



EC DECLARATION OF CONFORMITY

WE:

POLAR TOOLS A/S
Soldalen 9, DK-7100 Vejle, Denmark

Declare in sole responsibility that the equipment

EQUIPMENT: AIR HYDRAULIC RIVETER

MODEL/SERIAL NO.: 6160-0014 / 6160-0016

to which this declaration applies, complies with these normative documents:

MACHINERY DIRECTIVE: 2006/42/EC

and conforms to the following EN standards,

EN ISO 11148-1

Authorized representative established within the EU(if applicable):

Company Name: Polar Tools A/S

Company Address: Soldalen 9, DK-7100 Vejle, Denmark

Person responsible for compiling the technical file established within the EU:

Name, Surname: Mikael Linde

Address: Jens Grøns Vej 1, DK-7100 Vejle, Denmark

Note: This declaration becomes invalid, if technical or operational modifications are introduced without the manufacturers consent.

Name and Signature/Position Title

Date and place

Mikael Linde, Owner

Denmark, March 15, 2016



Read the operator's instructions before operating the tool.



Wear eye protection device.



Wear ear protection device.

OPERATING INSTRUCTIONS



OPERATING INSTRUCTIONS

Includes foreseen use, work stations, putting into service, operating, dismantling, assembly and safety rules.

IMPORTANT

Read these instructions carefully before installing, operating, servicing or repairing this tool. Keep these instructions in a safe accessible place.

MANUFACTURER/SUPPLIER

Polar Tools A/S
Soldalen 9 · DK-7100 Vejle · Denmark
Tel: +45 7584 1122
E-mail: info@polartools.com · www.polartools.com

PRODUCT TYPE
AIR HYDRAULIC RIVETER

MODEL
6160-0014 / 6160-0016



ORIGINAL INSTRUCTION

FORESEEN USE OF TOOL

This pneumatic power tool is used for installation, tightening or removal of breakstem or non-breakstem rivets, bolts, plugs or non-threaded fasteners from one side of a workpiece into metals, plastics and/or other materials.

By changing different nosepieces, it fits various size of blind rivets.

The tool is primarily for professional users. Other use is forbidden.

WORK STATIONS

The tool should only be used as a handheld hand operated tool. It is always recommended that the tool is used when standing on the solid floor. It can be in other positions but before any such use, the operator must be in a secure position having a firm grip and footing and be aware that when loosening fasteners the tool can move quite quickly away from the fastener being undone. An allowance must always be made for this rearward movement so as to avoid the possibility of hand/arm/body entrapment.

Do not connect a quick connect coupling directly to the tool but use a whip or a leader hose of say approximately 12 inches (300 mm) length.

Do not connect the tool to the airline system without incorporating an easy to reach and operate air shut off valve.

The air supply should be lubricated. It is strongly recommended that an air filter, regulator, lubricator (FRL) is used as shown in Figure 1 as this will supply clean, lubricated air at the correct pressure to the tool.

Details of such equipment can be obtained from your supplier. If such equipment is not used then the tool should be lubricated by shutting off the air supply to the tool, depressurizing the line by pressing the trigger on the tool.

Disconnect the air line and pour into the intake bushing a teaspoonful (5 ml) of a suitable pneumatic motor lubricating oil preferably incorporating a rust inhibitor. Reconnect tool to air supply and run tool slowly for a few seconds to allow air to circulate the oil. If tool is used frequently lubricate on daily basis and if tool starts to slow or lose power. When lubricating, also ensure that screen in intake bushing is clean.

It is recommended that the air pressure at the tool whilst the tool is running at 90 psi/6.3 bar.

The tool can run at lower and higher pressure with the maximum permitted working air pressure of 100 psi/7.0 bar. For a lower air pressure the tool will give a lower output for a given setting of the air regulator set for 90 psi/6.3 bar. operation and increased output for higher pressure.

Hence it is possible that changes in supply pressure can give situation where the fastener is under over tightened. For changes in pressure, the regulator position and application should be reassessed.

