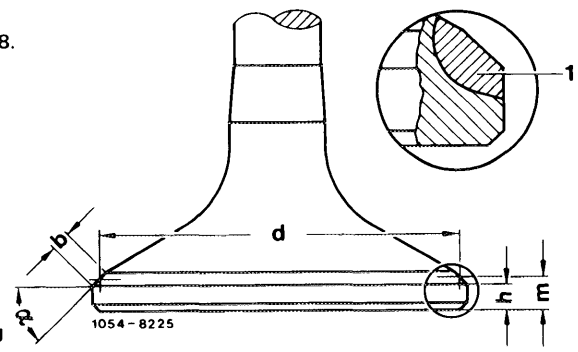
Data

		Intake valve	Exhaust valve Version 1	Exhaust valve[2] Version 2
Valve retainer dia.		45.1–45.3	37.0–37.2	38.9–39.01
Valve stem dia.		8.95–8.97	10.94–10.96	8.94–8.96
Valve length		115	118	118
Code number at end of stem		E 110 06 E 110 07[1])	A 110 00 A 110 00 C	A 117 00 A 117 00 C
Filled-in sodium		without	with	with
Valve seat plating		with	with	with
Height „h" of valve retainer	When new	1.5	2.5	2.5
	Limit value	1.0	2.0	2.0
Width „b" of valve seat		1.8–3.0	1.5–2.5	
Dia. „d" on valve seat center		44.2	36.1	38.0
Height „m" up to valve seat center	When new	2.1–2.3	3.1–3.3	3.1–3.3
	Limit value	1.6–1.8	2.6–2.8	2.6–2.8
Adjusting angle for machining valves			45° + 15'	
Permissible runout on valve stem and valve seat max.			0.03	
Permissible runout at face of valve stem when held at valve stem			0.015	

[1]) Valve with spherical section.
[2]) Standard (except emission controlled engines) starting April 1978. Emission controlled engines starting model year 1980.



1 Valve seat plating

Conventional tools

Valve cone grining machine or Valve cone machining tool	e.g. made by Krupp, D-5309 Meckenheim model VS e.g. made by Hunger, D-8000 München 55 type VKDR 1, order no. 203.00.200

Note

The exhaust valves are filled with sodium!

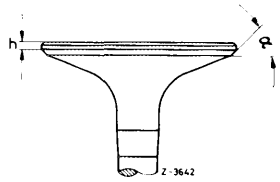
Observe safety regulations when scrapping. Because of the danger of explosion sodium filled valves must not be melted or converted into tools (punches, etc.), without first removing the sodium filling.

Be careful when removing sodium from valves, since sodium reacts violently and explosion-like when combined with water and watery solutions, to avoid any risk of fire caused by the resulting hydrogen gas.

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

Sodium filled valves can be collected and sent for neutralization to the Warranty Checking Department at Stuttgart-Untertürkheim.

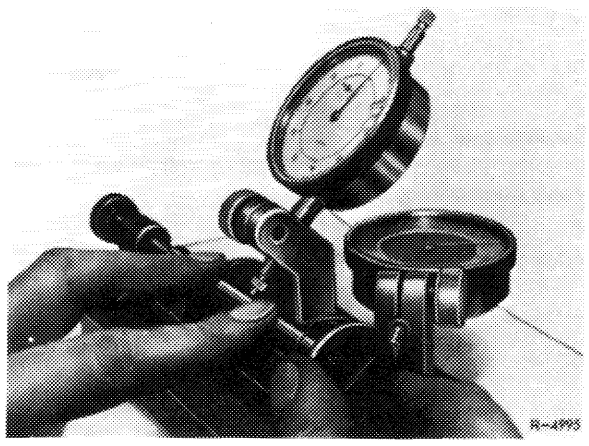
Checking and machining



1 Clean valves and inspect visually.

Valves with a burnt valve head, with insufficient height „h" of valve head and valves with a worn or scored valve stem, must be replaced.

2 Check valve stem runout. If runout measure exceeds 0.03 mm, replace valve.



3 Machine valve seat.

Observe instructions supplied with machining equipment and adjusting angle of 45°.

4 Measure valve seat runout and valve head height „h".

Replace valve, if limits have been reached.