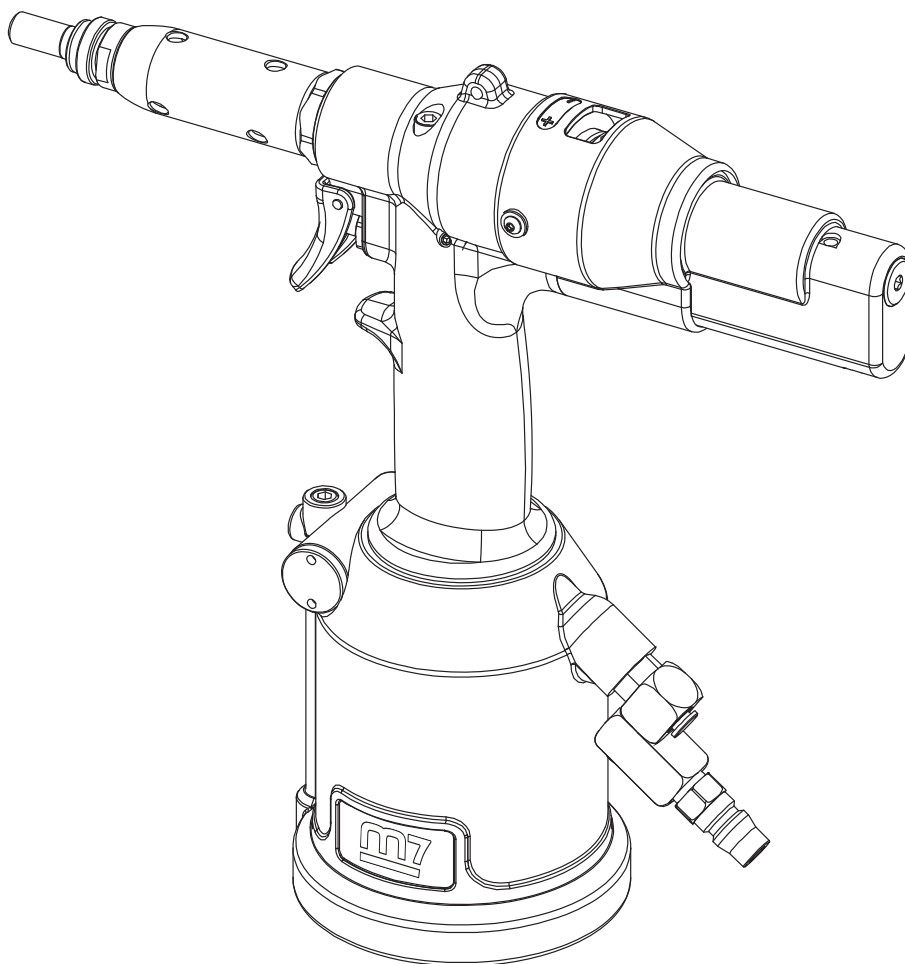


User's Manual

m7

AIR HYDRAULIC RIVETER

- Riveteuse Pneumatique
- pneumatisch-hydraulisches Nietgerät
- Remachador Hidráulico Neumático
- Rebitadeira hidro-pneumática
- Пневмозаклепочник
- 气动拉钉机



PB-2501 AIR HYDRAULIC RIVET NUT TOOL M3~M12

PRODUCT USER MANUAL V1.01

Complete air tool solutions
www.mighty-seven.com



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1 Security Introduction

Please read the operator's manual for the safety of the content, and observe the following precautions:

1. This product is only suitable for single person operation and educated trained personnel may use this product.
2. The operator must not wear loose clothing, neckties, jewelry, to avoid being caught by the tool, causing injury.
3. If you pull the cap has been installed on the rod, and do not directly touch the pull cap end.
4. Compressed air pressure shall not exceed 7bar.
5. To ensure the quality of life of the tool and the well work of the tool, the air must pass through 3 assemble points (regulator - filtration - Lubrication) processing.
6. When you are using the product, please wear safety glasses.
7. Do not operate the product in front or around people
8. Products need to be placed under a rubber mat platform and avoid the product fall down
9. For any product repair or adjustment, remember to disassembly the tool first
10. Before any adjustments in the product, service, cleaning and maintenance , be sure to cut off the compressed air source connection.
11. For the work area keep it clean and tidy.
12. Avoid hose near heat sources or sharp objects.
13. If you accidentally let the oil gets on your skin, wash with soap and alkaline water.
14. Do not use the products in the flammable and explosive environment and possible burning environment











2 Product Information

2.1 Product working capabilities

Pull cap applicable specifications: M3 ~ M12.

