THE ENVIRONMENT

Always dispose of unwanted tools, accessories and packaging materials in an environmentally friendly manner.

DECLARATION OF CONFORMITY

We hereby certify that KOBE AIR RIVET NUT TOOL

(ORDER CODE: KBE-270-1150K)

complies with all the relevant provisions of the

Machinery Directive 2006/42/EC

Standards Applied:

BS EN ISO 11148-1 :2011

BS EN ISO 15744 :2008

BS EN ISO 20643 :2008+A1 :2012

Signed:

Date: April 2021

Name: Toni Johnson

Position: Compliance Director.

KOBE TOOLS

QUALITY GUARANTEE & WARRANTY

KOBE INDUSTRIAL AIR TOOLS carry a one year manufacturer's warranty.

KOBE INDUSTRIAL AIR TOOLS are designed & manufactured to the highest standards & specifications
Assuring the quality and performance required by all sectors of industry.

KOBE INDUSTRIAL AIR TOOLS are fully guaranteed against faulty materials & workmanship.
Should they be found to be defective, they will either be repaired or replaced free of charge (fair wear and tear and/or misuse excepted).

Please retain supplier invoice as proof of purchase.

Cromwell Group (Holdings) Limited
65 Chartwell Drive, Wigston, Leicestershire, England, LE18 2FS.
Contact Us: contactus@cromwell.co.uk

KOBE™

INDUSTRIAL AIR TOOLS

AIR RIVET NUT TOOL

MODEL:
KHRN01

ORDER CODE:
KBE-270-1150K



- **Lightweight and high speed air rivet nut tool ideal for flow-line or batch assembly in a variety of applications**
- **Pneumatic operation**
- **One-step rocker type trigger**
- **Quick and easy stroke adjustment**
- **Left and right hand side air inlet for ease of operational control**
- **Composite clamshell housing**
- **Low maintenance**
- **Can be suspended or hand held**
- **Suitable for: rivet nuts: M4 – M12**
- **Supplied in storage case**
- **Comes with: Oiler, 5mm Hex Wrench, 2mm Hex Wrench, 10x11 Wrench 27x30 Wrench and Rivet nut heads: M4, M5, M6, M8, M10, M12**

WARNING: THE SAFETY INFORMATION GIVEN INSIDE MUST BE READ AND UNDERSTOOD BY ANY PERSON USING, INSTALLING, REPAIRING OR MAINTAINING THESE PRODUCTS.

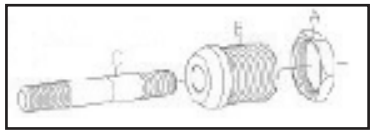
OPERATOR'S MANUAL

Please retain this information for future reference.

NOTES

SPARES

For spare parts or servicing please contact your nearest agent. Remember to quote tool order code and spare part number when ordering spares. The use of other than genuine Kobe replacement parts may result in safety hazards, decreased tool performance and increased maintenance. When disposing of components, etc. ensure that relevant environmental procedures are carried out.



100 – M4	N12	Rivet Nut Head Assembly (M4)	Product Code
A	106	Nut	KBE-298-2494B
B	B12	Nut Anvil (M4)	KBE-298-2494D
C	A12	Bolt (M4)	KBE-298-2494F

100 – M5	N13	Rivet Nut Head Assembly (M5)	Product Code
A	106	Nut	KBE-298-2494H
B	B13	Nut Anvil (M5)	KBE-298-2494K
C	A13	Bolt (M5)	KBE-298-2494M

100 – M6	N14	Rivet Nut Head Assembly (M6)	Product Code
A	106	Nut	KBE-298-2495B
B	B14	Nut Anvil (M6)	KBE-298-2495D
C	A14	Bolt (M6)	KBE-298-2495F

100 – M8	N15	Rivet Nut Head Assembly (M8)	Product Code
A	106	Nut	KBE-298-2495H
B	B15	Nut Anvil (M8)	KBE-298-2495K
C	A15	Bolt (M8)	KBE-298-2495M

100 – M10	N16	Rivet Nut Head Assembly (M10)	Product Code
A	106	Nut	KBE-298-2496B
B	B16	Nut Anvil (M10)	KBE-298-2496D
C	A16	Bolt (M10)	KBE-298-2496F

100 – M12	N17	Rivet Nut Head Assembly (M12)	Product Code
A	106	Nut	KBE-298-2496H
B	B17	Nut Anvil (M12)	KBE-298-2496K
C	A17	Bolt (M12)	KBE-298-2496M

SERVICE & REPAIR

A comprehensive repair and service facility is available through your local Kobe agent.





