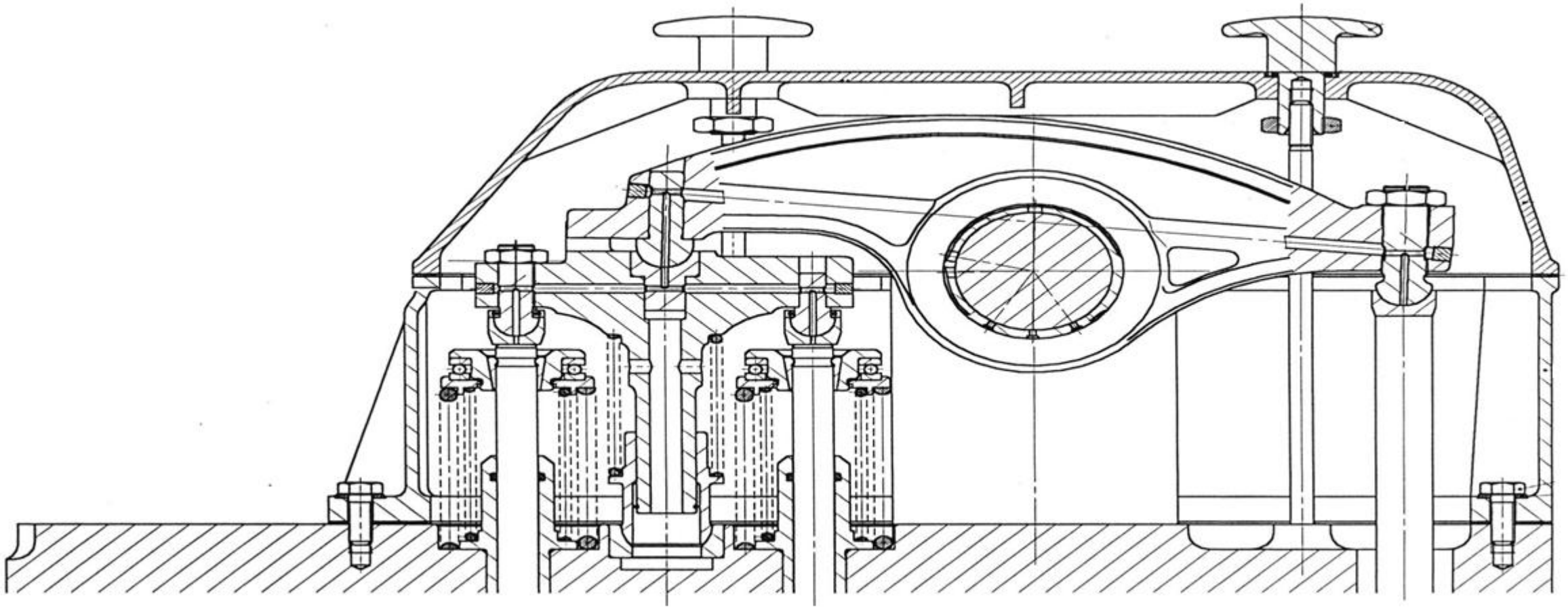
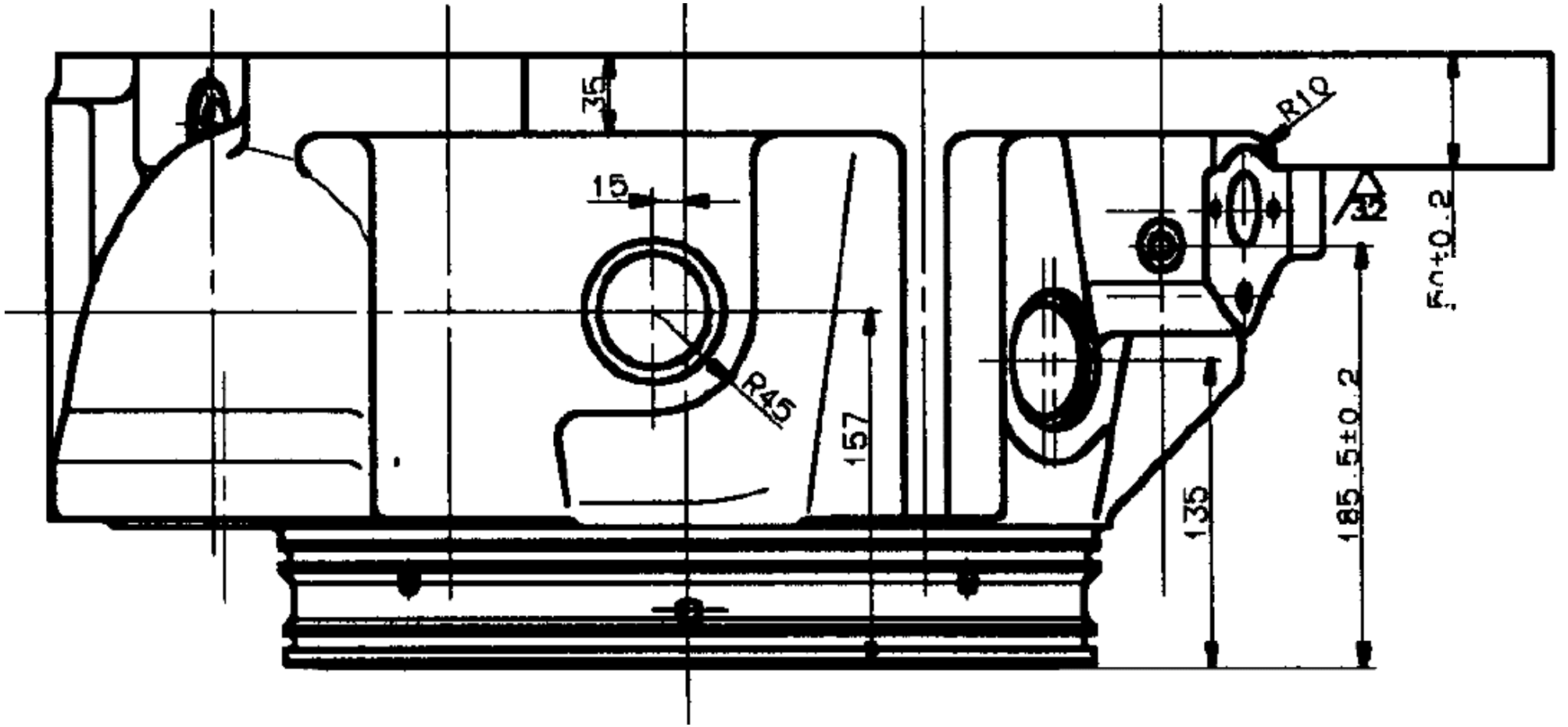
L23/30H-L28/32H Cylinder Unit

