

## TRANSLATION OF ORIGINAL INSTRUCTIONS

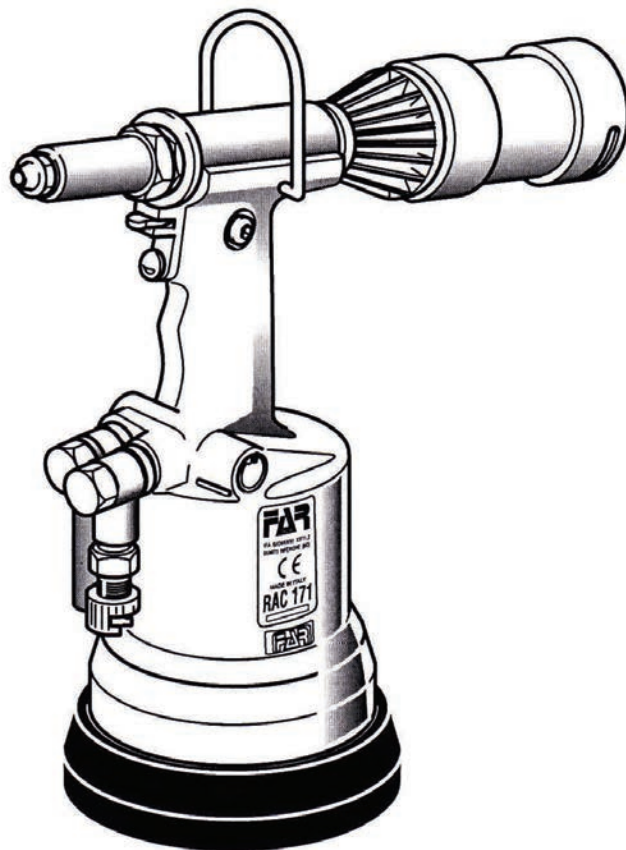
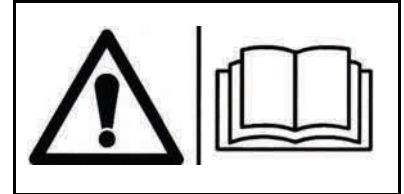
OIL PNEUMATIC RIVETING TOOL

FOR RIVETS Ø 4.8 \* - Ø 7.8 \*\* ( \* ALUMINIUM EXCLUDED

\*\* ALUMINIUM ONLY)

FARBOLT, MAGNA-LOK®, MONOBOLT® Ø 4.8 (3/16") - Ø 6.4 (1/4")

**INSTRUCTIONS FOR USE**





The undersigned Far S.r.l., having its office in Quarto Inferiore (BO), Via Giovanni XXIII No. 2, herewith

**DECLARES**

on its sole responsibility that the riveting machine

Type: RAC 171- Hydropneumatic tool Application: for rivets diameter. 4.8—7.8 (4.8 aluminium excluded)

which is the object of this declaration complies with the basic safety requirements established in the law decree Leg. D. 17/2010 of Machinery Directive 2006/42/CE acknowledge and subsequent amendments and integrations.

The person who is authorized to create the technical brochure is

Giacomo Generali, c/o Far S.r.l., head office in Quarto Inferiore (BO), via Giovanni XXIII n. 2.

Quarto Inferiore, 23-03-2010

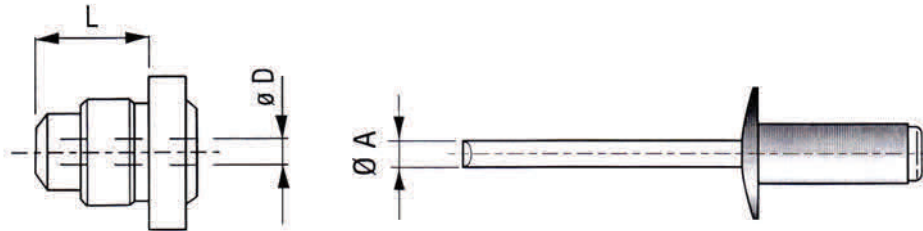
**Far S.r.l. – Giacomo Generali**  
 (Chairman of the Board of Directors)

**GENERAL NOTES AND USE**

The tool must be used for rivets diam. 4.8 (aluminium excluded) - 7.8 mm (aluminium only).

The riveting tool **RAC171** can also work with rivets type **FARBOLT**, **MONOBOLT®** and **MAGNA-LOK®** Ø 4.8 (3/16") - Ø 6.4 (1/4") by previous replacement of nozzles, cone and clamps.

The **RAC 171** oil pneumatic system assures more power than the pneumatic system used for other models. That means a reduction in the problems due to the wear and tear of the components; therefore, there will be an increase in reliability. The technical solutions adopted reduce the dimensions and the weight of the tool which, for these reasons, make it very handy. The possibilities of leakage from the oil-dynamic system are eliminated by some sealed gaskets, which solve this problem.



