

# INSTRUCTION MANUAL

# RK-986

TOOLS FOR BLIND RIVETS, STRUCTURAL  
RIVET NUTS AND LOCKBOLTS

EN PNEUMATIC RIVETING TOOL



## INDEX

1. IDENTIFICATION	13
2. DESCRIPTION	13
3. VIBRATION AND NOISE LEVEL	13
4. ELECTROMAGNETIC ENVIRONMENT	13
5. SAFETY PRECAUTIONS AND WARNINGS	13
6. STORAGE	14
7. SPECIFICATIONS	14
8. CONTENTS	14
9. KITS	14
10. AIR SUPPLY AND PRESSURE REGULATOR	18
11. INSIDE THE MACHINE	18
12. CHECKS BEFORE USING THE MACHINE	19
13. PREPARATION AND OPERATION	19
14. MAINTENANCE	19
15. PURGING OR PRIMING MANNER 1	19
16. PURGING OR PRIMING MANNER 2	20
17. ASSISTANCE	21
18. GUARANTEE	21
19. MOST COMMON PROBLEMS	21
20. BREAKDOWN	85

## 1. IDENTIFICATION

The RIVETKING RK-986 riveting machine is identified by a nameplate on the outside with a serial number, RIVETKING logo, address, website and CE-UK mark.

## 2. DESCRIPTION

The RK-986 riveting machine is a tool designed to set structural rivets, collar bolts and Structural rivets. Ideal for assembly lines.

This is a riveting machine with a lightweight gun in painted aluminum for effortless operation, which is connected with a hose to a wheeled control unit. Inside the control unit are the drive valve, the air filtering system, the pressure regulation, the oil and filter tank and two pistons, one for traction force and the other for recovery force, the latter is essential for the machine's recovery.

## 3. VIBRATION AND NOISE LEVEL

The continuous sound pressure level recorded in the workplace does not exceed 80 dB, as this is a tool designed to work at low noise levels for the safety of the operator.

If all instructions are followed, this is a riveting machine that does not generate any vibrations that could cause harm to the operator.

## 4. ELECTROMAGNETIC ENVIRONMENT

The RK-986 riveting machine is approved to work in industrial electromagnetic environments, it is within the Emission and Immunity limits under the following standards: General Emission Standard - Part 2 Industrial Environment (2007) and the General Immunity Standard - Part 2 of the Industrial Environment (2006) of EN 61000-6-4 Electromagnetic Compatibility (EMC) standard.

## 5. SAFETY PRECAUTIONS AND WARNINGS



**Read the entire instruction manual carefully before installing, operating or repairing this tool. Keep this instruction manual near the tool at all times.**

- This manual has been written so that operators can operate the machine and carry out maintenance work, but they must not carry out repair work, as only RIVETKING USA authorized technicians can carry out these more technical tasks.

- RIVETKING offers you training and qualified personnel.



**Suitable clothing must be worn to avoid entanglement with the tool, protective goggles for the operator and bystanders, and gloves.**

- Any modifications made to the tool by the customer its the sole responsibility of the same. RIVETKING is available to give any suggestions required before the customer makes modifications.

- Damage caused by transport or mishandling is not covered by RIVETKING's warranty and shall be borne by the customer.

- Only kits supplied by RIVETKING should be used for the brand rivets.
- Disconnect the air supply before installing or adjusting the kits.
- When disconnecting the air hose, make sure that there is no pressure.
- The user must maintain the riveting machine in a safe working condition and in a clean working area.
- The machine must be operated at all times in accordance with current Health and Safety legislation.
- Take care not to operate the riveting machine when it is pointed at any person or at the operator.
- The tool should not be pulled by the hose or gun but by the control unit, taking the hand off the trigger to avoid trigger actuation. Keep the hose away from heat sources or sharp objects.
- Remember that the air pressure must not exceed 7 bar and the air inlet must not exceed 8 bar.
- Care should be taken not to spill hydraulic oil and clean up thoroughly with water and alkaline soap if spilled on the skin.
- Remember to use ISO VG 32 oil for maintenance work.