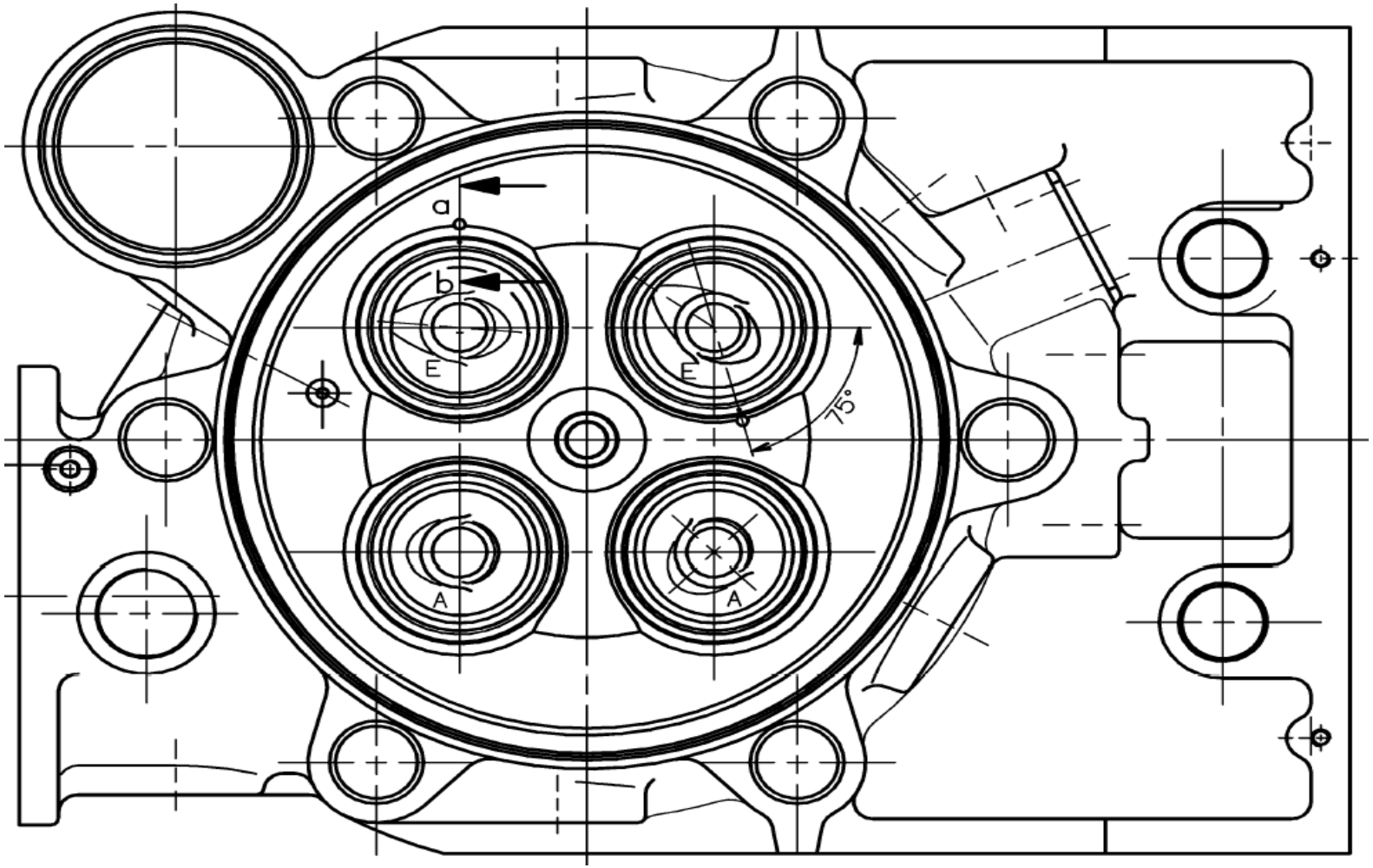
L23/30H-L28/32H Cylinder head



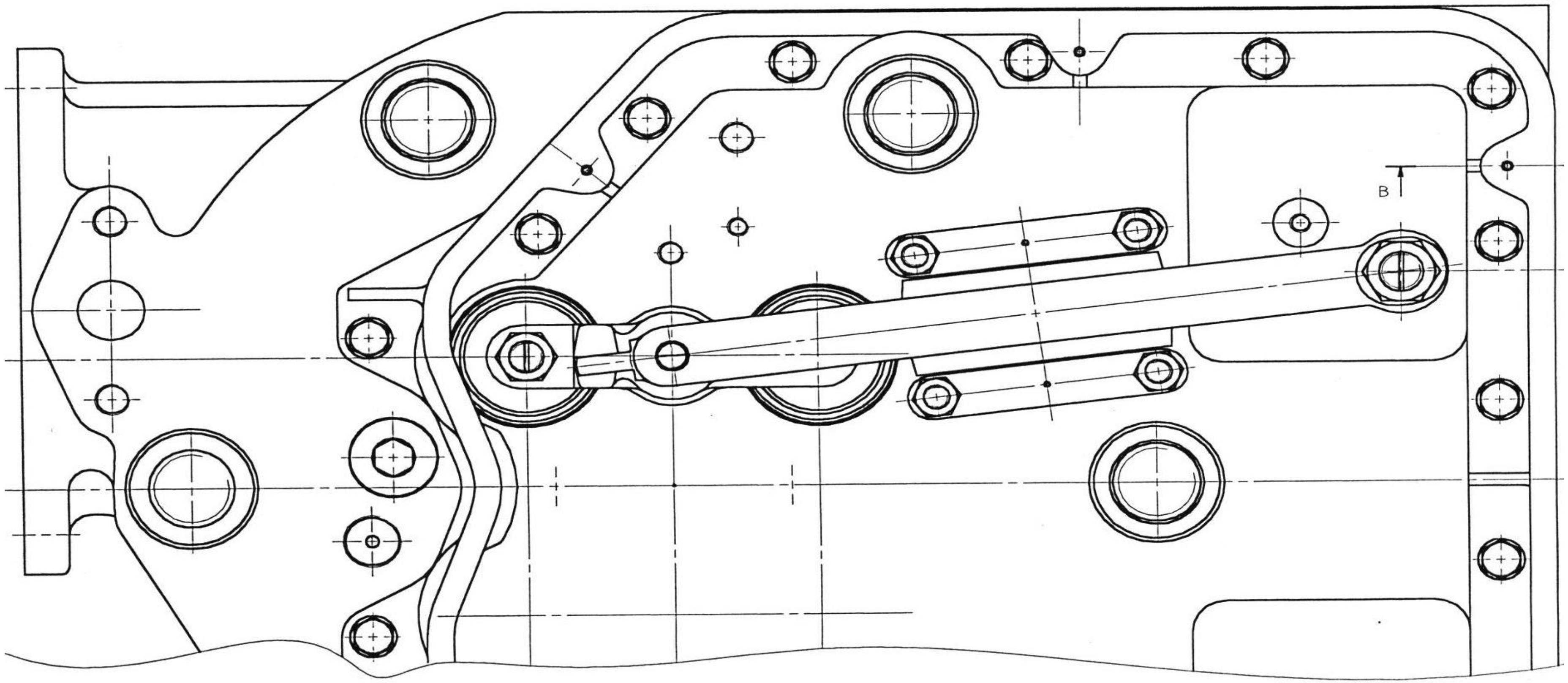
L28/32H Cylinder head



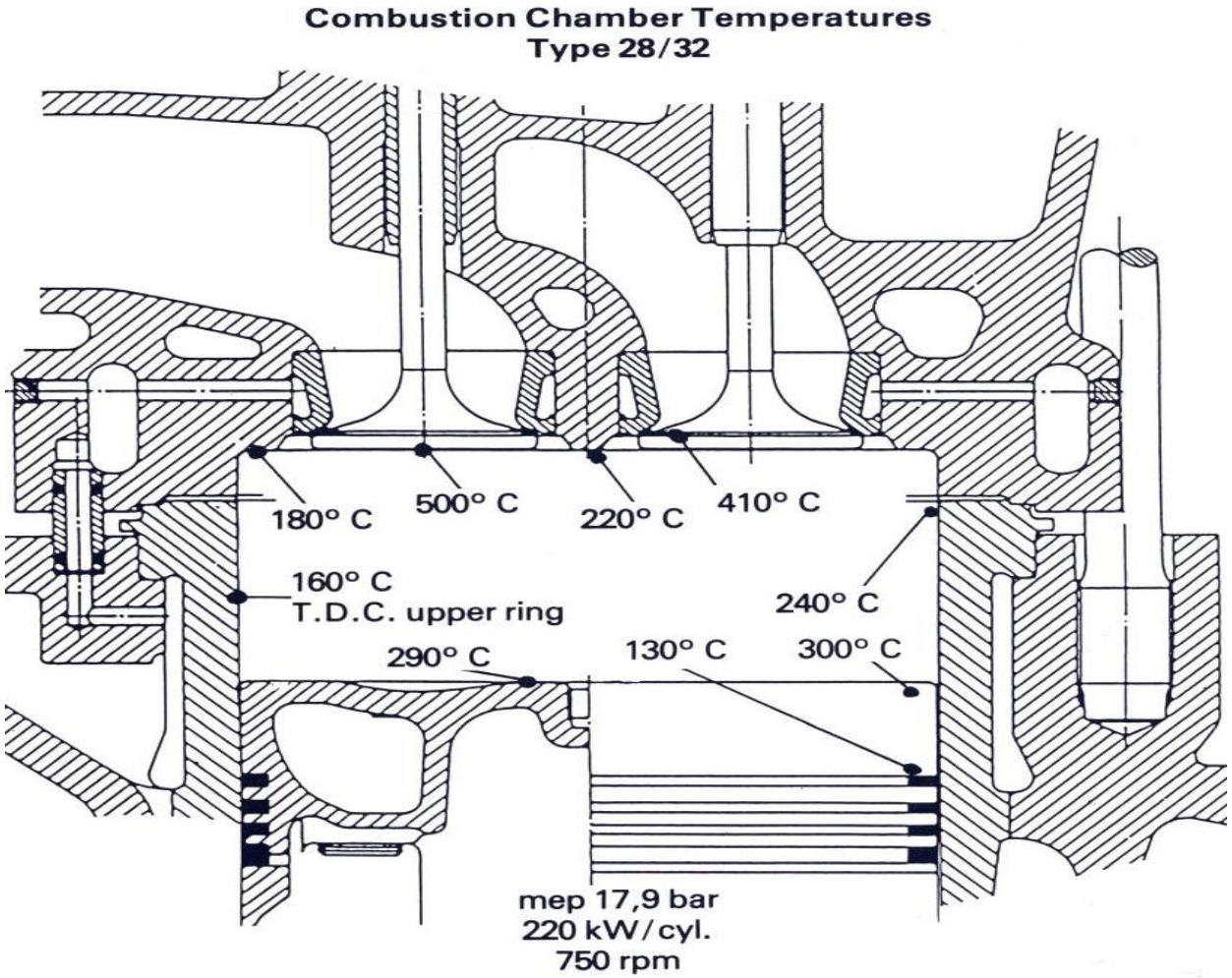
L28/32H Cylinder head



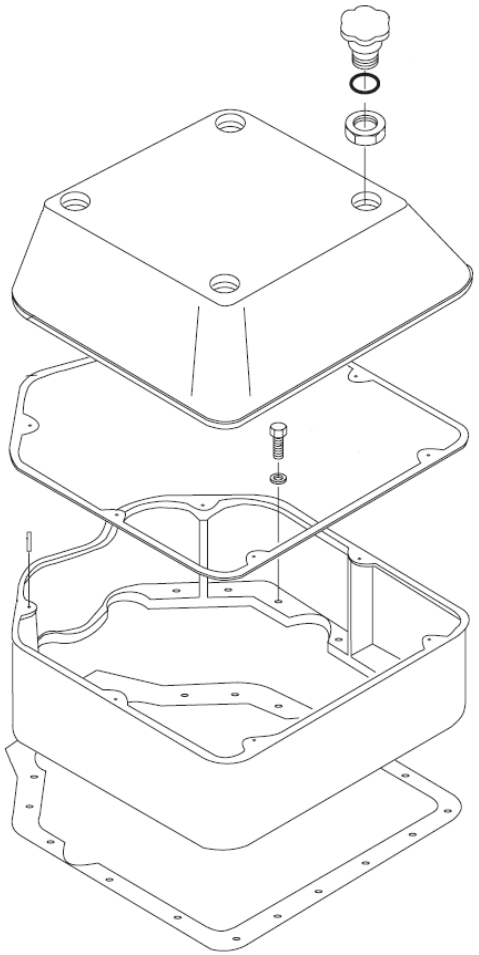
L28/32H Cylinder head

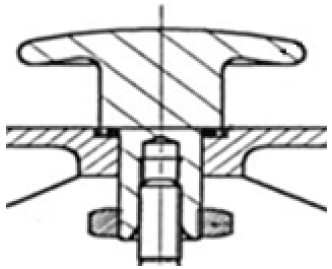


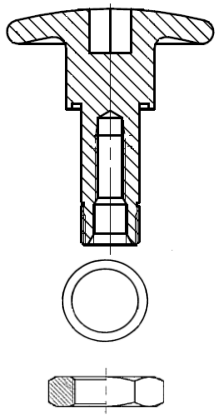
L23/30H-L28/32H Cylinder head temperatur



L28/32H Dismantling of Cylinder Head







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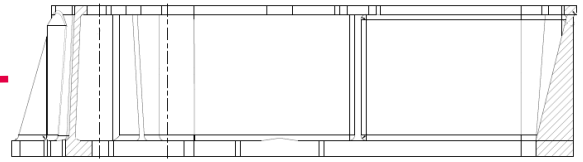
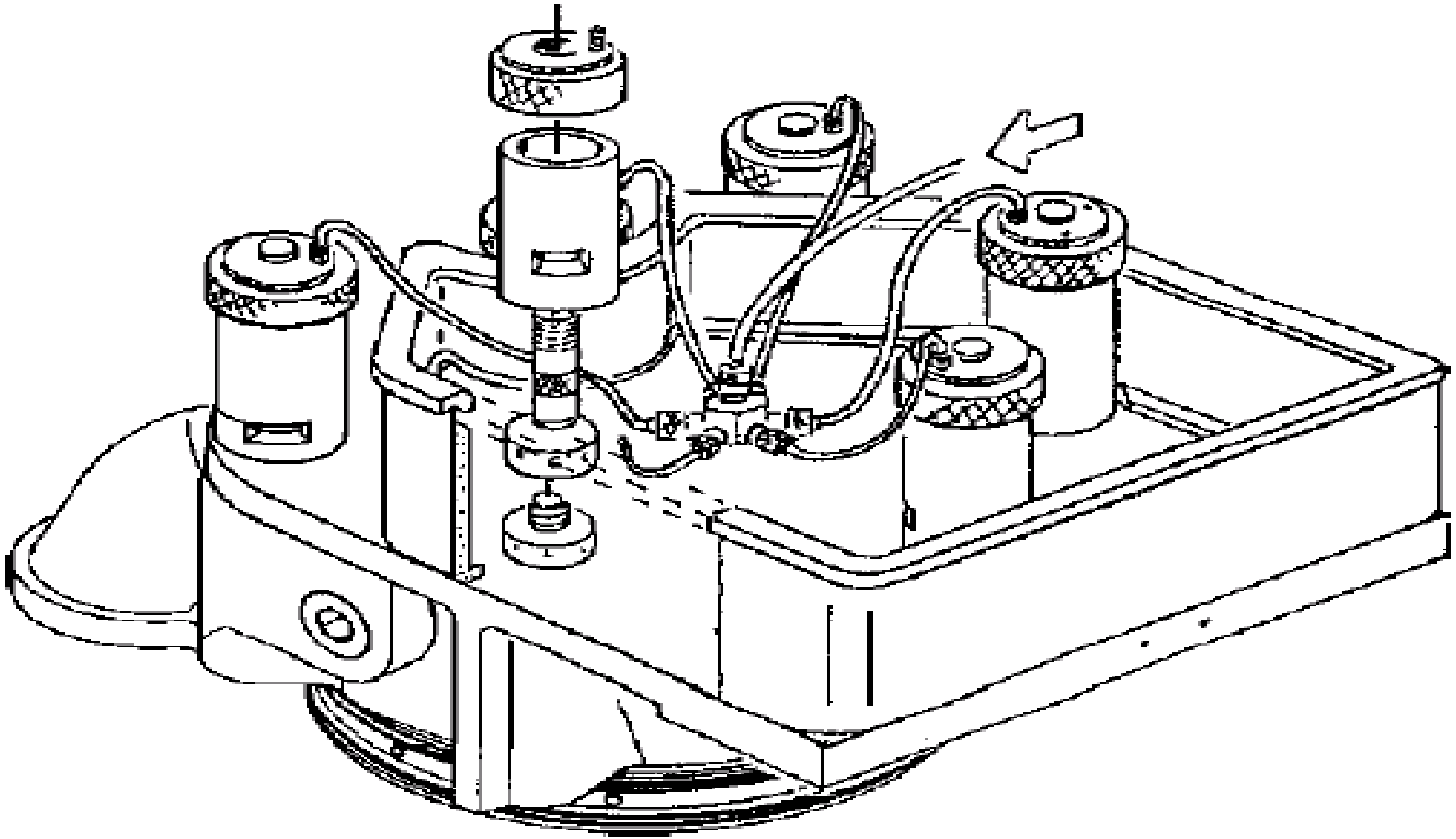
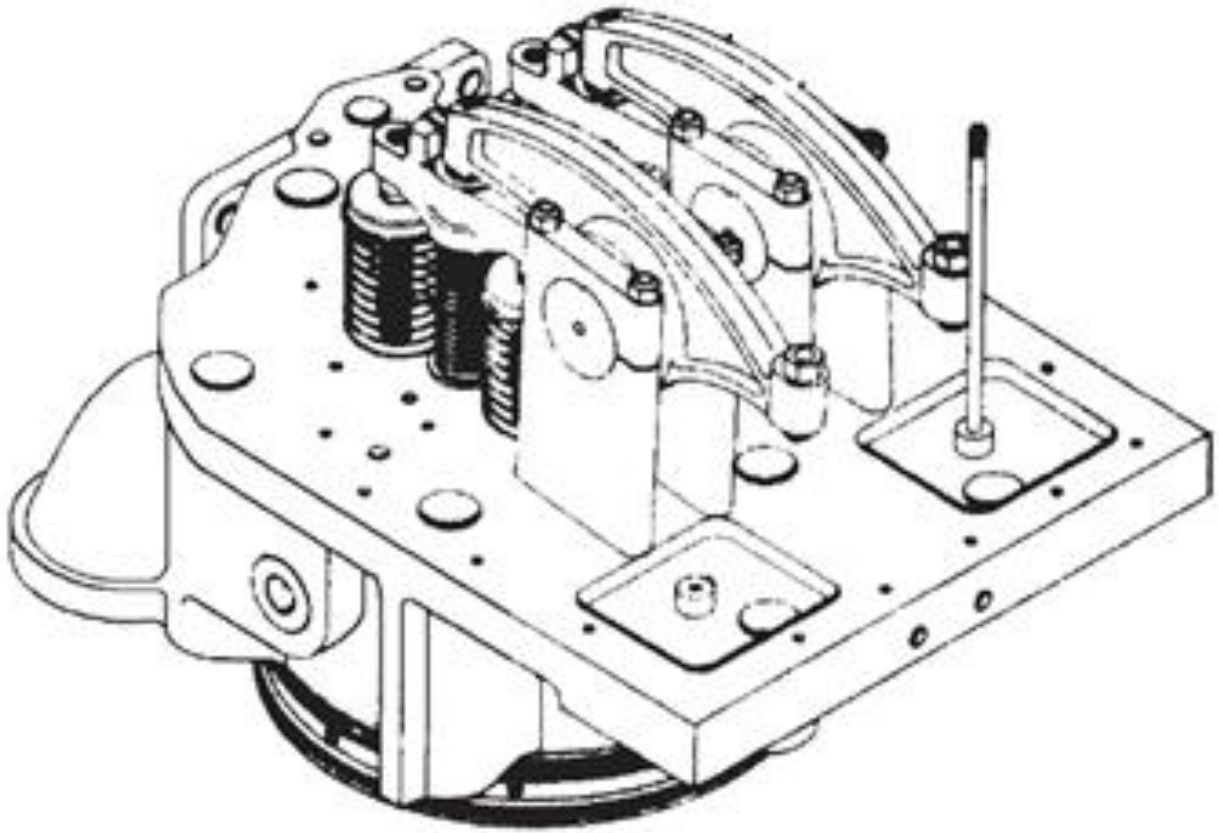