Code	L	Ø D	Ø A ÷
717004	12.5	3.4	2.9 ÷ 3.2
717005	14	4	3.4 ÷ 3.5
717007	15	4.5	3.8
717015	10	4.1	4 *
717016	9	3.1	3 *
717018	9	3.3	Magna-Lok® Ø 4.8 (3/16")
717019	10.5	4.5	Tamp-ace. Ø 6 Tamp-Inox Ø 6.4 Magna-Lok® Ø 6.4 (1/4")

\* **FARBOLT-MONOBOLT®**

**INSTRUCTIONS FOR USE**

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**GUARANTEE**

**FAR** riveting tools are covered by a **12-month** warranty. The tool warranty period starts on the date of delivery to the buyer, as specified in the relevant document. The warranty covers the user/buyer provided that the tool is purchased through an authorized dealer and only if it is used for the purposes for which it was conceived. The warranty shall not be valid if the tool is not used or maintained as specified in the instruction and maintenance handbook. In the event of defects or failures, **FAR S.r.l.** shall undertake solely to repair and/or replace the components it judges to be faulty.

**SAFETY MEASURES & REQUIREMENTS**



**CAUTION!!!**

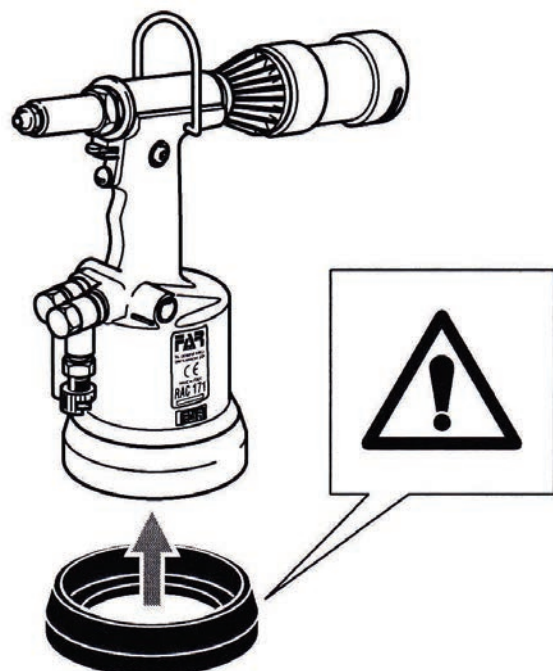
All the operations must be done in conformity with the safety requirements, in order to avoid any consequence for your and other people's security and to allow the best tool work way.

- The tool needs a thorough six-monthly overhaul.
- Repairing and cleaning operations must be done when the tool is not fed.
- If it is possible, we suggest a safety balancer.
- If the A-weighted emission sound pressure level is more than 70 dB (A), you must use some hearing protections (anti-noise headset, etc.).
- The workbench and the work surface must be always clean and tidy. The untidy can cause damages to people.
- Do not allow unauthorized persons to use the working tools.
- Make you sure that the compressed air feeding hoses have the correct size to be used.
- Do not carry the connected tool by pulling the hose. The hole must be far from any heating sources or from cutting parts.
- Keep the tools in good conditions; do not remove either safety parts or silencers.
- After repairing and/or adjusting, make sure you have already removed the adjusting spanners.
- Before disconnecting the compressed air hose from the tool make sure that there is no pressure in the hose.
- These instructions must be carefully followed.

**WARNING!**

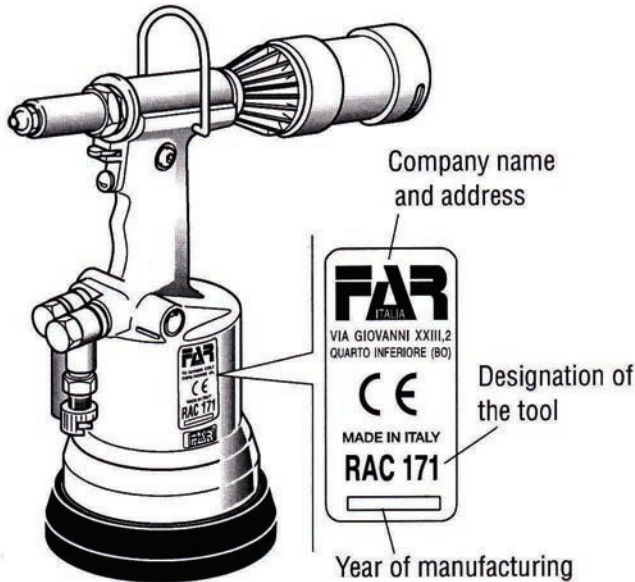
Before using the tool, assemble the protection bottom supplied with the tool, as indicated in the picture below. **FAR** has no responsibility for any damages of the tool, person or things caused by lack of the protection.