SAFETY INSTRUCTIONS

You have purchased a quality professional product that is designed for high performance and long service life. If correct use, safety and maintenance procedures are observed this machine will last for many years.

KOBE AIR TOOLS have been specifically designed to help you work **SAFELY** and **EFFICIENTLY**. Your care and good judgement are the best protection against injury, but always ensure that the appropriate safety equipment is worn. All possible hazards cannot be covered here, but the most important ones have been highlighted.

GENERAL OPERATING HAZARDS

- ALWAYS ensure all users are physically able and competent to handle the size, weight and power of the tools and have received appropriate training to perform the task.
- ALWAYS be aware of the tool rundown time.
- ALWAYS ensure the tool is kept in a good working condition. DO NOT use the tool if any parts are missing or damaged.
- ALWAYS inspect the air tool for cracks or excessive wear before connecting to the air supply.
- ALWAYS store the tool in a dry, secure place away from children.
- ALWAYS use recommended attachments or parts.
- ALWAYS avoid accidental starting of the tool by disconnecting it before replacing accessories or repairing.
- NEVER operate the tool when tired or under the influence of alcohol/prescription or non-prescription drugs.
- NEVER leave the tool running whilst unattended.
- NEVER modify the tool or accessories and only use it for the task for which it has been designed.
- NEVER force or apply excessive pressure on the tool.
- NEVER touch moving or active parts of the tool or accessories.
- NEVER work in a combustible atmosphere.
- NEVER allow children to use or play with the tool.

WORKPLACE HAZARDS

- ALWAYS comply with Health & Safety regulations.
- ALWAYS be aware of excess hose around the work place.
- Do not operate in explosive atmosphere, for instance extreme dust, gases and liquids.
- NEVER carry a tool by the air hose or with your fingers on the trigger whilst connected to an air supply.

PERSONAL PROTECTION

- ALWAYS ensure that all long hair, loose clothing & jewellery, etc., are secured or removed.
- AVOID wearing watches, rings or bracelets whilst using this tool.
- Always wear eye protection when using or when near a tool that is in use.
- Trained personnel must perform tool repair and/or maintenance at the prescribed intervals.
- Disconnect the air supply when adjusting or servicing any part of the tool.
- Keep fingers away from the front
- DO NOT point the tool at anyone.
- DO NOT operate tool with the HEAD removed or without the Deflector or Mandrel Collector.
- DO NOT look into the tool from the front or the back during use or when connected to air supply.
- DO NOT modify the tool in anyway. Modification will void any applicable warranties and could result in damage to the tool or physical injury to the user.
- The operating air pressure must not exceed 110 psi (7.5 bar). Regulate the air inlet pressure.