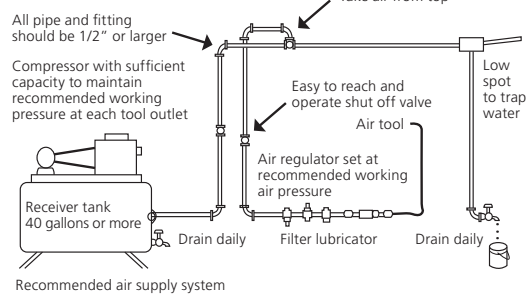
It is recommended that joint tightness of the threaded fastener assembly be checked with suitable measuring equipment. Follow the national legislation of waste disposal.

PUTTING INTO SERVICE

AIR SUPPLY

Use a clean lubricated air supply that will give a measured air pressure at the tool of 90 psi/ 6.3 bar when the tool is running with the trigger fully depressed And the air regulator in its maximum opening flow position. Use recommended hose size and length. It is recommended that the tool is connected to the air supply as shown in figure 1.

FIGURE 1.



OPERATING

1. Higher pressure drastically reduces tool life.
2. Connect tool to air line using approved hose and fitting, with air filter & air regulator and air lubricator.
3. Pressure too low-reduced performance.
4. Pressure too high-excessive wear and possibly premature tool failure.
5. Use of ear protectors is recommended.
6. Release the start and stop device in case of a failure of energy supply.
7. Use only the lubricant recommended by the manufacturer.
8. It is possible to attach the tool to a suspension device with proper accessory, even it is not delivered with the tool.
Please contact the sale agent for details.

SAFE RULES WHEN USING A RIVETER

Read all these safety instructions before operating this product and save these instructions.

The tool has been manufactured in conformity with the instruction of EU machine directive.

The EU mark will be considered void in the event of inexpert repairs, the use of non-original parts and in case of non-observance of the safety instructions in the user's manual.

GENERAL SAFETY RULES:

1. For multiple hazards, read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the assembly power tool for non-threaded mechanical fasteners.
Failure to do so can result in serious bodily injury.
2. Only qualified and trained operators should install, adjust or use the assembly power tool for non-threaded mechanical fasteners.
3. Do not modify this assembly power tool for non-threaded mechanical fasteners. Modifications can reduce the effectiveness of safety measures and increase the risks to the operator.
4. Do not discard the safety instructions; give them to the operator.
5. Do not use the assembly power tool for non-threaded mechanical fasteners if it has been damaged.
6. Tools shall be inspected periodically to verify that the ratings and markings required by this parts of ISO 11148 are legibly marked on the tool.
The employer/user shall contact the manufacturer to obtain replacement marking labels when necessary.

SAFETY PRECAUTIONS FOR PROJECTILE HAZARDS

1. Disconnect the assembly power tool for non-threaded mechanical fasteners from the energy source when changing inserted tools or accessories.
2. Be aware that failure of the workpiece or accessories, or even of the inserted tool itself can generate high-velocity projectiles.
3. Always wear impact-resistant eye protection during operation of the tool. The grade of protection required should be assessed for each use.
4. The risks to others should also be assessed at this time.
5. Ensure that the workpiece is security fixed.
6. Check that the means of protection from ejection of fastener and/or stem is in place and is operative.
7. Warn against the possible forcible ejection of installation mandrel from the front of the assembly power tool for non-threaded mechanical fasteners.

SAFETY PRECAUTIONS FOR OPERATING HAZARDS

1. Use of the tool can expose the operator's hands to hazards, including crushing, impacts, cuts and abrasions and heat.
Wear suitable gloves to protect hands.
2. Operators and maintenance personal shall be physically able to handle the bulk, weight and power of the tool.
3. Hold the tool correctly; be ready to counteract normal or sudden movements and have both hands available.
4. Maintain a balanced body position and secure footing.
5. Release the start-and-stop device in the case of an interruption of the energy supply.
6. Use only lubricants recommended by the manufacturer.
7. Avoid unsuitable postures as it is likely for these positions not to allow counteracting of normal or unexpected movement of the tool.
8. If the assembly power tool for non-threaded mechanical fasteners is fixed to a suspension device, make sure that the fixation is secure.
9. Beware of the risk of crushing or pinching if nose equipment is not fitted.