- Read the instructions carefully before using the tool.
- For all maintenance and/or repairs please contact **FAR s.r.l.** authorized service centers and use only **original spare parts**. **FAR s.r.l.** may not be held liable for damages from defective parts caused by failure to observe what above mentioned (**EEC directive 85/374**).
- The tool must be used only by expert workers.
- A protective visor and gloves must be put on when using the tool.
- Use equipment recommended in the maintenance chapter to do any maintenance and/or regulation of the tool.
- For topping up the oil, we suggest using only fluids in accordance with the features specified in this working book.
- If any drop of oil touches your skin, you must wash with water and alkaline soap.
- The tool can be carried and we suggest putting it into its box after using.



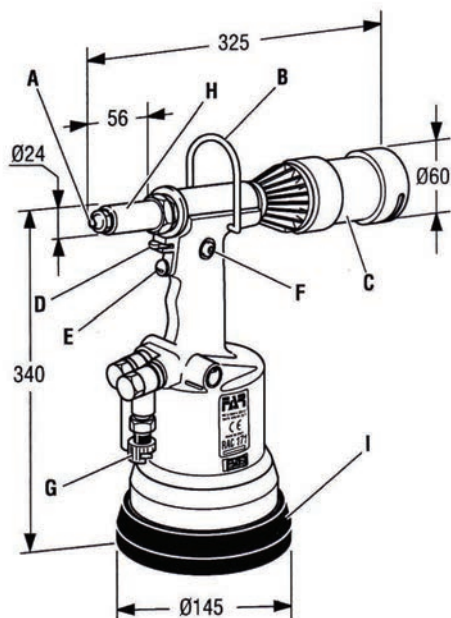
**TOOL IDENTIFICATION**

The riveting tool RAC 171 is identified from a marking that shows company name and address of manufacturer, designation of the tool, CE mark and year of manufacturing. If any service is requested, please make reference to the data shown on the marking.



**MAIN COMPONENTS**

- A) Nozzle
- B) Balancer connection
- C) Nails tank
- D) Suction opening lever
- E) Tensile strength button
- F) Oil tank plug
- G) Compressed air connection
- H) Head carrying nozzle
- I) Protection bottom



**TECHNICAL DATA**

- Working pressure 6 BAR
- Min. int. diam. Of the compressed air feeding hose Min. diam = 8 mm
- Air consumption per cycle 10 NI
- Maximum force 6 BAR – 17273 N
- Stroke 25.5 mm
- Weight 2.9 Kg
- Working temperature -5°/+50°
- Root mean square in total acceleration frequency (Ac) to which the arms are subjected 2.2 m/s<sup>2</sup>
- A-weighted emission sound pressure level 67 dBA
- Peak C-weighted instantaneous sound pressure <130 dBC
- A-weighted emission sound pressure 87 dBA

**AIR FEED**

The air feed must be free from foreign bodies and humidity in order to protect the tool from premature wear and tear of the components in movement, therefore we suggest to use a lubricator group for compressed air.

**HOW TO USE YOUR RIVETING TOOL (fig. f1-f2-f3)**

**WARNING!**

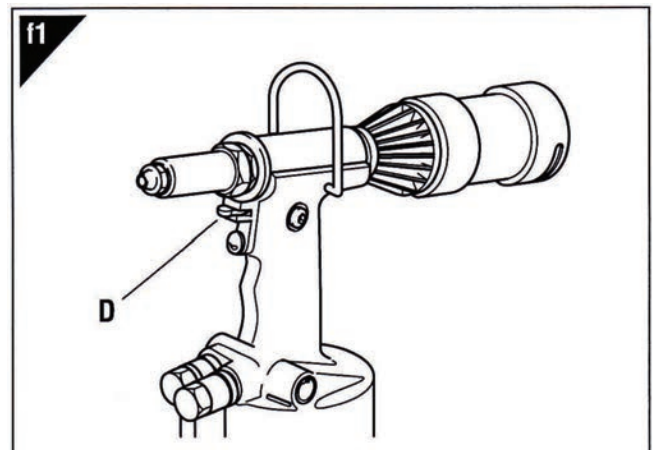
Before using the tool, it is compulsory to fit the nails tank (C) and the nails baffle (L).

Press lightly for assembling the nails baffle (L), as shown in the figure f3.