## 6. STORAGE

For the correct storage of the tool if it is not going to be used for a period of time, possible impacts, places of tension, thermal variations, humidity and corrosive substances must be taken into account.





## 7. SPECIFICATIONS

Weight	28 Kg
Gun weight	1,7 kg
Dimensions of the Control Unit (mm)	495 x 295 x 250
Gun dimensions (mm)	320x 170
Air pressure (bar)	6-7 bar
Maximum power at 6 bar	40000N
Piston travel (mm)	32 mm
Hydraulic oil	ISO VG 32
Oil pressure at 6 bar	300 bar.
Intensification ratio	1:50

## 8. CONTENTS

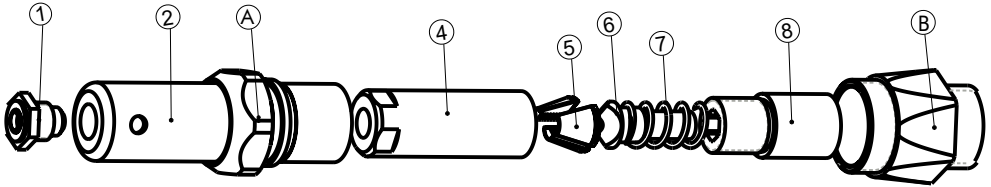
Inside the packaging you will find the instruction manual and a bag with the air connection and the key to open the control unit. The customer shall purchase the necessary consumables according to his needs.

## 9. KITS

REFERENCE	KIT	
RK986-2020 RK986-2010	KIT RIVETING Ø6,5 TIGERBOLT/MONOBOLT KIT RIVETING Ø9,7 TIGERBOLT/MONOBOLT	
RK986-2021* RK986-2022* 05HT00B0800	KIT RIVETING Ø4,8 MULTIGRIP COLLAR BOLT KIT RIVETING Ø6,4 MULTIGRIP COLLAR BOLT RIVETING Ø8,0 MULTIGRIP COLLAR BOLT	
RK986-2023* RK986-2024* RK986-2025 RK986-2026	KIT RIVETING Ø4,8 FIXED GRIP COLLAR BOLT KIT RIVETING Ø6,4 FIXED GRIP COLLAR BOLT KIT RIVETING Ø8,0 FIXED GRIP COLLAR BOLT KIT RIVETING Ø10,0 FIXED GRIP COLLAR BOLT	
RK986-2029 RK986-2027 RK986-2028	KIT RIVETING Ø4,8 BOM RIVET KIT RIVETING Ø6,4 BOM RIVET KIT RIVETING Ø8,0 BOM RIVET	

\* These kits need the adapter 05BM3001023

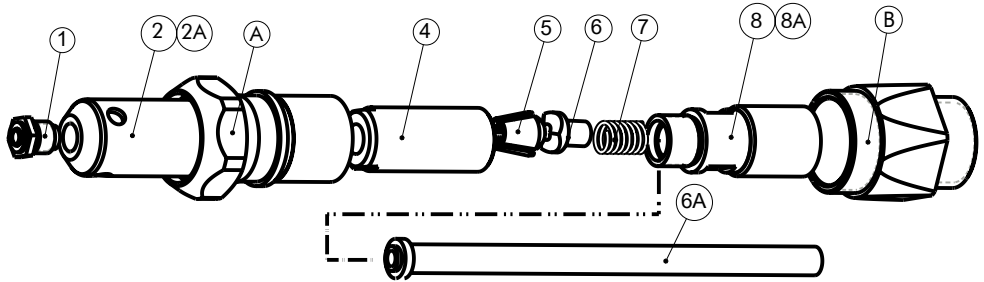
COMPLETE KIT FOR BRALO STRUCTURAL RIVETS Ø 9.7 mm



Nº	REFERENCE	DESCRIPTION
1	RK986-2001	NOSEPIECE Ø9,7 STRUCTURAL
2	RK986-2002	NOSEPIECE HOLDER
A	RK986-2003	NOSEPIECE HOLDER NUT
4	RK986-2004	JAW HOLDER
5	RK986-2005	JAWS Ø9,7 STRUCTURAL
6	RK986-2006	JAW PUSHER
7	RK986-2007	PUSHER SPRING
8	RK986-2008	DRIVER GUIDE
B	RK986-2009	NOSEPIECE HOLDER STOP
	RK986-2010	KIT Ø9,7 STRUCTURAL

To unscrew the 9.7 mm structural full nosepiece head use a 17 mm wrench.

