

***BLIND RIVET NUT SETTING DEVICES
SERIES XT912***

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BAHCO

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This instruction manual must read by any person installing, operating, or servicing this tool, with particular attention to the following safety rules.

1. Do not use the intended application.
2. Do not use equipment with this tool other than that recommended and supplied by BAHCO.
3. Responsibility for any modification undertaken by the customer to the tool, nose assemblies, accessories or any equipment supplied by BAHCO or their representatives, falls directly to the customer. BAHCO will be pleased to advice upon any proposed modification.
4. The tool must be maintained in safe working order at all times and examined at regular intervals for damage and function by qualified personnel. Do not dismantle this tool without prior reference to the maintenance instructions.
5. The precautions to be observed when using this tool must be explained by the customer to all operators.
6. Always disconnect the airline from the tool inlet before attempting to adjust, fit or remove a nose assembly.
7. Do not operate a tool that is directed towards any person(s) or the operator.
8. Always adopt a firm footing or a stable position before operating the tool.
9. The operating pressure shall not exceed 7 bar (100 lb/in²).
10. Do not operate the tool without full nose equipment, oil plug and oil bleed screw in place.
11. When using the tool, safety glasses must be worn by both the operator and others in the vicinity to protect against pin ejection, should a fastener be placed 'midair'. We recommend wearing gloves if the application has any sharp edges or corners.
12. Take care to avoid entangling of loose clothing, neck ties, long hair, cleaning rags etc. in the moving parts of the tool, which should be kept clean and dry for the best possible grip.
13. Excessive contact with hydraulic oil should be avoided. To minimise the possibility of rashes, care should be taken to wash thoroughly.