Applicable pull cap material: aluminum pull cap, pull the cap iron, stainless steel pull cap.

2. 2 Technical Data

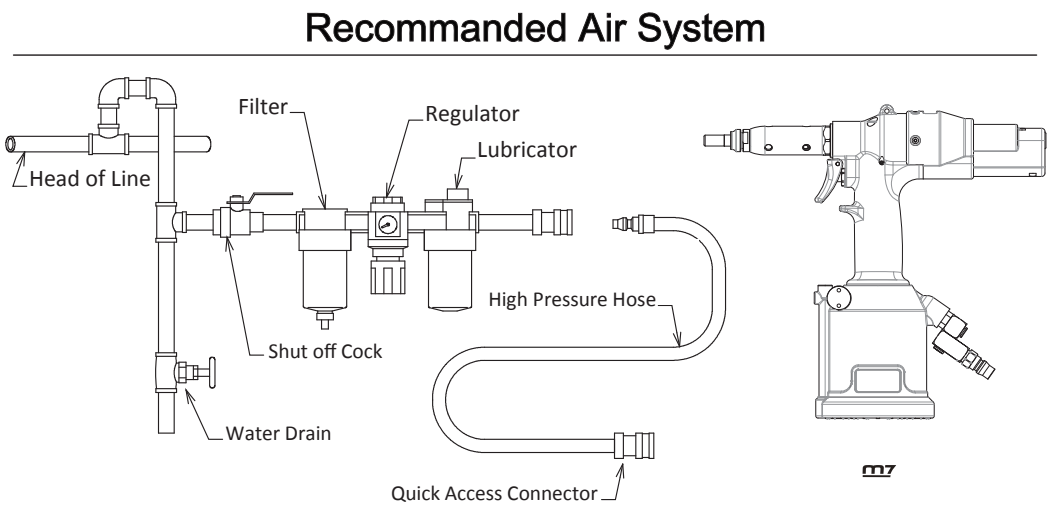
Item No.	Rivet Nut Capacity	Stroke	Max Power	Ave. Air Consumption	Air Pressure	Overall Length	Net Weight	Net Weight	Air Hose	Sound Pressure	Vibration level
	mm	mm	N(kg)	CFM	PSI (bar)	mm(Inch)	kg	LBS	inch	dBA	m/s²
Illustrator			N								
PB-2501	M3-M12	0-6.5	21,000(2100)	7.5	90(6.3)	310(12-1/4")	2.5	5.51	3/8"	80.0	2.5



