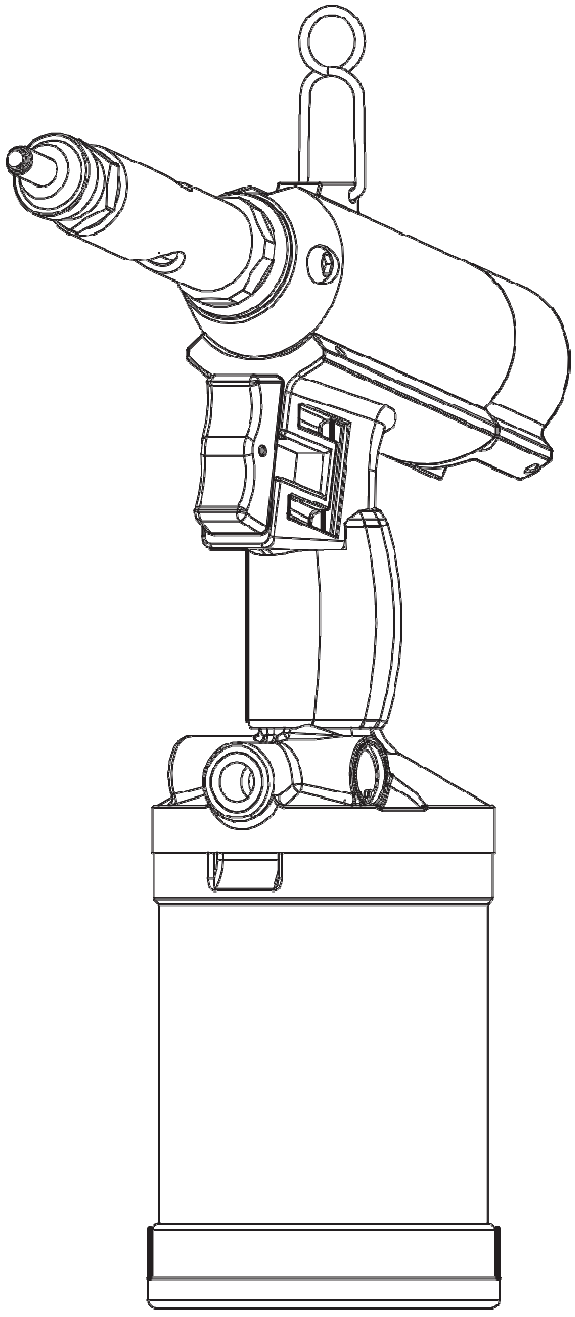
OP-PS12-O1 Air Rivet Nut Tool

Operating, Maintenance
and Parts Manual



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TOOL SPECIFICATIONS

MODEL OF TOOL	**OP-PS12-O1**
DIMENSIONS (Length x Height x Width)	**10.94" X 12.48" X 3.74"** **(278.1mm X 317mm X 95mm)**
Weight	**5.18 lbs [2.35 kgs]**
Air Inlet	**1/4" NPT**
Recommended Operating Pressure	**85 to 100 psi [5.8 to 6.8 bar]**
Air Consumption per Cycle	**2.1 litres @85 psi**
Max. Axial Pulling Load	**4800 lbs @85 psi**
Max. Stroke	**0.28 *in* [7 mm]**
Rivet Nut Size	METRIC : **M3,M4, M5, M6, M8, M10, M12** IMPERIAL : **6-32UNC, 8-32UNC,** **10-24UNC, 10-32UNF,** **1/4-20UNC, 5/16-18UNC,** **3/8-16UNC, 1/2-13UNC**

DANGER Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING Indicates an potentially hazardous situation which, if not avoided, will result in death or serious injury.

NOTE Alerts the operator to useful information.

GENERAL DESCRIPTION

The OP-PS12-O1 Tool illustrated in Fig. 1 with its pneumatic hydraulic system provides an efficient, lightweight, powerful, and quiet tool for rivet nut installation. It is designed to provide long life and trouble free services.