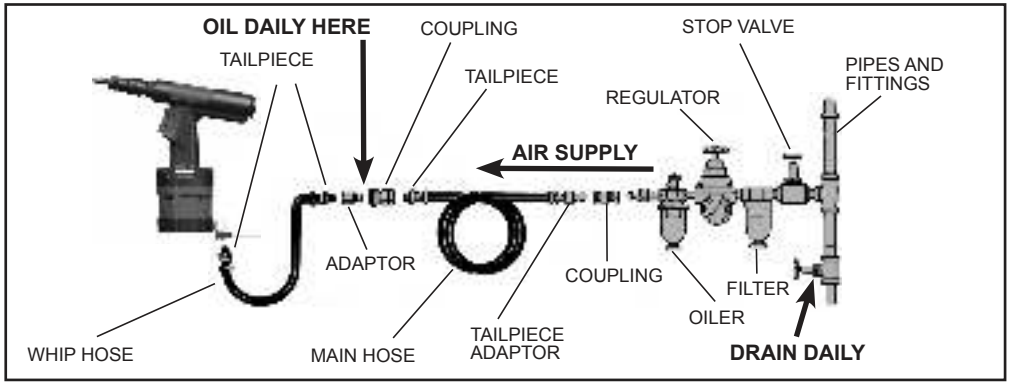
SPECIFIC SAFETY INSTRUCTIONS

- ALWAYS ensure all accessories are rated to the same specifications as the air tool before fitting or using.
- ALWAYS use air tool attachments that are in good condition and are designed to be used with the tool.
- ALWAYS be aware of the risk of crushing between the tool and the workpiece due to sudden movement or reaction forces.
- ALWAYS shut off air supply, drain hose of air pressure and disconnect tools from air supply when not in use, before changing accessories or when making repairs.
- NEVER apply additional or over excessive force to the air tool.
- NEVER make contact with electric power sources as this tool is not insulated.
- NEVER exceed the maximum air pressure of the tool.

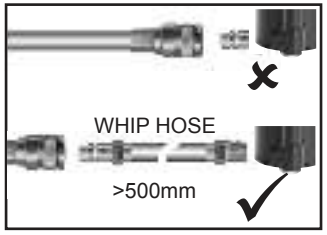
SPECIFICATIONS

MODEL NUMBER	KHRN01
ORDER CODE	KBE-270-1150K
TRACTION POWER	3500 lbf/1600 kgf
STROKE LENGTH	6mm
SETTING CAPACITY	M4-M10 Rivet Nut in Hex./Steel, M12 need 100 psi/ 7.0bar operation pressure
AIR WORKING PRESSURE	90 psi / 6.2 bar
MIN/MAX AIR PRESSURE	Min : 90psi / 6.2 bar / Max :110 psi /7.5 bar
MAX POWER (6.3 bar):	16000N
VIBRATION LEVEL	0.48m/s^2
NOISE LEVEL	92.8 db(A)
AIR INLET THREAD:	1/4 inch-NPT/PT
MINIMUM AIR HOSE SIZE:	10mm (3/8")
NET DIMENSIONS	277(H) x 118(W) x 105(D)mm
NET WEIGHT	2.2kg

SUGGESTED AIR SUPPLY



1) This tool is designed to be operated with compressed air at an optimum working pressure of 6 bar (90 psi).
2) A F-R-L unit (Filter-Pressure-Regulator-Lubricator) is recommended to be equipped as illustrated above to ensure maximum tool life and minimum tool maintenance.
3) The air hose should have a minimum effective working pressure rating of 120% of the maximum pressure produced in the air system or 7.5 bar (110psi).
4) The air hose should have a minimum I.D of 6mm (¼")
5) Connect tools to the air line using pipe, hose and fitting sizes listed in the specifications.



REQUIREMENTS FOR QUICK ACTING COUPLINGS CONNECTED TO AIR TOOLS:

