Beta 1946C4,8

Operation manual and instructions



OPERATION MANUAL AND INSTRUCTIONS FOR AIR RIVETER MANUFACTURED BY:

BETA UTENSILI S.P.A.

Original documentation drawn up in ITALIAN.

CAUTION



IMPORTANT! READ THIS MANUAL THOROUGHLY BEFORE USING THE PNEUMATIC TOOL. FAILURE TO COMPLY WITH THE SAFETY STANDARDS AND OPERATING INSTRUCTIONS MAY RESULT IN SERIOUS INJURY.

Store the safety instructions with care and hand them over to the users.

PURPOSE OF USE

- The air riveter can be used for the following purposes:
 - · Installing blind rivets
 - Applying copper-aluminium-steel-stainless steel rivets, 2.4 3.2 4 4.8 mm
 - . The air riveter can also be used in open places exposed to water and air

- The pneumatic tool must not be used for the following operations:

- . The pneumatic tool must not be used in environments containing potentially explosive atmospheres.
- The trigger must not be locked with adhesive tape or clamps.
- . The pneumatic tool must not be used for any applications other than stated ones.

WORK AREA SAFETY

- Beware of both surfaces that may become slippery due to the use of the machine and the danger of tripping over the air hose.
- While using the pneumatic tool for jobs performed high from the ground, take all necessary precautions, to eliminate or minimize risk to other workers, following the accidental falling of any tools (for example, isolation of the work area and proper signs).



Do not operate the pneumatic tool in environments containing potentially explosive atmospheres, because sparks may be generated, which can ignite the dust, fumes or gases.



Avoid contact with live equipment: the pneumatic tool is not insulated, and contact with live parts can cause electric shocks.



Do not use the air riveter without the nail container. The air riveter is fitted with an automatic suction system. During riveting operations, nail ejection may cause damage to anyone working or standing near the work area.



Keep children and bystanders away from your workplace while operating the pneumatic tool. Distractions from other people can cause you to lose control over the pneumatic tool.

PNEUMATIC TOOL SAFETY

- Do not point the air flow to yourself or other people. Compressed air can cause serious injury.
- Check the connections and the air supply lines. All units, couplers and hoses should conform to the product specifications in terms of pressure and air volume. Too low pressure impairs the function of the pneumatic tool; too high pressure can cause damage and/or injury.
- Do not bend or tightén any hoses; avoid using solvents and sharp edges. Keep the hoses away from heat, oil and rotating parts. Immediately replace any damaged hose. A defective feed pipe may cause uncontrolled movements of the compressed air pipe. Raised dust or chips may cause eye injury. Make sure that the hose clamps are always secured firmly.

PERSONNEL SAFETY

- Stay alert; watch what you are doing. Do not use the pneumatic tool while tired or under the influence of drugs, alcohol, or medication.
- Always use the following personal protective equipment:
- Eye protection
- Safety shoes
- Hearing protection
- · Protective gloves against physical agents

- Anti-vibration gloves, to be worn following a specially conducted survey of the daily exposure of the hand-arm system to vibration
- Make sure you are in a safe position, keeping proper balance at all times. A safe working position and a proper body posture enable better control of the pneumatic tool in unexpected situations.
- Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothing, jewellery, and long hair can get caught in moving parts.
- Do not directly inhale the exhaust air, and prevent it from getting into your eyes. The exhaust air of the pneumatic tool can contain water, oil, metal particles and impurities, which may cause hazards.

AIR RIVETER USE AND CARE

- Use clamping devices or a vice to secure and support the workpiece. Holding the workpiece by hand or against your body will not allow for safe operation of the pneumatic tool.
- Do not overload the pneumatic tool. Use the pneumatic tool intended for your work only.
- Always check that the machine is free from defects. Do not use a pneumatic tool that has a defective On/Off switch. A pneumatic tool that can no longer be stopped or started is dangerous and must be repaired.
- Disconnect the air supply before making adjustments, changing accessories, or placing the pneumatic tool aside. This safety
 measure prevents accidental starting of the pneumatic tool.
- Store idle pneumatic tools out of the reach of children. Do not allow persons unfamiliar with these instructions to operate the pneumatic tool.
- Maintain the pneumatic tool with care. Check for misalignment or binding of moving parts, breakage or damage of parts and any
 other condition that may affect the operation of the pneumatic tool. Have damaged parts repaired before using the pneumatic
 tool.
- Have the pneumatic tool repaired only through a trained repair person. Only use original replacement parts.

