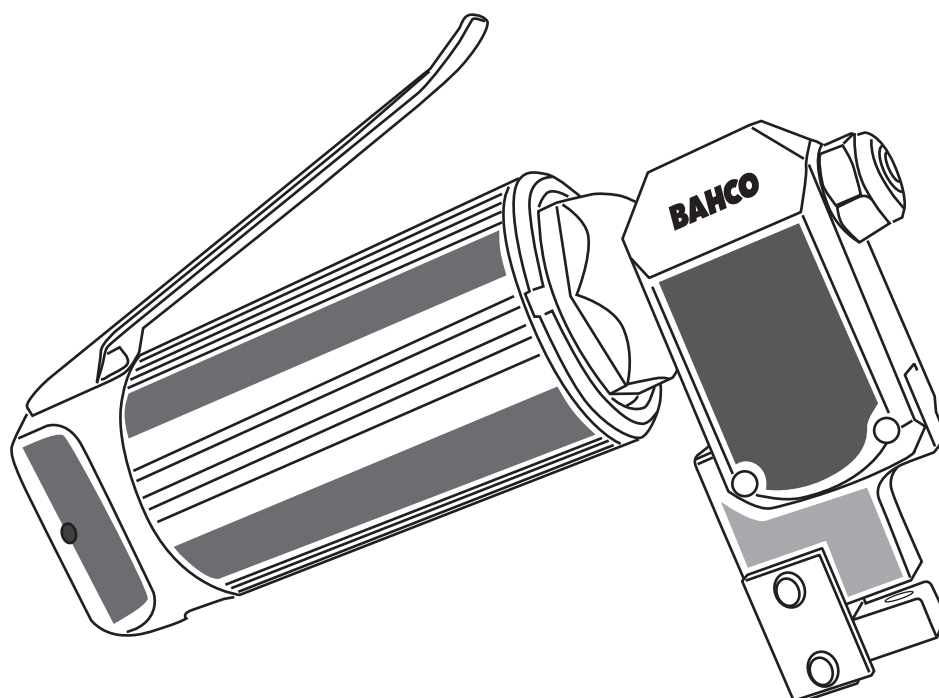


OPERATING MANUAL & SPARE PART LIST

BAHCO
DORTMUND



AIR HYDRAULIC HOLE PUNCHER H9-220

Documentation commissioner:
Andreas Bos

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BAHCO

Tool Specifications

Cutting force	4.4 kN (6 bar/90 Psi)
Stroke maximum	6.5 mm
Required free air	0.5 l/cycle
Weight	1.0 kg
Working pressure	5 - 7 bar (75 - 100 lbf/in ²)
Cutting time	< 63 dB (A)
Noise level	< 2.5 m/s ²

** Safety Rules**

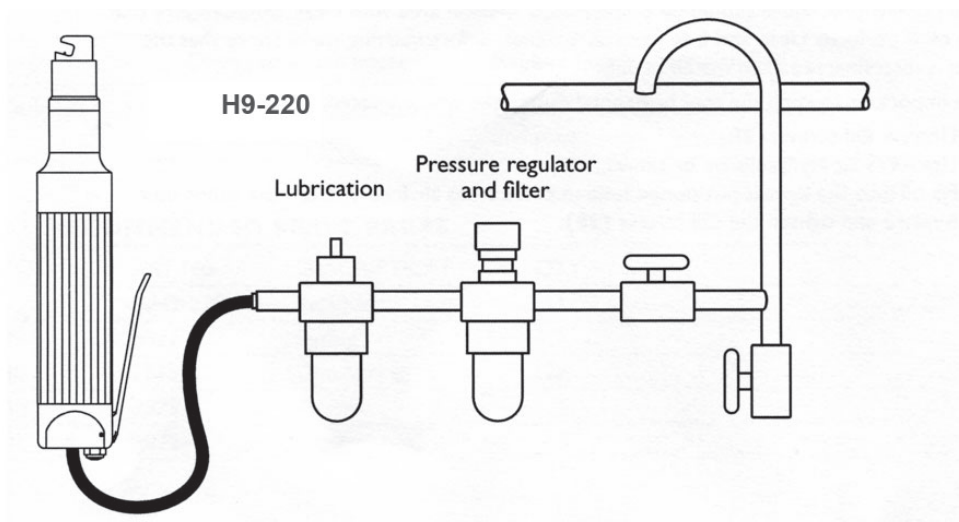
- 1 Do not use the tool outside the design intent.
- 2 Always disconnect the airline from the tool inlet before any service or adjustments.
- 3 Keep fingers and hands away from the working area when operating the tool.
- 4 The operating air pressure may not exceed 7 bar / 100 Psi.
- 5 When using the tool, the wearing of safety glasses is required both by the operator and others near the tool. We recommend the operator to wear gloves.
- 6 Always adopt a firm footing before operating the tool.
- 7 The precautions to be observed when using this tool shall be explained by the customer to all operators.
- 8 The tool shall be maintained in a safe working condition and examined regularly by trained and competent personnel.
- 9 Use only parts with this tool, which are recommended and supplied by BAHCO.
- 10 Any modification undertaken by the customer to the tool, shall be the customer's entire responsibility.