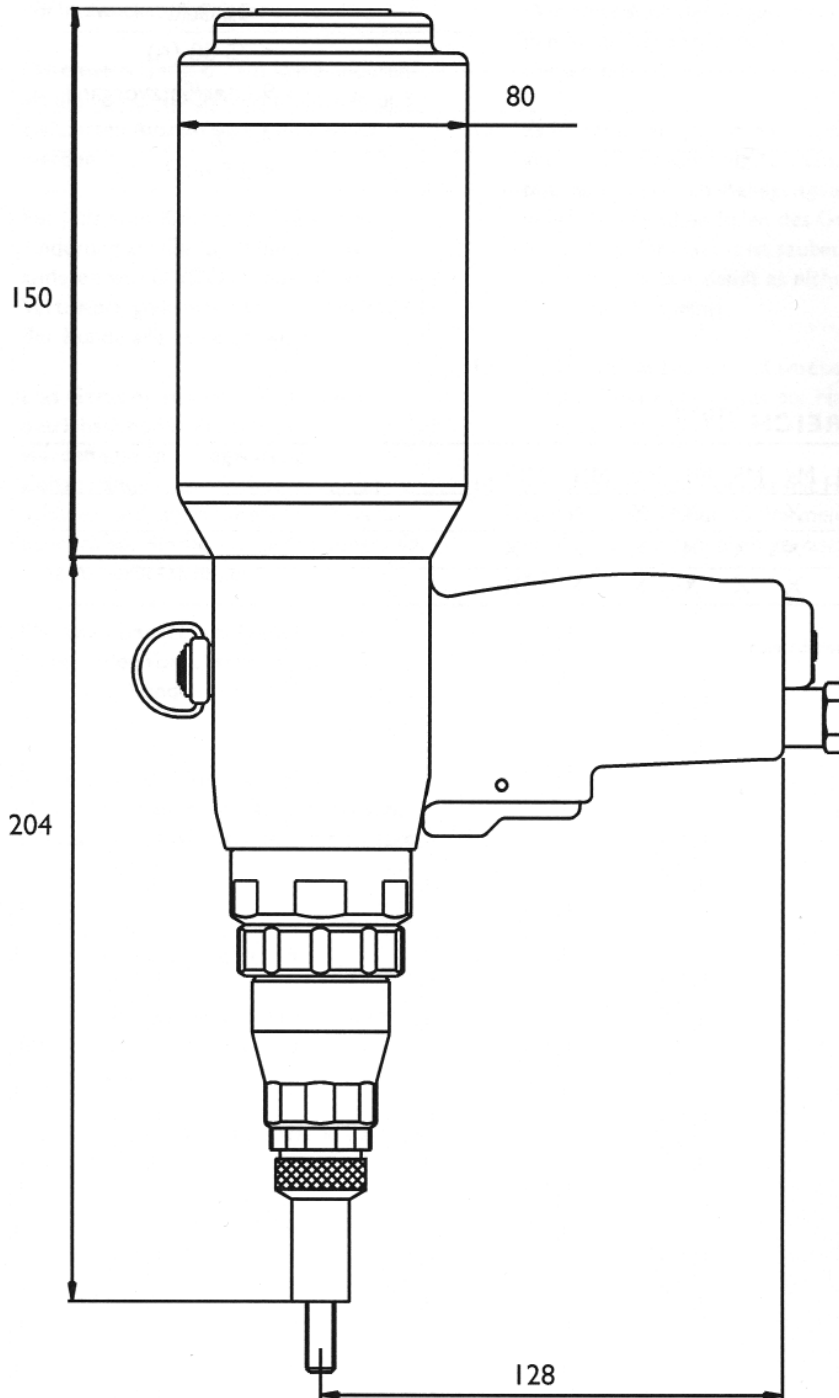
Technical Data

Working pressure	5 - 7 bar (75 - 100 SI)
Pull force	30 kN (6 bar)
Max. Stroke	6 mm (.238 in)
Cycle time	< 2.5 Sekunden
Noise level	< 75 dB (A)
Free air required	9 Liter
Weight	2.2 kgs
Vibration	< 2.5/ms ² (8 ft/s ²)

Working range

Material	M3	M4	M5	M6	M8	M10	M12
Steel	X	X	X	X	X	X	X
Aluminium	X	X	X	X	X	X	X
Stainless steel	X	X	X	X	X	X	X

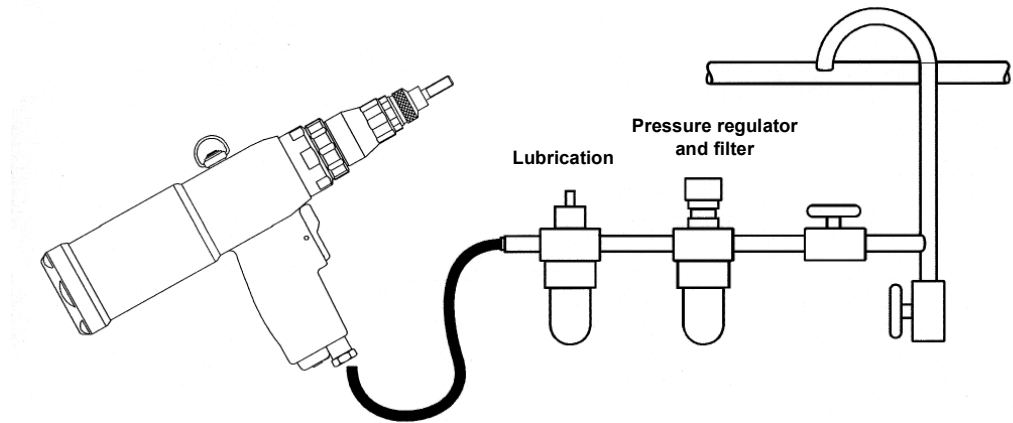
The XT912 hydro-pneumatic tool is designed to fit Blind Rivet Nuts of various kinds at high speed, making it ideal for batch or flow-line assembly in a wide variety of applications throughout all industries.



Dimensions shown are in millimetres

Air supply

All tools are operated with compressed air at an optimum pressure of 6 bar (max. 7 bar). We recommended the use of pressure regulators and automatic oiling/filtering systems on the main air supply. Air hoses should be oil resistant, have an abrasion resistant exterior and should be armoured where operating conditions may result in hoses being damaged. All air hoses shall have a minimum bore diameter of 6.4 millimetres or 1/4 inch.



Stroke adjustment

This adjustment is required to achieve optimum deformation of the rivet nuts. The tool is factory set to a stroke of 3 mm. Turn the Adjusting Ring (9) to the left to reduce it, to the right to extend the stroke length. Each stroke step changes the stroke length by 0.1 mm.

To determine the correct stroke, it is recommended to place some blind rivet nuts in a test plate with the same sheet thickness and hole diameter as the original sheet.

If the deformation is insufficient, the blind rivet nut can rotate in the sheet metal. If too large a stroke is set, there is a risk that the mandrel tears off or the thread of the blind rivet nut is damaged during the setting process.

For guide values for the stroke adjustment, refer to the instructions of the blind rivet nut manufacturer.