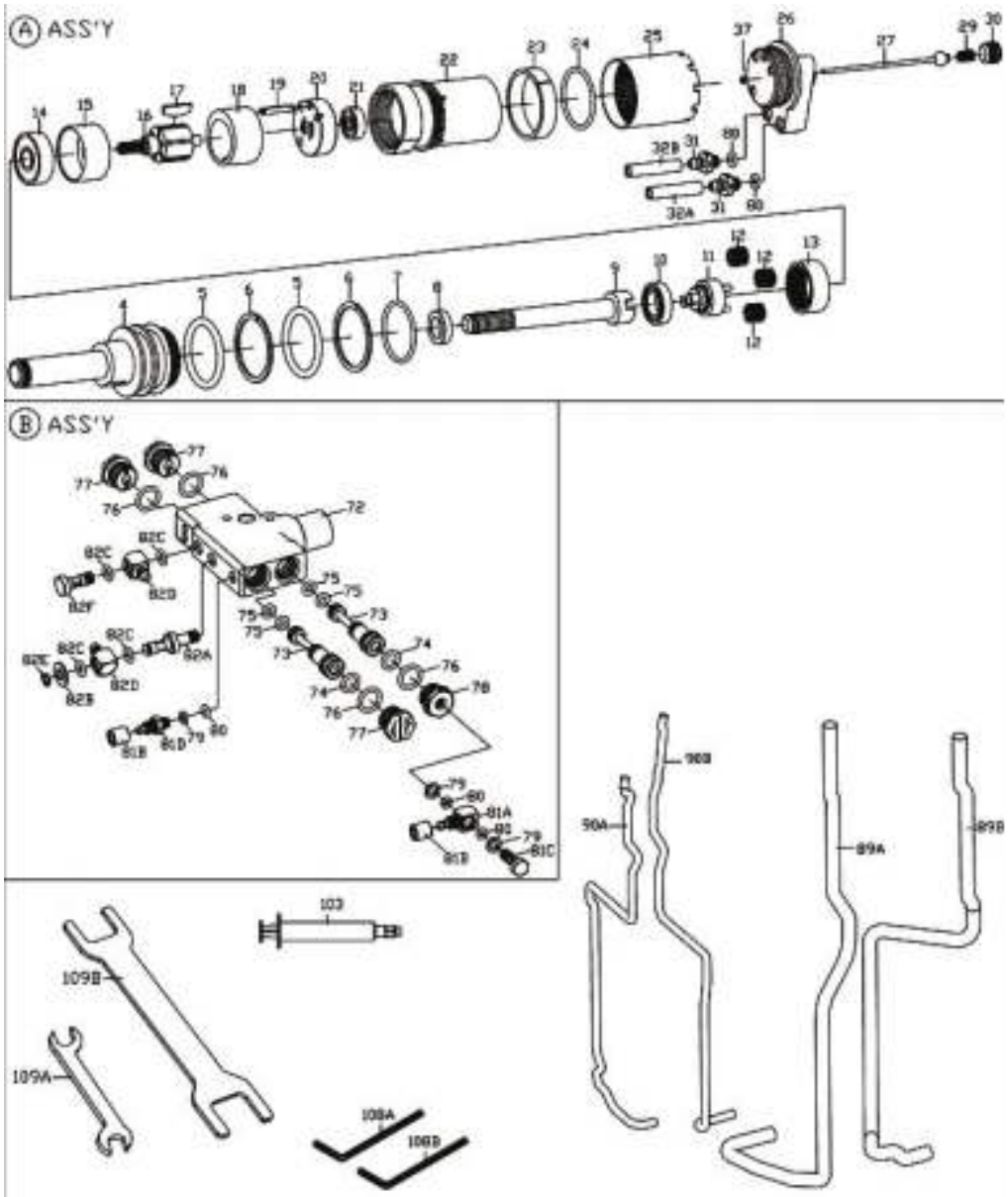
A whip hose of minimum length 500mm between the tool and the coupling is required in order to comply with Health and Safety Executive Guide **HS(G) 39, BS4575:2, ISO 4414 and ISO 6150.** This will also reduce the strain applied by the weight of the air hose on the end of the air tool.