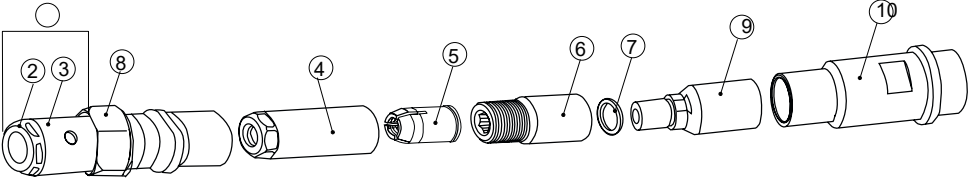
COMPLETE KIT FOR BRALO STRUCTURAL RIVETS Ø 6.5 mm



Nº	REFERENCE	DESCRIPTION
1	05BM0000983	NOSEPIECE Ø6,5 STRUCTURAL
2	RK986-2012	NOSEPIECE HOLDER Ø6,5 STRUCTURAL
2A	RK986-2013	LONG NOSEPIECE HOLDER Ø6,5 STRUCTURAL
A*	RK986-2003	NOSEPIECE HOLDER NUT
4	RK986-2014	JAW HOLDER Ø6,5 STRUCTURAL
5	RK986-1003	JAWS Ø6,5 STRUCTURAL
6	RK986-2016	JAW PUSHER Ø6,5 STRUCTURAL
6A	RK986-2017	LONG STEM TUBE GUIDE Ø6,5 STRUCTURAL
7	05BNT000355	JAWS PUSHER SPRING
8	RK986-2018	MANDREL TUBE GUIDE Ø6,5 STRUCTURAL
8A	RK986-2019	DRIVER GUIDE Ø6,5 STRUCTURAL
B*	RK986-2009	NOSEPIECE HOLDER STOP
	RK986-2020	KIT Ø6,5 STRUCTURAL
	05BM3002011	LONG KIT Ø6,5 STRUCTURAL

\* Parts A and B come installed on the machine.

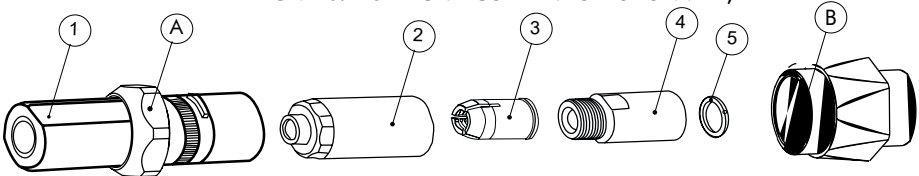
**COMPLETE KIT FOR COLLARBOLTS Ø 4,8 AND Ø 6,4 1**



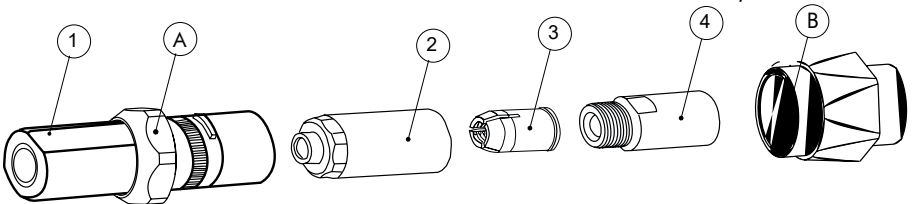
Nº	DESCRIPTION	UNILOCK Ø4,8	BRALOCK Ø4,8	UNILOCK Ø6,4	BRALOCK Ø6,4
1	HOLDER AND NOSEPIECE ASSEMBLY	RK986-2023-1	RK986-2021-1	05BM3002024-1	05BM3002022-1
2	NOSEPIECE	RK986-2023-2	RK986-2021-2	05BM3002024-2	05BM3002022-2
3	NOSEPIECE HOLDER	RK986-2023-3	RK986-2021-3	RK986-2024-3	RK986-2022-3
4	JAW HOLDER	RK986-2023-4	RK986-2021-4	RK986-2024-4	RK986-2022-4
5	JAWS SET	RK986-2023-5	RK986-2021-5	RK986-2024-5	RK986-2022-5
6	JAW HOLDER EXTENSION	RK986-2023-6	RK986-2021-6	RK986-2024-6	RK986-2022-6
7	GASKET	RK986-2023-7	RK986-2021-7	RK986-2024-7	RK986-2022-7
8*	NUT	RK986-2033	RK986-2033	RK986-2033	RK986-2033
9*	SLEEVE	RK986-2038	RK986-2038	RK986-2038	RK986-2038
10*	NOSEPIECE STOP	RK986-2039	RK986-2039	RK986-2039	RK986-2039
	KITS	RK986-2023	RK986-2021	RK986-2024	05BM002022