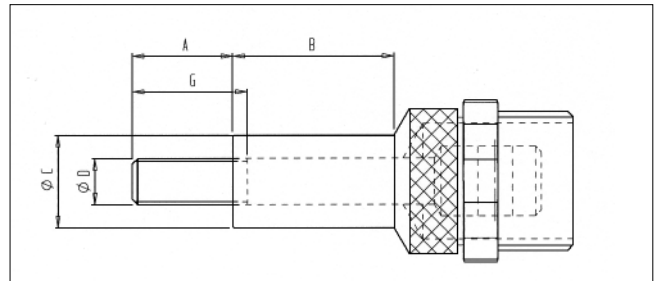
Operating Procedure

- Connect the tool to the compressed air supply.
- Position the blind rivet nut on the Mandrel (1). A slight pressure on the upper half of the Trigger (34) starts the clockwise rotation of the engine and the nut is spinded onto the Mandrel as far as the stop on the mouthpiece.
- Insert blind rivet nut 90 ° to the plate into the setting hole.
- Pressing the lower half of the release button will execute the set stroke and rivet the nut. The mandrel is automatically spinded out of the set nut.

Nose tips vary in shape according to the insert type. Each nose assembly can be ordered individually. Component numbers refer to the illustration. We recommend keeping some stock as items will need regular replacement. Read the Nose Assemblies servicing instructions carefully.

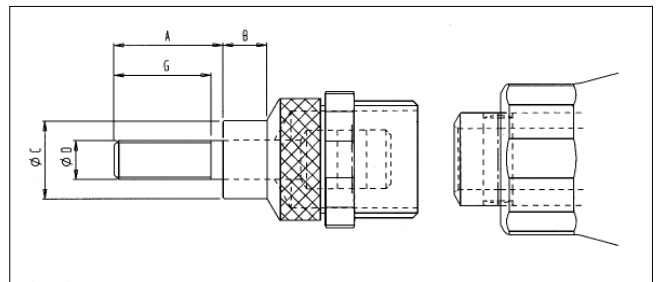
Mandrels and Mouthpieces XT912

D Ø mm	Mandrel	Mouth-piece	A	B	C	G
M 3	2111-3	2112-3	8-14	26	10	17
M 4	2111-4	2112-4	7-13	26	10	17
M 5	2111-5	2112-5	8-14	26	11	20
M 6	2111-6	2112-6	10-16	27	13	20
M 8	2111-8	2112-8	12-18	28	16	20
M10	2111-10	2112-10	14-20	28	18	20
M12	2111-12	2112-12	16-22	27	20	20



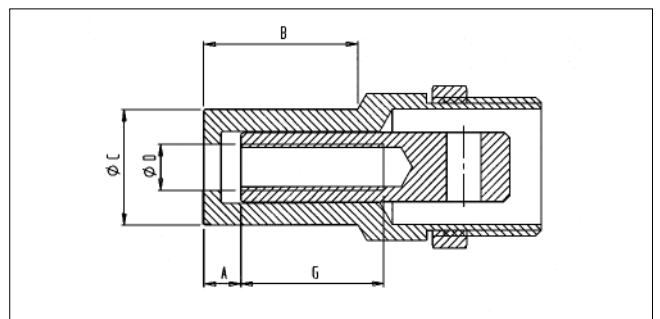
Mandrels and Mouthpieces XT912

D Ø mm	Mandrel	Mouth-piece	A	B	C	G
M 3	11685-3	11713-3	4-10	7	10	15
M 4	11685-4	11713-4	7-13	7	10	20
M 5	11685-5	11713-5	10-16	7	11	20
M 6	11685-6	11713-6	15-21	8	13	20
M 8	11685-8	11713-8	17-23	9	16	20
M10	11685-10	11713-10	20-26	9	18	20
M12	11685-12	11713-12	20-26	8	20	20



Mandrels and Mouthpieces XT912

D Ø mm	Mandrel	Mouth-piece	A	B	C	G
M 4	4331-4	4330-4	5,5-11,5	27	20	25
M 5	4331-5	4330-5	5,5-11,5	27	20	25
M 6	4331-6	4330-6	5,5-11,5	27	20	25
M 8	4331-8	4330-8	5,5-11,5	27	20	25



Dimensions are shown in millimetres

It is essential that the correct nose assembly is fitted prior to operating the tool. Details of the fastener to be placed, will enable you to order a complete new nose assembly using the selection tables on page 7.

Fitting instructions for Nose Assemblies

IMPORTANT!

The air supply must be disconnected when fitting or removing nose assemblies unless specifically instructed otherwise.