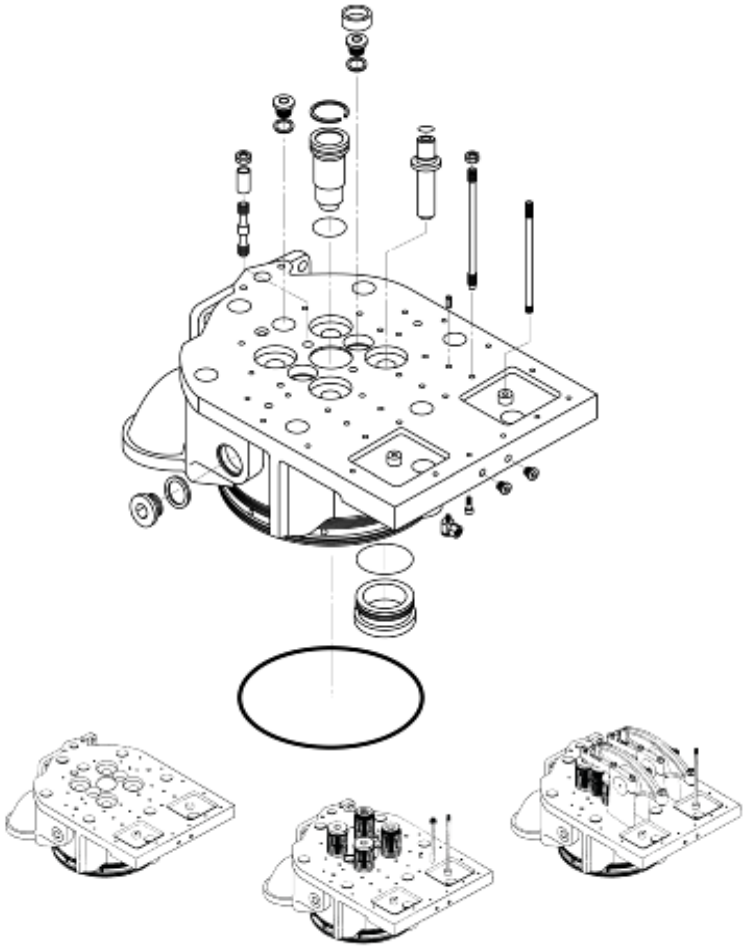
L28/32H Cylinder head



L28/32H Cylinder head

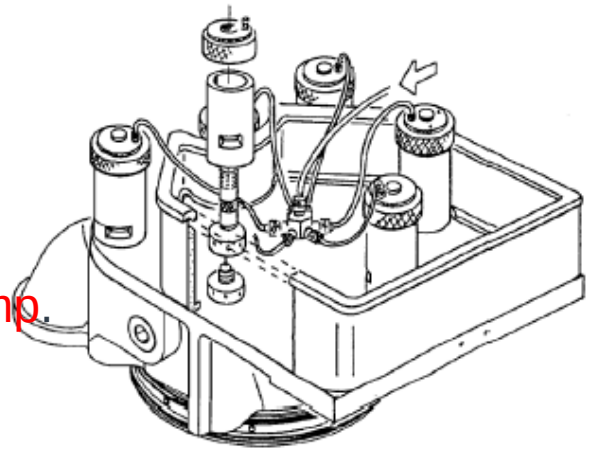


L28/32H Cylinder head

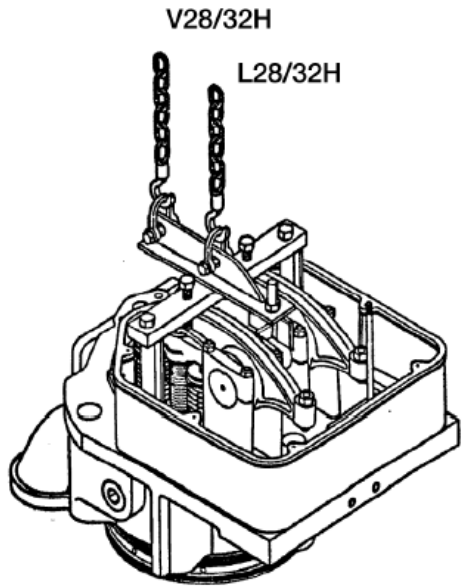


L23/30H-L28/32H Inspection of inlet and exhaust valve and valve guide

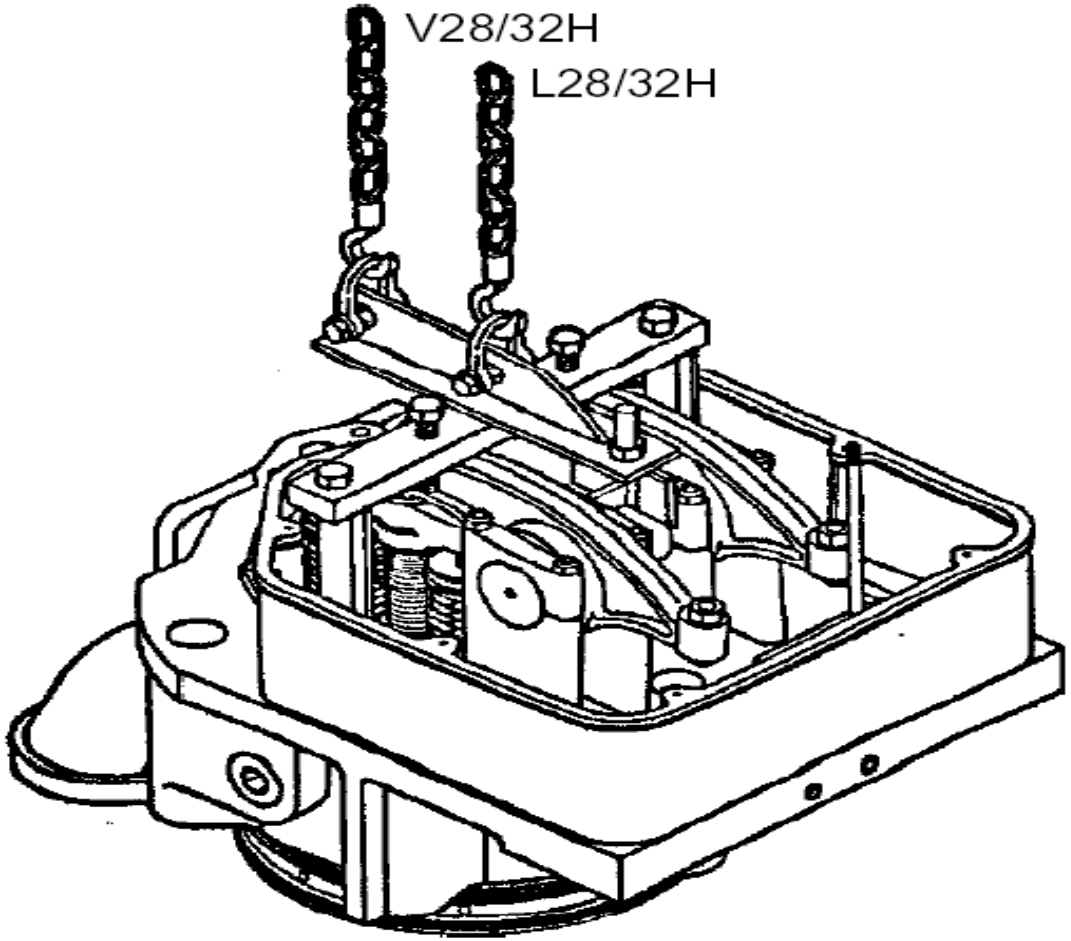
Dismantling of cylinder head



1) Open the drain cock and vent cock for cooling water.
2) Take off the rocker arm top cover.
3) Take off the cover which gives access to the injection pump.
4) Disconnect the fuel oil high-pressure pipe.
5) Disconnect the cooling oil pipes, (inlet and outlet.
6) Disconnect the rocker arm lubricating oil pipe.
7) Remove the thermometer attachment branch (cooling water outlet pipe).
8) Remove the exhaust pipe flange screws.
9) Remove the cylinder head nuts, as shown, by means of hydraulic jacks.
10) Mount the lifting tool on the cylinder head.
11) Attach the hook to the lifting tool and lift the cylinder.



L28/32H Dismantling of Cylinder Head

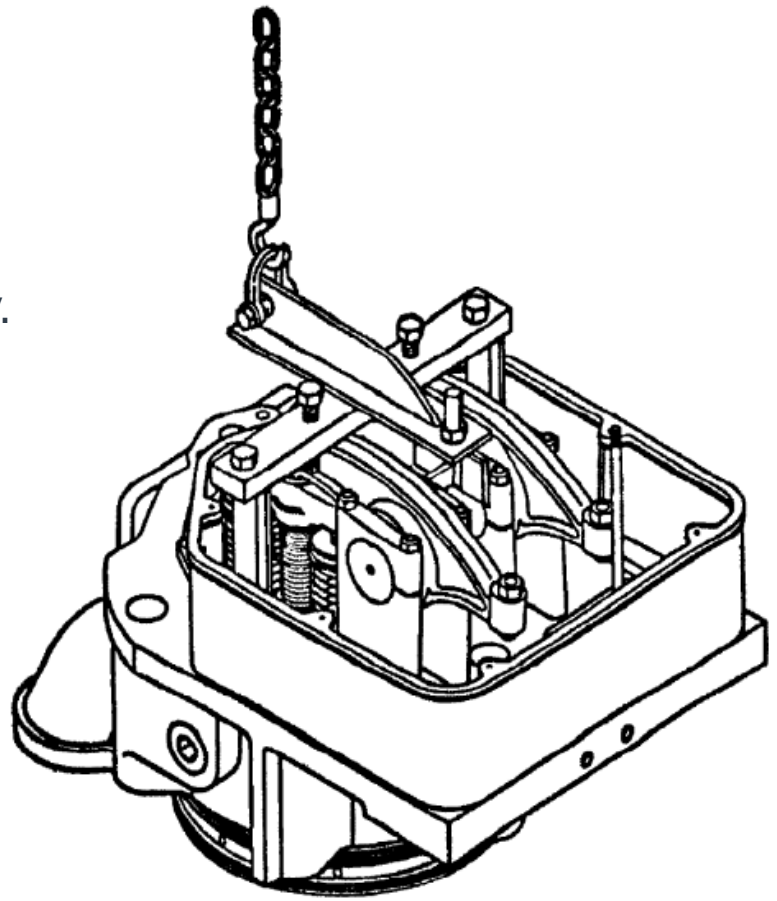


V28/32S Dismantling of Cylinder Head

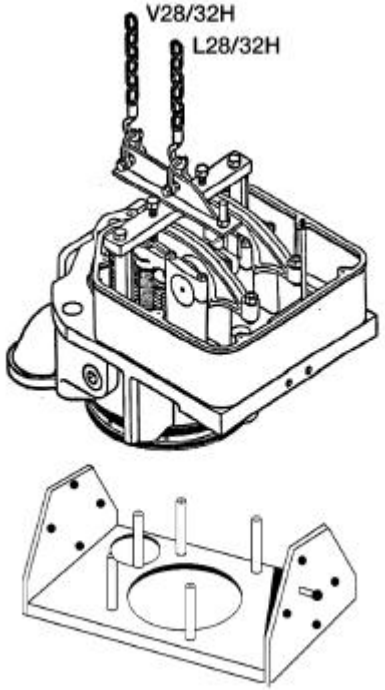
Mount the lifting tool on the cylinder head.

Warning! Use original tool and wire ONLY

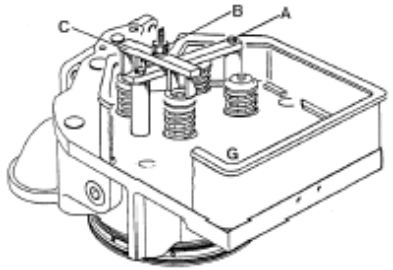
Attach the hook to the lifting tool and lift the cylinder head away.



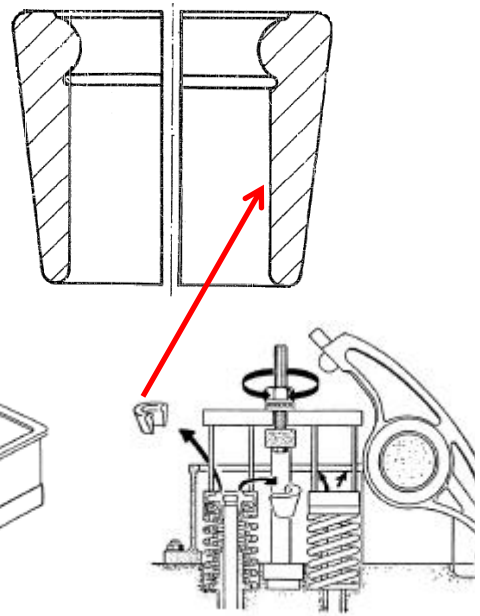
L23/30H-L28/32H Inspection of inlet valve, exhaust valve and valve guide



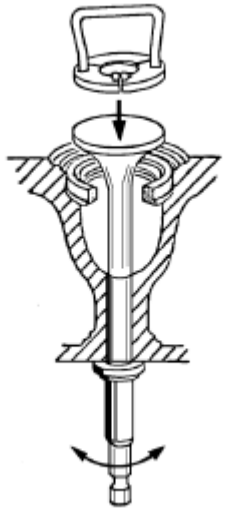
Land the cylinder head upon the special work table and remove the lifting tool.



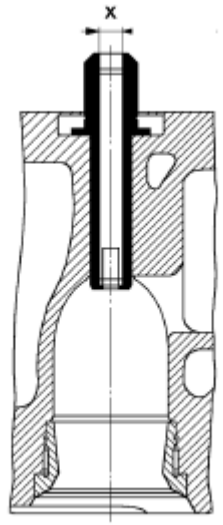
Mount supporting devices for the valve spindle heads.



Remove the cone rings

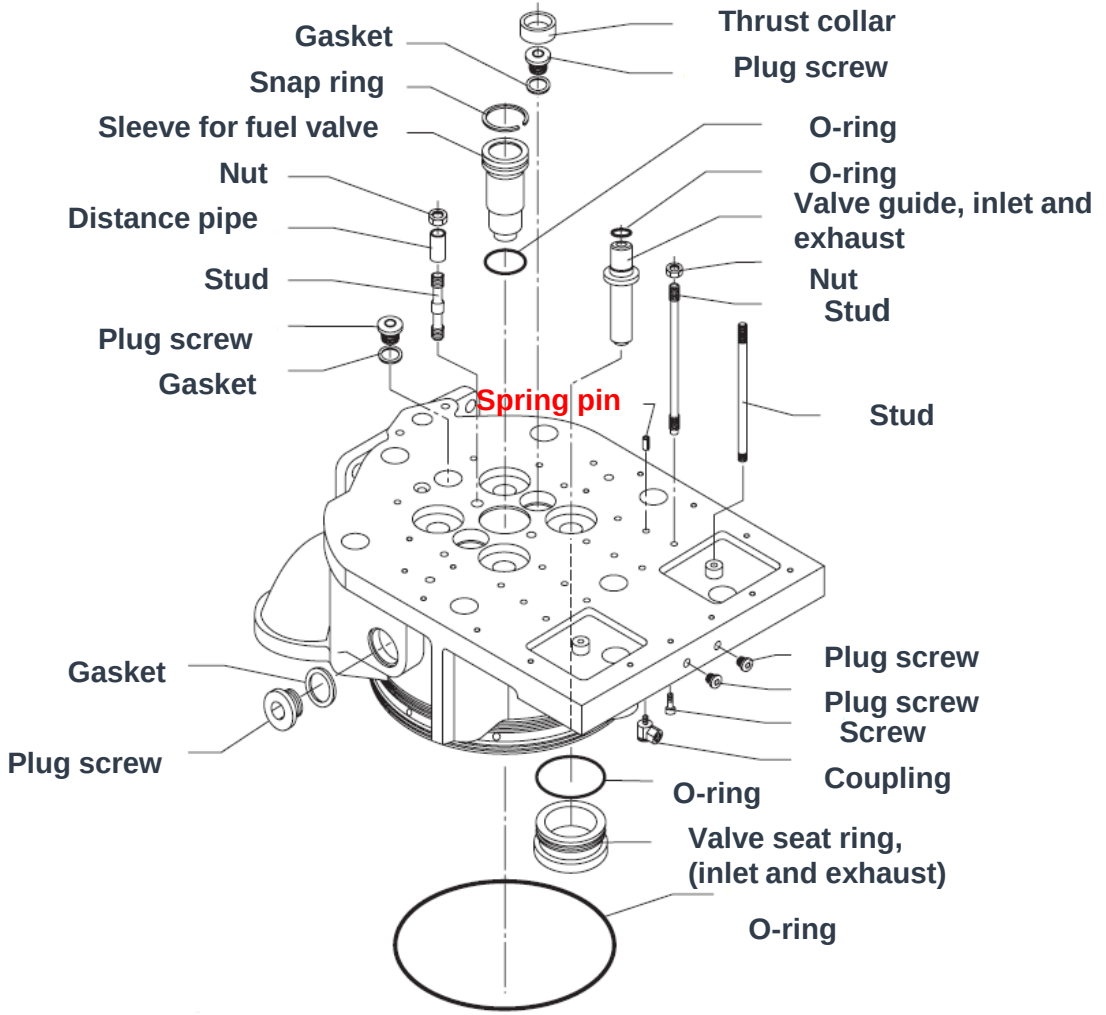


Slightly grind the seat

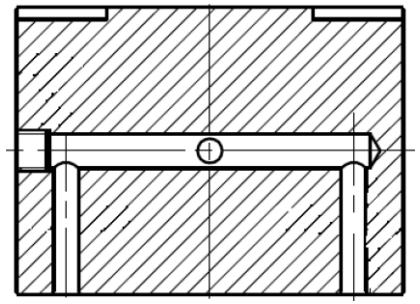


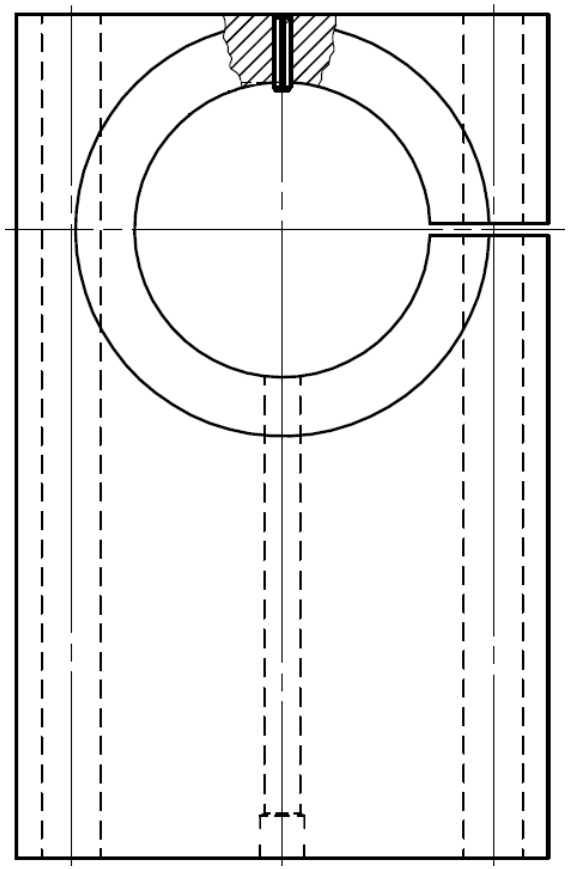
Check max. Wear

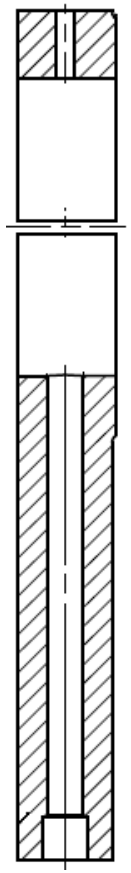
L23/30H-L28/32H Dismantling of Cylinder Head