\* Parts 8, 9 and 10 belong to a necessary Kit supplied as an option 05BM3001203

**COMPLETE KIT FOR FIXED GRIP & MULTIGRIP COLLAR BOLTS FOR Ø 8,0**



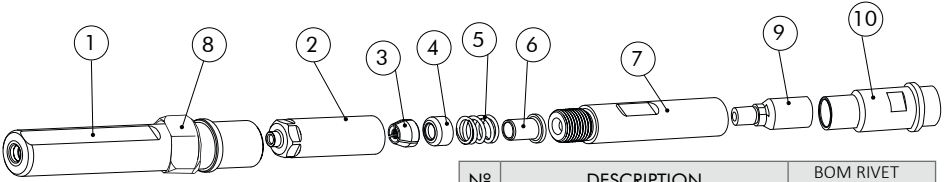
**COMPLETE KIT FOR FIXED GRIP & MULTIGRIP COLLAR BOLTS FOR Ø 10,0**



Nº	DESCRIPTION	FIXED GRIP COLLAR BOLTS Ø8,0	MULTIGRIP COLLARBOLTS Ø8,0	FIXED GRIP COLLAR BOLTS Ø10,0
1	NOSEPIECE	RK986-2025-1	RK986-B0801	RK986-026-1
2	JAWS HOLDER	RK986-2025-2	RK986-B0802	RK986-2026-2
3	JAW HOLDER SET	RK986-2025-3	RK986-B0803	RK986-2026-3
4	JAW HOLDER EXTENSION	RK986-2025-4	RK986-B0804	RK986-2026-4
5	SPACER WASHER	RK986-2025-5	RK986-B0805	
A*	NUT	RK986-2003	RK986-2003	RK986-2003
B*	NOSEPIECE STOP	RK986-2009	RK986-2009	RK986-2009
	KIT	RK986-2025	RK986-B0800	RK986-2026

\* Parts A and B come installed on the machine.