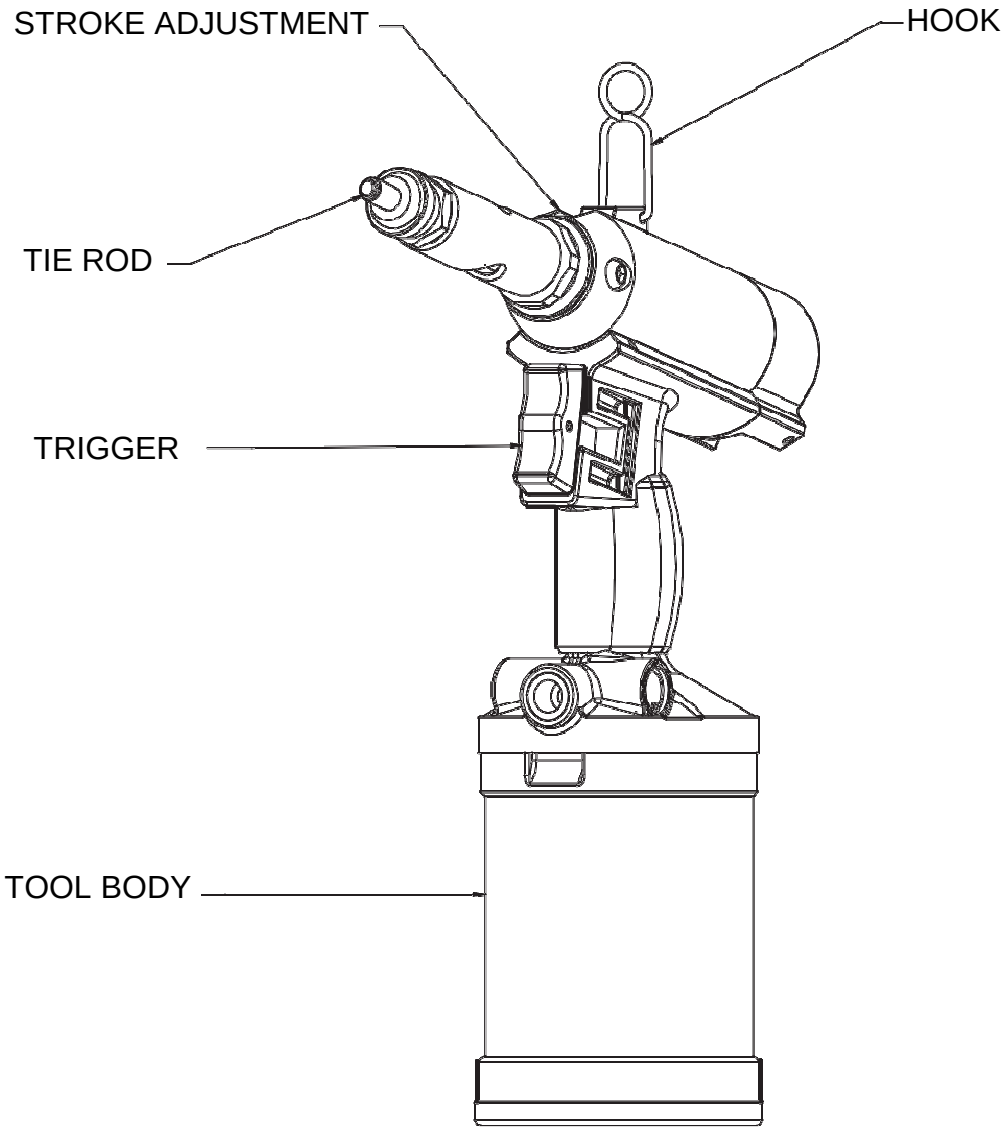


Fig. 1 OP-PS12-O1 Tool

Features

- Heavy-duty use.
- Lightweight spin-pull tool with large range stroke adjustment.
- High efficient, powerful and quiet installation tool.
- Automatically pull the rivet nut after the stud head threading into the fastener.
- Easy maintenance and operation.

SAFETY GUIDELINES

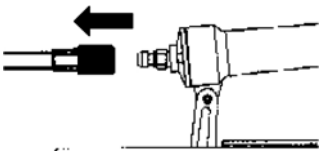
DANGER

- Read this manual and understand all safety instructions before operating the tool. If you have any question, please contact our authorized representatives.

- Never allow the use of flammable gases(oxygen) as a power source for the tool. Use filtered, lubricated, and regulated compressed air only.

- Never use gasoline or other flammable liquids to clean the tool. Vapors in the tool will ignite by a spark and cause the tools to explode.

- Do not exceed maximum permissible operating pressure of the tool (100 psi or 7.6 bars) .



- Disconnect the tool from air supply before servicing, adjusting, and during non-operation.

WARNING

- At the workplace, always wear protective equipment such as Z87.1 safety glasses, hearing protection and head protction.

- Repairing and cleaning operations must be done when the tool is not fed.