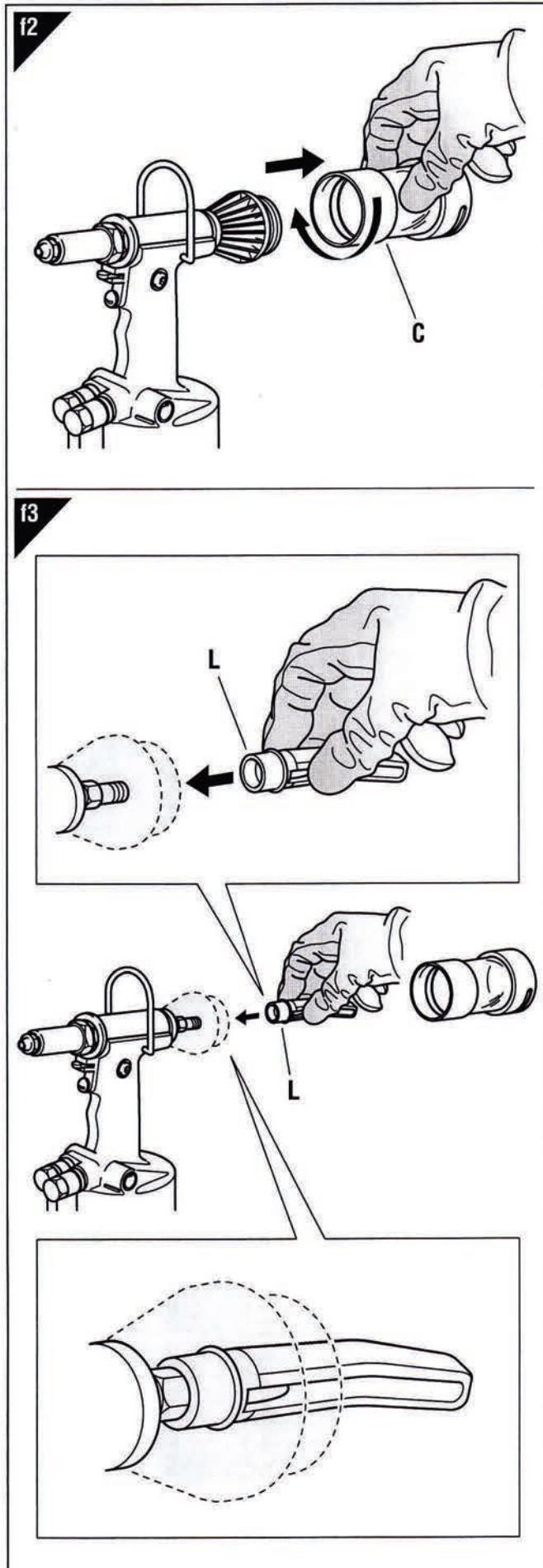
After clamping, the sheared nail is piped by the riveting tool and ejected from the back. By swinging the lever (D) you can activate the suction. By the suction nail system, the rivet remains in the nozzle also turning over the head of the riveting tool downwards: this detail increases a lot of usefulness of the riveting tool.

**Do not keep the rivet with your fingers!**

If you use the nails tank (C), when its full of nails do not use the riveting tool. Disconnect the tool, unscrew the nails tank (C) and empty it properly. **DO NOT DISPERSE ANY NAIL!** Screw the nails tank (C) and start again to work.







**TOPPING UP THE OIL-DYNAMIC CIRCUIT (fig. f8)**

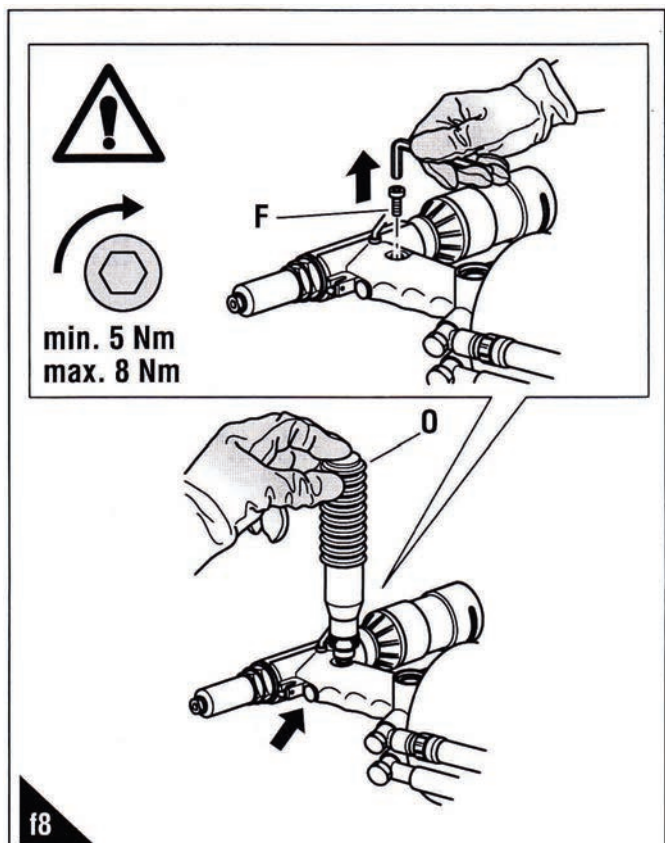
You need to top up the oil-dynamic circuit after a long period of work, when you note a power loss.