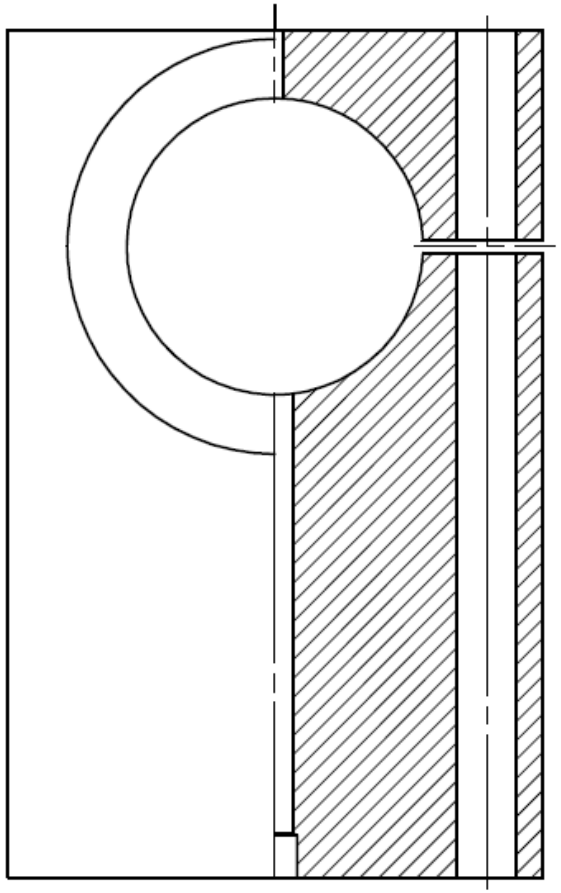


L23/30H-L28/32H Dismantling of Cylinder Head

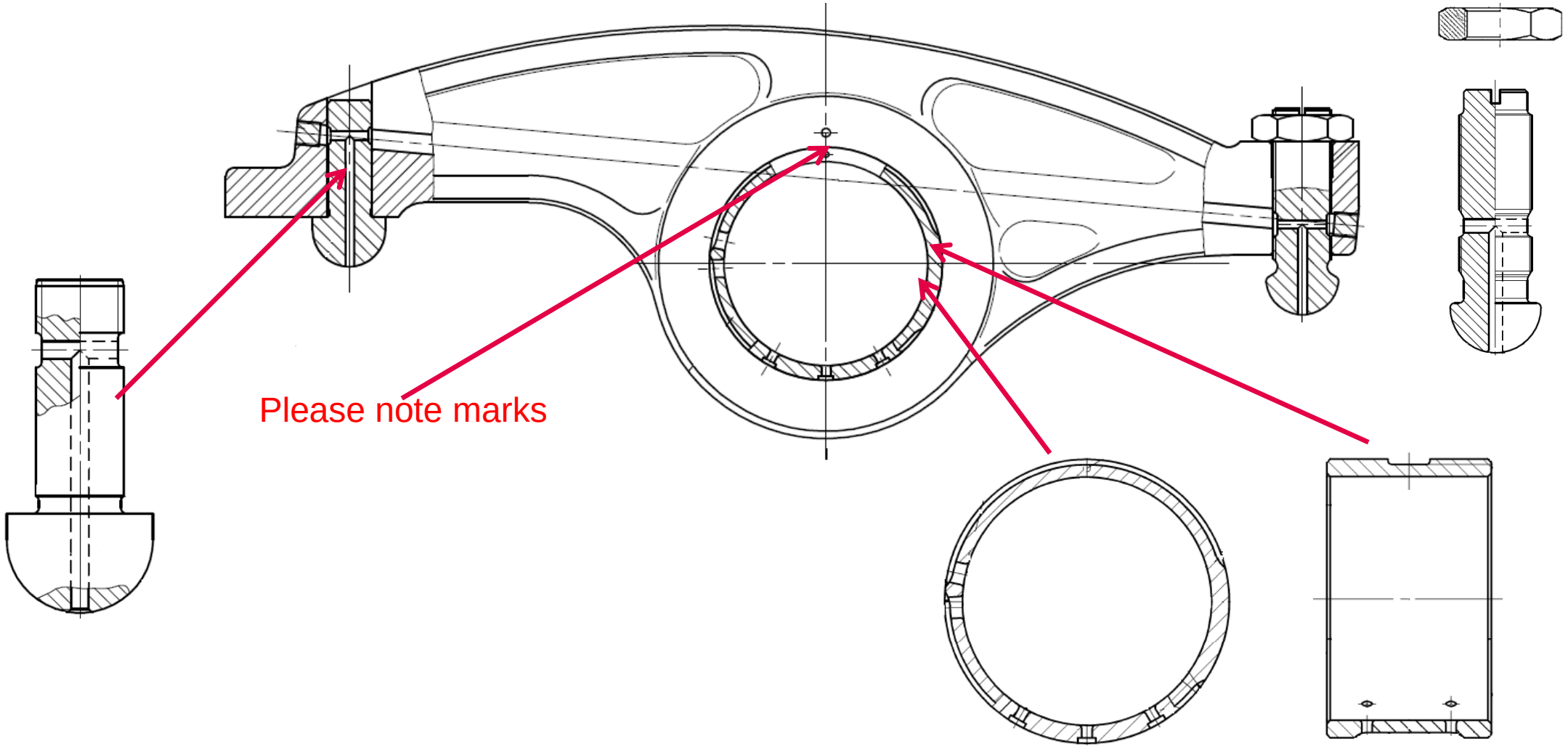




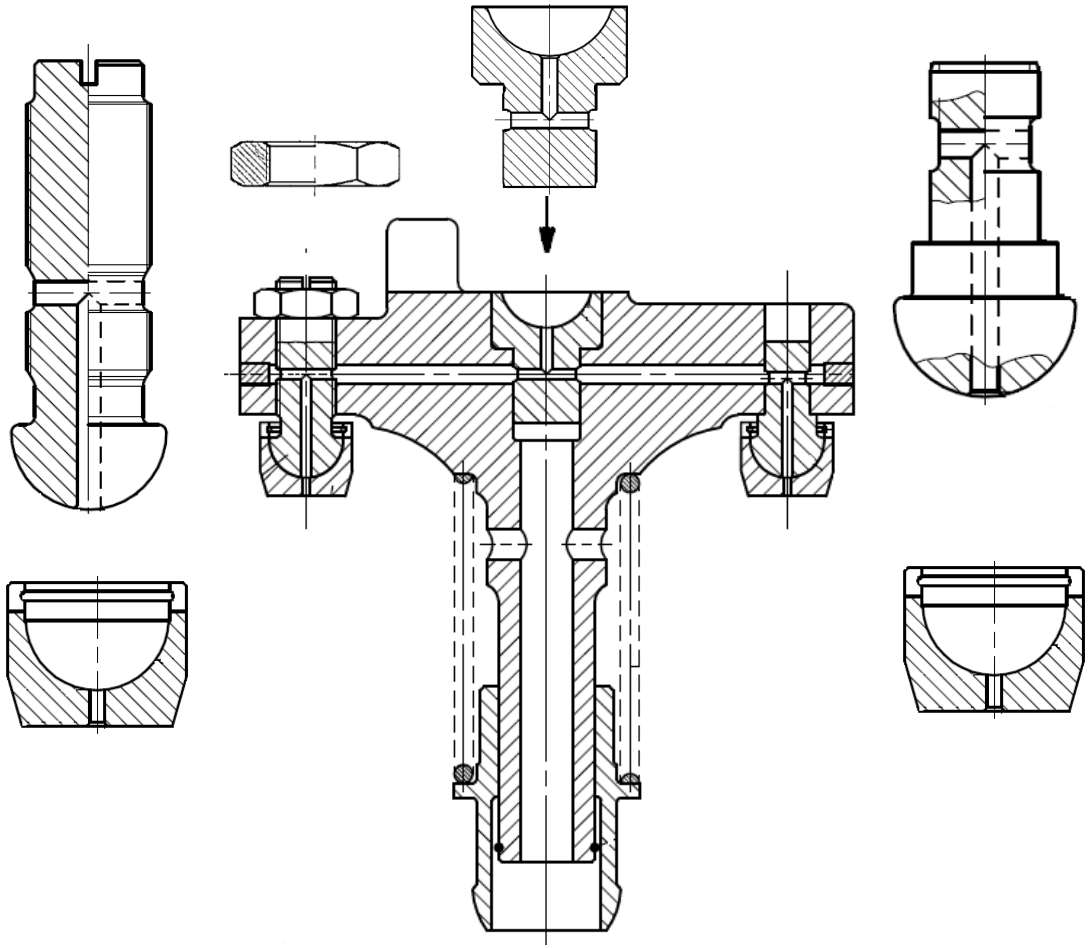


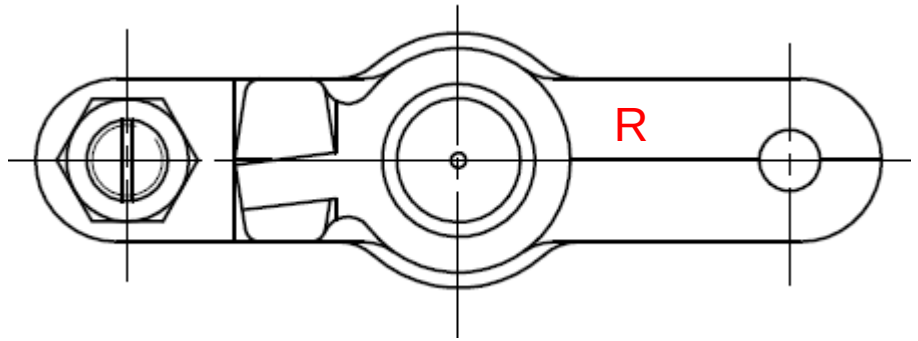


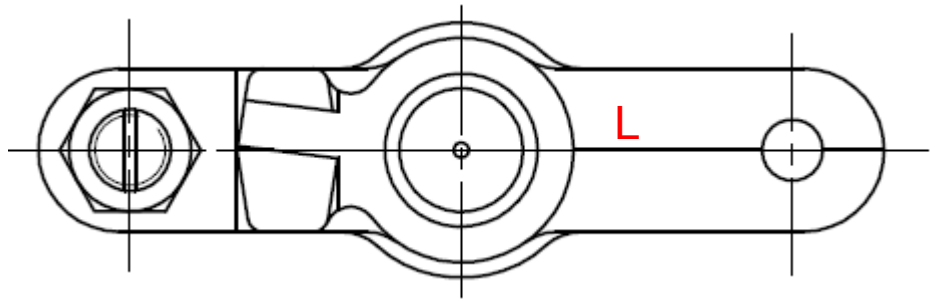
L23/30H-L28/32H Dismantling of Cylinder Head



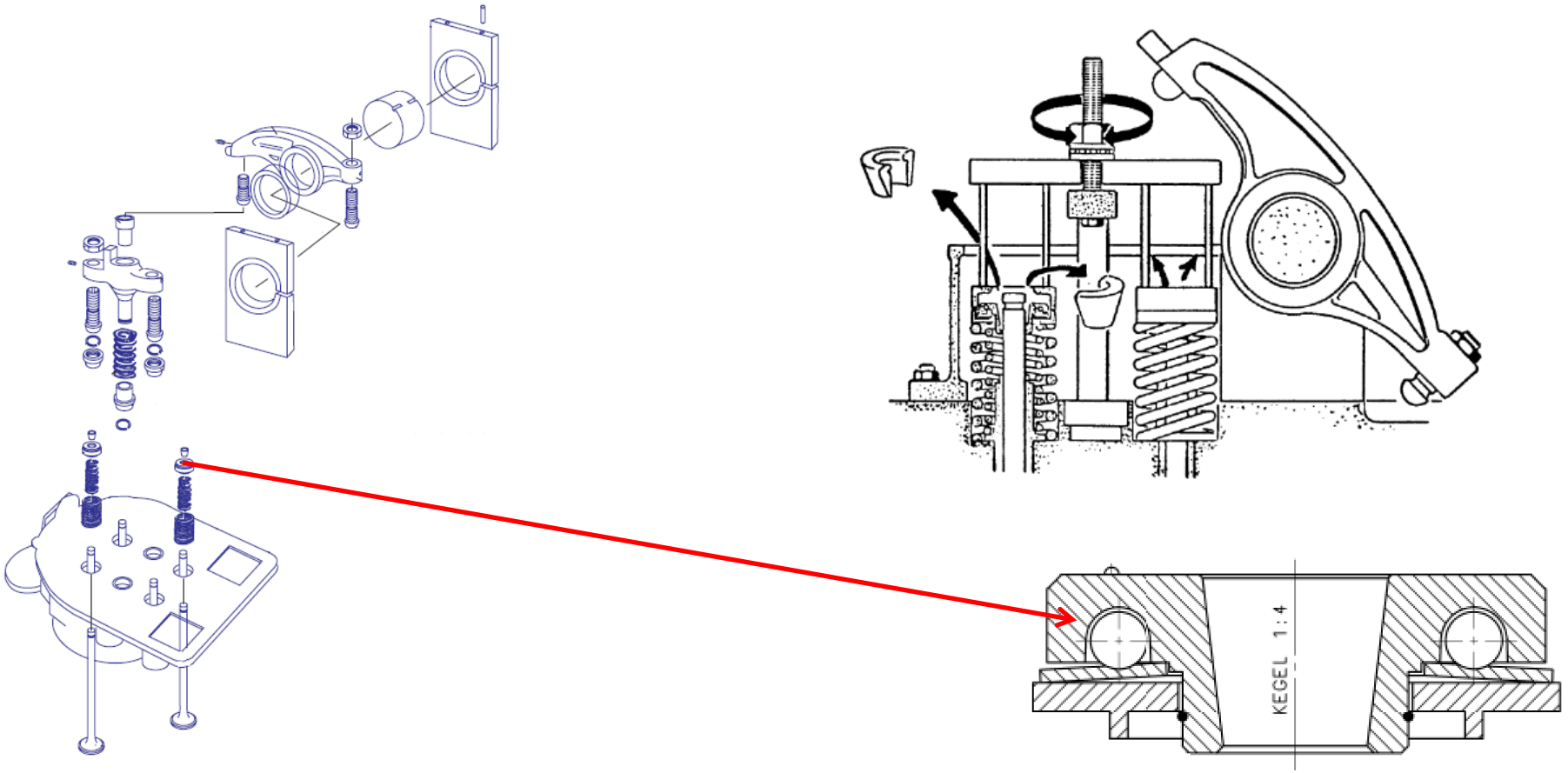
L23/30H-L28/32H Dismantling of Cylinder Head





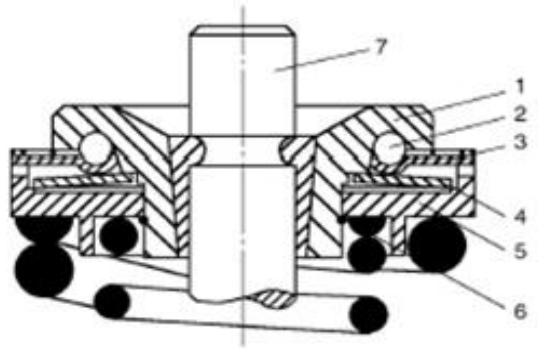


L23/30H-L28/32H Dismantle of valves



L28/32H Cylinder head

- Made of cast iron
- Tightened by means of 6 hydraulic nuts and studs.
- Two inlet valves and two exhaust valves.
- Fuel injection valve located in the centre of the cylinder head.
- Indicator valve and safety valve.
- Inlet/Exhaust valves are identical, material is heat resistant with welded on hard metal.
- Each valve with rotators that rotates a bit when the valve opens.
- Interchangeable valve seats and valve guides.

