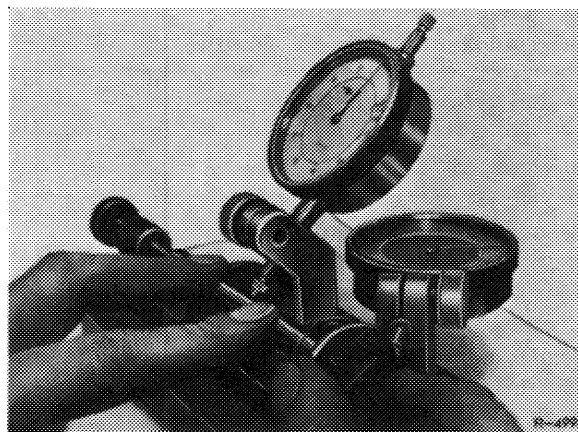for neutralizing to: Garantieprüfstelle Werk Stuttgart-
Untertürkheim.

Checking and machining

1   Clean valves and check visually.

Valves with a burnt valve retainer, with unsufficient
height "h" of valve retainer 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.

Refer to operating instructions of machining tool and
make sure of 45° adjusting angle.

4   Measure runout on valve seat and height "h" of
valve retainer.

When the limit values are attained, replace valve.