SAFETY PRECAUTIONS FOR REPETITIVE MOTIONS HAZARDS

1. When using an assembly power tool for non-threaded mechanical fasteners, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
2. While using an assembly power tool for non-threaded mechanical fasteners, the operator should adopt a comfortable posture whilst maintaining a secure footing and avoiding awkward or off-balance postures.
The operator should change posture during extended tasks, this can help avoid discomfort and fatigue.
3. If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, burning sensations or stiffness these warning signs should not be ignored.
The operator should tell the employer and consult a qualified health professional.

SAFETY PRECAUTIONS FOR ACCESSORY HAZARDS

1. Disconnect the assembly power tool for non-threaded mechanical fasteners from the energy supply before changing the inserted tool or accessory.
2. Use only sizes and types of accessories and consumables that are recommended by the manufacturer of assembly power tools for non-threaded mechanical fasteners, do not use other types or sizes of accessories or consumables.

SAFETY PRECAUTIONS FOR WORKPLACE HAZARDS

1. Slips, trips and falls are major causes of workplace injury.
Be aware of slippery surfaces caused by use of the tool and also of trip hazards caused by the air line or hydraulic hose.
2. Proceed with care in unfamiliar surroundings. There can be hidden hazards, such as electricity or other utility lines.
3. The assembly power tool for non-threaded mechanical fasteners is not intended for use in potentially explosive atmospheres and is not insulated against contact with electric power.

4. Ensure there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by use of the tool.

SAFETY PRECAUTIONS FOR NOISE HAZARDS

1. Exposure to high noise levels can cause permanent, disabling hearing loss and other problems, such as tinnitus (ringing, buzzing, whistling or humming in the ears).
Therefore, risk assessment and the implementation of appropriate controls for these hazards are essential.
2. Appropriate controls to reduce the risk may include actions such as damping materials to prevent work-pieces from "ringing".
3. Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.
4. Operate and maintain the assembly power tool for non-threaded mechanical fasteners as recommended in the instruction handbook, to prevent an unnecessary increase in the noise level.
5. Select, maintain and replace the consumable/inserted tool as recommended in the instruction handbook, to prevent an unnecessary increase in noise.
6. If the power tool has a silencer, always ensure that it is in place and in good working order when the power tool is being operated.

SAFETY PRECAUTIONS FOR VIBRATION HAZARDS

1. Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
2. Wear warm clothing when working in cold conditions and keep your hands warm and dry.
3. If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the assembly power tool for non-threaded mechanical fasteners, tell your employer and consult a physician.
4. Support the weight of the tool in a stand, tensioner or balancer, because a lighter grip can then be used to support the tool.

ADDITIONAL SAFETY INSTRUCTIONS FOR PNEUMATIC POWER TOOLS

1. Air under pressure can cause severe injury. Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs. Never direct air at yourself or anyone else.
2. Whipping hoses can cause severe injury. Always check for damaged or hose and fittings.
3. Cold air shall be directed away from hands.
4. Whenever university twist couplings (claw couplings) are used, lock pins shall be installed and whip check safety cables shall be used to safeguard against possible hose-to-tool or hose-to-hose connection failure.
5. Do not exceed the maximum air pressure stated on the tool.
6. Never carry an air tool by the hose.

WARNING

1. The tool shall not be used in explosive atmospheres unless specially designed for that purpose.
2. The tool is not electrically insulated. Do not use where there is a possibility of coming into contact with live electricity.
3. Unexpected tool movement due to reaction forces or breakage of inserted tool or reaction bar may cause injuries.
4. Preferably shut off the air supply before changing socket or at least ensure that the hands are well clear of the operating trigger.
5. Be aware of the risk of crushing by torque between a reaction bar and the workplace.
6. When loosening fasteners first ensure that there is sufficient clearance behind the tool to avoid hand entrapment.
The tool will move away from the threaded joint as the nut/bolt etc. is loosened and rides up the thread moving the tool with it.