Operation Instructions

A. To prepare OP-PS12-O1

1. following the steps below to install the desired tie-rod：

   a. Loosen the anvil lock nut (Index 41 in figs. 2 & 6) with the spanners (Index 80,81 in Figs. 2 & 6) , and remove the anvil (Index 40, 41 in Figs. 2 & 6) from the housing as shown in Fig. 3;

   b. Insert the eye lever supplied into to the tooling hole and apply a light pressure inwards, in order to parts from the tie-rod clutch. At the same time unscrew the tie rod (Index 42 in Figs. 2 & 6) and extract it;

   c. Keep the clutch parted and screw the toe rod of desired size until touching the bottom, then release the pressure on the lever, and swing the tie-rod until you hear a click.

   d. Then assemble the proper anvil and the anvil lock nut) Index 40,41 in Figs. 2 & 6), and tighten the lock nut with the spanners (Index 80,81 in Figs. 2 & 6).

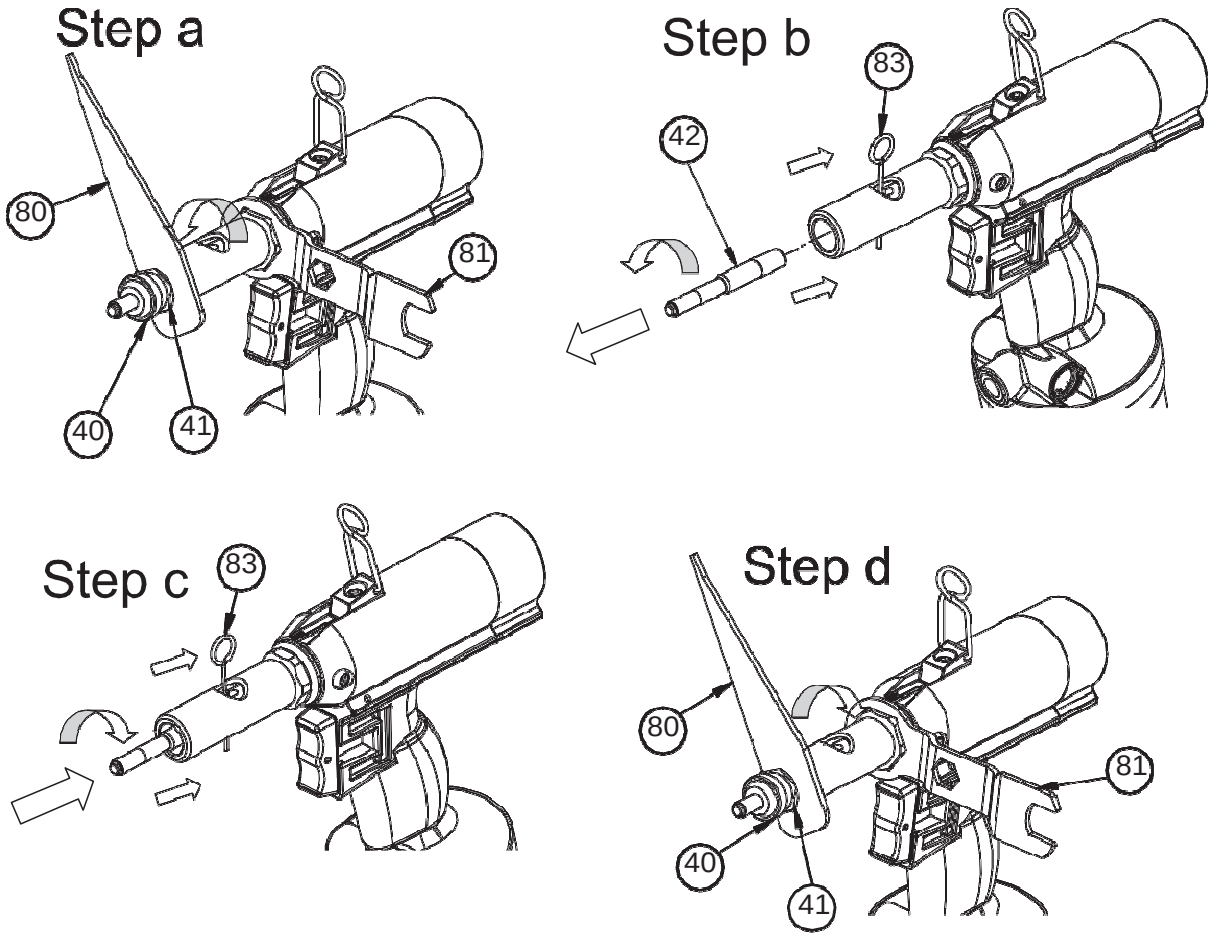


Fig. 2 Detail illustration of Anvil, Anvil Lock Nut,

Tie-Rod, and Tie-Rod Screw Fixer.