Put the riveting tool (**DWELL AND NOT FED**) in a horizontal position

and remove the plug (**F**), by means of a 5 mm Allen wrench (equipped with the riveting tool); during this operation, check the oil level in order to avoid any overflowing. Then, slowly pour the oil **PANOLIN HLP ISO 32** into the bellows container (**O**) which shall be screwed to its seat on the plug (**F**). While keeping the riveting tool in a horizontal position and starting air feeding, push the tensile strength button and make the riveting tool carry out some cycles until air bubbles inside the container (**O**) stop coming out. This condition indicates that the topping up of the oil has fully been achieved. At this point stop the air feeding and, while keeping the riveting tool in a horizontal position, unscrew and close up the container (**O**) and the plug (**F**).

**WARNING:** it is very important to follow the about mentioned instructions and use gloves. If you need to empty fully the hydraulic circuit, you must put the oil in a suitable container and contact a Company that is authorized to discharge any waste.

**ATTENTION!**  
 Before disconnecting the compressed air hose, make sure that it is not under pressure!  
**ATTENTION:** Make sure that the oil filter cap (**F**) is tightened at a torque corresponding to **Min. 5 Nm ÷ Max. 8 Nm**.  
 We recommend to use oil **PANOLIN HLP ISO 32 DIN 51524-2/HLP** or similar.




**MAINTENANCE AND CHANGE OF SIZE (fig. f3-f4-f5-f6)**

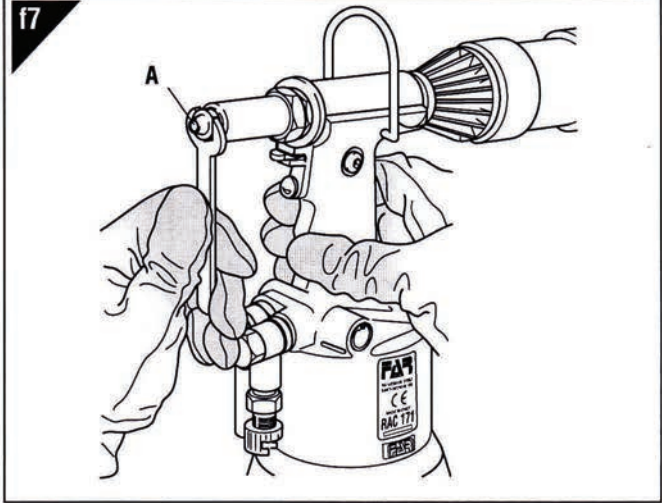
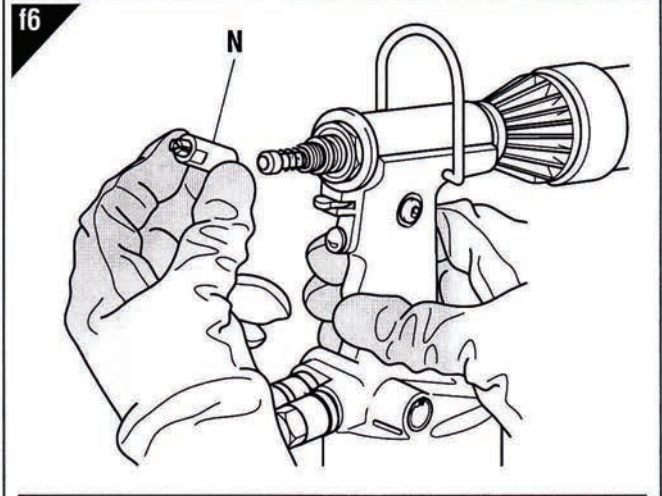
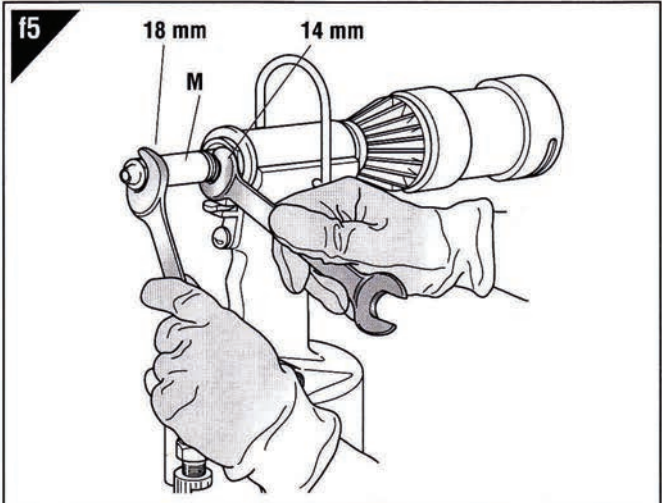
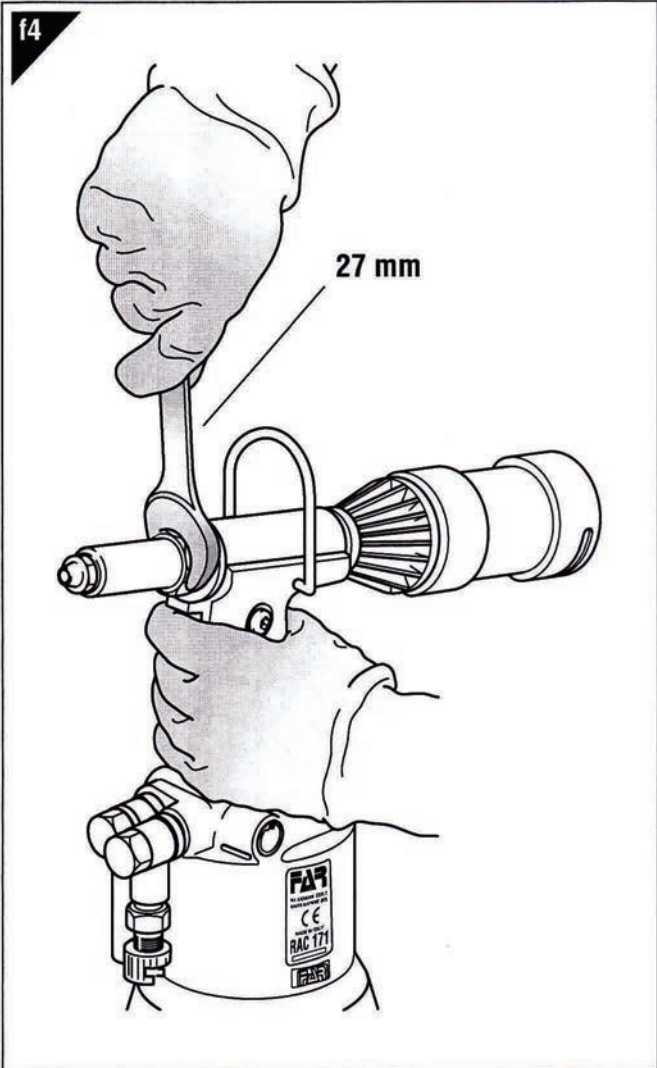
The extended utilization of the riveting tool can cause the slipping of the clamps on the nail due to the deposited impurities.

