

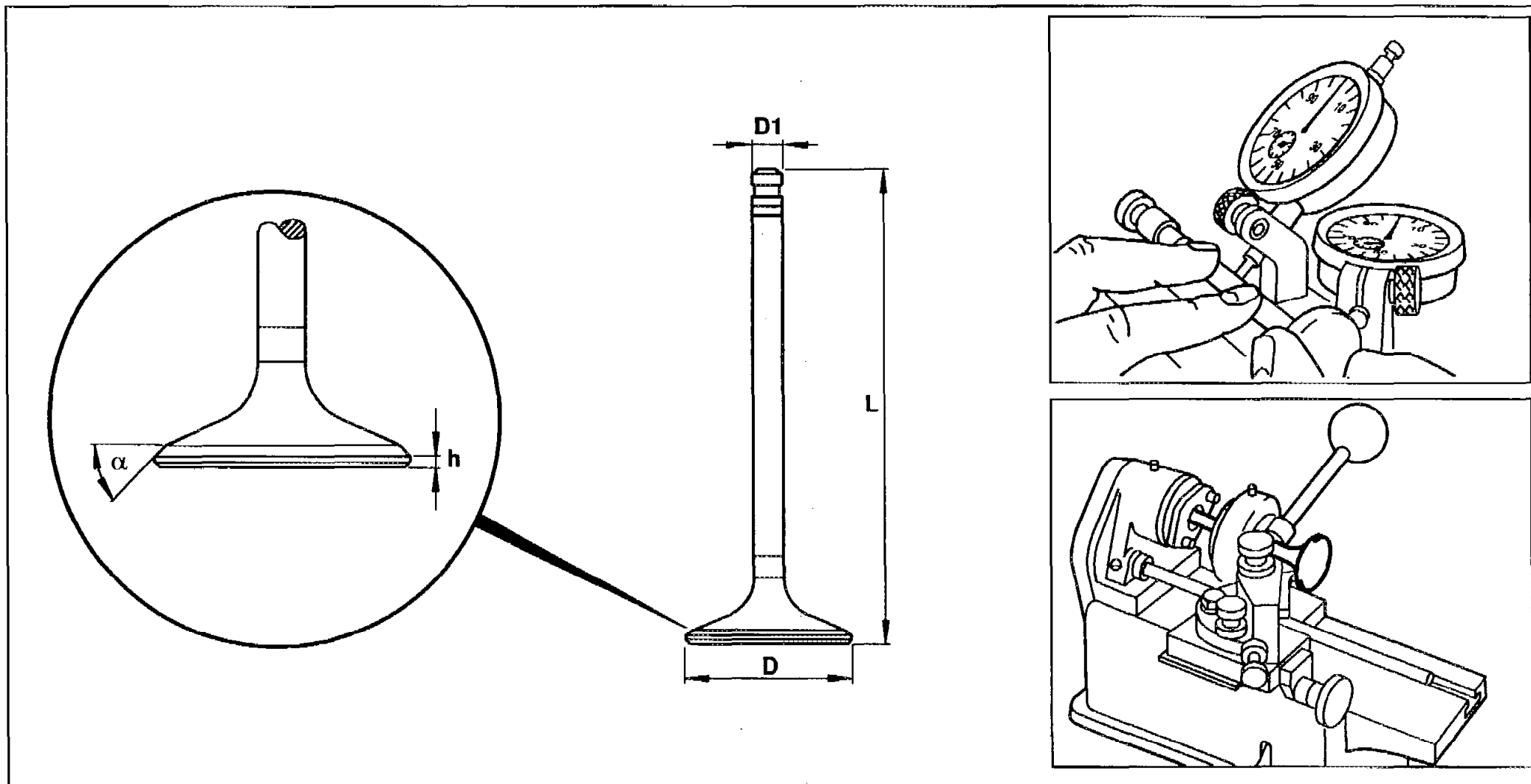


G6

AR05.30-P-4201A

Checking and machining valves

12.10.96

ENGINE 604, 605, 606 /



	Removing, installing		
1	Remove valves		AR05.30-P-3511B D5
	Inspecting		
2	Clean valves and carry out a visual inspection	Valve with scorched valve disk, with insufficient height (h) of valve disk or with used or scored valve stem should be replaced	BE05.30-P-1002-01B
3	Measure concentricity at valve stem and valve seat	If necessary, replace valve ↓ Disposing of sodium-filled valves	BE05.30-P-1009-01B OS05.30-P-0001-01A J18
	Machining		
4	Machine valve seat	 Pay attention to operating instructions of the machining equipment and setting angles	WH58.30-Z-1022-05A BE05.30-P-1002-01B BE05.30-P-1003-01B BE05.30-P-1008-01B
5	Measure runout at valve stem and valve seat once again	If runout is excessive or height (h) insufficient, replace valve	BE05.30-P-1009-01B
6	Insert valve and inspect for leaks		WH58.30-Z-1051-13A
7	Install in the reverse order		

Test data of valves

Number	Designation		Engine 604.91, 605.91, 606.91 up to 10/94	Engine 604.91, 605.91, 606.91 as of 11/94	Engine 605.96, 606.96
BE05.30-P-1001-01B	Valve disk \varnothing (D)	Exhaust mm	25.90–26.10	25.90–26.10	25.90–26.10
		Inlet mm	28.90–29.10	28.90–29.10	28.90–29.10
		Fig. see	AR05.30-P-4201-03A	AR05.30-P-4201-03A	AR05.30-P-4201-03A
BE05.30-P-1002-01B	Valve disk height (h)	Exhaust mm	1.0–1.2	1.0–1.2	1.0–1.2
		Inlet mm	1.0–1.2	1.0–1.2	1.0–1.2
		Fig. see	AR05.30-P-4201-03A	AR05.30-P-4201-03A	AR05.30-P-4201-03A