Operating Pressure	M3	M5	M6~M12
Psi	25	45	90~100

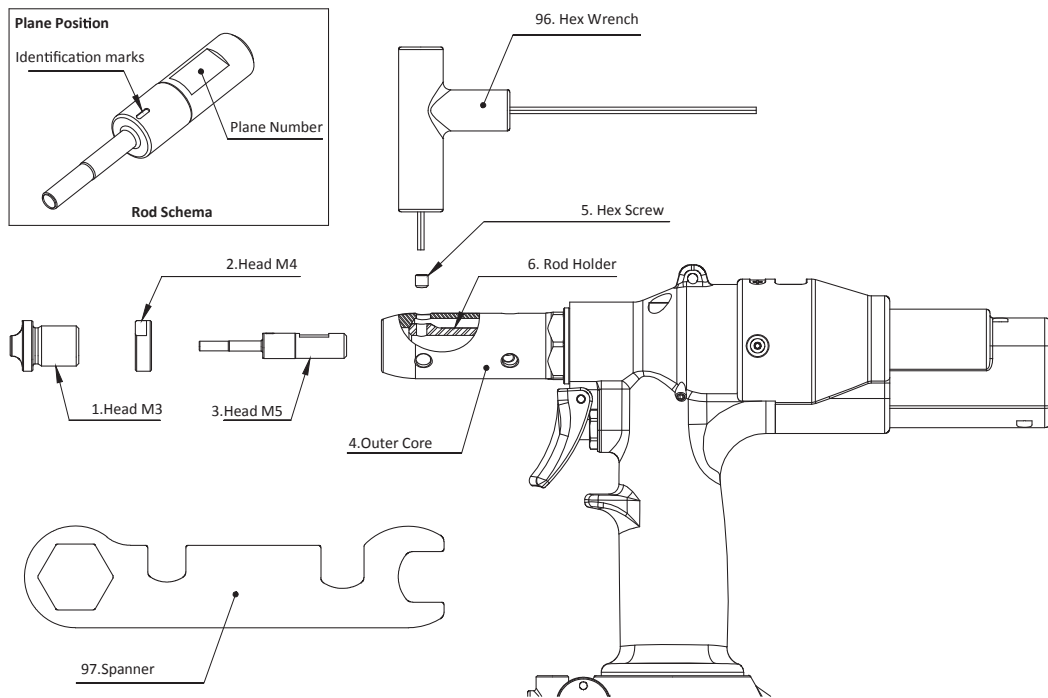
3 Preparing for use

3.1 Recomended compressed air supple



Compressed air systems subject for the 3 assembly points (regulator - filter - lubricate) treatment to remove dust, moisture, impurities, and to provide proper lubrication.

3. 2 Replacing the rod

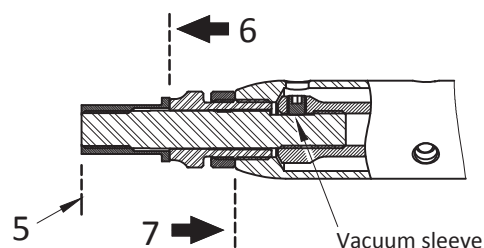


When the lever (# 3) of thread specifications are subject to change, you need to pull the lever and cap head (# 1) with the replacement of the two specifications must be consistent, be careful and replace it by the following steps:

== Security Warning ==

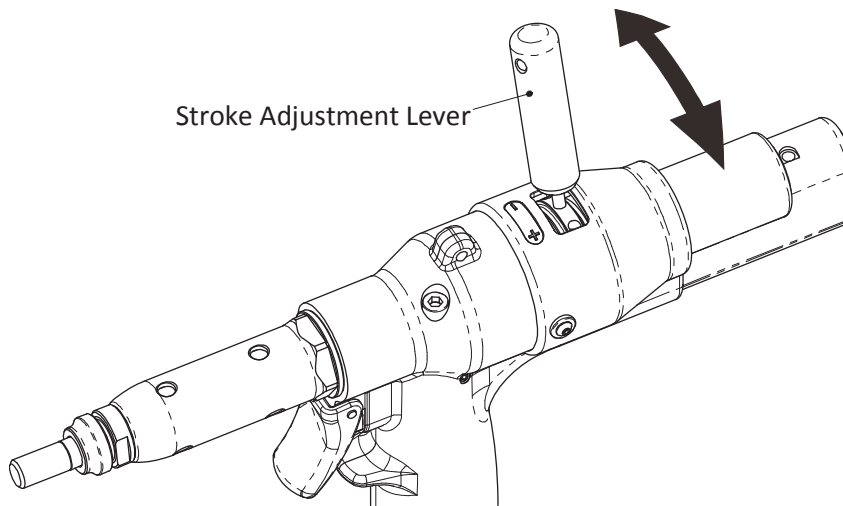
Implement the rod replacement before any operation, and be sure to pull the cap off the gun compressed air source connection.

1. Using a wrench (# 97) pull the cap head nut (# 2) Loosen the counter-clockwise screws and remove and pull the cap head (# 1).
2. Use a hex wrench (# 96) to remove the head screw (# 5) Loose the screws and remove the lever in a counterclockwise direction.
3. Replace the Stem to lock the Rod holding tube (# 6) Pull the lever at the plane aligned with the screw holes (Refers to the figure lever position mark) with an hex wrench loose the head screws (# 5) Please note that the screws must be locked in the milling plane place, otherwise it will not hurt the threaded rod.
4. Will pull the cap head nut (# 2) with screw cap head and pull the Stem according to its specifications (# 1), together with the lock into the tapered outer tube (# 4)
5. Will pull the cap screwed into the Stem, and pull the cap to adjust the front end alignment rod. °



6. Adjust Rivet Nuts head (# 1) stick to pull the cap
7. Will pull the cap head nut (# 2) locking.

3.3 Adjustment lever stroke / pressure regulator working pressure



Please follow these steps:

1. Connect the Rivet nut connecting compressed air source.
2. For the first time, please set the air pressure 5 bar or less. Excess pressure may damage the cap or pull rod thread, the smaller the diameter of the rod could break the tool
3. According to the thickness of a plate holder, with the stroke adjustment lever (# 95) will stroke adjustment ring (# 41) to mark "+" or "-" direction rotated to the appropriate location.
4. Will pull the cap on the positive rod tip with a little force to push the direction lever, rod flinch slightly, but will pull the cap screwed into place automatically.
5. Pull the cap to be installed into the hole in the metal plate and make the axis of rod riveting metal plate to appear before the 90-degree vertical position.
6. Hold the board machine (# 23) to maintain the first part after switching it does not move, (and you feel any resistance in this case, the first section of the switch), Rod began to pull back and the rivet deformation is complete
7. Hold back second plate, (break through the resistance is on the second section, the trigger pull buckle in the end gear), then begin to reverse the pull rod cap exit.
8. If you pull the cap deformation is insufficient, or the job is very slow, probably the working air pressure is insufficient, please moderately increased air pressure.

9. If you Rivet Nuts riveting case does not meet the needs of the stroke adjustment ring (# 41) to mark the "+" direction of rotation increases travel distance, contrary to the stroke adjustment ring marked "-" direction of rotation to reduce travel distance.

Notice !!

If the lever stroke is insufficient, Pull the cap that would not be able and make it firmly fixed to in the metal plate

If the stroke is too large, You could damage the threads just pull the cap and rod.

4 Operating Instructions

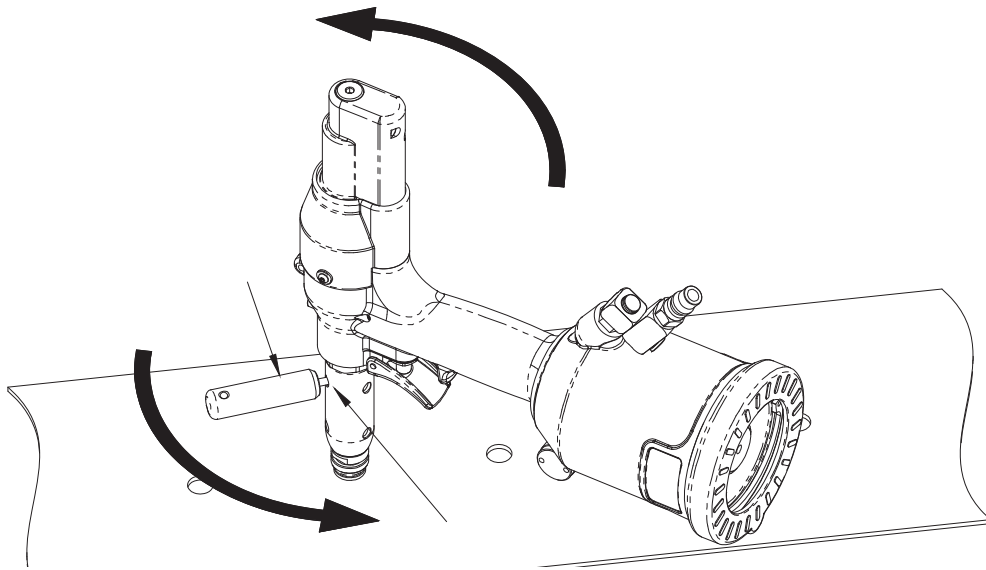
4.1 Method of operation

1. First cut pull cap gun compressed air source link.
2. Replace with the rod required for the job lever.
3. Adjust the lever stroke is based on the thickness of the sheet metal parts
4. Drag the cap gun connected compressed air source.
5. Pull the cap alignment with the rod, applying a little force to the push rod, rod back down slightly, but will pull the cap screwed into place automatically.
6. Will set into the pull-Rivet Nut hat tip inserted into the hole sheet metal parts, buckle plate machine maintained after the first paragraph does not move until the pull cap riveting finish.
7. Continue to pull the trigger of the second part of the buckle to finally stick and pull the lever back till reversed .

Notice !!

When is the first time to use set up the way to use , You need to set the air pressure 5 bar or less . Excess pressure may damage the cap or pull rod thread, The smaller the diameter of the rod could be broken.

