

## TROUBLE SHOOTING

Indication	Cause	Solution
Tool installs rivet-nut but will not reverse.	Usually because the tool is low on oil and the pull piston is not stroking far enough to engage the reversing valve.	Inject Hydraulic Oil into the tool using the priming syringe.
Tool installs rivet-nut but strips thread on Mandrel or inside the rivet-nut.	The air pressure setting is too high.	Adjust with the red knob located on the base of the tool
Tool installs rivet-nut's erratically.	Usually because the air supply to the tool is varying in pressure.	The tool functions pull-to-pressure (air) Ensure a reliable air supply.
The air motor runs continuously after installing rivet-nut.	The pressure on the reversing valve is too heavy.	Adjust the reversing-spring tension located inside the reverse button.
Tool remains engaged with rivet-nut after installation.	The air motor reverse period needs to be extended.	Use a hex key in the bleed valve. Adjust in 1/4 turn increments.
Insert will not engage with the mandrel.	Usually a worn or damaged thread on the Mandrel.	Replace with new Mandrel or dress the thread.
Air escapes from the relief valve.	The air supply pressure is too high.	Reduce accordingly, MAXIMUM pressure is 7-bar (100psi)
The air motor runs slowly.	Most times, the air motor needs lubrication.	Drips a small quantity of Motor Lubricating Oil in to the airline.

# RIVTEC®

Rivtec Ltd  
 4 Hotunui Drive, Mt Wellington, Auckland New Zealand  
 Ph: 09 276 7021 | Fax: 09 276 7021  
 Email: sales@rivtec.co.nz  
 Web: www.rivtec.co.nz

# RIVTEC®



## NHR-W12

### Air Rivet Nut Tool

### M5 - M12

## OPERATOR'S MANUAL



### IMPORTANT

Read this Operator's Manual carefully before operation.

Keep this manual for future reference.

## INTRODUCTION

The W12 is a cost-effective and reliable air rivet nut tool. It is suitable for both production and project based installations due to the quick change mandrel system and the adjustable air pressure stroke feature.

## SPECIFICATIONS

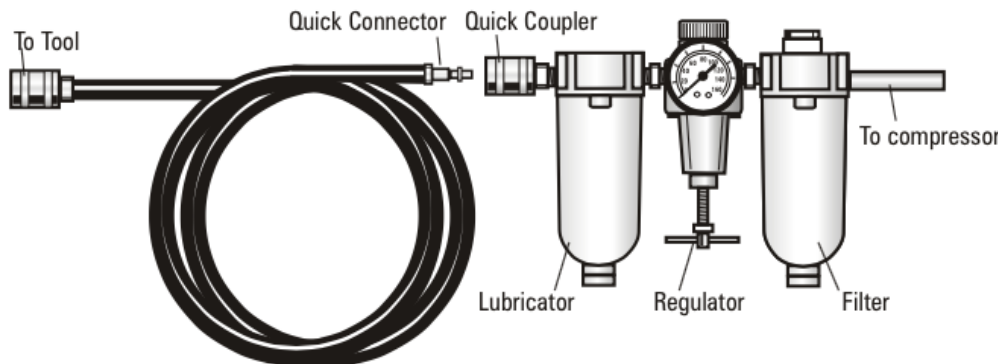
Weight .....	2.45kg	Width .....	124mm
Length .....	305mm	Stroke (Max).....	9mm
Height .....	292mm	Air Pressure .....	5-7 bar

## PACKAGE ACCESSORIES

- W12 Rivet Nut Tool
- 1 x Nose assembly for M5 Rivet Nuts
- 1 x Nose assembly for M6 Rivet Nuts
- 1 x Nose assembly for M8 Rivet Nuts
- 1 x Nose assembly for M10 Rivet Nuts
- 1 x Nose assembly for M12 Rivet Nuts
- Padded plastic carry case
- Lubricating Oil Bottle
- Hydraulic Oil Bottle
- 5ml Syringe
- 3mm and 4mm Hex Key
- Operating Manual

## Air Supply

This tool is designed to operate on clean, dry, regulated compressed air between 75 and 100psi. It is preferable to include an air filter, pressure regulator and automatic oiler within 4.5 metres of the tool if possible. An air filter is recommended to remove contaminants and moisture that are contained in compressed air, filtering will significantly prolong the life of the tool.