PARTS BREAKDOWN

INDEX NO.	ORDER CODE KBE-298	DESCRIPTION	QTY
1	3440A	HYDRAULIC SECTION	1
2	3440B	O-RING	3
3	3440C	SET SCREW	1
4	3440D	HYDRAULIC PLUNGER	1
5	3440E	O-RING	2
6	3440F	BACK-UP RING	2
7	3440G	O-RING	3
8	3440H	WASHER	1
9	3440J	SHAFT	1
10	3440K	BALL BEARING	1
11	3440L	GEAR SPINDLE	1
12	3440M	GEAR	3
13	3440N	RING GEAR	1
14	3440P	BALL BEARING	1
15	3440Q	FRONT END PLATE	1
16	3440R	ROTOR	1
17	3440S	ROTOR BLADE	6
18	3440T	CYLINDER	1
19	3440V	PIN	1
20	3440W	REAR END PLATE	1
21	3440X	BALL BEARING	1
22	3440Y	MOTOR CAGE	1
23	3440Z	SEAL	1
24	3441A	O-RING	1
25	3441B	MUFFLER CAP	1
26	3441C	MOTOR VALVE BODY	1
27	3441D	BALL VALVE ASS'Y	1
28	3441F	SPRING	2
29	3441G	SET SCREW	1
30	3441H	HOSE CONNECTOR(4X6)	2
31	3441J	4X6 PU HOSE(REVERSE)	1
32	3441K	4X6 PU HOSE(FORWARD)	1
33	3441L	AIR INLET HOSE	2
34	3441M	O-RING	2
35	3441N	O-RING	2
36	3441P	BACK-UP RING	2
37	3441Q	O-RING	1
38	3441R	SPRING	1
39	3441S	NUT	1
40	3441V	NUT	1
41	3441W	O-RING	1
43	3441X	HEXAGON BIT	1
44	3441Y	BOLT BUSHING	1
45	3441Z	ADJUSTABLE BUSHING	1
46	3442A	SPRING	1
47	3442B	FRONT CAP NUT	1
48	3442C	SET SCREW	2
49	3442D	NUT	1
50	3442J	FRONT CAP	1
51	3442K	PROTECTION SLEEVE	1
54A	3442L	HYDRAULIC TUBE CONNECTOR-B	1
54B	3442M	O-RING	1
54D	3442R	HYDRAULIC TUBE CONNECTOR-A	1
55	3442S	NUT	1
56	3442Y	O-RING	1
57	3442Z	UPPER COVER	1

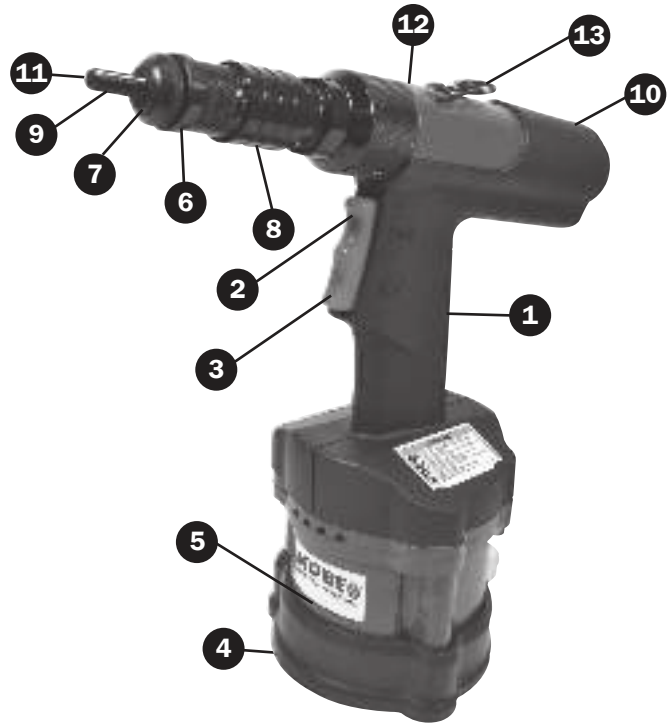
INDEX NO.	ORDER CODE KBE-298	DESCRIPTION	QTY
58	3443A	NUT	4
61	3443B	O-RING	2
62	3443C	BACK-UP RING	2
65	3443D	PLUNGER ROD	1
66	3443E	BUMPER RING	1
67	3443F	FRONT HEAD DISC	1
68	3443G	PACKING RING	1
69	3443H	LOWER PLATE	1
70	3443J	AIR CYLINDER BODY	1
71	3443K	SET SCREW	4
72	3443L	VALVE CASE	1
73	3443M	VALVE STEM	2
74	3443N	O-RING	2
75	3443P	O-RING	4
76	3443T	O-RING	4
77	3443V	INLET PLUG	3
78	3443W	INLET PLUG	1
79	3443X	WASHER	5
80	3444B	O-RING	10
81A	3444C	SWIVEL	1
81B	3444D	CAP	4
81C	3444E	SOCKET	1
81D	3444F	SOCKET	3
82A	3444H	SOCKET	1
82B	3444J	WASHER	1
82C	3444Q	O-RING	4
82D	3444Y	SWIVEL	2
82E	3445A	SNAP RING	1
82F	3445B	SOCKET	1
84	3446A	SET SCREW	3
86	3446A	BASE	1
86A	3446B	RUBBER BOOT	1
87	3446D	BLEEDING VALVE	2
88	3448A	VALVE BODY	2
89A	3448B	4X6 PU HOSE(REVERSE)	1
89B	3448C	4X6 PU HOSE(FORWARD)	1
89C	3448D	6MM HOSE LOOP	2
90A	3449A	2.5X4 PU	1
90B	3449B	2.5X4 PU	1
91	3449C	TRIGGER	1
92	3449D	PLASTIC GRIP-RIGHT	1
93	3449E	BATTERY CAP	1
94	3449F	PLASTIC GRIP-LEFT	1
95	3450A	MUFFLER CAP HOLDER	1
96	3451A	MUFFLER CAP	1
97	3451B	WASHER	7
98	3451C	SCREW	7
99A	3452A	HANGER	1
99B	3452B	HOSE BIND	1
103	3453A	OILER	1
108A	3453B	5MM HEX WRENCH	1
108B	3454A	2MM HEX WRENCH	1
109A	3454B	10X11 WRENCH	1
109B	3455A	27X30 WRENCH	1
110	3455B	AIR INLET ASSEMBLY	1

