

# PLEASE SPEND 2 MINUTES READING THESE INSTRUCTIONS BEFORE USING YOUR NEW DNP3212-2 RIVNUT TOOL.

## TRUST US, IT WILL SAVE YOU TIME AND INCONVENIENCE IN THE LONG RUN.



### READ THIS MANUAL CAREFULLY BEFORE USING THE TOOL!

It is IMPORTANT to follow the safety instructions for adequate protection against injuries.

- This tool should be used ONLY to set blind rivets within the TOOL'S CAPACITY. It MUST NOT be used for other purposes, such as hammer, etc.
- This tool should be always operated with compressed air supply within the air pressure range 0.5Mpa ~ 0.7Mpa.
- Always DISCONNECT the air supply from the tool before changing tool parts, such as mandrel, etc.
- DO NOT use the tool in the environment described as below:
  - fuel and combustion air.
  - temperature rapidly rising.
  - humidity, rain, water, storm and thunder, lightning.
- When the tool is suspended by the operation hook during use, be sure the tool will not fall.
- When using the tool, always carry protective goggles, protective gloves, safety helmet, and other necessary protections. It is highly recommended for safety reasons.
- Only use genuine spare parts for maintenance and repairs.
- All repair work must be carried out by skilled personnel, when in doubt, always return the tool to the distributor.

#### **Dafra Fastening Systems - Rivets Rivnuts & Tooling**

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## DNP3212-2 RIVNUT TOOL CAPACITY

Blind rivnuts M3 – M4 – M5 – M6 – M8 – M10 – M12 in all materials and styles.

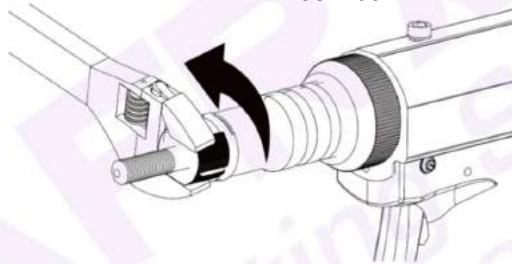
## TOOL SPECIFICATIONS

Air supply pressure:	0.5Mpa ~ 0.7Mpa
Output traction power:	21,000N ~ 29,400N
Stroke:	1mm ~ 7mm adjustable
Net weight:	1.91kgs

## GETTING STARTED

Please refer to the **TOOL EXPLOSIVE ILLUSTRATION** and the **PARTS LIST** in this manual in order to have a good understanding of the tool parts described. The descriptions of the tool parts appear in this manual are in *italics*.

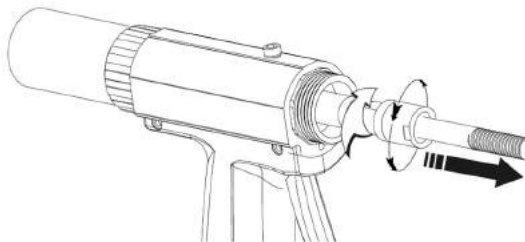
- 1) This pneumatic powered tool should be worked with compressed air supply. It is recommended to use the air hose with diameter bigger than 8 mm;
- 2) To check the compressed air pressure within the specified range between 0,5Mpa and 0,7Mpa, and to connect the air hose adaptor onto the tool *air adaptor*. The air adaptor has its different versions in different countries and areas, normally the tools are equipped with the correct version as default, in case the *air adaptor* does not apply in your air supply hose adaptor, contact the tool distributor(s);
- 3) To change and use correct *cap screw* and *anvil* according to the size of the rivnut to be set. This tool is equipped with *cap screws* and *anvils* from M3 up to M12 in the tool kit. For convenience, 7 identical *locknuts* provided in the tool kit for each size of the *cap screw* and *anvil* in pairs;
  - a) To remove the *anvil* from the tool and the *locknut*:



- b) To remove the *retaining ring* and *nose sleeve*:



- c) To use a spanner to loosen *adaptor sleeve* from *spring house*, take out *cap screw*, *drive bar washer*, *adaptor sleeve*, *drive bar* and *spring*:



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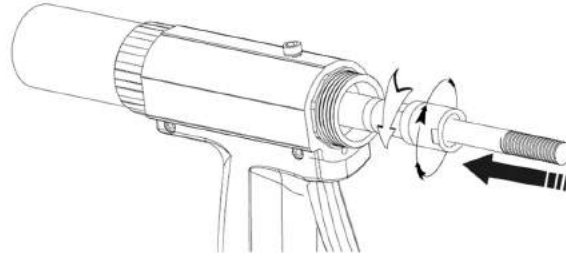
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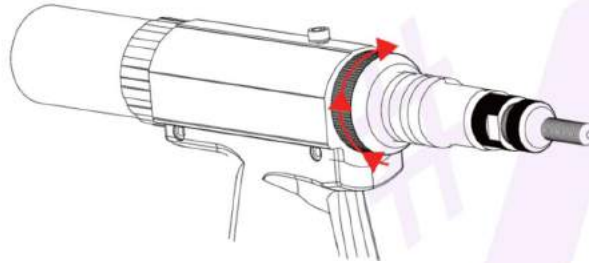
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- d) To take the *drive bar washer* insert to the selected *cap screw* from the tool accessories pack as per rivnut size, then mount into *adaptor sleeve*, *drive bar* together with *spring* and install into *spring house*. To screw on *adaptor sleeve* tight with *spring house* by the spanner:



- e) To screw on the *retaining ring* and *nose sleeve* back to the tool, and *locknut*, and *anvil*:



#### MANDREL PROTRUDING SET FOR BLIND NUT

- 1) To set the length of the *cap screw* protruding out of *anvil* according to blind rivnut length, by positioning of the *locknut* and *anvil* locking each other:



- 2) Never to set the *cap screw* protruding length too long nor too short according to the rivnut to be set:



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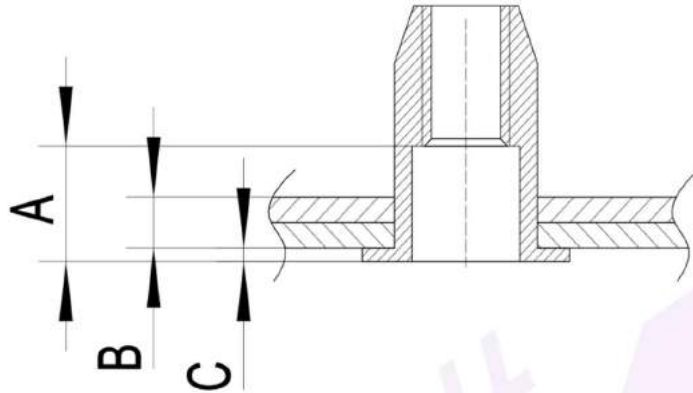
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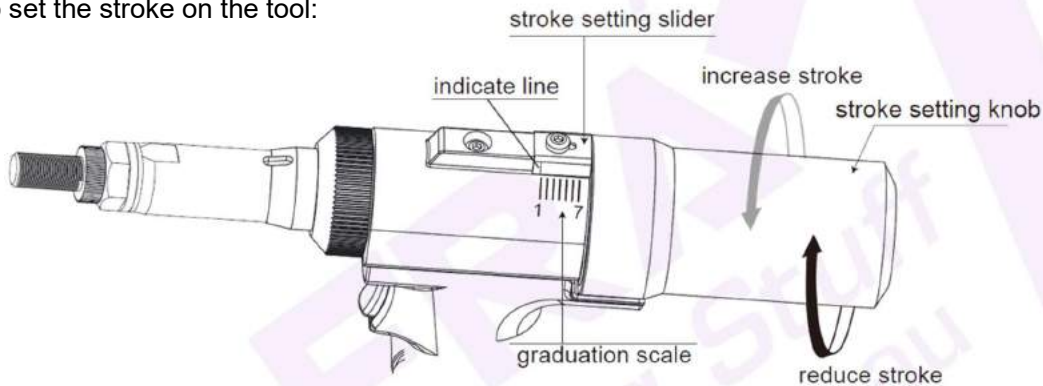
## STROKE SETTING

- 1) It is very important step to define the stroke to be set on the tool, by measuring the rivnut and calculating in formula:  $Stroke = A - (B + C)$