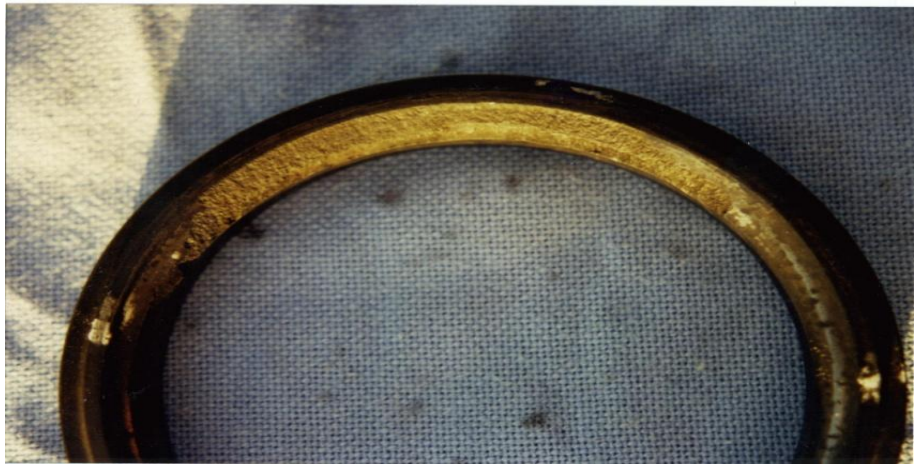


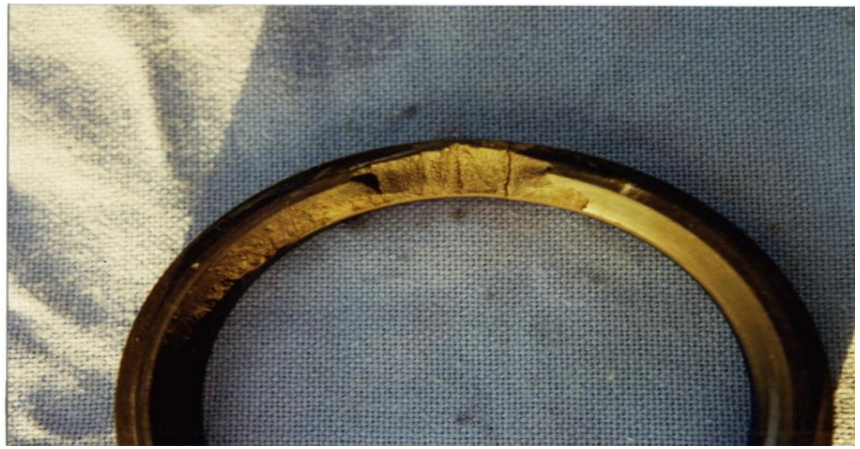
Valve rotator

1	Retainer body	2	Balls
3	Ball race	4	Spring washer
5	Seating collar	6	Retainer ring
7	Valve spindle		

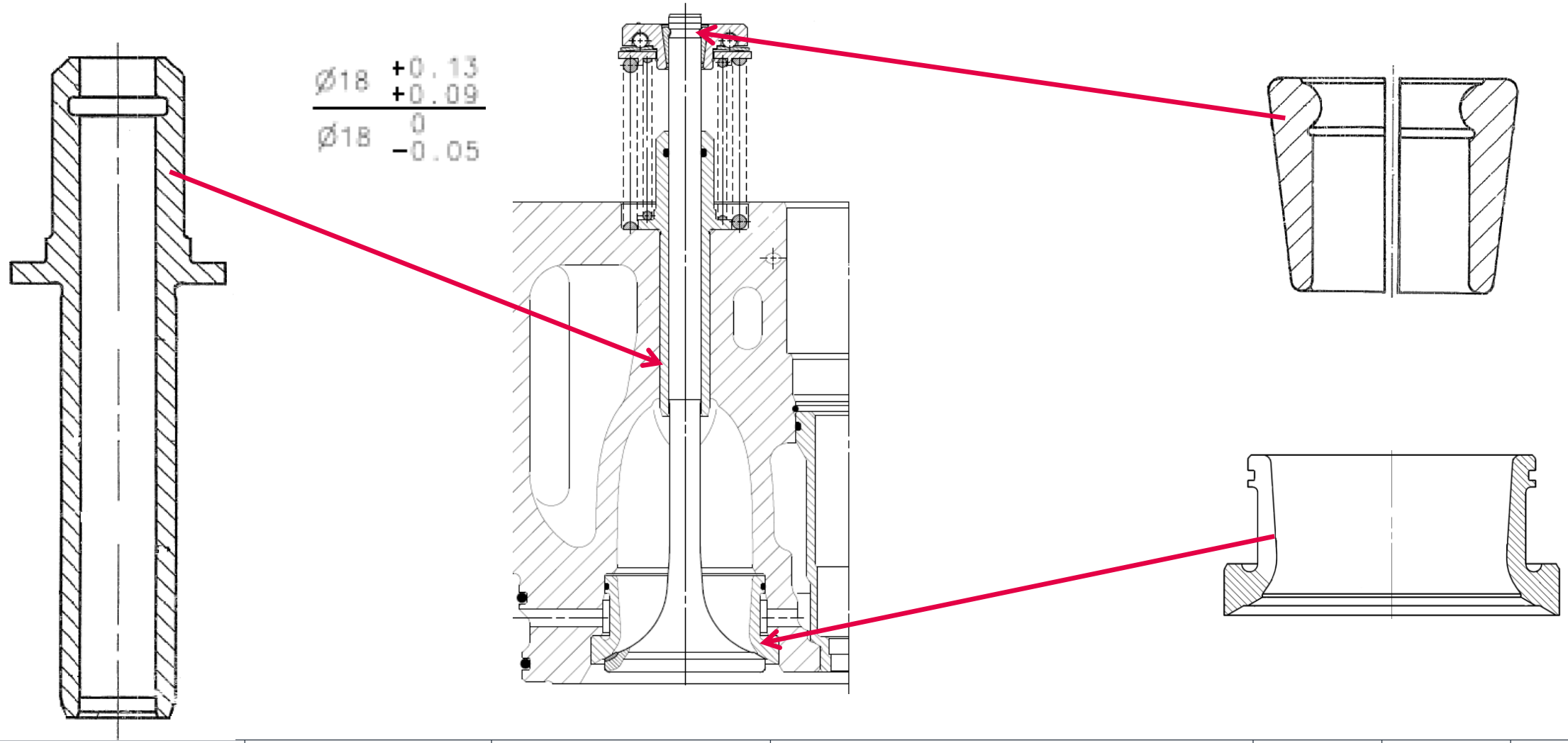
L23/30H-L28/32H Cylinder head

L23/30H-L28/32H Cylinder head

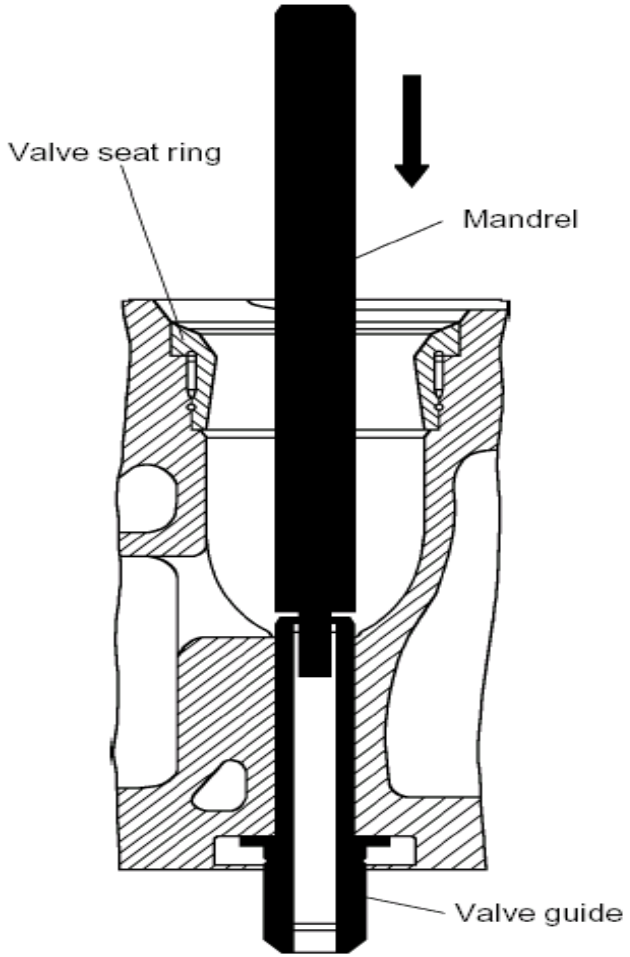


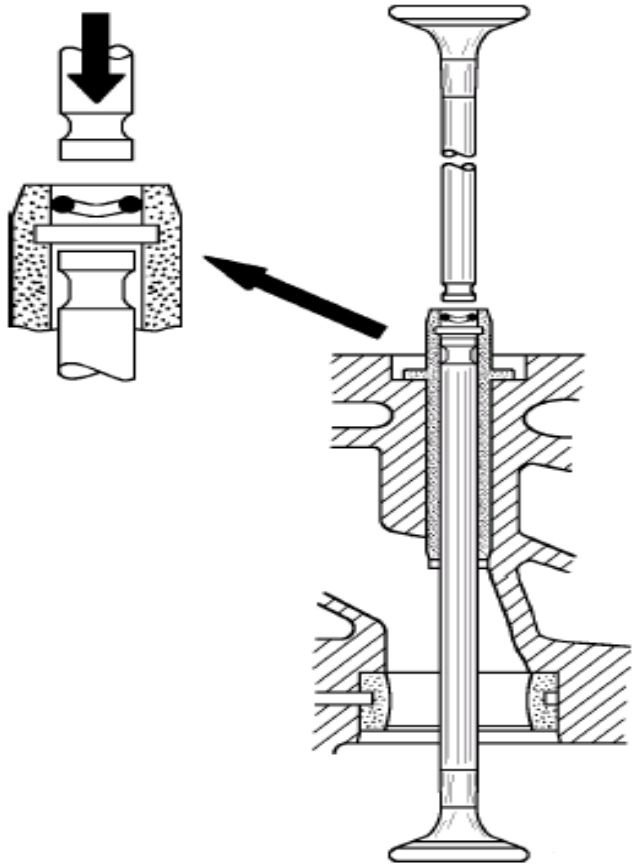


L23/30H-L28/32H Replacement of Valve guide

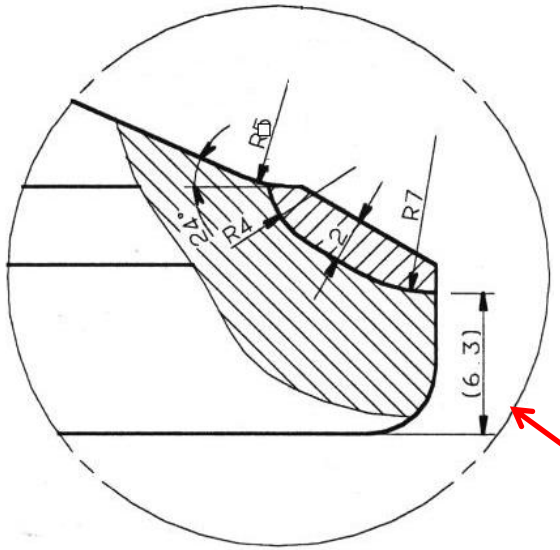


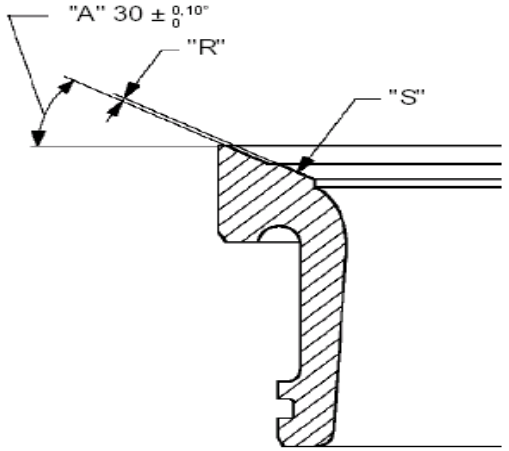
L23/30H-L28/32H Replacement of Valve guide