## SAFETY INSTRUCTIONS



**Caution!** To ensure proper functioning and safe operation, read this Operator's Manual carefully before operating the RIVTEC® NHR-W12 tool

- The W12 should be used exclusively to set rivet-nuts and rivet-studs.
- DO NOT overload the tool – work within the prescribed work capacity
- ALWAYS wear eye protection when working with the tool. Personal protection such as clothes, gloves, safety helmet, non-slipping shoes, ear protectors and protection against fall are highly recommended.
- This tool is NOT designed for use in explosive atmospheres.
- DO NOT use the tool as a hammer.
- Ensure the tool is not damaged before connecting to the air supply.
- Repair work must be carried out by trained personnel. In case of doubt, ALWAYS send back the tool to the supplier.
- ALWAYS disconnect the air supply when adjusting, servicing or removing any part of the tool.
- Keep fingers off the trigger when connecting the air supply or if the air supply fails.
- Keep fingers away from the front of the tool when connecting the air supply or setting rivets.
- DO NOT point the tool at anyone.
- DO NOT operate tool with the nose housing removed.
- DO NOT modify the tool in any way. Modifications could damage the tool.
- The operating pressure must not exceed 7 bar.
- Wash hands if exposed to hydraulic fluid or lubricant.
- Keep hair, fingers and loose clothing away from moving parts of the tool.

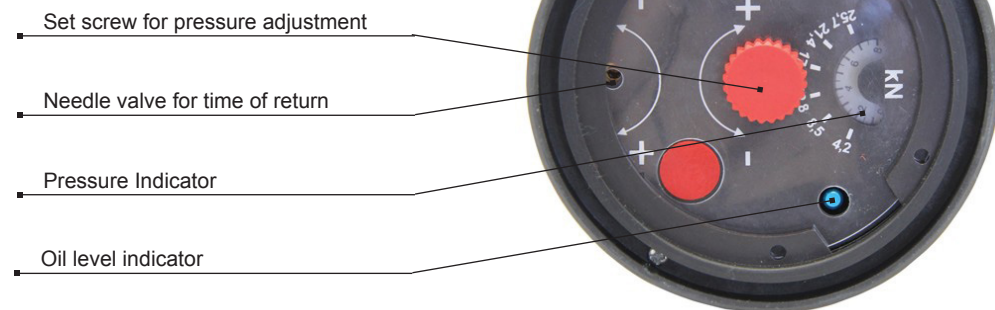
## MAINTENANCE



**Caution!** Disconnect the air supply while refilling the hydraulic oil. Keep the tool upright during all operations.

### Description of the pressure regulation system

The following can be found at the bottom of your W12 Tool:



### Lubrication

It is important that the tool be properly lubricated. There may be insufficient oil if the stroke of the tool is too small for proper installation of nuts/bolts. Without proper lubrication the tool will not work properly and parts will wear prematurely. First check whether the stroke setting is correct. Check the oil level indicator to see whether loss of oil has occurred. The tool has lost oil if the oil level indicator pin no longer protrudes.

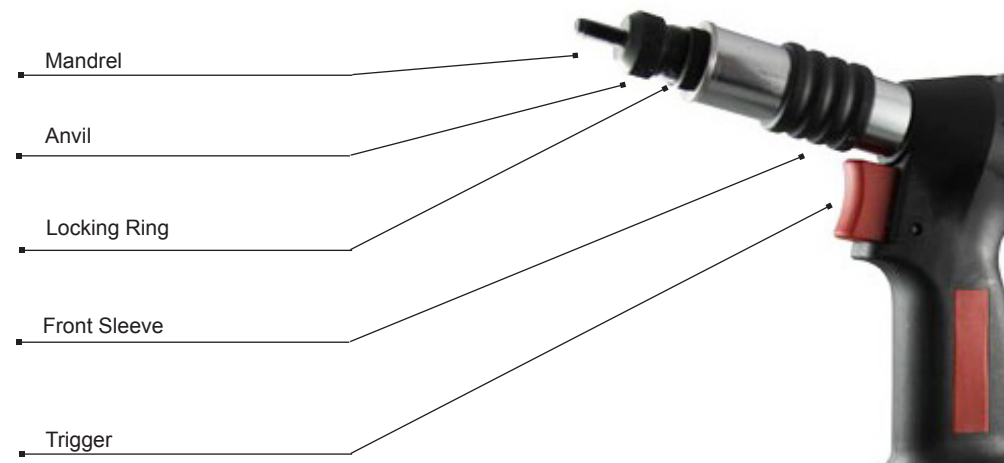
### Adding Oil to your W12

1. Keep the tool upright during all operations. Disconnect the tool from the air supply.
2. Unscrew the cap screw from the body using the allen wrench included. Check whether the O-ring remains in the hole.
3. Fill the syringe (included) with hydraulic oil.
4. Screw the filled syringe up to the O-ring in the hole. Then slowly inject the oil into the tool (Make sure no air is injected) Adequate oil has been added as soon as resistance is sensed. The excess oil will flow back when the syringe is release if more oil is added than necessary.
5. Unscrew and remove the syringe from the body. Check whether the O-ring remains in the hole.
6. Screw the cap screw into the hole using the allen wrench.
7. Wipe off any excess oil.