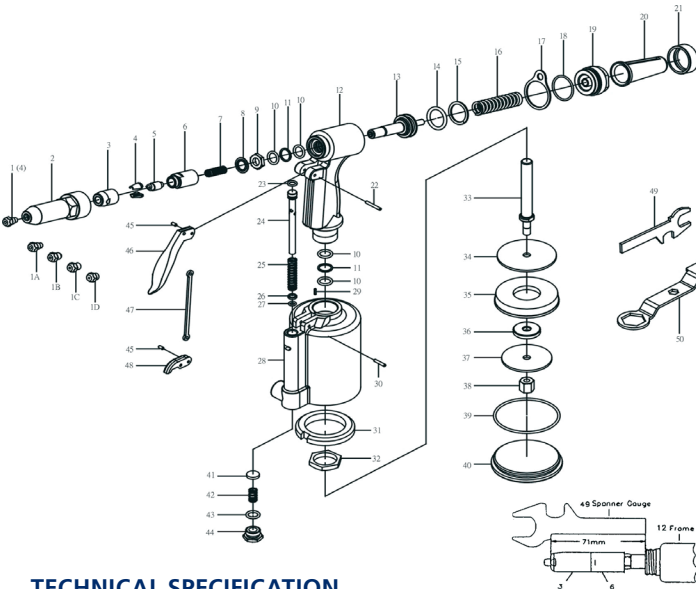
7. There is a risk of being injured specially when unscrewing in confined work place if hands are not kept away from the reaction bar. Keep hands away from the nut runner socket.
8. Be aware of the whipping compressed air hose.
9. Always ensure that the reverse valves is in the correct position before operating the tool. Do not run the tool unless the socket is first located on the joint.
10. Prevent the loose clothes, long hair, or any other personal accessories from closing to the moving part to reduce the risk of being caught trapped or drawn in the rotating spindle.

MAINTENANCE INSTRUCTION:

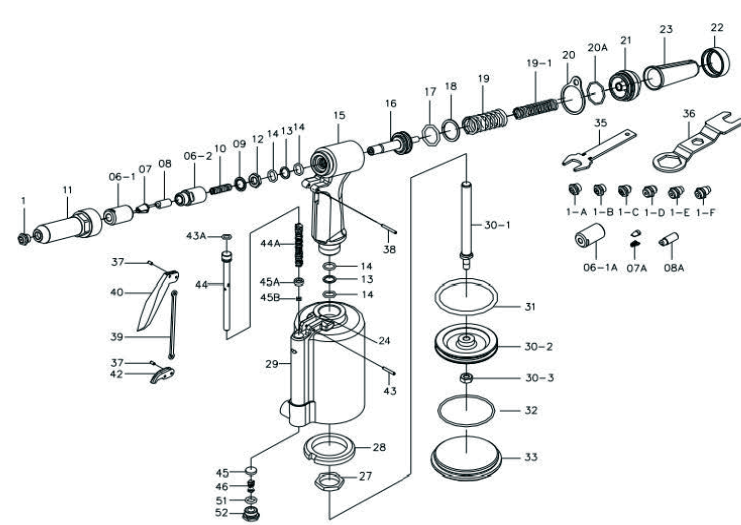
1. Dry the filter and the air inlet of the tool.
2. Lubricate the quick connect coupling to prevent blocking.
3. Air tool require lubrication throughout the life of the tool. The air motor and bearing uses compressed air to start the tool.
The moisture in compressed air will rust the air motor; you must lubricate the motor daily.
4. Avoid storing the tool in a location subject to high humidity.
If the tool is left as it is used, the residual moisture inside the tool can cause rust.
5. Before storage, lubricate tool and run it for a few seconds.
6. Regular inspection of spindles, threads, and clamping devices in respect of wear and tolerances for location of abrasive products.
7. If the tool is too seriously damage to be used anymore, recycle raw material instead of disposing as waste.
The machine, accessories and packaging should be sorted for environmental-friendly recycling.
Check with your local authority or retailer for recycling advice.