2. Adjusting the stroke：

a. Loosen the nose piece (Index 47 in Figs. 3-(A) & 6) set screw first (Index 54 in Figs. 3-(A) & 6);
b. Rotate the nose piece (Index 47 in Figs. 3-(A,B) & 6) to obtain the desired pull-up stroke. As shown in Figs. 3, the stroke of pull-up decreases with the stroke adjustment turning in the positive direction (clockwise) and vice versa.
c. Adjust the nose piece follow the scale of sticker (Figs, 3-(B), every turn has adjust 1.5mm
d. Fasten the nose piece's set screw (Index 54 in Figs. 3-(A) & 6).

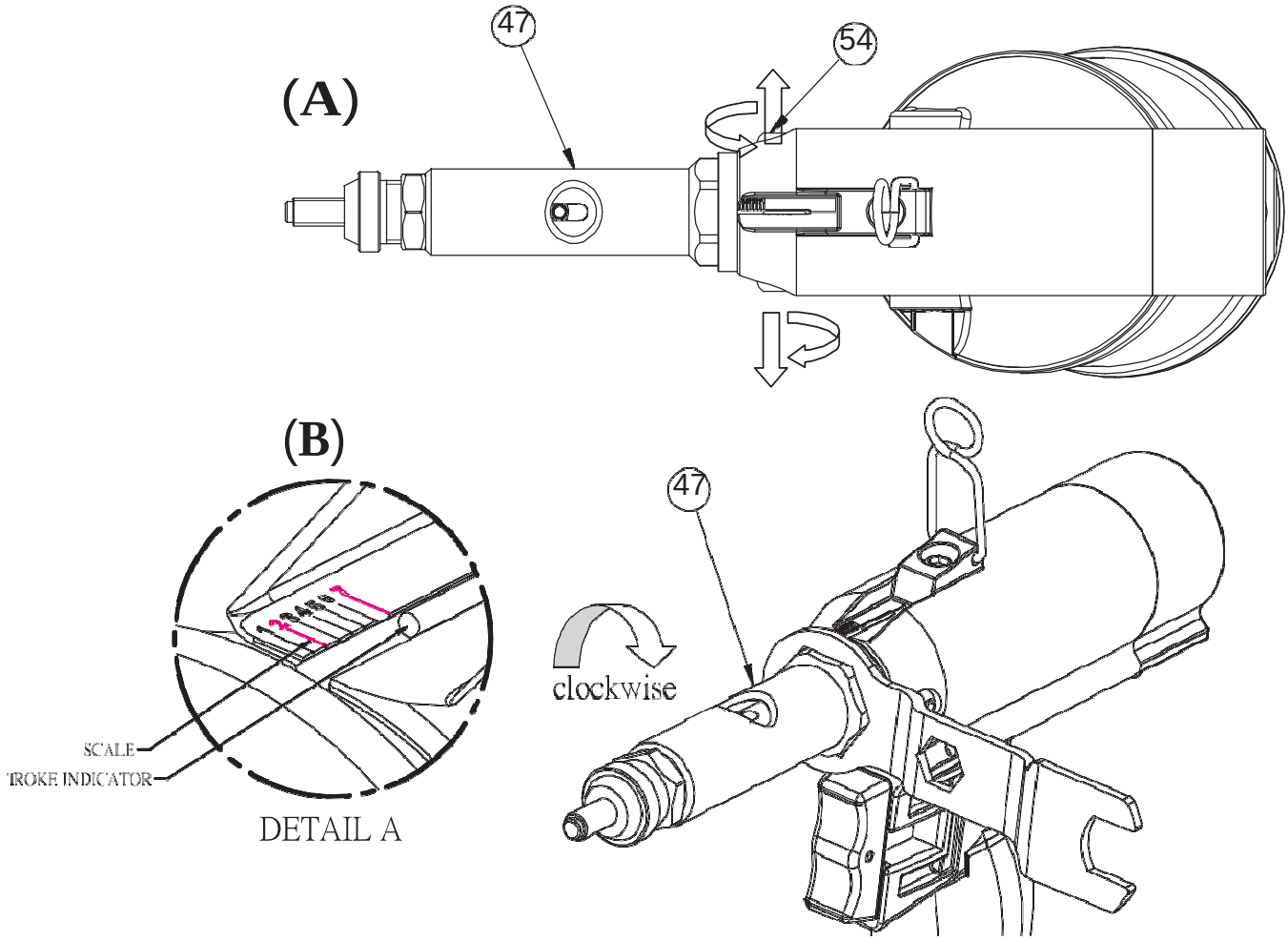


Fig. 3 Detail illustration of Stroke Adjustment.