## NOSE REPLACEMENT PROCESS

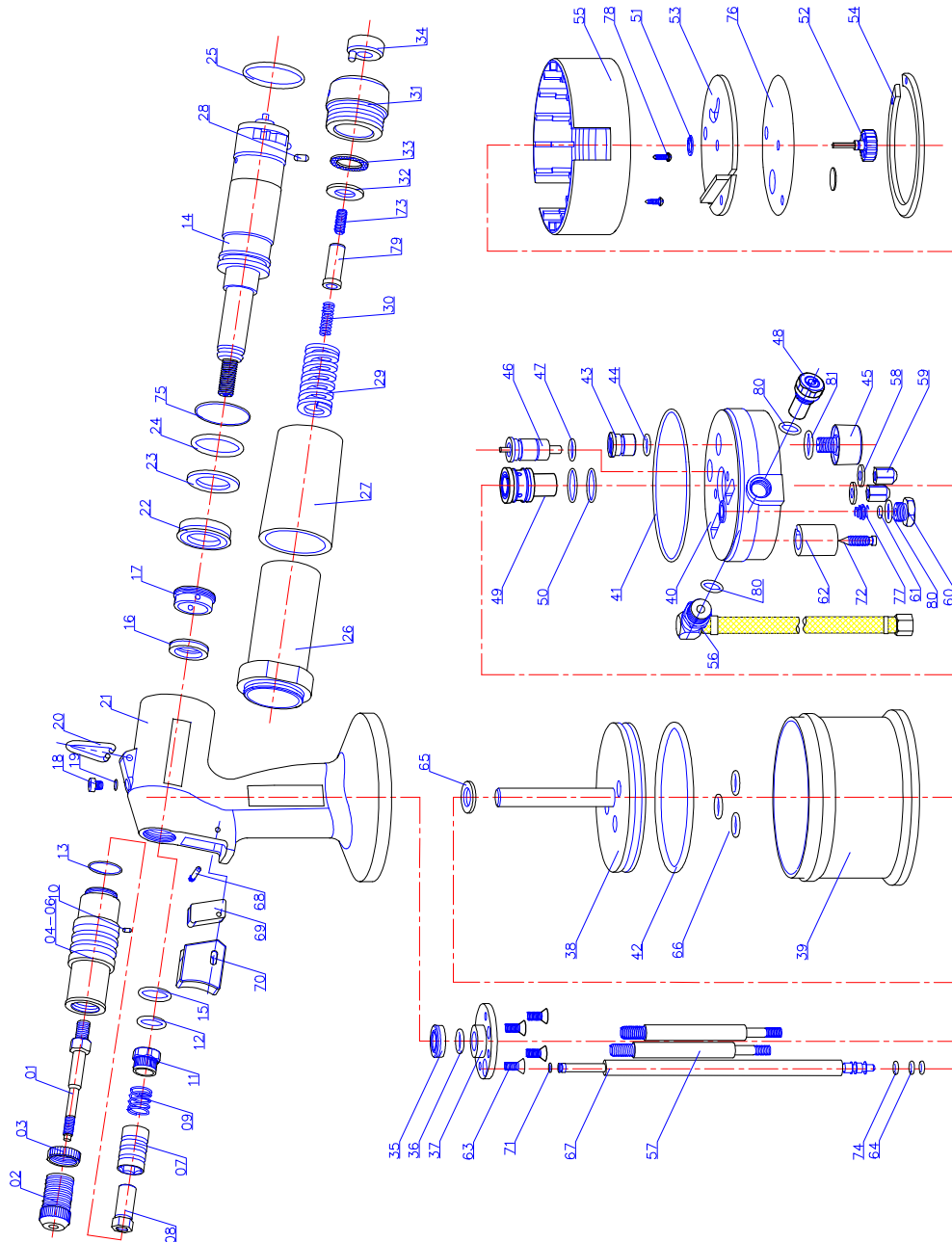


**Caution!** Disconnect the air supply while servicing front end to avoid injury.



1. Disconnect the tool from the compressed air supply
2. Undo the Locking Ring from the Anvil.
3. Remove the Anvil with the Locking Ring from the nose assembly holder (the Locking Ring remains on the Anvil)
4. Unlock and move the Front Sleeve forward.
5. Retract the spring loaded Security Part (7) towards the rear of the tool to release the Mandrel.
6. In this position, release the Mandrel by turning it counter-clockwise.
7. In this position, screw the selected Mandrel until it stops by turning clockwise.
8. Release the Security Part (7) and ensure the retaining device covers the hexagon of the Mandrel.
9. Push the Front Sleeve backwards and secure.
10. Screw the relevant Anvil with Locking Ring into the nose assembly holder.
11. Adjust the Anvil to the relevant material thickness then secure Locking Ring.