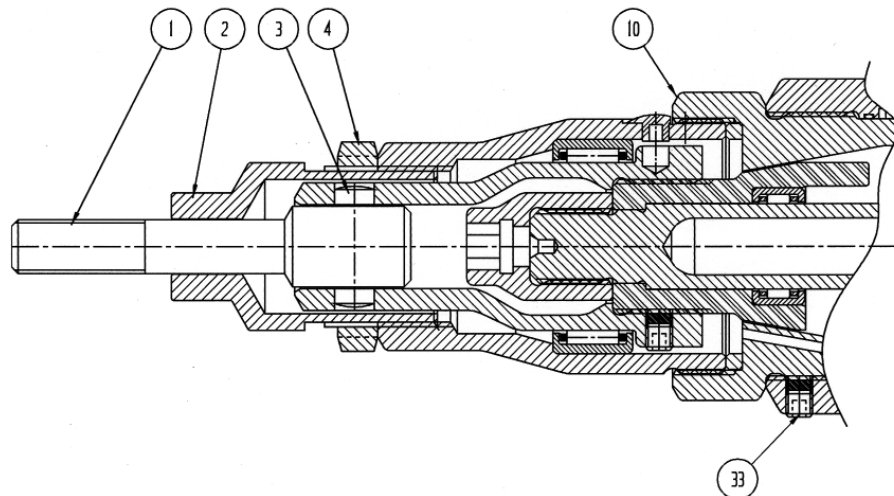
Item numbers in bold refer to illustration below:

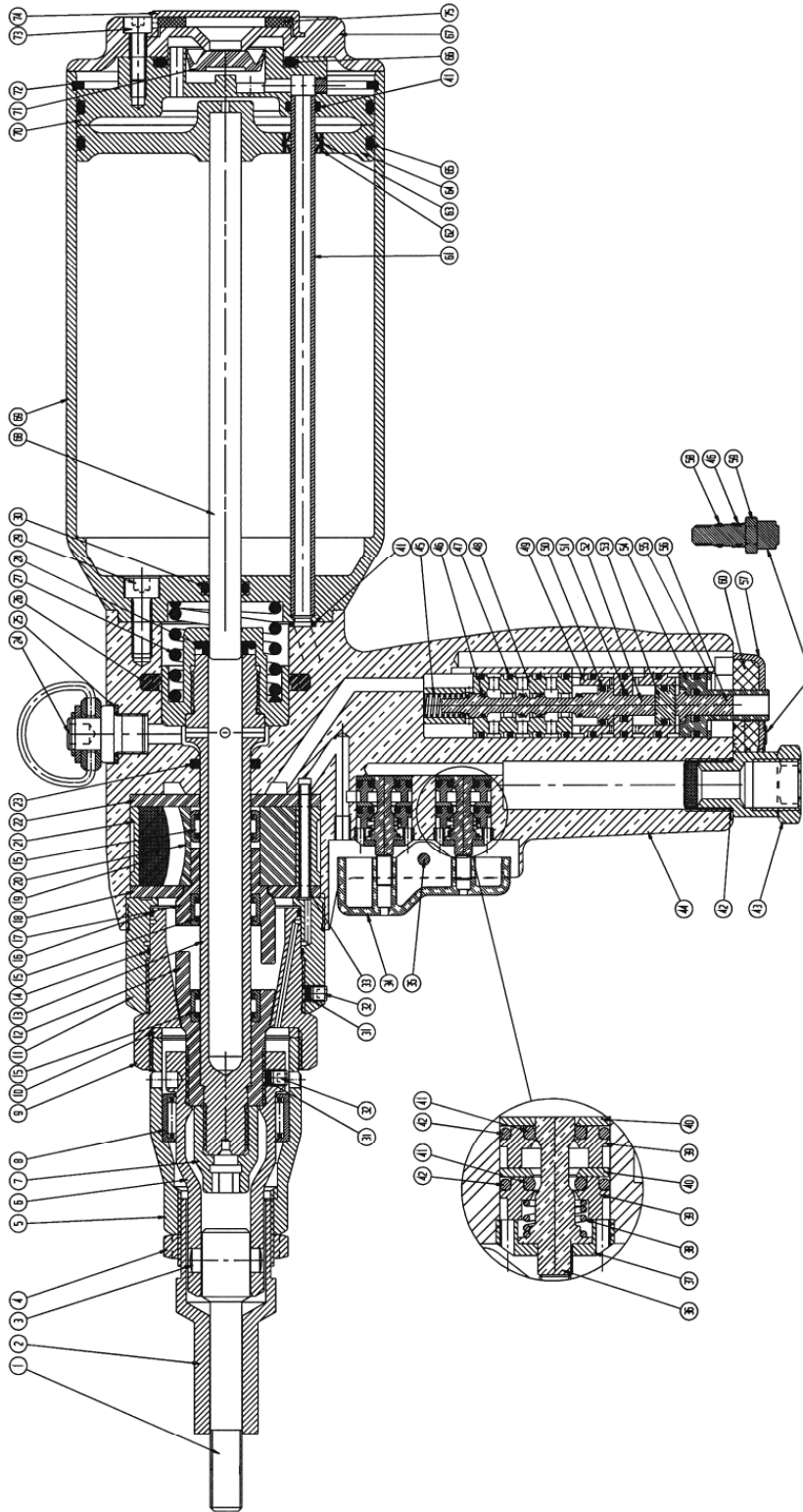
- Loosen the locknut **(4)**
- Remove mouthpiece **(2)** with Locknut **(4)**.
- Loosen the screws **(32)** and screw in the adjusting sleeve **(9)** completely.
- Pulling the pin **(3)**
- Removal of the mandrel **(1)**
- Assemble in reverse order
- Insert mouthpiece for selected rivet nut and tighten locknut **(4)**.