AIR RIVETER SAFETY

- Make sure that the nameplate is readable; get a replacement nameplate from the manufacturer, if need be.
- While the pneumatic tool is being used, accidental breakages of the individual accessories may cause parts to be projected at high speed.
- Operators and maintenance personnel should be physically able to handle the weight and power of the pneumatic tool.
- It is important to be prepared for unexpected movements of the pneumatic tool resulting from a jammed or broken accessory. Maintain a firm grip on the tool and position your body and arms to allow you to resist such movements.
- Avoid contact with the moving parts of the tool, as this may cause injuries.
- Stop the tool in case of air supply failure or low operating pressure. Check the operating pressure; start the tool again when optimal operating pressure is resumed.
- When using the pneumatic tool, the operator may experience discomfort in the hands, arms, shoulders, or neck area. Adopting
 a comfortable posture and changing posture may help avoid discomfort and fatigue.



Using the pneumatic tool on the workpiece generates noise, which may prove harmful to the exposed personnel. A proper phonometric survey is required to determine the personal hearing protective equipment (hearing protection) to use.



If a specially conducted survey suggests that the daily exposure to vibration generated from the pneumatic tool exceeds the limit value under the regulations in force in the respective country, anti-vibration gloves must be worn.

- If you notice that the skin of your fingers becomes numb, turns white, tingles or hurts, stop working with the pneumatic tool, inform your employer and seek medical advice.

- Hold the pneumatic tool with a not too firm yet secure grip, compliant with the required hand reaction forces.
- Never carry the pneumatic tool by the hose.

PERSONAL PROTECTIVE EQUIPMENT TO WEAR WHILE OPERATING PNEUMATIC TOOL

Failure to observe the following warnings may result in physical injury and/or disease.

\bigcirc	ALWAYS WEAR HEARING PROTECTION WHILE OPERATING PNEUMATIC TOOL	
8	ALWAYS WEAR EYE PROTECTION WHILE OPERATING PNEUMATIC TOOL OR PERFORMING MAINTENANCE JOBS	
	ALWAYS WEAR PROTECTIVE GLOVES AGAINST PHYSICAL AGENTS WHILE OPERATING PNEUMATIC TOOL	
	ALWAYS WEAR SAFETY SHOES	
Additional personal protective equipment to wear according to the values found in the environmental hygiene/risk analysis survey if the values exceed the limits under current regulations.		
	WEAR ANTI-VIBRATION GLOVES WHILE OPERATING PNEUMATIC TOOL	

 WEAR PROTECTIVE MASK AGAINST PHYSICAL AGENTS ACCORDING TO THE VALUES FOUND IN THE ENVIRONMENTAL/INDUSTRIAL HYGIENE SURVEY

WEAR PROTECTIVE HELMET

TECHNICAL DATA

TRACTIVE FORCE STROKE LENGTH AIR INLET MINIMUM HOSE SIZE Ø MAXIMUM PRESSURE MAXIMUM AIR CONSUMPTION WEIGHT LENGTH HEIGHT MAXIMUM RIVET CAPACITY NOISE (ISO 15744) SOUND POWER LEVEL SOUND PRESSURE LEVEL VIBRATIONS (ISO 28927) VIBRATION LEVEL UNCERTAINTY	$\begin{array}{l} 8900 \ N \\ 15 \ mm \\ 1/4' \ GAS \\ 10 \ mm \\ 6,2 \ bar \\ 2,6 \ l/cycle \\ 1,5 \ Kg \\ 290 \ mm \\ 245 \ mm \\ 0 \ 4.8 \ mm \\ L_{_{wA}} = 83,8 \ dB \\ L_{_{pA}} = 72,8 \ dB \\ 0,48 \ m/s^2 \\ K=0,54 \ m/s^2 \end{array}$
--	---

KEY TO SYMBOLS

- a: Air inlet 1/4" GAS
- b: Riveter operating liver
- c: Interchangeable nozzle
- d: Nozzle holder
- e: Head unit adjuster
- f: Suspension device
- g: Nail container
- h: Oil lubricator
- i: Piston unit removal cover
- I: Rubber protection cover
- m: Air tap

USE

Air supply connection

For correct use of the pneumatic tool, always keep to a maximum pressure of 6.2 bar, as measured at the tool inlet. Feed the pneumatic tool with clean, condensate-free air (picture 2). Excessively high pressure or humidity in supply air results in shorter life for the mechanical parts and may damage the tool.