4.2 Forced out



When not automatically withdraw from the case, use the stroke adjustment rod into the tapered outer tube (# 4) exit lock hole, the internal lever fixed tube (# 6) lock, and counterclockwise rotation pull cap gun to force to withdraw.

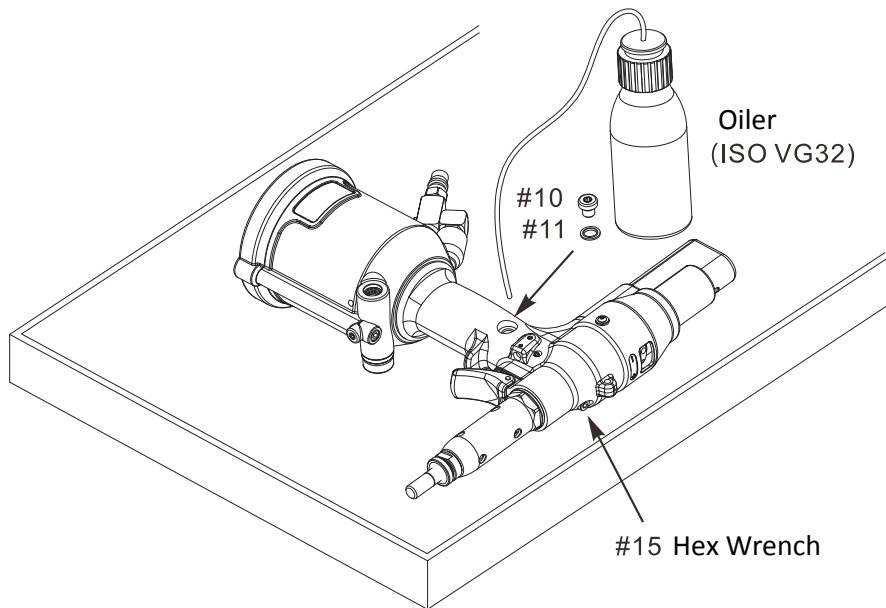
5 Product Maintenance

5.1 Routine maintenance

1. Provide the Lever for the supplies, in order to ensure the accuracy and quality of work, please view the wear and tear to be replaced periodically, or likely to cause damage to Rivet Nuts thread.
2. If you spin out is not hinder the smooth Rivet Nuts, be sure to replace the lever.
3. When pulled the Rivet it didn't put in the correct state, the implementation of "screwed - Riveting - spin out" in action, check whether or not there is an exception.
4. Each riveter 300 Rivet Nuts, must be pull rod with lubricant.
5. To ensure the products' performance, routine maintenance, please check all parts if there is abnormal leakage, spills or abnormal sound, if necessary by your local dealer or repair by the Company.

5.2 Supplementary hydraulic oil in hydraulic system

When the product is working and the stroke is reduced, you must add the hydraulic oil, the steps described below show how to do it:



1. Pull off the Riveter compressed air source link, The tool flat on the workbench.
2. The socket head screws (# 15) reversed release about 3 laps.
3. Remove the sealing screw (# 10) and washer seal (# 11).
4. Using hydraulic oil (ISO VG32) and inject it slowly, until the oil is filled in the hydraulic circuit. When the oil from the (# 15) socket head screws are overflow, it means that the oil has been completely filled.
5. Will be socket head screws (# 15) tighten.
6. The sealing screw (# 10) and washer seal (# 11) should be lock and back to the grip.

Notice !!

Set the used oil to a professional waste Treatment Centre, Do not pour any oil to Will be outdoors. °

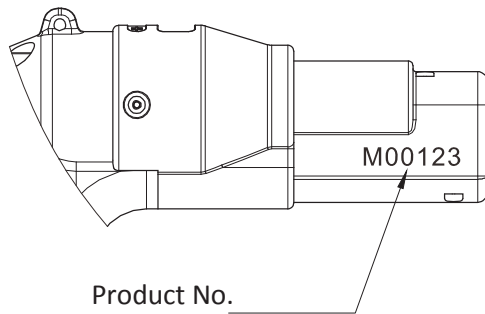
If you accidentally let the oil gets on your skin, wash with soap and alkaline water.

6 Maintenance and technical services

In order to ensure the full work performance and safety, all maintenance work requested by your local distributor should be given into the maintenance of the Company.

6.1 Technical Assistance / serial number

If you need any information about using and maintaining this product, or any material ordering assistance, please contact your local distributor or contact the Company directly and inform product serial number (as shown) or a material part number (view parts list).