Note

- When use the rivnut under the size as M3,M4, M5, M6, 6-32UNC，8-32UNC，10-24UNC, must adjust No.57-1 part in Fig 3 & Fig 6 and limit the stroke as 2 mm and then try it, not allow directly using the maximum stroke of 7 mm to pulling it, to avoid the broken of pulling pole.

- Any stroke adjustment must limit in between 2-7 red line, see Fig B, if turn to lower then 2 mm will led the damage of tool.

WARAING!! A WRONG ADJUSTMENT OF THE RIVETING TOOLS STROKE MAY CAUSE A FAULTY CLAMPING OF INSERTS AND MAY BRAKE THE TIE ROD!

B. To operate OP-PS12-O1

1. Pushing the tie-rod straight against the fastener, the tie-rod will automatically rotate into the fastener, then stop.
2. Pressing Trigger A pulls and fixed the fastener on the work-piece.
3. Pressing Trigger B in Fig. 4, it will unscrew the tie-rod from the installed fastener.

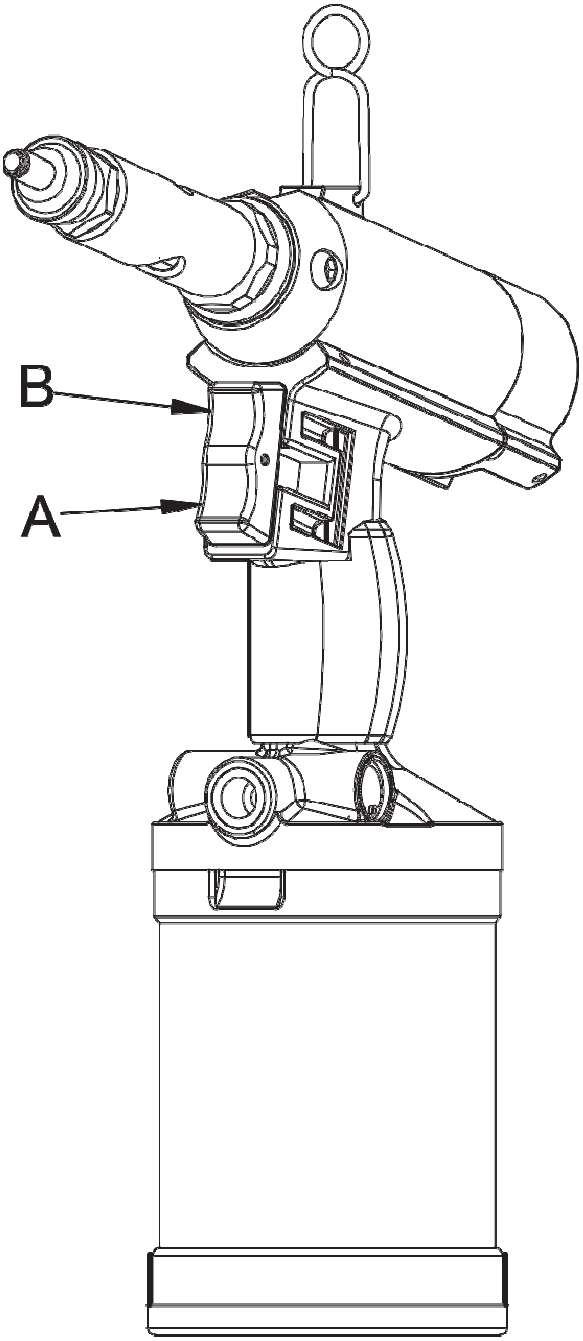
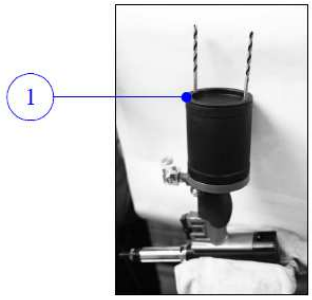


Fig. 4 lower Trigger A and upper Trigger B.

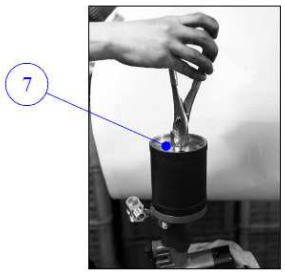
Maintenance

The maintenance required when the tool of : OP-PS12-O1 pulling strength diminish , it is only Necessary to add ISO VG46 oil or DEXRON Ⅲ, the operation steps as below:

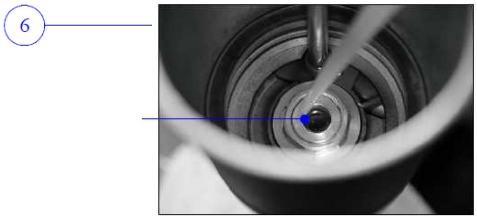
1. Turn the tool upside down and well fixed, then Use Ø5.1 remove No.1 parts.