PARTS BREAKDOWN



IDENTIFICATION

1. Composite Clam Shell Housing
2. Pull Trigger
3. Rev Trigger
4. Heavy Duty Rubber Base
5. Base
6. Lock Nut
7. Nosepiece
8. Safety Case
9. Screw Shaft
10. Cylinder
11. Mandrel
12. Oil O-Ring
13 Suspension Hook



OPERATION

CHANGING THE THREAD SIZE:

1. Take off the nosepiece and lock nut. **(See Fig.1 and Fig.2)**





2. Open the safety case, pull the lock ring and remove the screw shaft **(See Fig.3)**



3. Choose the required nosepiece for the nut.

4. Pull the adjustable bushing and insert the screw shaft. When the screw shaft is tight, ease the adjustable bushing back into its normal position **(See Fig.4)**



Fig.4

5. Replace and tighten the nosepiece, lock nut and safety case. **(See Fig.5 & Fig.6)**



Fig.5



Fig.6

STROKE ADJUSTMENT:

PLEASE NOTE: The stroke can be adjusted from 0-6mm. The manufacturer will set the tool to its Max. stroke (6mm).

TO REDUCE THE STROKE:

1. Unlock the lock nut.
2. Press the 'pull trigger' whilst turning the front cap back towards the cylinder. **(See Fig.7).** One full 360° turn will reduce the stroke by 1mm. Adjust to the stroke you require.
3. Release the 'pull trigger' and the piston will return back to the normal position.
4. Tighten the lock nut.