7 Common problems and failure analysis

Failure phenomenon	Cause Analysis	Solution Method
Rivet Nut rotation	<ul style="list-style-type: none">● Rivet Nut set into the rod, there is no head contact with Rivet Nut	<ul style="list-style-type: none">● Pull the cap head position adjustment● Again set into the Rivet Nut
Rod precession and spin out difficulties	<ul style="list-style-type: none">● Rivet Nut riveting ineffective● The pull Riveter operation is not Vertical● Threaded rod damage● Motor failure	<ul style="list-style-type: none">● Check the Rivet Nuts riveting range● The Riveter operation Lever should be perpendicular to the surface of metal sheet parts● Empty the Riveter and check the motor, if necessary, for repair
Precession Auto failure	<ul style="list-style-type: none">● Lever fixed tube (# 6) loose or set incorrectly	<ul style="list-style-type: none">● Re-adjust Lever fixed tube (# 6)
failure Rivet Nuts riveting operation	<ul style="list-style-type: none">● Working pressure or insufficient pressure● Hydraulic oil shortage	<ul style="list-style-type: none">● Increases the working air pressure● Add hydraulic oil
After the reverse	<ul style="list-style-type: none">● the rivet or threaded rod is damaged	<ul style="list-style-type: none">● Forced to withdraw from, check rod and replace if

movement the Riveter Nut rivet failure	<ul style="list-style-type: none"> ● Working pressure or insufficient pressure ● Hydraulic oil insufficient 	<ul style="list-style-type: none"> ● necessary ● Increases working air pressure ● Add hydraulic oil
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8. Resource Recycling

In order to make a contribution for environmental protection, materials used in this product can be more than 98% Resource Recycling, product disassembly, plug the plastic and metal classification by the local recycling units, can be recycled through re-smelting .



EC DECLARATION OF CONFORMITY

Original Language

Serial Number: Please refer to the tool

Air Hydraulic Riveters

Item No.: PB-2501

6.3 bar (90. psi)

We declare under our own responsibility that the above machinery fulfils all the relevant provisions of (MD) Machinery Directive 2006/42/EC and its amendment and is manufactured and tested according to the following standards:

EN ISO 11148-1:2011 / EN ISO 15744:2008 / EN ISO 20643:2008+A1:2012

Declared in: Taichung, Taiwan

Dated: 2013/06/01

Signature

Jonney Chen

Declared by: QA Manager



Manufacturer:

Mighty Seven International Co., Ltd.
No. 70-25, Ching Quang Rd., Wujih Dist.,
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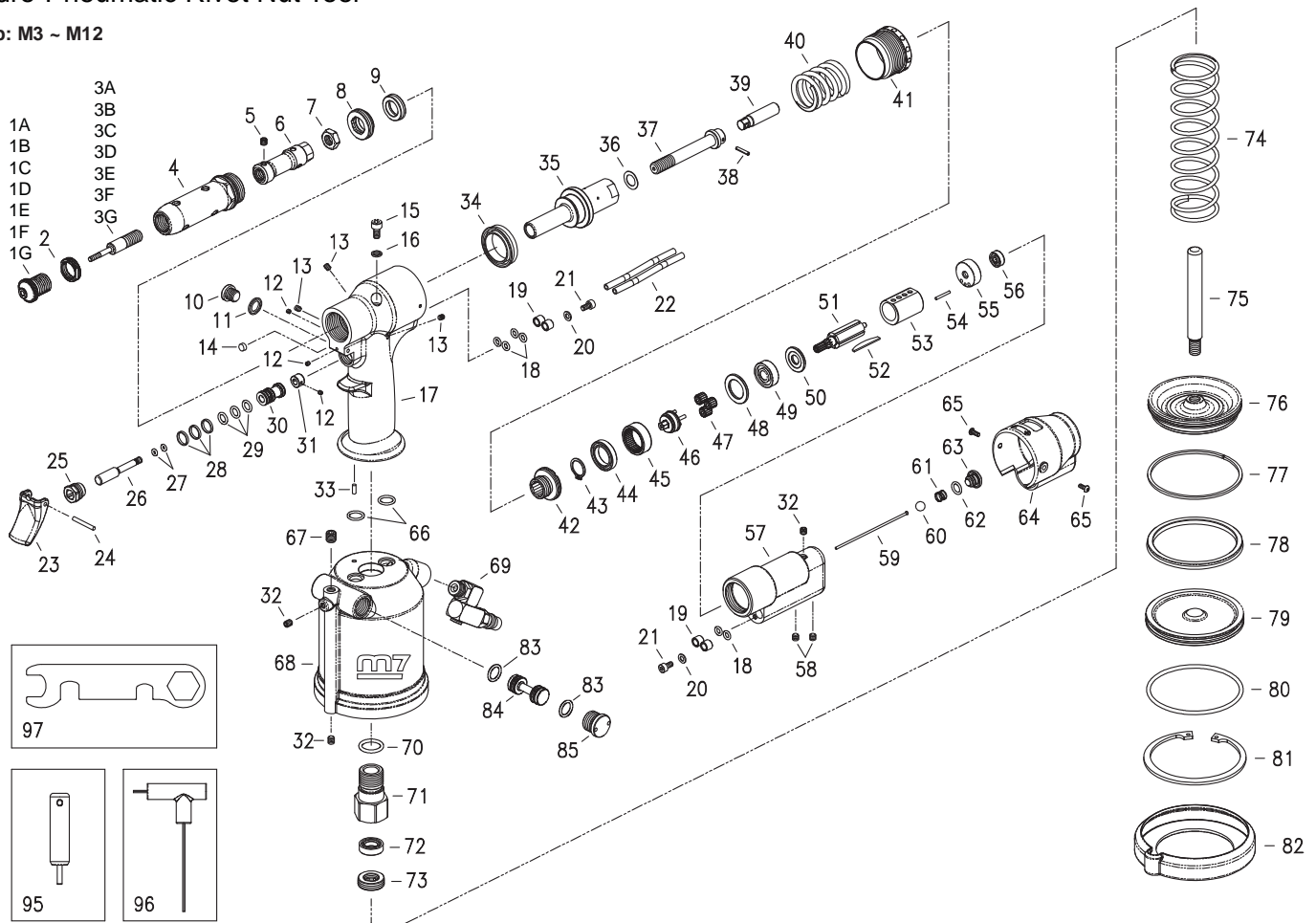
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86000 POITIERS FRANCE
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E-MAIL: christian.aubineau@kingtony.eu

9 Exploded Biew / Parts List

hydro-Pneumatic Rivet Nut Tool

Cap: M3 ~ M12



KIT include,

- 1.Nose Piece: M3 x 1 , M4 x 1 , M5 x 1 , M6 x 1 , M8 x 1 , M10 x 1 (equip on) , M12 x 1
- 2.Ring Nut x 6
- 3.Spindle Rod : M3 x 2 , M4 x 2 , M5 x 2 , M6 x 1 , M8 x 1 , M10 x 1 (equip on) , M12 x 1
- 4.Stroke Adjust Driver x 1
- 5.Hex Wrench x 1
- 6.Spanner x 1

Rivet Nut Capacity : 3mm ~12mm

Stroke : 0~6.5mm

Max Power : 2100 KG

Tool Length : 310 mm

Tool Weight : 2.5 KG

Air Consumption : 7.5 Liter/Minute

Vibration : <2.5 m/s²

Sound Level : <80 dBA

Air Inlet : 1/4"

Air Hose : >1/4"

HYDRO-PNEUMATIC RIVET NUT TOOL (M8~M12)