For this reason, it is necessary to lubricate the clamps after having cleaned them. However, if clamps are worn out and as a consequence their working is jeopardized, replace them. First remove the head which carries the nozzle (H), by means of a standard spanner of 27 mm. Then, by using two spanners of 18 mm and 14 mm, remove the chuck (M) and extract the clamps (N).

The riveting tool is supplied, besides the nozzle series for FAR rivets, with a series of accessories for using the rivets type **FARBOLT**, **MONOBOLT**® and **MAGNA-LOK**®, respectively of Ø 7.4 (3/16") and Ø 6.4 (1/4"). For operating with these rivets you have to replace the nozzles, the clamps and the cone holding clamps.

When replacing the nozzle (A), we recommend to use a 12-mm standard spanner and fit the removed nozzle in the proper housing located on the bottom of your riveting tool, in order to avoid losing the nozzle.

 **WARNING!**  
Disconnect air feed when performing those operations.



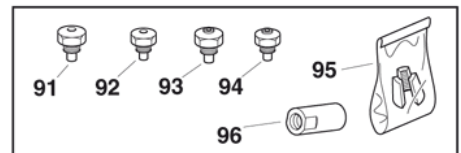
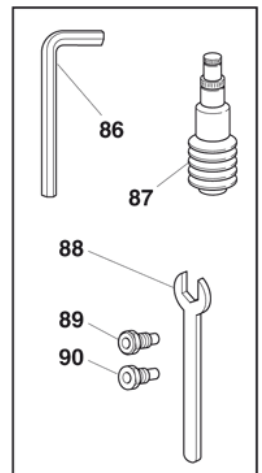
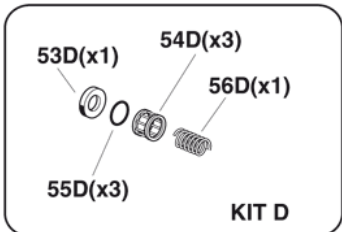
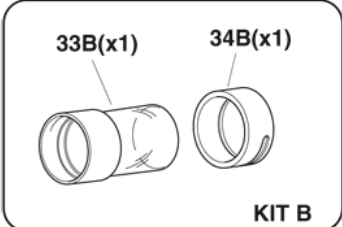
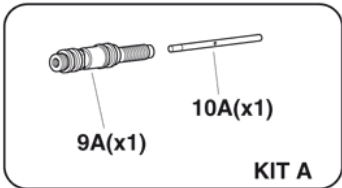
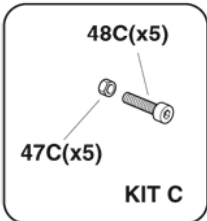
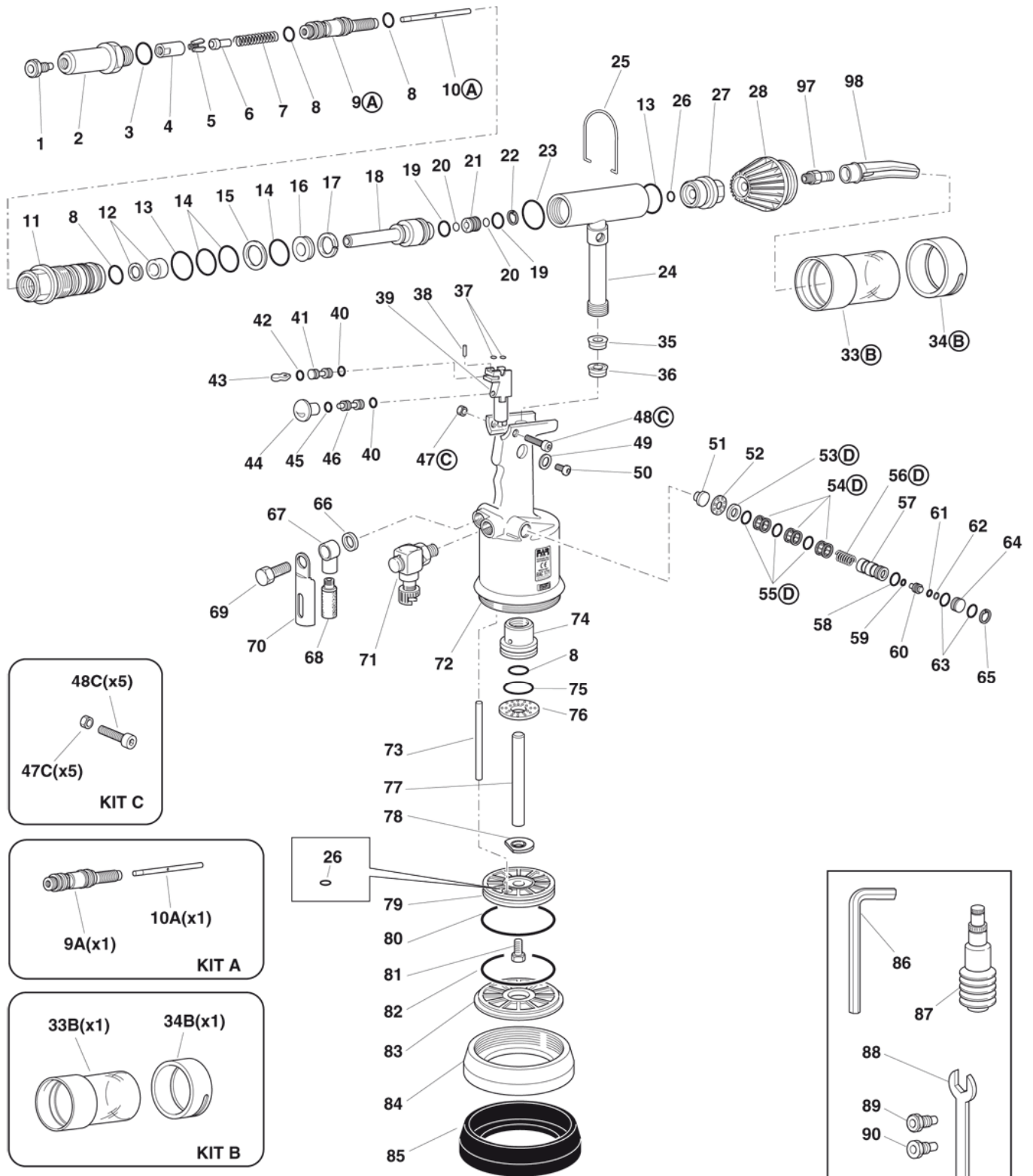
**DISPOSAL OF THE RIVETING TOOL**



Follow the prescriptions of the national laws for disposing of the riveting tool.

After disconnecting the tool from the pneumatic system, disassemble and split all the components according to the material: steel, aluminium, plastic material, etc.

Then proceed to scrap the materials in accordance with current laws.