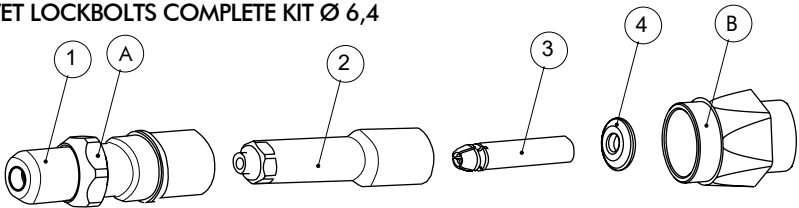
**BOM RIVET LOCKBOLTS COMPLETE KIT Ø 4,8**



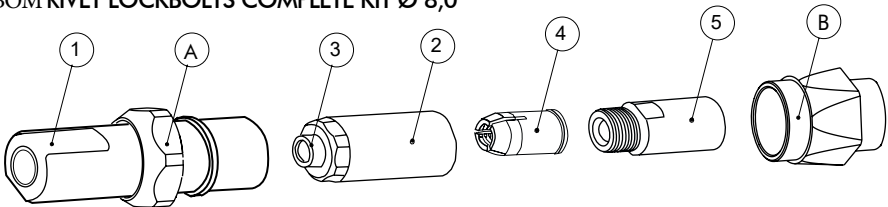
Nº	DESCRIPTION	BOM RIVET Ø4,8
1	NOSEPIECE	RK986-2029-1
2	JAW HOLDER	RK986-2029-2
3	JAWS SET	RK986-2029-3
4	TRACKER	RK986-2029-4
5	SPRING	RK986-2029-5
6	SLEEVE	RK986-2029-6
7	JAW HOLDER EXTENSION	RK986-2029-7
8*	NUT	RK986-2033
9*	SLEEVE	RK986-2038
10*	NOSEPIECE STOP	RK986-2039
	KIT	RK986-2029

\* Parts 8, 9 and 10 belong to a necessary Kit supplied as an option 05BM3001203

**BOM RIVET LOCKBOLTS COMPLETE KIT Ø 6,4**



**BOM RIVET LOCKBOLTS COMPLETE KIT Ø 8,0**



Nº	DESCRIPTION	BOM RIVET Ø6,4
1	NOSEPIECE	RK986-2027-1
2	JAW HOLDER	RK986-2027-2
3	JAWS SET	RK986-2027-3
4	SPACER	RK986-2027-4
A*	NUT	RK986-2009
B*	NOSEPIECE STOP	RK986-2003
	KIT	RK986-2027

Nº	DESCRIPTION	BOM RIVET Ø8,0
1	NOSEPIECE	RK986-2028-1
2	JAW HOLDER	RK986-2028-2
3	EXTENSION	RK986-2028-3
4	JAWS SET	RK986-2028-4
5	SPACER	RK986-2028-5
A*	NUT	RK986-2009
B*	NOSEPIECE STOP	RK986-2003
	KIT	RK986-2028

\* Parts A and B come installed on the machine.

## 10. AIR SUPPLY AND PRESSURE REGULATOR

This machine is designed to operate with a compressed air supply.

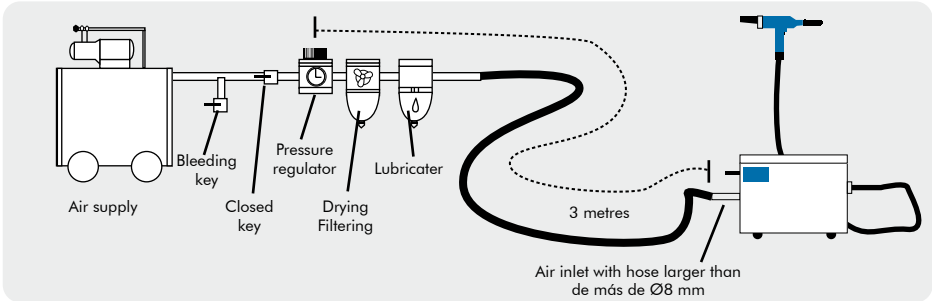
It is necessary to use an air pressure regulator, this ensures a long service life of the machine and reduces malfunctions to a minimum.

Make sure that the compressed air supply is dry and clean, as moisture and impurities can cause malfunctions in the machine.

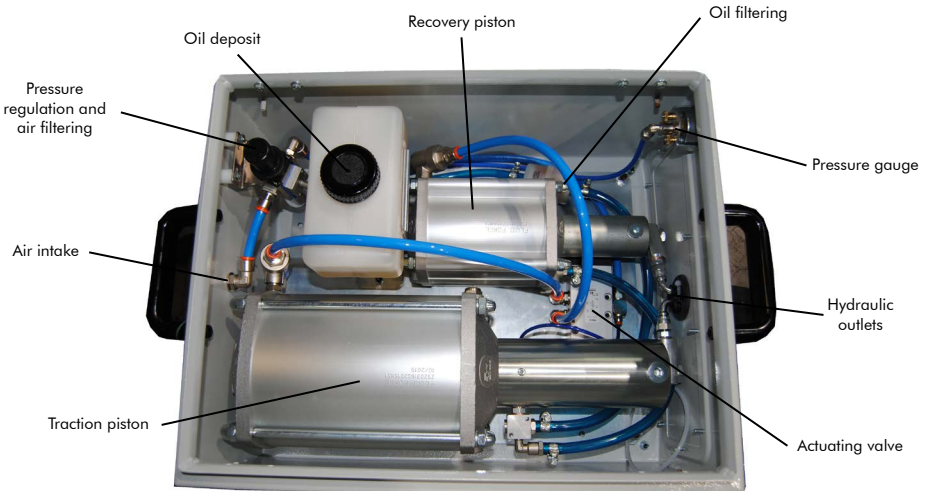
The air must be **FILTERED AND OILED** for proper operation of the machine.