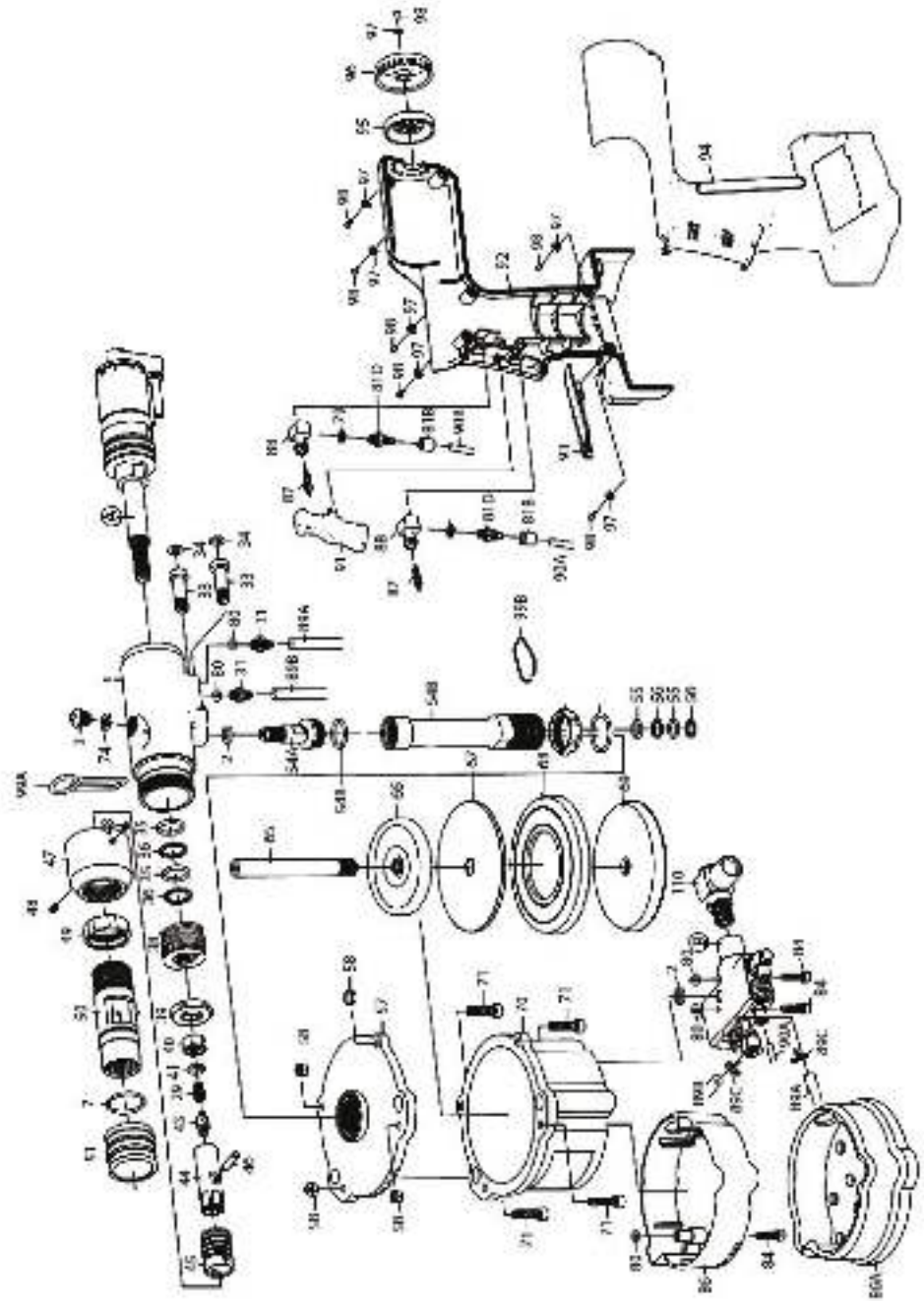
Fig.7

TO INCREASE THE STROKE:

1. Unlock the lock nut.
2. Press the 'pull trigger' whilst turning the front cap away from the cylinder **(See Fig.8)**. One full 360° turn will increase the stroke by 1mm. Adjust to the stroke you require.
3. Release the 'pull trigger' and the piston will return back to the normal position.
4. Tighten the lock nut.



Fig.8



TROUBLESHOOTING

Symptom	Diagnosis	Remedy
The screw shaft can't rotate.	It may not rotate at times because the air motor is in neutral position.	While pulling the reverse switch lever, press the trigger, or try turning the screw shaft clockwise or counterclockwise by hand.
The screw shaft rotates normally, but it doesn't thread into the rivet nut.	The size of the screw shaft doesn't match the size of the rivet nut. The threaded section of the screw shaft is damaged.	Replace the screw shaft with one of the correct size. Replace the screw shaft with a new one.
The screw shaft rotates and pulls up the rivet nut, but the screw shaft doesn't switch to reverse.	Hydraulic oil level is low. Stroke adjustment is incorrect. (Stroke is longer than required pull-up length).	Add hydraulic oil. Re-adjust the stroke.
The screw shaft draws in but then stays reverse rotating.	O-ring on the spool inside cylinder has deteriorated.	Replace the O-ring. Add lubricant though the air outlet hole in the cylinder.
Push the trigger but can't start the tool.	Trigger is not working or not working smoothly.	Remove the valve stem from "C" assembly and clean the tiny hole on the stem.