Intension of use

This tool is designed to punch holes in sheet metal.

Connection to the air supply

We recommended the use of pressure regulators and oiling/filter systems on the main air supply (see diagram below). All air hoses must have a minimum inner diameter of 6 mm or ¼ inch. the tool is operated at an optimum pressure of 6 bar or 90 Psi.



Technical Description

H9 is a hydro-pneumatic tool. It consists of a power unit and a tool head. The hydro-pneumatic power unit has an air cylinder connected to a hydraulic cylinder. This gives a booster effect.

Maintenance

Priming.

Priming is always necessary after the tool has been dismantled and prior to operating. It may also be necessary to restore the full stroke after considerable use.

The priming procedure should be carried out in a clean area with clean hands. Ensure that the oil is perfectly clean and free from air bubbles. Before starting, make sure that the tool is disconnected from the air supply.

It is important to keep the tool horizontal during the hole procedure.

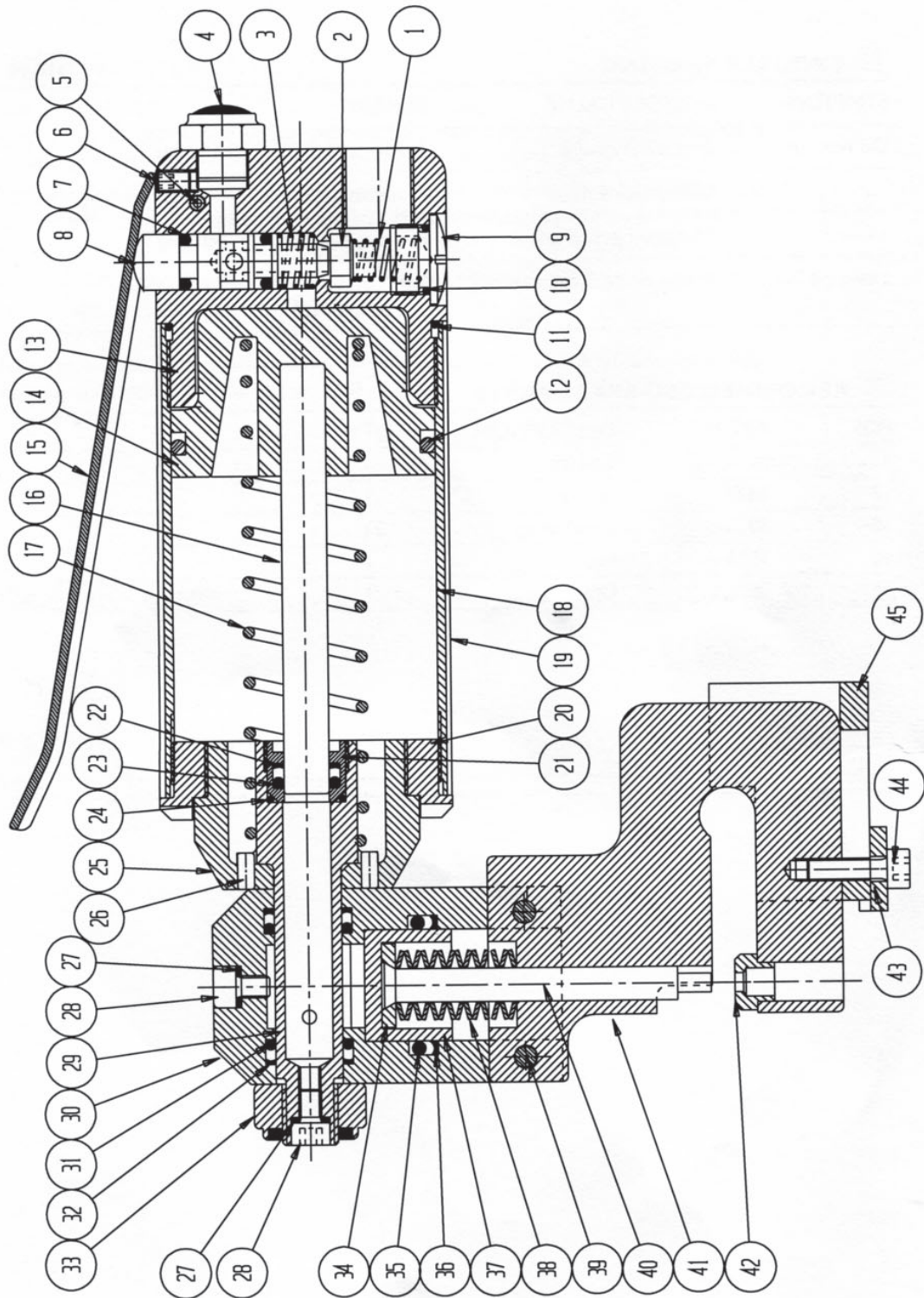
- Unscrew oil screw **(28)**.
- Use AWS 32 hydraulic oil or similar.
- Fill oil into the lowest positioned hole until it comes air free oil from the other hole.
- Replace and tighten the oil screws **(28)**.