Part List Item No : PB-2501

NO.	PART NO.	DESCRIPTION	Q'TY
1A	PB-2501P01A	Head M3	1
1B	PB-2501P01B	Head M4	1
1C	PB-2501P01C	Head M5	1
1D	PB-2501P01D	Head M6	1
1E	PB-2501P01E	Head M8	1
1F	PB-2501P01F	Head M10	1
1G	PB-2501P01G	Head M12 (Optional)	1
2	PB-2501T02	Ring Nut (6 pcs)	1 SET
3A	PB-2501P03A	Tie Rod M3	1
3B	PB-2501P03B	Tie Rod M4	1
3C	PB-2501P03C	Tie Rod M5	1
3D	PB-2501P03D	Tie Rod M6	1
3E	PB-2501P03E	Tie Rod M8	1
3F	PB-2501P03F	Tie Rod M10	1
3G	PB-2501P03G	Tie Rod M12 (Optional)	1
4	PB-2501P04	Outer Cone	1
5	PB-2501P05	Screw	1
6	PB-2501P06	Tie Rod Holder	1
7	PB-2501P07	Hex. Nut	1
8	PB-2501P08	Ring Bolt	1
9	PB-2501P09	Oil Seal	1
10	PB-2501P10	Cap Screw	1
11	PB-2501P11	Washer Seal	1
12	PB-2501T12	Screw (3 pcs)	1 SET
13	PB-2501T13	Screw (3 pcs)	1 SET
14	PB-2501P14	Muffler	1
15	PB-2501P15	Screw	1
16	PB-2501P16	Washer Seal	1
17	PB-2501P17	Handle Casing	1
18	PB-2501T18	O-Ring (6 pcs)	1 SET
19	PB-2501T19	Pipe Guide (4 pcs)	1 SET
20	PB-2501T20	Washer (2 pcs)	1 SET
21	PB-2501T21	Screw (2 pcs)	1 SET
22	PB-2501T22	Air Pipe (2 pcs)	1 SET
23	PB-2501P23	Trigger	1
24	PB-2501P24	Pin	1
25	PB-2501P25	Bolt	1
26	PB-2501P26	Valve Stem	1
27	PB-2501T27	O-Ring (2 pcs)	1 SET
28	PB-2501T28	Valve Seal (3 pcs)	1 SET
29	PB-2501T29	O-Ring (3 pcs)	1 SET
30	PB-2501P30	Valve	1
31	PB-2501P31	Valve Stem Retainer	1
32	PB-2501T32	Screw (3 pcs)	1 SET
33	PB-2501P33	Pin	1
34	PB-2501P34	Oil Seal	1
35	PB-2501P35	Hydraulic Piston	1
36	PB-2501P36	Washer	1
37	PB-2501P37	Drive Bolt	1
38	PB-2501P38	Spring Pin	1
39	PB-2501P39	Coupler	1
40	PB-2501P40	Spring	1
41	PB-2501P41	Stroke Adjuster	1
42	PB-2501P42	Coupling Bolt	1
43	PB-2501P43	Snap Ring	1

NO.	PART NO.	DESCRIPTION	Q'TY
44	PB-2501P44	Ball Bearing	1
45	PB-2501P45	Ring Gear	1
46	PB-2501P46	Gear Carrier	1
47	PB-2501T47	Planet Gear (3 pcs)	1 SET
48	PB-2501P48	Spacer	1
49	PB-2501P49	Ball Bearing	1
50	PB-2501P50	Front end plate	1
51	PB-2501P51	Rotor	1
52	PB-2501T52	Blade (5 pcs)	1 SET
53	PB-2501P53	Cylinder	1
54	PB-2501P54	Pin	1
55	PB-2501P55	Rear end plate	1
56	PB-2501P56	Ball Bearing	1
57	PB-2501P57	Motor Housing	1
58	PB-2501T58	Screw (2 pcs)	1 SET
59	PB-2501P59	Valve tappet	1
60	PB-2501P60	Nylon Ball	1
61	PB-2501P61	Spring	1
62	PB-2501P62	O-Ring	1
63	PB-2501P63	Cap Screw	1
64	PB-2501P64	Rear cover	1
65	PB-2501T65	Screw (2 pcs)	1 SET
66	PB-2501T66	O-Ring (2 pcs)	1 SET
67	PB-2501P67	Screw	1
68	PB-2501P68	Pneumatic cylinder	1
69	PB-2501P69	Swivel inlet	1
70	PB-2501P70	O-Ring	1
71	PB-2501P71	Piston rod guide	1
72	PB-2501P72	Oil Seal	1
73	PB-2501P73	Ring Bolt	1
74	PB-2501P74	Spring	1
75	PB-2501P75	Piston rod	1
76	PB-2501P76	Pneumatic Piston	1
77	PB-2501P77	Guide ring	1
78	PB-2501P78	Oil seal	1
79	PB-2501P79	Bottom cap	1
80	PB-2501P80	O-Ring	1
81	PB-2501P81	Snap Ring	1
82	PB-2501P82	Rubber Base (2 pcs)	1
83	PB-2501T83	O-Ring	1 SET
84	PB-2501P84	Plug	1
85	PB-2501P85	Valve Cap	1
95	PB-2501P95	Stroke Regulator	1
96	PB-2501P96	Hex. Wrench	1
97	PB-2501P97	Spanner	1