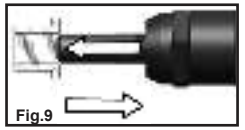
OPERATION

OPERATING THE TOOL:

⚠ WARNING!

INSPECT THE TOOL BEFORE EVERY USE FOR SIGNS OF DAMAGE. IF DAMAGED DO NOT USE.

1. Firstly check the air pressure. The air pressure must not exceed 7.5bar (110 psi).
2. Check if the correct nosepiece is fitted to the tool and make sure the lock nut is tightened (See section changing the thread size page 5).
3. Drill the required hole into your workpiece.
4. Connect the tool to the air supply.
5. Insert the rivet nut onto the mandrel, press the rivet nut gently, this will automatically turn the screw shaft to secure the rivet nut on the end **(See Fig.9)**.


Fig.9

6. Insert the head of the rivet nut into the workpiece **(See Fig.10)**.


Fig.10

7. Press the 'pull trigger' **(See Fig.11)** this will compress the rivet nut **(See Fig.12)**.



Fig.11


Fig.12

8. Pull the 'rev trigger' to release the screw shaft from the rivet nut **(See Fig.13)**.



Fig.13

9. Remove the tool from the work piece **(See Fig.14)**.


Fig.14

CLEARING HYDRAULIC SECTION FRONT END:

1. Remove the nosepiece parts **(See Fig.15).**


Fig.15

2. Open the nut and remove the front cap **(See Fig.16).**


Fig.16

3. Remove all parts in the head **(See Fig 17)**. Clear every part and reassemble them in order of fig below.

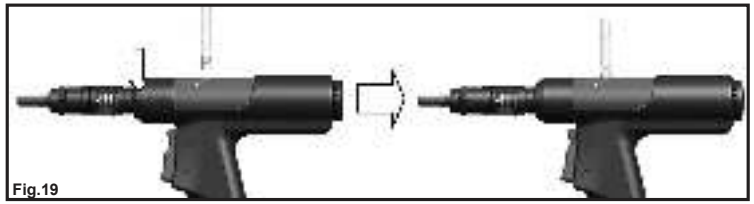

Fig.17

REFILLING THE HYDRAULIC OIL:

1. Unscrew the set screw and o-ring **(See Fig.18)**.


Fig

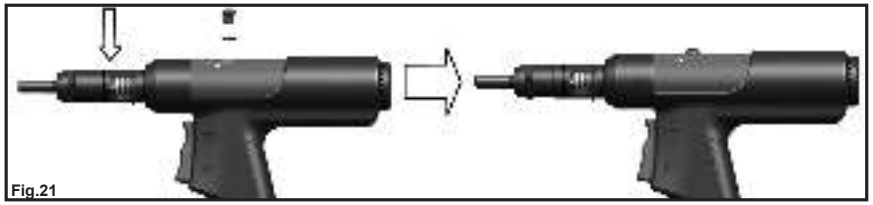
2. Insert and screw the syringe oiler into the hole and inject the hydraulic fluid into the hydraulic cylinder **(See Fig 19)**.


Fig.19

3. Remove the syringe **(See Fig.20)**.



4. Replace the screw on the set screw and secure and replace the o-ring **(See Fig.21)**.


Fig.21

Frequency	Maintenance
Approx. Every 10000 cycles	Clean screw sets or replace if necessary Pulling harder material will shorten the life time of the screw shaft
Approx. Every 80000 cycles	Check hydraulic fluid, refill if necessary
Approx. Every 100000 cycles	Change O-Rings And Back-Up-Ring in the hydraulic section, hydraulic tube, air cylinder & change new hydraulic oil.
Approx. Every 200000 cycles	Change Packing Ring in the air cylinder section