Servicing Instructions

Nose assemblies should be serviced at weekly intervals.

- Remove the complete nose assembly, see instructions above.
- Any worn or damaged parts should be replaced with new parts.
- Particularly check wear on Mandrel **(1)**.
- Assemble according to instructions above.





Spare Part List

Pos.	Art.No.	Description	Qty	Pos.	Art.No.	Description	Qty
1	2111-d	Mandrel	1	46	6421	O-Ring	5
2	2112-d	Mouthpiece	1	47	6430	O-Ring	9
3	5421	Pin	1	48	12357	Valve housing	1
4	2113	Locking nut	1	49	12359	Piston guide	1
5	12348	Housing	1	50	6427	O-Ring	2
6	12350	Mandrel holder	1	51	6426	O-Ring	2
7	12349	Nut	1	52	12358	Valve rod	1
8	6055	Bearing	1	53	12360	Piston	1
9	12346	Adjust. sleeve	1	54	12361	Holder	1
10	12347	Plate	1	55	5611	Locking ring	1
11	12345	Front plate	1	56	12362	Pressure rod	1
12	12351	Holder	1	57	12364	Cover	1
13	12341	Hydraulic piston	1	58	6422	O-Ring	1
14	6429	O-Ring	1	59	6856	Valve	1
15	6056	Bearing	3	60	12468	Filter	1
16	6428	O-Ring	1	61	2714-130	Tube	1
17	12352	Holder	1	62	6509	Packing	2
18	12353	Front plate	1	63	5649	Locking ring	1
19	2120	Blade	10	64	12372	Piston	1
20	12354	Rotor	1	65	6433	O-Ring	2
21	12355	Cylinder	1	66	6352	O-Ring	1
22	12356	Rear plate	1	67	12444	End piece	1
23	6481	Packing	1	68	5523	Piston rod	1
24	11873	Suspension ring	1	69	12445	Air cylinder	1
25	6521	Packing	1	70	12443	Housing	1
26	6568	Packing	1	71	2785	Membrane	1
27	5841A	Spring	1	72	5645	Locking ring	1
28	6560	Packing	1	73	5072	Screw	4
29	5125	Screw	4	74	2782	Cover	1
30	6322	O-Ring	1	75	12464	Filter	1
31	2153	Nylon plug	7				
32	5021	Screw	7				
33	5525	Pin	1				
34	11319	Trigger	1				
35	5482	Pin	1				
36	12365	Valve	2				
37	12363	Valve guide	2				
38	5896	Spring	1				
39	12338	Valve seat	4				
40	12366	Plate	4				
41	6313	O-Ring	7				
42	6317	O-Ring	5				
43	1438	Inlet adapter	1				
44	12339	Handle	1				
45	6219	Spring	1				

Regular servicing should be carried out and a comprehensive inspection performed annually or every 500.000 cycles, whichever is sooner.

IMPORTANT!

The employer is responsible for ensuring that tool maintenance instructions are given to the appropriate personnel. The operator should not be involved in maintenance or repair of the tool unless properly trained.