Make sure that the maximum hose distance from the pressure regulator to the machine is 3 metres. Hoses shall have a minimum burst strength equal to 30 bar.

The hose should have a diameter greater than 8 mm and use high flow air connections.



## 11. INSIDE THE MACHINE



## 12. CHECKS BEFORE USING THE MACHINE

- Check if the machine has been damaged during transport.
- Make sure that the compressed air hose is properly connected to the air supply.
- Check the oil level in the tank, it should be half full.



**Please note that the oil cap is blocked during transport, remove the safety lock to check the oil level.**

**For subsequent transfers of the machine, return the cap to the locked position to prevent spillage.**



**\*Tank locked, remove safety lock.**

## 13. PREPARATION AND OPERATION

- The control unit must always be in a horizontal position (resting on the wheels).
- Place the appropriate kit.
- Check that the oil level is half full (should be between the minimum and maximum marks).
- Remove the air from the oil tank by unscrewing the cap at least 2 turns.
- Connect the machine to the air supply.
- Check that the air pressure input is between 6-7 bar.
- The inside of the air inlet hose must be more than 8 mm in diameter.
- Adjust the pressure with the internal pressure gauge to 6-7 bar.
- Check that the wires of all connections are not loose.
- Insert the stem into the nosepiece.
- Insert the rivet into the application with the rivet head perpendicular. Do not hold the rivet with your fingers!

- Squeeze the trigger. Make sure that the stem is ejected.



**\*The front castor wheels have a safety lock to prevent unwanted movement of the machine during use.**

## 14. MAINTENANCE

- To avoid tool failure, maintenance and cleaning work is recommended:
- Disconnect the air supply.
- Use appropriate personal protection before cleaning the machine from dust, debris or oil.
- Check the correct tightening of the kits on a daily basis.
- Check the quality of the hoses, air supply and possible damage or air leaks.
- Check the oil level in the tank.
- If there is continuous use, check the condition of the nosepiece, jaws and gun parts.
- Dismantle and clean the nosepiece holders weekly with a dry cloth.
- Check that the lubricator is connected and that the pressure regulator is free of dirt.



**\*Riveting machine components must be replaced when worn and damaged. The operator must not carry out repairs to the machine.**

## 15. PURGING OR PRIMING MANNER 1

- 1) Have an oil pan to collect excess oil.
- 2) Disconnect the air supply and turn the oil deposit cap on the intensifier.
- 3) Fill the deposit with VG 32 Hyspin R oil up to 2 cm (0.8") from the top of the deposit.
- 4) Remove the TRACTION bleed screw (A) and washer (B) from the gun.
- 5) Connect the machine to the air supply. Do not point the venting holes at the face of the operator or surrounding persons.
- 6) Position the TRACTION bleed screw of the gun on the oil container.
- 7) Activate the trigger and the oil will be expelled from the bleed hole. Release the trigger.
- 8) Re-activate the trigger and, at the same time, fit screw A and washer B. Then release the trigger.



9) Remove the RECOVERY bleed screw (C) and washer (D) from the gun.

10) Connect the machine to the air supply. Do not point the venting holes at the face of the operator or surrounding persons.

11) Activate the trigger and the oil will be expelled through the RECOVERY bleed hole. Release the trigger. Fit screw C and washer D without fully tightening.

12) Pull the trigger several times for a few seconds to release the oil without air. Activate the trigger while tightening the RECOVERY screw with a Hex key. And release the trigger. Tighten the TRACTION screw.

13) Check the oil deposit and refill if necessary.