Pos.	Code	Description	Qty
01	717004	Nozzle for rivet ø 4,8 Cu / Steel	1
02	713253	Sleeve carrying nozzle	1
03	711337	Gasket OR 2-021	1
04	710562	Clamps holding cone	1
05	71345507	High-performance clamps	3
06	711270	Clamps opener	1
07	710853	Clamps return springs	1
08	711336	Gasket OR 2-114	4
09A	713254	Cone holder	1
10A	713249	Expeller sleeve	1
11	713255	Front connector	1
12	711722	Gasket B-094063-B / NEI	1
13	713272	Gasket OR 2-125	2
14	713278	Gasket OR 2-122	3
15	713277	Ring Parbak 8-122	1
16	713276	Gasket TSE-134094	1
17	713258	Anti-extrusion ring	1
18	713251	Oil-dynamic piston	1
19	713273	Gasket OR 17,5 x 1,5	2
20	713274	Gasket OR 8 x 1,5	2
21	713247	Bush	1
22	711821	Seeger ring JV 20	1
23	713275	Gasket OR 2-122	1
24	723269	Oil-dynamic cylinder	1
25	710873	Balancer hook	1
26	710350	Gasket OR 2-109	2
27	713250	Back connector	1
28	711273	Container connector	1
33B	710819	Nails container	1
34B	711136	Air conveyor	1
35	713282	Gasket TSE 16 x 23 x 6	1
36	713281	Gasket TTS 16 x 23 x 5,8 / L	1
37	710367	Gasket OR 2-008	2
38	711234	Pin ø 2 x 11,8	1
39	721275	Long valve body	1
40	710918	Gasket OR 2-005	2
41	711254	Valve piston	1
42	711338	Gasket OR 2-003	1
43	711261	Leve for inlet opening	1
44	710824	Push button	1
45	710919	Gasket OR 2-004	1
46	711253	Valve piston	1
47C	712145	Nut M 3 UNI 5587	1

Pos.	Code	Description	Qty
48C	712144	Screw TCCE M3 x 20 UNI 5931	1
49	710906	Washer 400-020-4490	1
50	710839	Oil tank plug	1
51	711259	Service plug	1
52	712117	Washer	1
53D	710840	Valve spacer	1
54D	710823	Cage	3
55D	710921	Gasket OR 2-115	3
56D	711158	Coil return spring	1
57	710841	Coil	1
58	710916	Gasket OR 2-015	1
59	710528	Gasket OR 008	1
60	710822	Valve piston	1
61	710258	Gasket OR 5-612	1
62	710905	Seeger ring 11 UNI 7437	1
63	710922	Gasket OR 018	2
64	712268	Spring guide plug	1
65	710402	Seeger ring 22 UNI 7437	1
66	712282	Safety washer $\varnothing$ 12,7	1
67	710909	Connector 2023 - 1/4"- 1/4"	1
68	711304	Silencer 1/4"	1
69	711305	Connector 1631-01 - 1/4	1
70	712162	Outside silencer protection	1
71	712133	Rotating connector	1
72	721224	Riveting tool body	1
73	711252	Tube $\varnothing$ 8 x 7	1
74	713245	Rod guide connector	1
75	711339	Gasket OR 2-129	1
76	713246	Shock absorber	1
77	713243	Rod	1
78	713244	Washer	1
79	721226	Pneumatic piston	1
80	711340	Gasket OR 2-343	1
81	710596	Screw TE M10 x 17	1
82	711386	Gasket OR 2-045	1
83	711255	Bottom plate	1
84	711225	Cylinder cover	1
85	711737	Protection bottom	1
86	711092	Wrench 5 mm	1
87	721387	Oil container	1
88	713391	Flat key 12 mm	1
89	717005	Nozzle for rivet $\varnothing$ 6 / 6,4	1
90	717007	Nozzle for rivet $\varnothing$ 7,8	1

Pos.	Code	Description	Qty
91	717018	Nozzle for rivet Magna-Lok® ø 4,8 (3/16")	1
92	717019	Nozzle for rivet Magna-Lok® ø 6,4 (1/4")	1
93	717015	Nozzle for rivet Farbolt, Monobolt® ø 6,4 (1/4")	1
94	717016	Nozzle for rivet Farbolt, Monobolt® ø 4,8 (3/16")	1
95	713213	Clamps for Farbolt, Monobolt®, Magna-lok®	3
96	711356	Cone holding clmaps for Farbolt, Monobolt®, Magna-lok®	1
97	711370	Out put connector	1
98	71345212	Nails baffle	1

**KITA 743254 Cone holder kit**

Code	Description	Qty
713254	Cone holder	1
713249	Expeller sleeve	1

**KITB 740819 Nails container kit**

Code	Description	Qty
710819	Nails container	1
711136	Air conveyor	1

**KITC 742144 Screw M3 kit**

Code	Description	Qty
712145	Nut M3 UNI 5587	5
712144	Screw TCCE M3 x 20 UNI 5931	5

**KITD 740840 Valve spacer kit**

Code	Description	Qty
710840	Valve spacer	1
710823	Cage	3
710921	Gasket OR 2-115	3
711158	Coil return spring	1