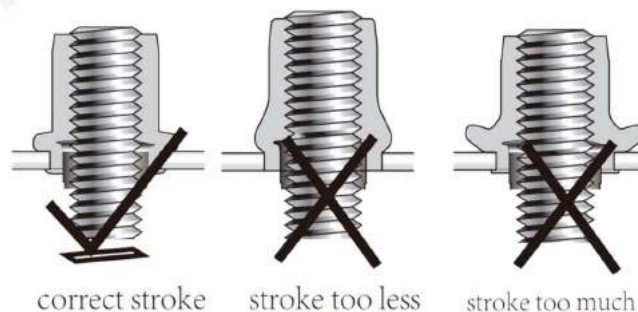


A = depth of the rivnut (inside of the rivnut non-threaded and no upset part of the rivnut when setting);  
 B = total thickness of work piece(s);  
 C = rivnut head thickness (if countersunk head rivnut, then C = 0);

- 2) To set the stroke on the tool:



- a) The tool stroke can be set from 1mm up to 7mm, and it shows by the indicate line pointing on to the graduation scale precisely;
- b) To increase the stroke: slide the *stroke setting slider* in the direction of the tool front (*cap screw*), turning the *stroke setting knob* anti-clock wise, release the stroke setting slider back (to be sure the small needle tip seated back into the hole on the edge of the stroke setting knob) and checking the indicate line pointing. Repeat the operation until the indicate line pointing at the defined stroke. To reduce the stroke, operate in the same way but turning the *stroke setting knob* clock-wise.
- 3) Checking the set stroke by initial rivnuts setting. It is extremely important to have precise stroke setting and trial set on work piece and refer to the illustration below to see if you got a nice set up:

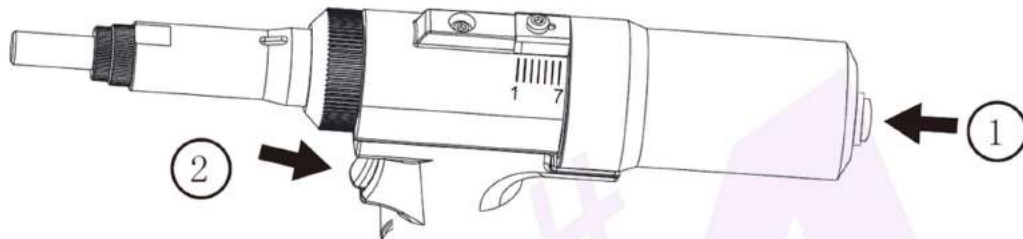


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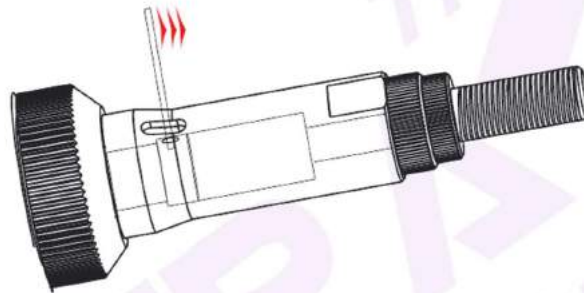
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## TO SET RIVNUTS

- 1) After start-up preparations, stroke setting and initial trial setting, to put the rivnut into work piece hole (pre-drilled), to insert the *cap screw* of the tool into the rivnut and press the *button* of the tool, the operation of the rivnut setting will be automatically finished.
- 2) The tool, after the *button* pressed, the tool will automatically insert into the rivnut and set the rivnut on the work piece then released automatically;
- 3) If users have not had the stroke setting correctly, the tool might cannot be released, then follow the process described below to release the tool:



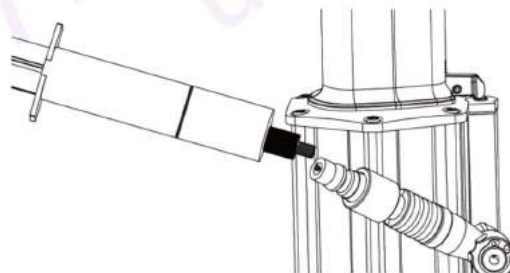
- a) Slightly press the *release button* at the rear of the tool;
- b) Press the *button* of the tool, then the tool will be release from the set rivnut.