3) Press the trigger and at the same time, slightly loosen the TRACTION bleed screw (A) to release the air bubbles keeping the trigger pressed, when no more air comes out, tighten the screw A.

4) Repeat this procedure several times, until oil comes out without air bubbles.

5) In this way the TRACTION circuit is purged, and the RECOVERY circuit is then purged:

6) Make sure that the oil tank is not empty.

7) Maintain the air supply connected.

8) The RECOVERY bleed screw (C) at the rear of the gun must be slightly loosened to release the air bubbles.

9) Tighten the RECOVERY bleed screw when no more bubbles come out.

10) Activate the trigger several times for a few seconds to circulate the oil without bubbles.

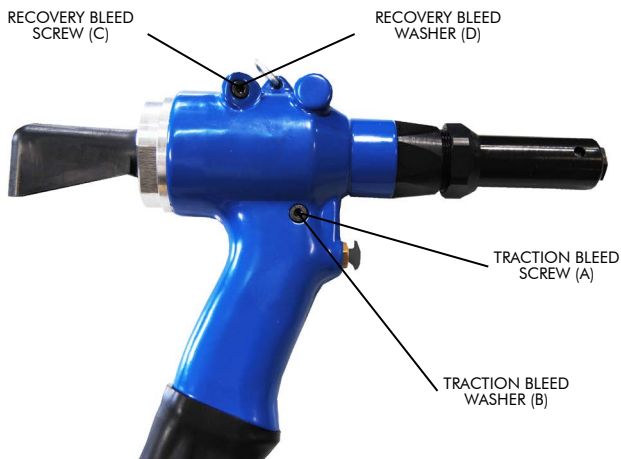
11) Check the oil deposit and refill if necessary.

12) Check the stroke length at 32 mm to verify that bleeding has been performed correctly.

## 16. PURGING OR PRIMING MANNER 2

1) Have an oil pan to collect excess oil.

2) Switch on the air supply.





## 17. ASSISTANCE

To keep the tool in good condition, it is recommended to service the tool and replace worn parts on a regular basis.

Should you require these services or spare parts, please contact us directly:

INDUSTRIAL RIVET & FASTENER CO  
35 MAPLE STREET  
NORWOOD, NEW JERSEY 07647  
1-800-289-7483

## 18. GUARANTEE

The warranty is valid for 12 months from the invoice purchase date.

The guarantee only covers defects in the parts or their assembly.

Damage to the tool caused by the following cases is not covered by the warranty:

- Transport.
  - Operator usage errors.
  - Errors in maintenance work.
  - Breakages or failures that are not attributed to manufacturing defects.
  - Normal wear and tear on consumable parts.
- The warranty is invalid if tool components are replaced without authorisation or if worn parts other than those recommended by the manufacturer are replaced, which could cause damage to the tool.

RIVETKING assumes responsibility for manufacturing defects, but is not liable if the operator does not follow the instructions given in this manual. The tool is built according to the European Directive in force when the riveting tool is marketed.

## 19. MOST COMMON PROBLEMS

PROBLEMS AND CAUSES	SOLUTION
SEVERAL TRIGGER PULLS ARE NECESSARY TO SET THE RIVET	
Low air pressure.	Increase air pressure.
Excessive lubrication at the air inlet	Pour oil into the air inlet.
Broken or worn jaws.	Replace the jaws.
There is air in the oil or the oil level in the oil tank is low	Refill the oil tank.
RIVETER DOES NOT GRIP THE RIVET STEM CORRECTLY	
The jaws are broken or dirty.	Replace jaws or clean them.
The jaw clamp is loose.	Tighten the jaw clamp.
The nosepiece spring is broken or loose.	Replace the spring.
The parts have been incorrectly positioned or there is a wrong part.	Identify the wrong parts.
RIVETING MACHINE DOES NOT BREAK THE STEM	
Insufficient air pressure.	Check air pressure or air leaks.
Stem length is incorrect for the application.	Replace the rivet.
There is little oil.	Fill the oil tank.
The air outlet is dirty.	Clean the air outlet.
THE MACHINE TAKES LONGER TO RIVET	
Low air flow	Check flow rate and hose.