Trouble shooting

Symtom	Possible cause	Remedy	Ref Page
Do not cut	Low air pressure	Adjust to 5-7 bat / 75-100 Psi	2
	Low oil level	Prime tool	4
	Damaged punch edges	Replace punch and punch die	4
Leaks oil	Worn or defected seals	Replace seals, use BAHCO seal kit and prime tool	4

Recommende spare parts

POS	Art. No.	Description	Qty
	P-H9-220	Seal kit	1
17	5827	Spring	1
38	5815-d	Cup spring	22
40	3979-d	Punch	1
42	3972-d	Die	1



PART LIST - H9-220

Pos.	Ref.	Qty	Description
1	1336	1	Spring
2	1337	1	Valve
3	1339	1	Spring
4	1565	1	Silencer
5	5401	1	Pin

6	5014	1	Screw
7	6320	2	O-Ring *
8	1553	1	Valve rod
9	1334	1	Plug
10	6315	1	O-Ring *

11	6303	1	O-Ring *
12	6353	1	O-Ring *
13	2087	1	Rear end
14	2086	1	Air piston
15	2090	1	Lever

16	5489	1	High pressure piston
17	5827	1	Spring
18	2085	1	Air cylinder
19	2084	1	Plastic cover
20	3396	1	Front plate

21	2734-2-8	1	Guide
22	6360	1	O-Ring *
23	6322	1	O-Ring *
24	6317	1	O-Ring *
25	2733-1	1	Hydraulic cylinder

Pos.	Ref.	Qty	Description
26	5472	2	Pin
27	6514	2	Seal *
28	5042	2	Oil screw
29	2733-2	1	Hydraulic piston
30	2970-12	1	Cross bar

31	6326	2	O-Ring
32	6362	2	Support ring *
33	5203	1	Nut
34	10076-6	1	Washer **
35	6351	1	O-Ring *

36	6367	1	Support ring *
37	2997	1	Hydraulic piston
38	5815-d	1	Cup spring
39	5459	2	Locking pin
40	3979	1	Punch

41	3980	1	Clamp
42	3972-d	1	Die **
43	10463	1	Washer **
44	5072	1	Screw
45	4231	1	Adjusting Device

*	P-H9-220	1	Seal kit
**	2401-d	1	Punch kit

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