- 4) If the tool operator used a bad quality rivnut or improper stroke setting, the tool might be blocked on the set rivnut and work piece and cannot be released according to the above 3) described, then to use the *anti-block sticker* in the tool kit, insert into the slot-shaped hole on the nose sleeve, then turning the tool with force anti-lock wise to release the tool.

## TOOL MAINTAINANCE

Normally after several weeks of working, for better performance of the tool, to add a few drops of hydraulic oil on the inlet of the *air adaptor* of the tool in order to reduce the frictions of the tool parts since the oil will be blown inside the tool when tool operates.



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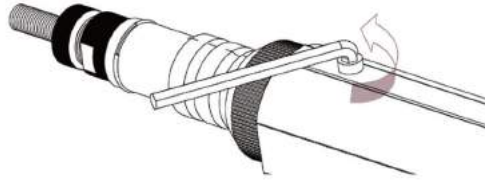
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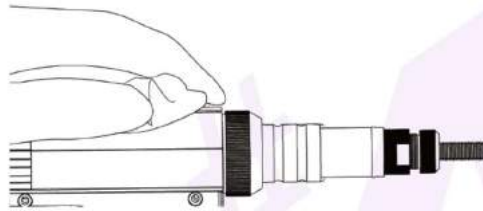
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After certain period of use, the tool stroke might be reduced, it shows the hydraulic oil of the pneumatic tool is necessary to be refilled or changed:

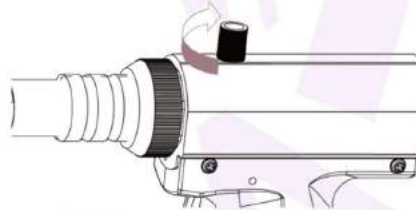
- 1) To remove the *screw* by hexagon wrench:



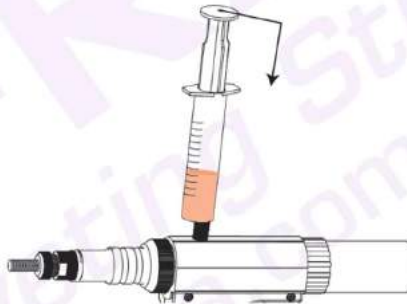
- 2) To connect the air supply and to cover some cloth over the hole where the *screw* removed, then to press the *button* and the oil will be leaked out from the tool:



- 3) To screw the *oil inject adaptor* (on *oil injection tube set in the accessories pack*) into the hole where *screw* removed:

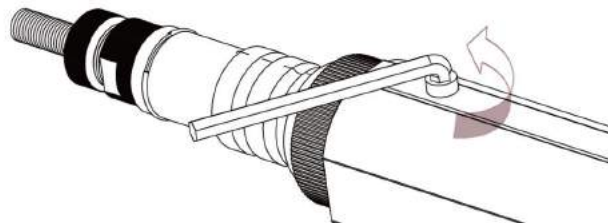


- 4) To use the *oil injection tube* (in the *accessories pack*) to inject the oil slowly until not able to refill, to remove the *injection tube* and its adaptor, then clean the oil on the tool and tightly screw on the *screw* back to the tool:



- 5) To test the tool stroke. If the stroke still not enough as it should be, it means there could be some air in the *oil cylinder* when you refill the oil in the tool. Then the extra air needs to be released from the tool.

To connect the tool with air supply, to pull the tool *button* 6 or 7 times, then loosen the *screw*, let the extra air leaking out, then screw on the *screw* tight again:



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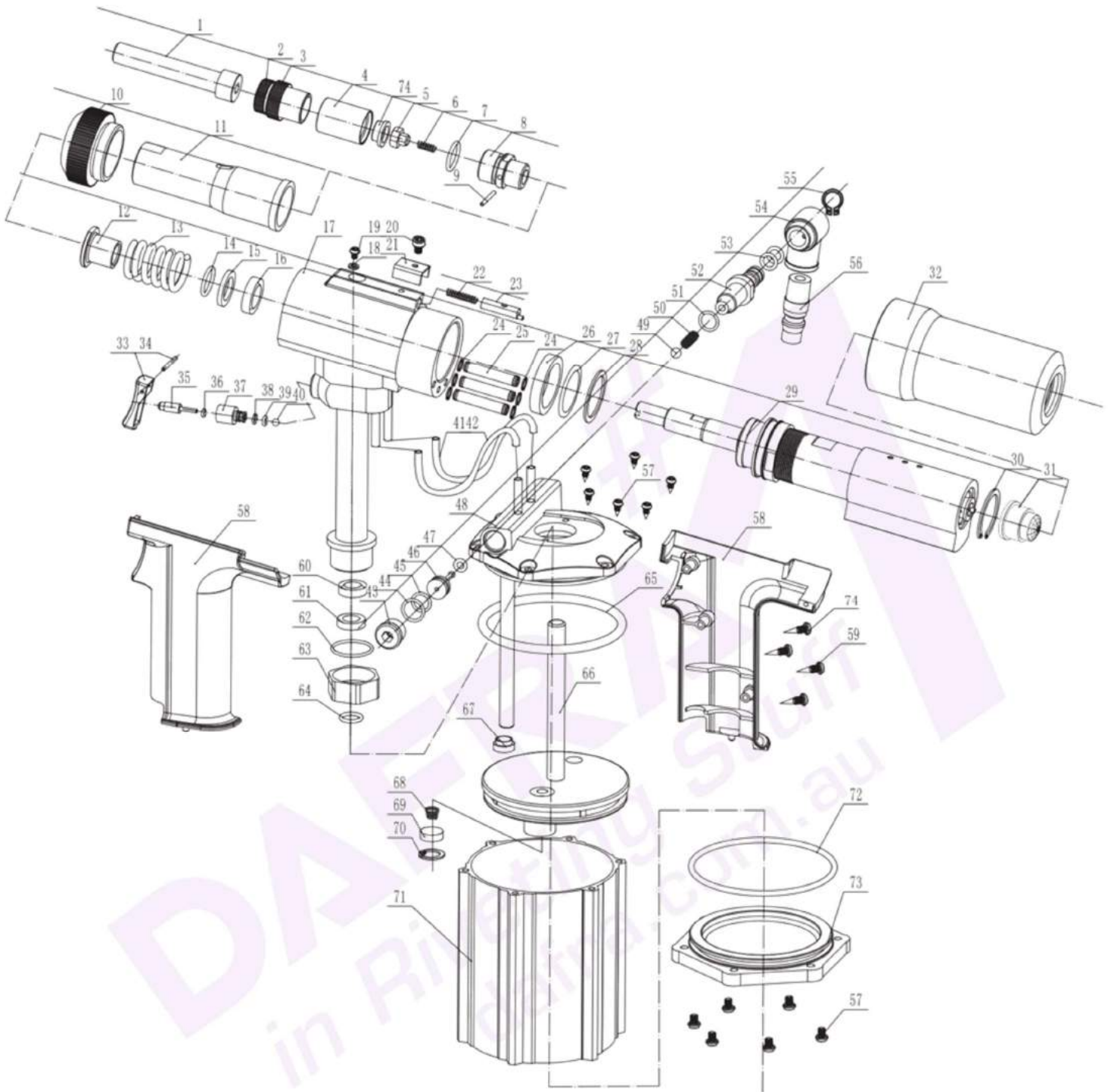
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## TOOL EXPLOSIVE ILLUSTRATION



ID in Drawing	Part No.	Description	Qty per Tool
1	P03004-00	Cap screw M12	1
2	P00377-00	Anvil M12	1
3	P01090-00	Locknut	1
4	P00481-00	Adaptor sleeve	1
5	P00495-00	Drive bar for M12	1
6	P03003-00	Spring	1
7	F60074-00	O-ring 16 x 2.4	1