2. Remove No.7 parts.



3. Take the oil pot fill the oil up to top of No.16 parts, installed No.7 parts press up and down Twice, get the No.7 out, refill the oil reach the top of No.16.



4. Lubricate all connected O-ring. Area by grease, No.7 insert it.

5. Screw on No.1

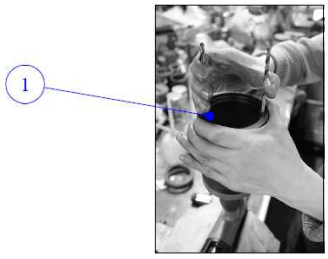


Fig. 5 Detail illustration of Oil Tank Plug.

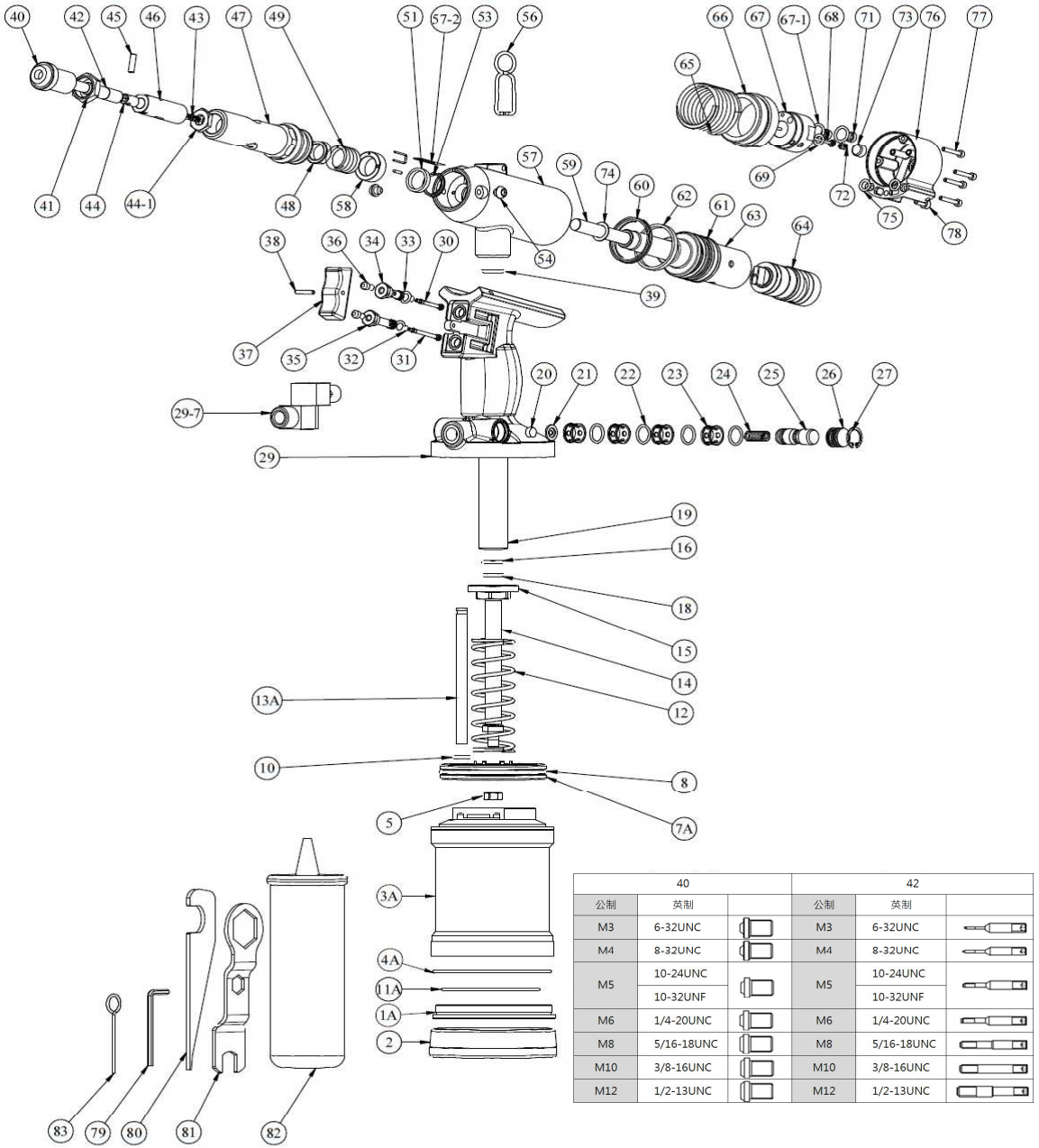
TROUBLE SHOOTING

WARNING

STOP USING THE TOOLS IMMEDIATELY IF ANY OF THE FOLLOWING PROBLEMS OCCUR. ANY REPAIRS OR REPLACEMENTS MUST BE DONE BY A QUALIFIED PERSON OR AN AUTHORIZED SERVICE CENTER ONLY.