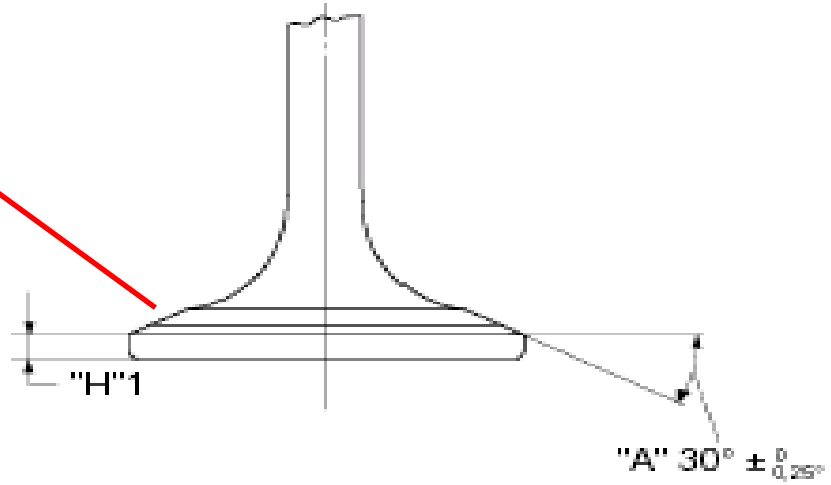




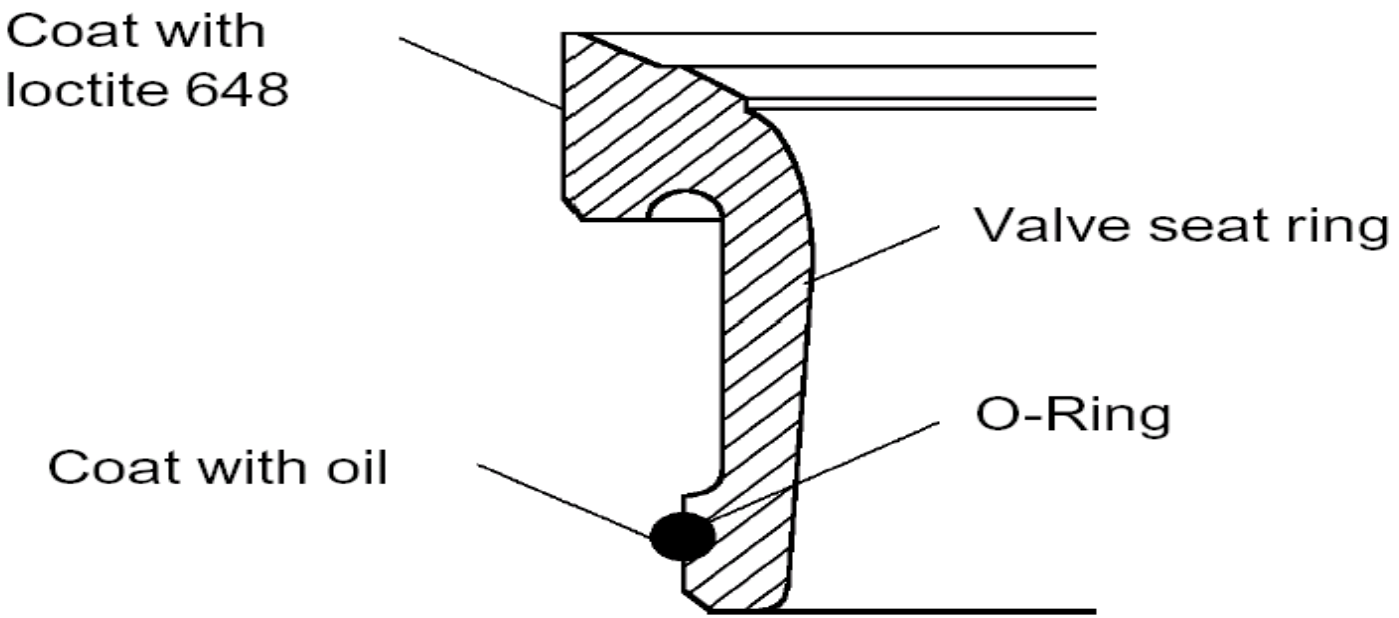
L23/30H-L28/32H Valve spindle and seat





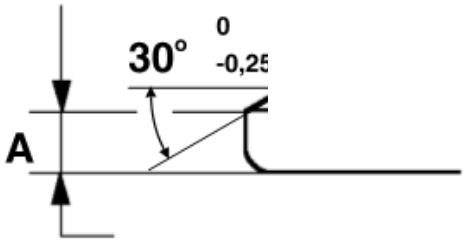


L23/30H-L28/32H Cylinder head

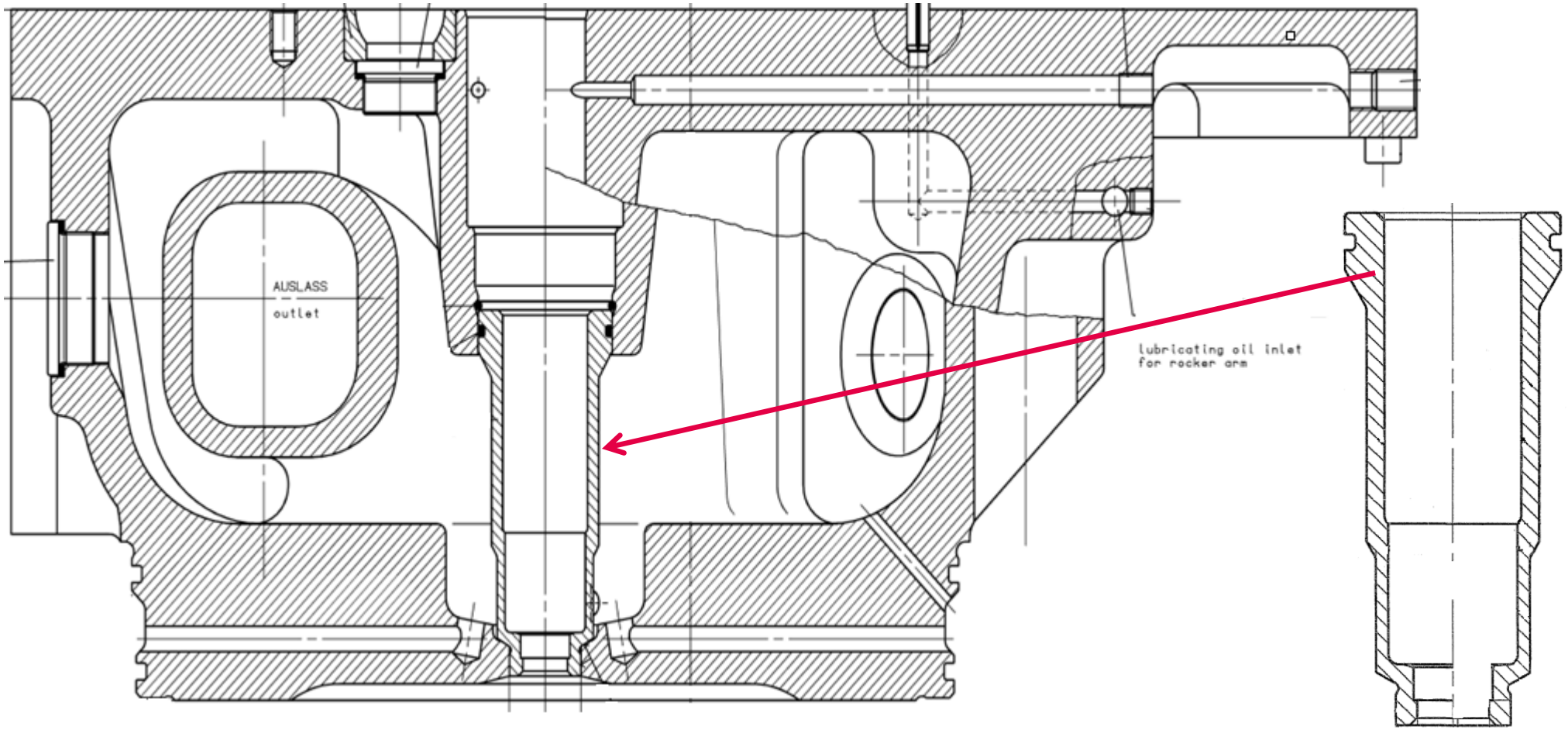


The grinding should be continued until a clean and uniform surface condition has been obtained.

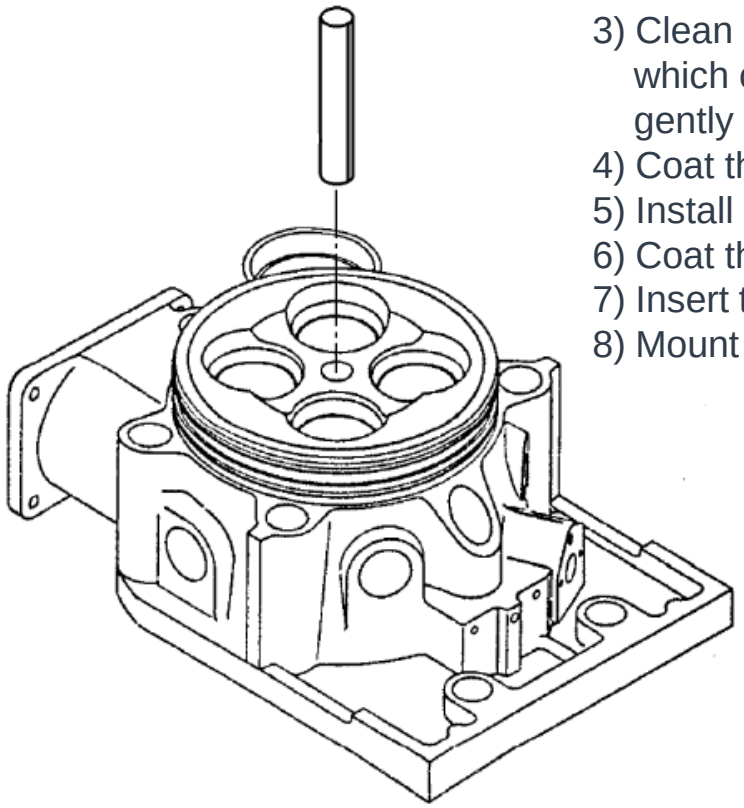
After completing the grinding, the height A of the valve head should be checked.
A has to be at least 6,5 mm.
If measured to be less, the spindle has to be scrapped.



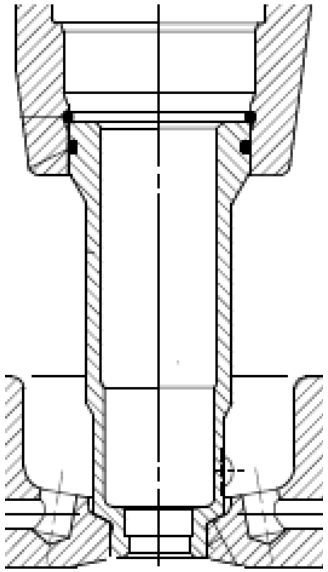
L23/30H-L28/32H Dismantling of Cylinder Head

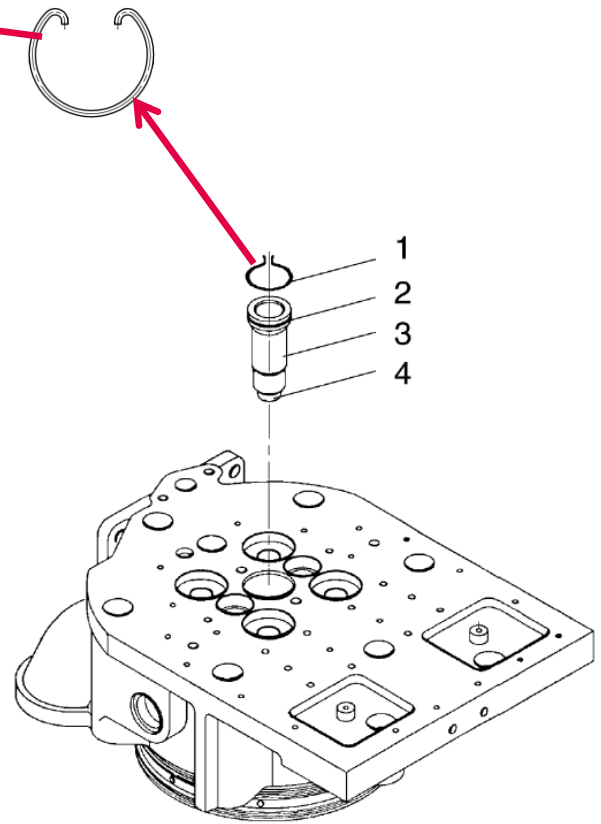


L23/30H-L28/32H Replacement of sleeve for fuel injector



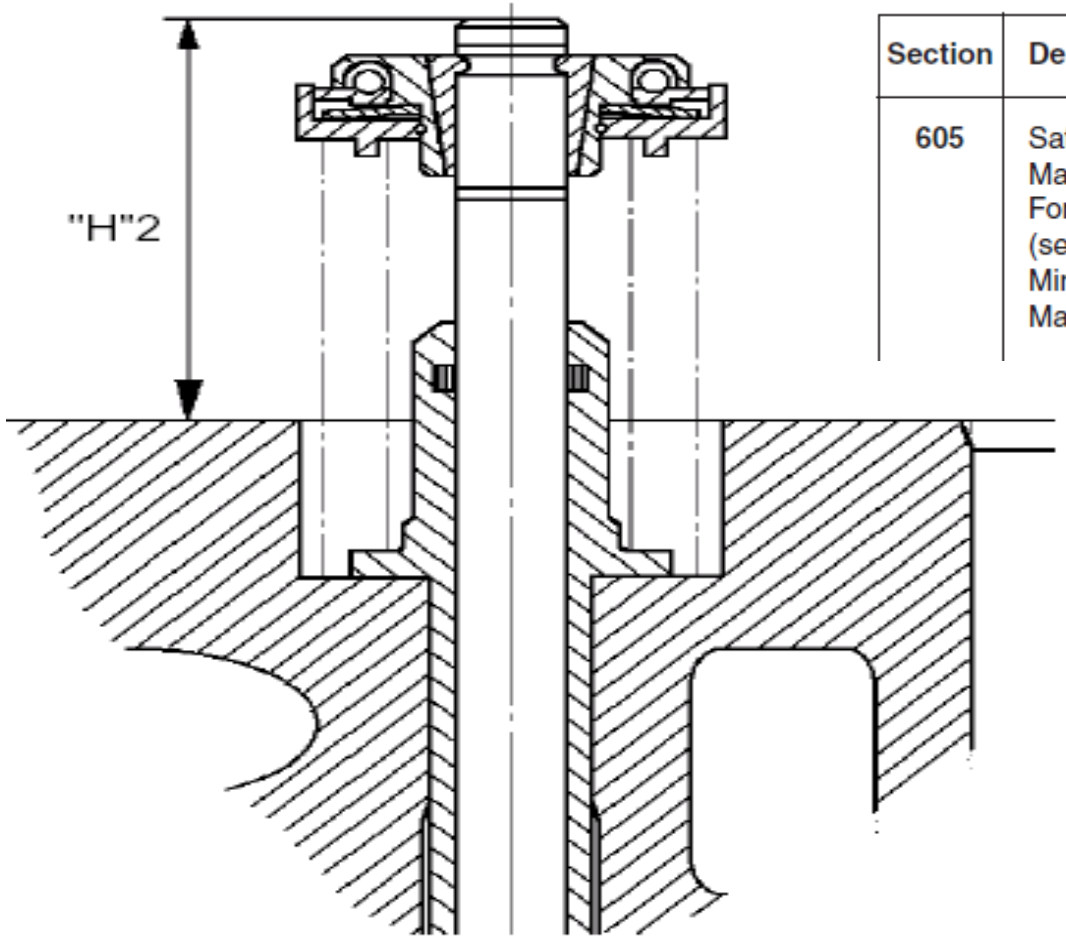
1) Remove the snap ring by means of two screw drivers.
2) The sleeve can now be driven out of the bore by use of a brass mandrel and a hammer.
3) Clean and inspect the bore in the cylinder head. Any marks which could prevent mounting of the sleeve, should be gently smoothed.
4) Coat the sealing ring zone in the bore with grease or lub. oil.
5) Install new sealing rings on the sleeve.
6) Coat the sealing surfaces on the sleeve with loctite 572.
7) Insert the sleeve in the bore.
8) Mount the snap ring.