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ID in Drawing	Part No.	Description	Qty per Tool
8	P03962-00	Spring	1
9	F00505-00	Pin	1
10	P03965-00	Retaining ring	1
11	P03961-00	Nose sleeve	1
12	P03963-00	Spring seat	1
13	P03964-00	Return spring	1
14	F60038H00	O-ring 18 x 1.9	1
15	P03967-00	Support ring	1
16	F00031-00	U-ring 14 x 21 x 5.0	1
17	A02100-00	Oil cylinder	1
18	F00002-00	Washer	1
19	P00009-00	Screw	1
20	P03970-00	Screw	1
21	P03971-00	Stroke setting slider	1
22	P03969-00	Spring	1
23	P03972-00	Lock pin	1
24	F60200-00	O-ring 6 x 1.0	6
25	P04004-00	Hose	3
26	F00221-00	U-ring 27 x 35 x 5.0	1
27	F00222-00	O-ring 35 x 1.5	1
28	P03968-00	Support ring	1
29	A02097-00	Air motor	1
30	F00211-00	Circlip	1
31	A02255-00	Release button set	1
32	P03975-00	Stroke setting knob	1
33	P03986-00	Button	1
34	P00358-00	Pin	1
35	P03985-00	Switch pusher	1
36	F00115-00	O-ring 5 x 1.9	1
37	P03984-00	Switch sleeve	1
38	F60200-00	O-ring 6 x 1.0	1
39	F00140-00	O-ring 6 x 1.5	1
40	F00052-00	Steel ball	1
41	P03982-00	Hose 6.0 x 112	1
42	P03983-00	Hose 4.5 x 109	1
43	P04001-00	Blockage end	1
44	F00174-00	O-ring	1
45	F00011-00	O-ring 12 x 1.5	1
46	P04000-00	Control rod	1
47	F00113-00	O-ring 8.4 x 2.0	1
48	A02136-00	Air cylinder lid	1
49	P03998-00	Rubber ball dia. 6.0	1
50	P03997-00	Spring	1
51	F00011-00	O-ring 12 x 1.5	1
52	P03996-00	Connector	1
53	F00016-00	O-ring	2
54	P04154-00	Air swivel joint	1
55	F00048-00	A-circlip	1
56	F00015-00	Air adaptor default	1
57	P04858-00	Screw	12
58	P03979-00	Grip	1

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ID in Drawing	Part No.	Description	Qty per Tool
59	F00315-00	Self-drilling screw	3
60	F00212-00	U-ring 10 x 16 x 4.5	1
61	P03989-00	Support ring	1
62	F00316-00	O-ring 24 x 1.5	1
63	P03990-00	Nut	1
64	F00040-00	O-ring 13 x 1.5	1
65	F00317-00	O-ring	1
66	A02096-00	Piston	1
67	F00226-00	Dust ring 8 x 12 x 3.5	1
68	P00051-00	Spring	1
69	P00052-00	Gasket	1
70	F00049-00	Circlip	1
71	P03994-00-96	Air cylinder black	1
72	F00227-00	O-ring	1
73	P03995-00	Air cylinder bottom	1
74	F00299-00	Self-drilling screw	1
accessory	P00378-00	Anvil M10	1
accessory	P00306-00	Anvil M8	1
accessory	P00307-00	Anvil M6	1
accessory	P00308-00	Anvil M5	1
accessory	P00309-00	Anvil M4	1
accessory	P00310-00	Anvil M3	1
accessory	P01090-00	Locknut	6
accessory	P00488-00	Drive bar washer for M8	1
accessory	P00487-00	Drive bar washer for M6	1
accessory	P00486-00	Drive bar washer for M5	1
accessory	P00485-00	Drive bar washer for M4	1
accessory	P00484-00	Drive bar washer for M3	1
accessory	P00489-00	Drive bar for M10	1
accessory	P00494-00	Drive bar for M8	1
accessory	P00493-00	Drive bar for M6	1
accessory	P00491-00	Drive bar for M5	1
accessory	P00490-00	Drive bar for M4	1
accessory	P00492-00	Drive bar for M3	1
accessory	P03005-00	Cap screw M10	1
accessory	P03006-00	Cap screw M8	1
accessory	P03007-00	Cap screw M6	1
accessory	P03008-00	Cap screw M5	1
accessory	P03009-00	Cap screw M4	1
accessory	P03010-00	Cap screw M3	1
accessory	P04714-00	Anti-block sticker	1
accessory	A02254-00	Injection tube	1
accessory	P04156-00	Hook	1
accessory	P03215-00	Wrench	1
accessory	P03200-00	Hook-shaped wrench	1

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