Daily

- Daily, before use or when first putting the tool into service, pour a few drops of clean, light lubricating oil into the air inlet of the tool if no lubricator is fitted on the air supply. If the tool is in continuous use, the air hose should be disconnected from the main air supply and the tool lubricated every two days to three hours.
- Check for air leaks. If damaged, hoses and couplings should be replaced with new items.
- If there is no filter on the pressure regulator, bleed the air line to clear it of accumulated dirt or water before connecting the air hose to the tool.
- Check that the nose assembly is correct.
- Check that the stroke of the tool is adequate to place the selected insert. (See stroke adjustment page 6).
- Inspect the Mandrel **(1)** in the nose assembly for wear or damage. If found, replace.

Weekly

- Check for oil leaks and air leaks on air supply hose and fittings.

CASTROL LMX Safety Data

First Aid

Skin:	Wipe off and wash with soap and water.
Ingestion:	No adverse effects are normally expected.
Eyes:	Irritant but not harmful. Irrigate with water and seek medical attention.

Environment

Scrape up for incineration or disposal at approved site.

Fire

Flash point	230°C, Not classified as flammable. Suitable extinguishing media: Carbon dioxide, foam, dry powder or fine water spray.
Handlin:	Plastic or rubber gloves should be worn.
Storage:	Away from heat and oxidising agents.

Complete Safety Data Sheet can be download from www.castrol.com.

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, when the stroke may be reduced and fasteners are not fully inserted.

Oil Details

The recommended oil for priming is Castrol Hispin AWS 32. Please see safety data next page. Complete Safety Data Sheet can be download from www.castrol.com.

Oil Safety Data

First Aid

- Skin:** Wash thoroughly with soap and water as soon as possible. Casual contact requires no immediate attention. Short term contact requires no immediate attention.
- Ingestion:** Seek medical attention immediately. DO NOT induce vomiting unless directed to do so by medical personnel.
- Eyes:** Irrigate immediately with water for at least 15 minutes. Seek medical attention if irritation occurs.

Fire

- Flash point** 222°C, Not classified as flammable. Suitable extinguishing media: CO₂, dry powder, foam or water fog. DO NOT use water jets.

Environment

- Water disposal:** Through authorised contractor to a licensed site. May be incinerated. Used product may be sent for reclamation.
- Spillage:** Prevent entry into drains, sewers and water courses. Soak up with absorbent material.

Handling

Wear eye protection, impervious gloves (e.g. PVC) and a plastic apron. Use in well-ventilated area.

Storage

Keep container tightly closed. Keep container in a cool and well-ventilated area.

Priming Procedure

IMPORTANT!

All operations should be carried out on a clean bench, with clean hands in a clean area. Ensure that the oil is perfectly clean and free from air bubbles. Care Must be taken at all times to ensure that no foreign matter enters the tool, as serious damage may result.

- Ensure that the air line is disconnected.
- Place the tool in an upright position, Oil screw **(24)** upwards.
- Unscrew Oil screw **(24)** with an allen key and remove with Seal **(25)**.
- Refill Hydraulic Oil in the hole and shake the tool to remove air bubbles.
- Mount Suspension Ring Oil screw **(25)** and Seal **(26)**.
- Connect air supply and run all functions a few times.
- Repeat the procedure 2 - 5 times until the oil is free from air.
- It is necessary to fit the appropriate nose equipment and adjust the tool stroke prior to operating the tool.

Item number in bold refer to general assembly drawing and spare part list (page 9-10).

Fehlerbeseitigung

Symptom	Possible cause	Remedy
Tool does not term	Low air pressure Air leak from motor Rotor blades jammed	Adjust to 5.5-7 bar / 75-100 SI Check seals and replace Lubricate tool through air inlet
Tool is jammed with insert	Defective insert Defective or worn Mandrel Excessive stroke	Try to run spin off function manually by pushing Valve (56). If not, loosen Locking Nut (4) and turn in Nose piece (2) and try manual spin off again. If not, remove Plug, lock the rotation with a pin and turn the tool until the insert comes out. Change Mandrel and insert.
Mandrel breaks	Side load on Mandrel Excessive stroke	Place tool square to application Adjust stroke length
Tool does not pull and deform insert	Low air pressure Low oil level Incorrect stroke	Adjust 5.5-7 bar / 75-100 SI Prime tool Adjust stroke length
Trigger does not work	Jammed valves Trigger is jammed	Clean and grease valves, check springs Adjust so that Trigger (34) moves easily
Tool leaks oil	Worn or defective seals Suspension Ring loose	Replace seals, use BAHCO Seal-kit, and prime tool Prime tool and tighten Suspension Ring

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