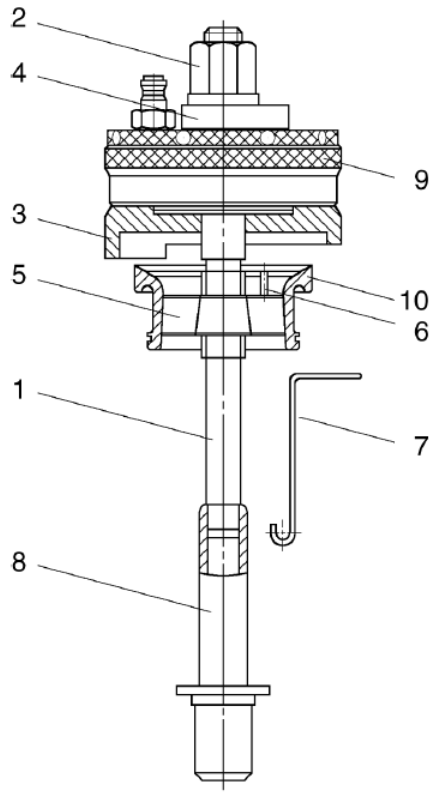
1	Snap ring	2	O-ring
3	Sleeve	4	Loctite 572

L23/30H-L28/32H Cylinder head



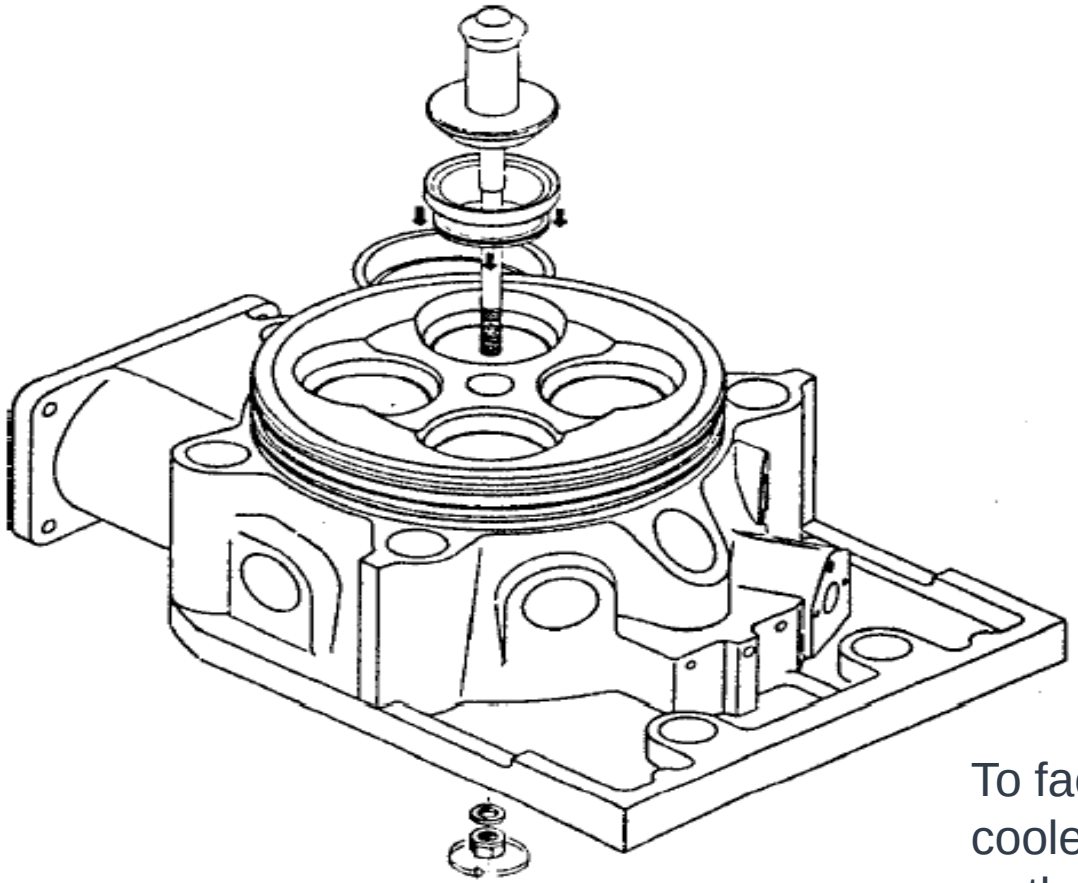
Section	Description	mm. / bar
605	Safety valve to be adjusted to	170 bar
	Maximum inner diameter, valve guide	18.35 mm.
	For grinding of valve spindle and valve seat ring (see also working card 605-01.10)	
	Minimum height of valve head, inlet valve and exhaust valve, "H" 1	6.5 mm.
	Maximum height of spindle above cylinder head, "H" 2	108.0 mm

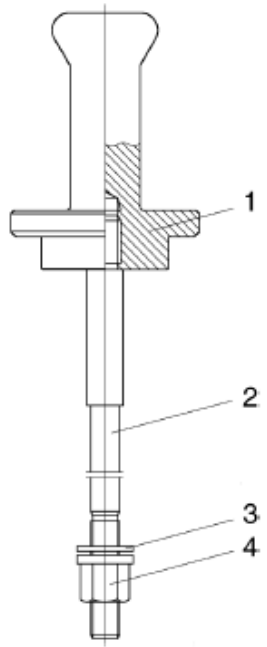
L23/30H-L28/32H Dismounting of Valve Seat Rings



1	Stud	2	Collar nut hexagon
3	Guide disc	4	Disc
5	Guide disc	6	Eye screw
7	Guide pin	8	Valve guide
9	Hydraulic jack	10	Valve seat ring

L23/30H-L28/32H Cylinder head

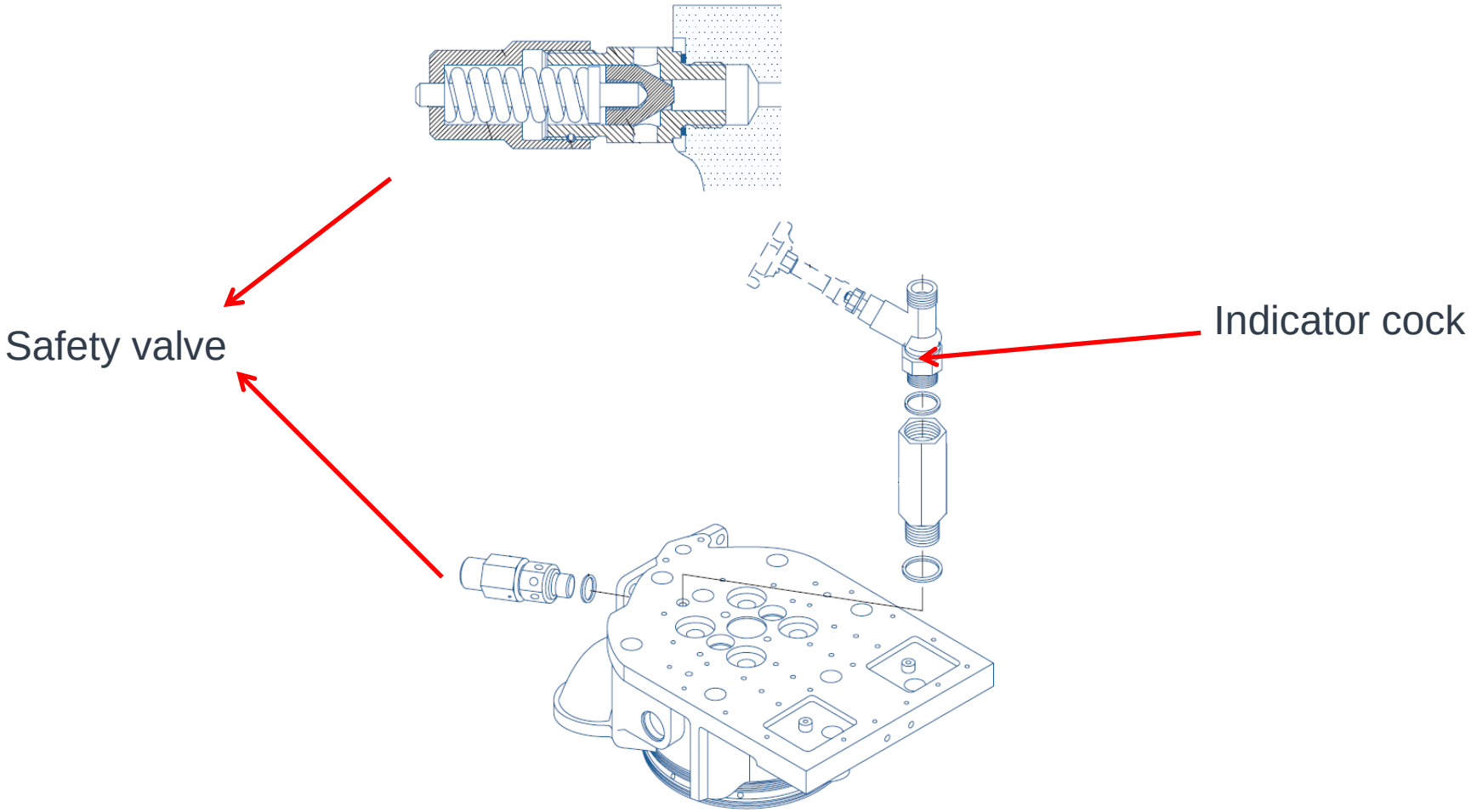




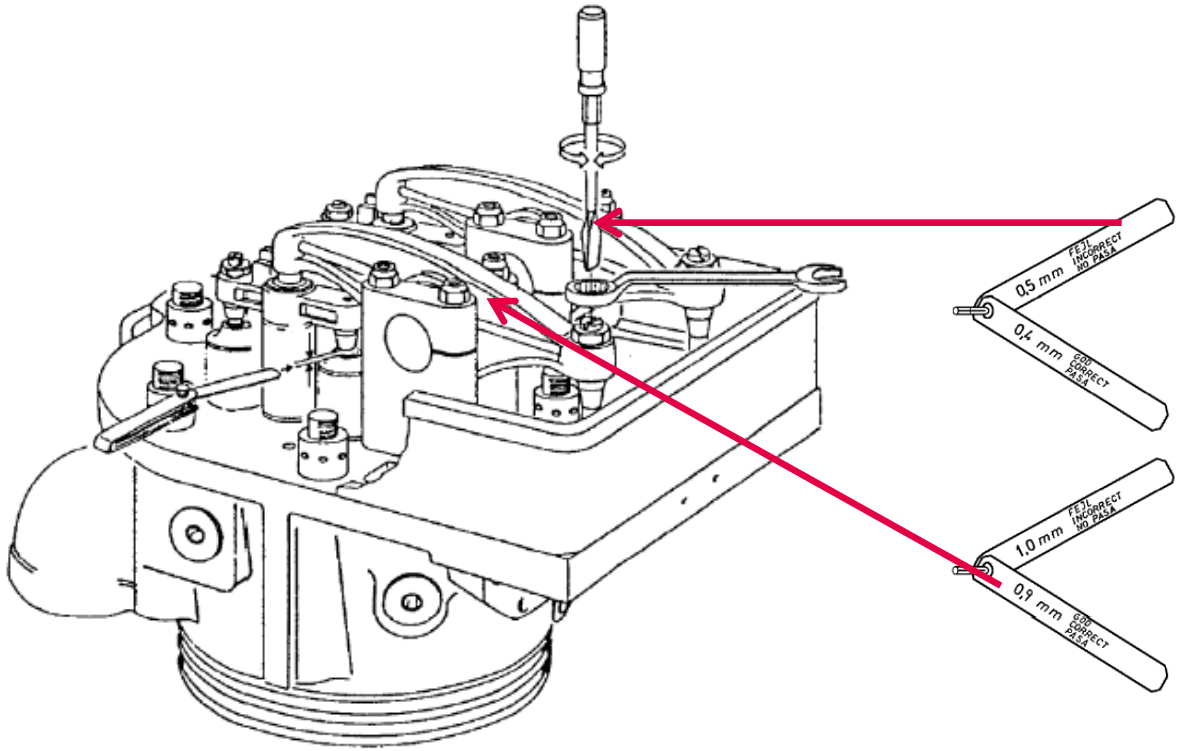
1 Handle
2 Stud
3 Washers
4 Hexagon nut with collar

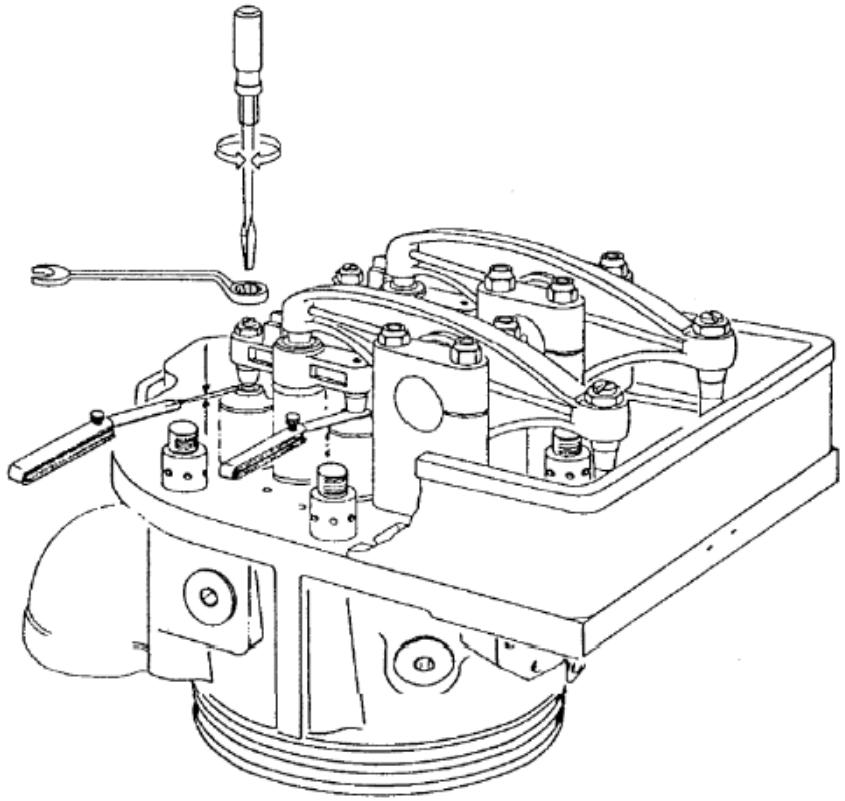
To facilitate mounting of the valve seat ring it is cooled down, however to no more than -25°C or the O-ring can be damaged.