## DIAGRAM



## PARTS LIST

NO.	DESCRIPTION	CODE
1	M5 Mandrel	NHRS-W12-M5
1	M6 Mandrel	NHRS-W12-M6
1	M8 Mandrel	NHRS-W12-M8
1	M10 Mandrel	NHRS-W12-M10
1	M12 Mandrel	NHRS-W12-M12
2	M5 Anvil	NHRS-W12-2-M5
2	M6 Anvil	NHRS-W12-2-M6
2	M8 Anvil	NHRS-W12-2-M8
2	M10 Anvil	NHRS-W12-2-M10
2	M12 Anvil	NHRS-W12-2-M12
3	Locking Ring	NHRS-W12-3
4 - 6	Front Sleeve Complete	NHRS-W12-040506
7-11	Mandrel Holder Assembly	NHRS-W12-78911
10	Priming Syringe	NHRS-W12-10
14	Hydraulic Piston/Air motor	NHRS-W12-14
14-02	Thrust Washer (TK)	NHRS-W12-14-02
14-04	Bearing (front) Gear Box	NHRS-W12-14-04
14-09	Bearing (rear) Air Motor	NHRS-W12-14-09
14-11	Vanes set for Air Motor	NHRS-W12-14-11
14-15	Bearing (Rear) Air Motor	NHRS-W12-14-15
14-16	Pin (short) Motor Valve	NHRS-W12-14-16
14-17	Push Rod	NHRS-W12-14-17
14-19	Push Rod (CW) Reversing	NHRS-W12-14-19
14-24	Ball (plastic) for Valve	NHRS-W12-14-24
14-25	O-ring (30x1)	NHRS-W12-14-25
14-27	Push Rod (CCW) reversing	NHRS-W12-14-27
14-28	COVER Plate reversing valve	NHRS-W12-14-28
14-29	Csk Socket Screw	NHRS-W12-14-29
14-30	O-ring	NHRS-W12-14-30
14-31	Hardened Washer	NHRS-W12-14-31
15	Bearing (rear) for Air Motor	NHRS-W12-15
16	Rod-Seal Lipped SA 18x26x6.5	NHRS-W12-M-16
18	Billed Screw (M5x9)	NHRS-W12-M18
21	Hydraulic Body	NHRS-W12-21
26	Aluminium Connector Sleeve	NHRS-W12-26
27	Plastic Sleeve for Air Motor	NHRS-W12-27
28	Retaining Pin for Connector	NHRS-W12-28

NO.	DESCRIPTION	CODE
29	Return Spring	NHRS-W12-29
30	Spring for Reverse Button	NHRS-W12-30
31	Rear Cap (and return spring)	NHRS-W12-31
32	Washer for Hydraulic Piston	NHRS-W12-32
34	Reversing Button	NHRS-W12-34
38	Air Piston Assembly	NHRS-W12-38
42	Air Piston O-Ring (89x4)	NHRS-W12-42
48	Pressure Relief Valve (inlet)	NHRS-W12-48
49	Pressure Regulation Valve	NHRS-W12-49
52	Regulator Screw	NHRS-W12-52
57	Connecting-Rod for Air Cylinder	NHRS-W12-57
64	O-Ring (4x2) for Valve Tube	NHRS-W12-64
66	O-Ring (10x2) for Air Piston	NHRS-W12-66
68-70	Trigger Button Components	NHRS-W12-686970
71	O-Ring (4x1) for Valve Tube	NHRS-W12-71
72	Needle Valve for time Return	NHRS-W12-72
74	O-Ring (4x2.2) for Valve Tube	NHRS-W12-74
77	Spiral Return-Spring for Valve	NHRS-W12-77
79	Pusher for Reversing Spring	NHRS-W12-79
DS	Drive Shaft for Air Motor	NHRS-W12-DS
VANES	Vanes for Air Motor	NHRS-W2-VANES
POA	3/16" UNC Mandrel	NHRS-W12-3/16
POA	1/4" UNC Mandrel	NHRS-W12-1/4
POA	5/16" UNC Mandrel	NHRS-W12-5/16
POA	3/8" UNC Mandrel	NHRS-W12-3/8