Interchangeable nozzle installation

The interchangeable nozzles, which are supplied with the air riveter, must be chosen according to the size and type of rivet to use. To install an interchangeable nozzle, screw it on the nozzle holder of the air riveter (picture 3). To replace a nozzle, take the following steps:

- Slightly loosen the nozzle holder to make it easier to replace the nozzle (picture 3).
- Remove the nozzle and fit in the required one; tighten the nozzle and lock the nozzle holder. Then operate the air riveter.

Nail collector installation

The air riveter is fitted with an automatic suction system. The nail collector must be installed, to ensure safe riveting operations; nail ejection may cause damage to anyone working or standing near the work area. The nails should be disposed of environmentally friendly.

The nail collector must be placed at the back of the air riveter and tightened by hand (picture 1).

Start

Start operating the air riveter, opening the air tap (picture 6). Fit the rivet into the nozzle, and press the lever (picture 3b), until the rivet nail is sheared off. The rivet shearing time depends on the size and type of rivet used.

Periodically – notably depending on the frequency of use – clean the clamps to remove any impurities and ensure proper operation.

Clean the clamps as follows:

- Remove the nozzle holder, using a 24-mm wrench (picture 3).
- Remove the clamps holding cone, using a 15-mm and a 17-mm wrench, and pull out the clamps.
- Then clean the clamps, using the brush the air riveter is supplied with. If the clamps are particularly worn, they should be replaced (clamps + cone).
- Fit the clamps into the clamps holding cone; install the cone, locking it with the wrenches.

• Then screw in the nozzle holder, tightening it by hand with the 24-mm wrench.

While cleaning the clamps, also check that no oil is leaking near the oil pressure piston. If too much oil is leaking, send the air riveter to the repair centre.

Head unit adjustment

Periodically – notably depending on the frequency of use –, and after cleaning or replacing the clamps, adjust the head unit (picture 5). Take the following steps:

- Remove the nozzle holder, using a 24-mm wrench.
- . Check the distance of the head unit with the template/wrench; the distance should be approximately 71 mm.
- Adjust the distance using a 17-mm wrench on the hexagon nut (picture 5).
- Install the nozzle holder, tightening it by hand with the wrench.

Always disconnect the air supply before replacing the nozzles or making any adjustments: this precaution will prevent the pneumatic tool from being accidentally started.

Filling up oil pressure circuit with oil

After a long operation period, and, in particular when the cylinder stroke gets shorter, the oil pressure circuit may need to be filled up with oil. This operation should be carried out by trained personnel; please contact Beta Utensili's repair centre, if need be. Take the following steps:

- Make sure that the air supply of the air riveter has been disconnected; remove the nozzle holder, then the rubber protection cover; finally, use a round pin wrench for ring nuts with front holes to remove the lower part of the air riveter and the cover under the cylindrical body (picture 4).
- Pull out the entire piston unit with a pair of pliers.
- Fill up with oil to the level of the lower part of the central bush. Use hydraulic oil ISO 32.
- Fit in the entire piston unit, tightening the screw by hand with the wrench.
- Adjust the head unit (as shown above), and install the nozzle holder.

LUBRICATION

The pneumatic tool must be connected to a filter-lubricator unit (we recommend Beta item 1919F1/4) provided with an air-oil microfog mixer, set at two drops per minute. This will result in a high-performing tool and wear-resistant mechanical parts. If lubrication is not provided to the line, oil ISO 32 must be periodically poured into the pneumatic tool, through the air supply hole (picture 6).

MAINTENANCE

Maintenance and repair jobs must be carried out by trained personnel only. For such jobs, you can contact Beta Utensili S.P.A.'s repair centre through your Beta dealer.

DISPOSAL

The pneumatic tool, accessories and packaging should be sent to a waste disposal centre, in accordance with the laws in force in your country.

WARRANTY

This tool is manufactured and tested in accordance with current EU regulations, and is covered by a 12-month warranty for professional use or a 24-month warranty for nonprofessional use.

We will repair any breakdowns caused by material or manufacturing defects by fixing the defective pieces or replacing them at our discretion.

Should assistance be required once or several times during the warranty period, the expiry date of this warranty will remain unchanged.

This warranty will not cover defects due to wear, misuse or breakdowns caused by blows and/or falls. In addition, this warranty will no longer be valid if any changes are made, or if the pneumatic tool is forced or sent to the customer service in pieces.

This warranty explicitly excludes any damage to people and/or things, whether direct or consequential.

DECLARATION OF CONFORMITY C€

We hereby declare, assuming full responsibility, that the described product complies with all the relevant provisions of Machine Directive 2006/42/EC and amendments thereto, as well as with the following standard:

• EN ISO 11148-1