PROBLEM	CAUSE	REMEDY
Air leak.	Damaged o-rings.	O-ring need to be replaced.
	Loose screws	Screws need to be tightened.
Tool runs slow or has loss of power.	Air feeding tube loose.	Re-install and tighten the tube.
	Exhaust is blocked.	Muffler(20) needs to be cleaned or replaced.
	Operating pressure is too low.	Increase the operating pressure to 85 -100 psi.
Air leak in part 76.	Part 76 is broken.	Change part 76.
The trigger has been pressed but it is not working.	Check the air pressure; it needs over 85PSI.	Increase the operating pressure to 85 -100 psi.
The Torque of motor becomes weak.	Check the gap between part 44-1 and part 48; it needs smaller than 2.5 mm. Or the part 44-1 has loosened.	Adjust the gap between 2.5 ~ 3.5 mm, and lock tightly.

OP-PS12-01 Air Rivet Nut Tool



40			42		
公制	英制		公制	英制	
M3	6-32UNC		M3	6-32UNC	
M4	8-32UNC		M4	8-32UNC	
M5	10-24UNC 10-32UNF		M5	10-24UNC 10-32UNF	
M6	1/4-20UNC		M6	1/4-20UNC	
M8	5/16-18UNC		M8	5/16-18UNC	
M10	3/8-16UNC		M10	3/8-16UNC	
M12	1/2-13UNC		M12	1/2-13UNC	

REF.NO	DESCRIPTION	Q'TY	REMARK
1A	CYLINDER CAP	1	
2	RUBBER BOTTOM	1	
3A	AIR CYLINDER BODY	1	
4A	RUBBER CUSHION	1	
5	NUT	1	
7A	AIR PISTON	1	
8	ORING	1	
10	ORING	1	
11A	ORING	1	
12	SPRING	1	
13	TUBE	1	
14	ROD	1	
15	STEM NUT	1	
※16	OIL SEAL	1	
18	ORING	1	
19	STEM	1	
20	MUFFLER	1	
21	PAD	1	
22	ORING	4	
※23	CAGE	4	
※24	SPRING	1	
25	VALVE	1	
※26	VALVE CAP	1	
27	RETAINING RING	1	
29	HANDLE	1	
29-7	INLET ADAPTER	1	
※30	TRIGGER UI	1	
※31	VALVE PISTON	1	
32	ORING	4	
33	ORING	2	
※34	TRIGGER INSERT	1	
※35	TRIGGER INSERT	1	
36	TRIGGER HEAD	2	
37	TRIGGER	1	
38	PIN	1	
39	ORING	1	
※40	ANVIL	1	
※41	LOCK NUT	1	
※42	TIE-ROD	1	
43	SPRING	1	
※44	ANVIL CLUTCH	1	
44-1	NUT	1	

REF.NO	DESCRIPTION	Q'TY	REMARK
45	SPRING-PIN	1	
46	ADAPTER II	1	
47	FRAME HEAD	1	
48	STOPPER	1	
※49	SPRING	1	
51	WEAR-RING	1	
53	OIL SEAL	1	
54	SOCKET SCREW	2	
56	HOOK	1	
57	OIL CYLINDER	1	
57-2	SCALE TAG	1	
※58	ADJUSTMENT NUT	1	
59	TORSION BAR	1	
※60	OIL SEAL	1	
61	ORING	1	
62	WEAR-RING	1	
63	OIL PISTON	1	
64	AIR MOTOR ASSY. (SEE FIG.7)	1	
65	SPRING	1	
66	EXTENDER	1	
67	CPA BODY	1	
67-1	ORING	2	
68	NEEDLE	1	
69	ORING	1	
71	ORING DEPRESSOR	2	
72	SPRING	1	
73	SOCKET SET SCREW	1	
74	WEAR WASHER	1	
75	ORING	2	
76	HANDLE CAP	1	
77	SOCKET SCREW	4	
78	SCOKET SCREW	1	
79	DIE WRENCH	1	
80	SPANNER	1	
81	SPANNER	1	
82	OIL CAN	1	
83	EYE LEVER	1	