BE05.30-P-1003-01B	Valve seat angle (α)	Exhaust $^{\circ}\sphericalangle$	45° -15'	45° -15'	45° 15'
		Inlet $^{\circ}\sphericalangle$	45° -15'	45° -15'	45° -15'
		Fig. see	AR05.30-P-4201-03A	AR05.30-P-4201-03A	AR05.30-P-4201-03A
BE05.30-P-1004-01B	Valve stem \varnothing (D 1)	Exhaust mm	5.955–5.97	6.955–6.97	6.955–6.97
		Inlet mm	5.960–5.975	5.960–5.975	5.955–5.97
		Fig. see	AR05.30-P-4201-03A	AR05.30-P-4201-03A	AR05.30-P-4201-03A
BE05.30-P-1005-01B	Valve seat armor plating without \Rightarrow 1 with \Rightarrow 2	Exhaust	1	1	2
		Inlet	–	–	1
BE05.30-P-1006-01B	Sodium filling without \Rightarrow 1 with \Rightarrow 2	Exhaust	1	1	2
		Inlet	–	–	1

Test data of valves

Number	Designation		Engine 604.91, 605.91, 606.91 up to 10/94	Engine 604.91, 605.91, 606.91 as of 11/94	Engine 605.96, 606.96	
BE05.30-P-1007-01B	Valve length (L)	Exhaust	mm	105.5–105.9	105.5–105.9	105.5–105.9
		Inlet	mm	105.2–105.6	105.2–105.6	105.2–105.6
		Fig. see		AR05.30-P-4201-03A	AR05.30-P-4201-03A	AR05.30-P-4201-03A
BE05.30-P-1008-01B	Valve seat width	Exhaust	mm	1.9	1.9	1.9
		Inlet	mm	1.9	1.9	1.9
BE05.30-P-1009-01B	Concentricity of valve seat to valve stem	Exhaust	mm	≤0.03	≤0.03	≤0.03
		Inlet	mm	≤0.03	≤0.03	≤0.03
BE05.30-P-1010-01B	Marking on end of stem	Exhaust	mm	A 606 05/06	A 606 05/07	A 606 13
		inlet	mm	E 606 11	E 606 11	E 606 11

Commercially available tools (see Workshop Equipment Manual)

Number	Designation	Make (e.g.)	Order number
WH58.30-Z-1051-13A	Vacuum tester	Serdi GmbH Bregenzer Str. 69 D-88131 Lindau	SL1009
WH58.30-Z-1022-05A	Valve grinding machine	Model VKM1A Hunger D-81375 München	231 00 001 231 00 002