L23/30H-L28/32H Cylinder head

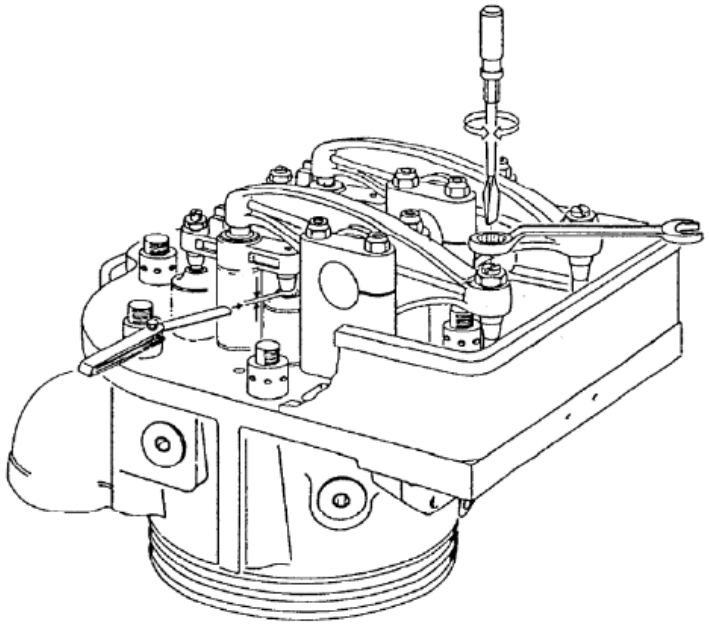


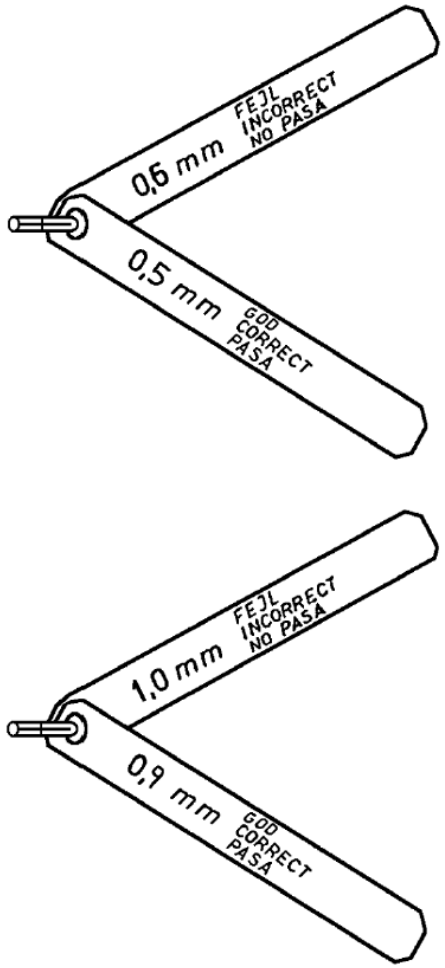
L23/30H-L28/32H Control and Adjusting of Valve Clearance

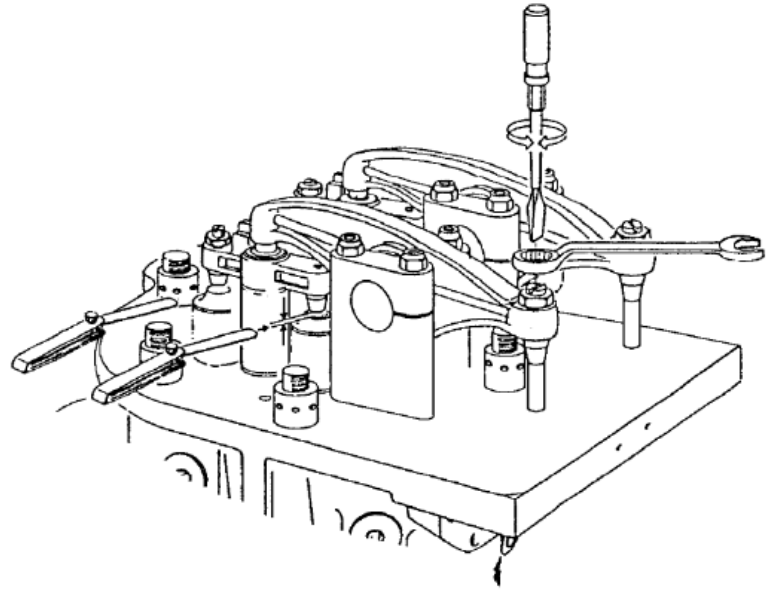




L23/30H-L28/32H Cylinder Unit







L23/30H-(L28/32H) Valve adjustment

Turn the engine so that the roller, rests on the circular part of the cam, i.e. the inlet valves and the exhaust valves are closed.

Loosen the adjustment screws on valve bridge and rocker arm

Place the feeler gauge marked with "correct“ 0.50 mm above the valve spindle nearest to the rocker arm bracket,

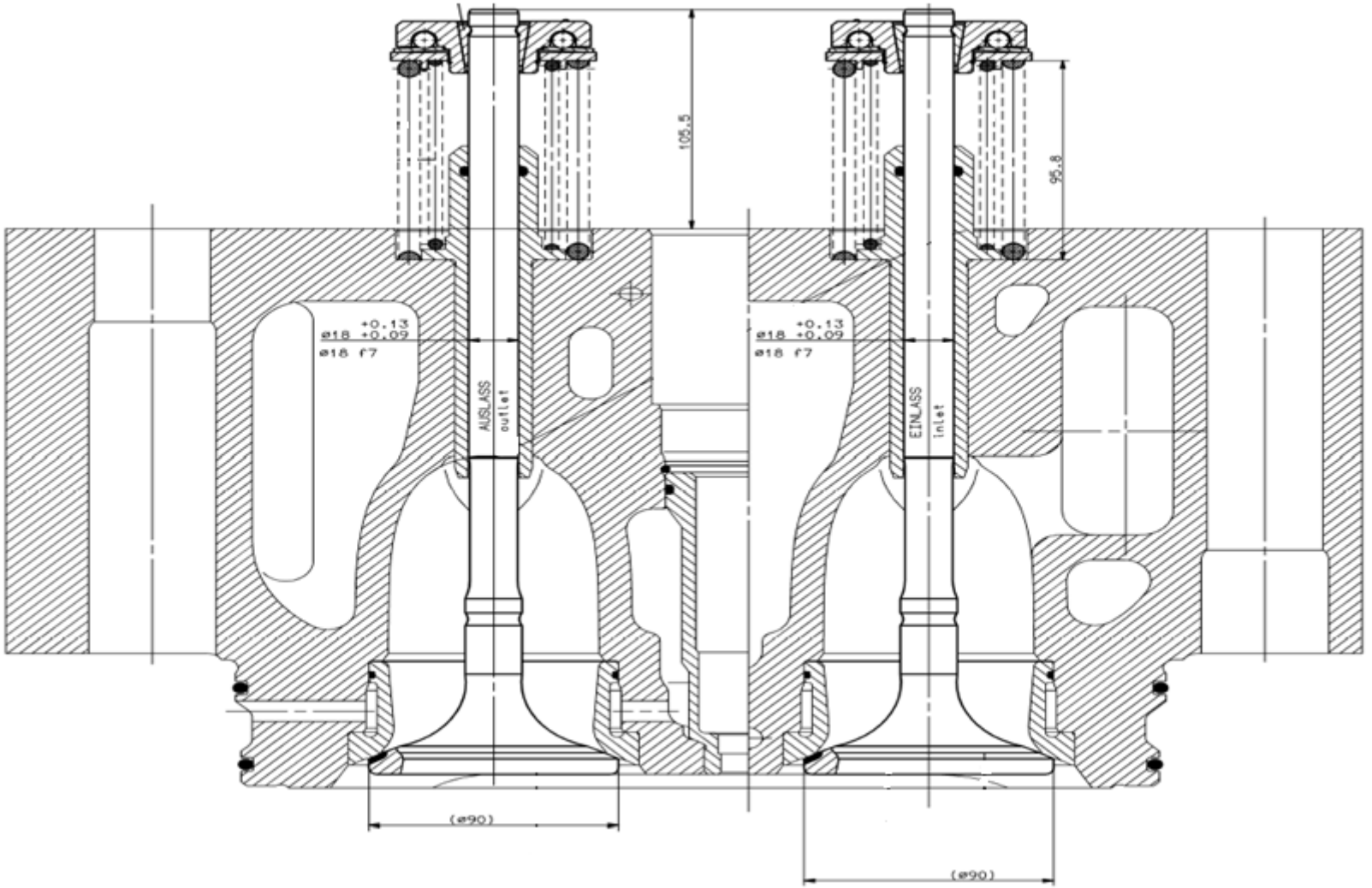
Adjust the clearance between valve bridge and valve spindle by means of the adjustment screw on the rocker arm (above the push rod) and tighten the lock nut. The feeler gauge is to remain in this position when adjusting the clearance of the other valve.

Place another feeler gauge, at the same size 0.50 mm above the other valve spindle,

Adjust the clearance between valve bridge and valve spindle by means of the adjustment screw on the valve bridge, and tighten the lock nut.

Check that the clearance is correct simultaneously on both valve spindles.

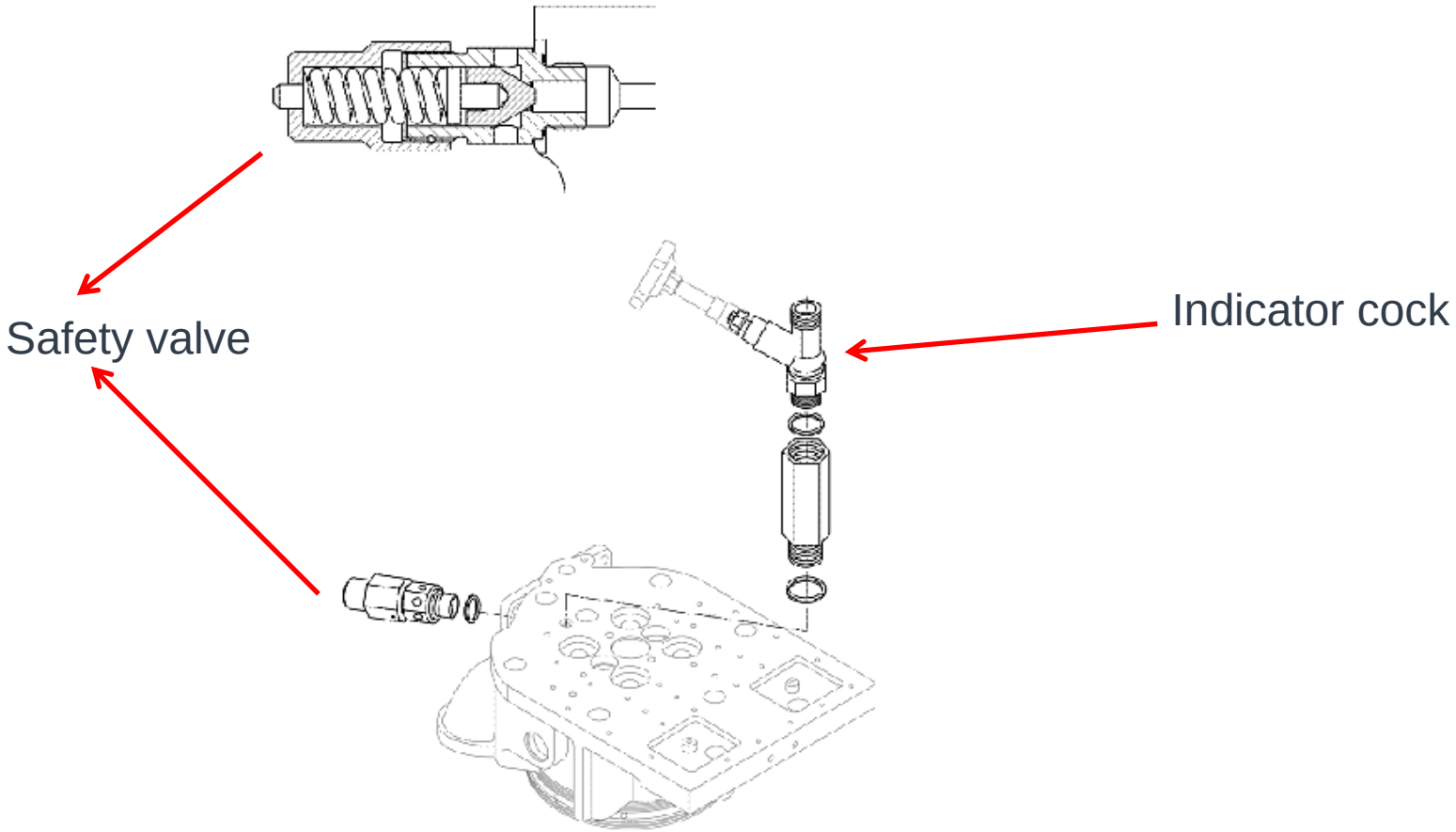
L28/32H Cylinder head



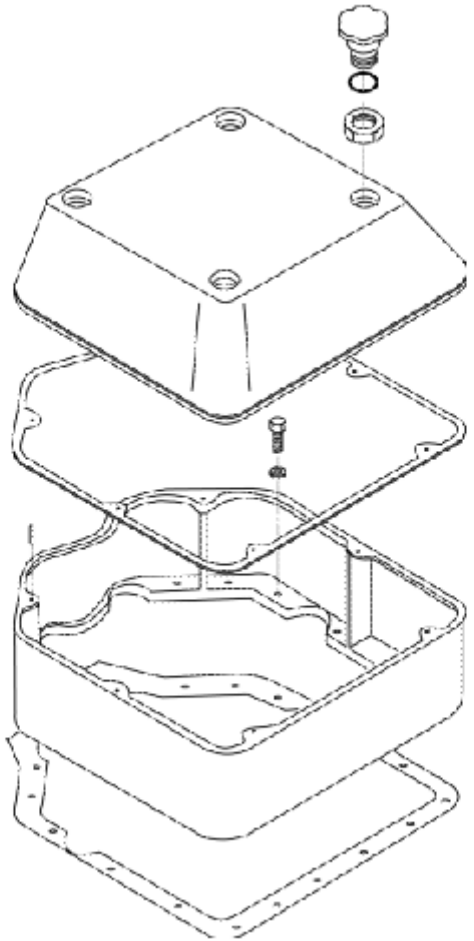
L28/32H Cylinder head 600.35

Section	Description	mm. / bar
605	Safety valve to be adjusted to	170 bar
	Maximum inner diameter, valve guide	18.35 mm.
	For grinding of valve spindle and valve seat ring	
	(see also working card 605-01.10)	
	Minimum height of valve head, inlet valve and exhaust valve, "H" 1	6.5 mm.
	Maximum height of spindle above cylinder head, "H" 2	108.0 mm

L23/30H-L28/32H Cylinder head



L28/32H Cylinder head



Disclaimer

All data provided in this document is non-binding.

This data serves informational purposes only and is especially not guaranteed in any way. Depending on the subsequent specific individual projects, the relevant data may be subject to changes and will be assessed and determined individually for each project. This will depend on the particular characteristics of each individual project, especially specific site and operational conditions.

Do you have any more questions?