

General Data, Dimensions and Tolerances

Modification: Table changed and supplemented.

Inlet and Exhaust Valves

Model	Valve disc dia.	Height "h" of valve disc Fig. 05-0/1		Valve stem dia.	Valve length	Adjusting angle "α" for re-finishing valve	Valve seat plating	Sodium filling
		when new	machining limit					

Inlet Valves

200/8	<u>44.30</u>	1.5	1.0	<u>8.970</u>	128	45°	with	without
220/8	<u>44.10</u>			<u>8.948</u>				
230/8	<u>41.30</u>	2.1-2.3	1.5	<u>8.970</u>	131.5	30°	without	
250/8	<u>41.10</u>			<u>8.955</u>				
250 E/8				<u>9.920</u>				
200 D/8	<u>38.90</u>	2.1-2.3	1.5	<u>9.920</u>	131.5	30°	without	
220 D/8	<u>38.70</u>			<u>9.905</u>				

Exhaust Valves

200/8	<u>37.25</u> <u>36.95</u>	2.3-2.5	1.5	<u>10.940</u> <u>10.918</u>	113.2	45°	with	with
220/8								
230/8		21.-2.3		<u>9.940</u> <u>9.918</u>	131	30°	without	without
250/8								
250 E/8								

Note: Permissible runout between valve stem and valve cone max. 0.03 mm.

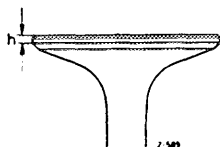


Fig. 05-0/1

Part Numbers of Valves

Model	Inlet valve		Exhaust valve	
	Part No.	Remarks	Part No.	Remarks
200/8 220/8	115 053 01 01	seat plated with Rotocap	129 053 01 05 ¹⁾	seat plated sodium-filled with Rotocap ²⁾
230/8 250/8 250 E/8	130 053 00 01			
200 D/8 220 D/8	615 053 00 01	with Rotocap	615 053 04 05	with Rotocap

1) Exhaust valve sodium-filled. Observe safety instructions when scrapping.

2) On Model 230/8 without Rotocap, with thrust ring.

Valve Springs

Model	Part No.	OD mm	Wire dia. mm	Length un- loaded mm	Length under load preload		Length under load end load		Color code
					mm	kp	mm	kp	
200/8 220/8 230/8 250/8 Sedan 250/8 Cp.3)	Internal spring 108 053 00 22	22.2	2.5	45	31	12.8 to 15.2	21	22.8 to 25.2	none
200/8 220/8 250/8 Sedan 250/8 Cp. 3)	External spring ¹⁾ 129 053 02 20	33.2 to 33.7	4.3	50	37	36	30	67.7 to 76.3	red dot
250/8 Sedan 250/8 Cp. 5) 250 E/8	Internal spring 130 053 00 22	22.2	2.5	45	33	11.2 to 12.4	21.5	22.8 to 25.6	none
250/8 Sedan 250/8 Cp. 5) 250 E/8	External spring ¹⁾ 130 053 02 20	33.6 to 33.9	4.5	51	42	34.5	30.5	85	white dot
230/8	External spring ¹⁾ 108 053 01 20	32.6	4.0	53	40	26.6 to 30.0	30	59 to 65	2 blue dots
200 D/8 220 D/8	180 053 06 20 ¹⁾	30.2	3.8	50.5	38.4	23.0 to 26.4	29.9	46.3 to 53.0	green dot

Note: Wear limit - 10 %.

1) Mount valve springs in such a manner that the closer coils come to rest on cylinder head.

2) Up to Chassis End No. 029 378. Low compression; up to Chassis End No. 026 137.

3) Up to Chassis End No. 000 237 except 000 224, 000 226 to 000 236. Low compression; up to Chassis End No. 000 256

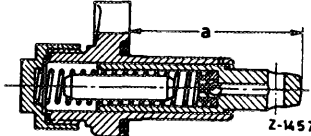
4) As from Chassis End No. 029 379. Low compression; as from Chassis End No. 026 138.

5) As from Chassis End No. 000 238 and 000 224, 000 226 to 000 236. Low compression; as from Chassis End No. 000 257.

The specified springs must be installed to prevent engine damage.

Revision: Part numbers removed.

Chain Tensioner

Model	Dimension "a" with chain tensioner removed	 <p data-bbox="845 638 981 672">Fig. 05-0/2</p>
200/8 220/8	57	
200 D/8 220 D/8	74	
230/8 250/8	51	
250 E/8		