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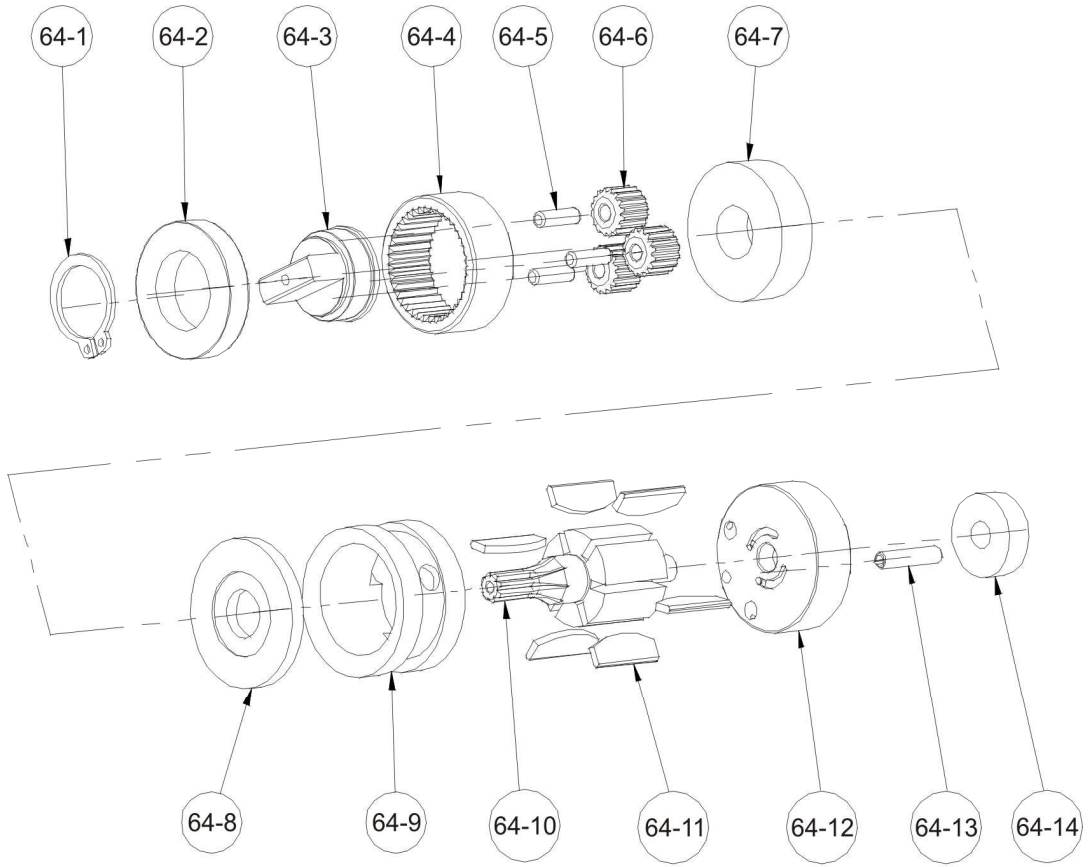
Fig. 6 EXPLODED VIEW OF AIR RIVET NUT TOOL



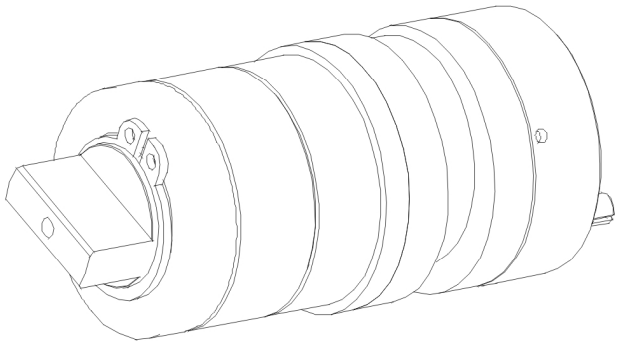


Fig. 7 Motor of OP-PS12-01 Tool.

MOTOR PART LIST

REF. NO	DESCRIPTION	Q'TY	REMARK
64-1	RETAINING RING A15	1	
※64-2	BEARING	1	
64-3	MOTOR DRIVER	1	
※64-4	PLANET	1	
64-5	PIN	3	
※64-6	MOTOR INNERGEAR	3	
※64-7	BEARING	1	
64-8	MOTOR SPACER	1	
64-9	MOTOR HOUSING	1	
64-10	MOTOR ROTOR	1	
※64-11	BLADE	6	
64-12	MOTOR BOTTOM	1	
64-13	PIN	1	
※64-14	BEARING	1	

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