6160-0014 AIR HYDRAULIC RIVETER

6160-0016 HEAVY-DUTY AIR HYDRAULIC RIVETER



PARTS NO.	DESCRIPTION
P6160-0014-01A	Nosepiece 4,8 mm
P6160-0014-01B	Nosepiece 4,0 mm
P6160-0014-01C	Nosepiece 3,2 mm
P6160-0014-01D	Nosepiece 2,4 mm
P6160-0014-02	Frame Head
P6160-0014-03	Jaw Case, Front
P6160-0014-04	Jaw
P6160-0014-05	Jaw Pusher
P6160-0014-06	Jaw Care, Rear
P6160-0014-07	Spring, Jaw Pusher
P6160-0014-08	Case Washer Ring
P6160-0014-09	Lock Nut
P6160-0014-10	O-Ring
P6160-0014-11	Backup Ring
P6160-0014-12	Frame
P6160-0014-13	Piston Assy.
P6160-0014-14	O-Ring
P6160-0014-15	Backup Ring
P6160-0014-16	Spring
P6160-0014-17	Hanging Clip
P6160-0014-18	O-Ring
P6160-0014-19	Frame Cap
P6160-0014-20	Safety Cap
P6160-0014-21	Nut, Frame Cap
P6160-0014-22	Spring Pin, Lever
P6160-0014-23	O-Ring
P6160-0014-24	Pusher, Valve
P6160-0014-25	Spring, Valve
P6160-0014-26	Collar, Valve
P6160-0014-27	O-Ring
P6160-0014-28	Cylinder
P6160-0014-29	Spring Pin
P6160-0014-30	Spring Pin, Lever
P6160-0014-31	Rubber Cushion
P6160-0014-32	Lock Nut, Frame
P6160-0014-33	Stem, Air Piston
P6160-0014-34	Plate, Large
P6160-0014-35	Piston Ring
P6160-0014-36	Washer
P6160-0014-37	Plate, Small
P6160-0014-38	Lock Nut, Piston
P6160-0014-39	O-Ring
P6160-0014-40	Cap, Cylinder
P6160-0014-41	Valve
P6160-0014-42	Spring, Valve
P6160-0014-43	O-Ring
P6160-0014-44	Cap, Valve
P6160-0014-45	Spring Pin, Trigger
P6160-0014-46	Trigger
P6160-0014-47	Trigger Rod
P6160-0014-48	Trigger Lever
P6160-0014-49	Spanner Gauge
P6160-0014-50	Spanner



PARTS NO.	DESCRIPTION
P6160-0016-01A	Nosepieces 2,4 mm
P6160-0016-01B	Nosepieces 3,2 mm
P6160-0016-01C	Nosepieces 4,0 mm
P6160-0016-01D	Nosepieces 4,8 mm
P6160-0016-01E	Nosepieces 5,6 mm
P6160-0016-01F	Nosepieces 6,4 mm
P6160-0016-06-1	Jaw Case, Front
P6160-0016-06-1A	Jaw Case, Front
P6160-0016-06-2	Jaw Case, Rear
P6160-0016-07	Jaw
P6160-0016-07A	Jaw
P6160-0016-08	Jaw Pusher
P6160-0016-08A	Jaw Pusher
P6160-0016-09	Case Washer Ring
P6160-0016-10	Spring, Jaw Pusher
P6160-0016-11	Frame Head
P6160-0016-12	Lock Nut
P6160-0016-13	Backup Ring
P6160-0016-14	O-Ring
P6160-0016-15	Frame
P6160-0016-16	Piston Assy.
P6160-0016-17	O-Ring
P6160-0016-18	Backup Ring
P6160-0016-19	Spring
P6160-0016-19-1	Spring
P6160-0016-20	Hanging Clip
P6160-0016-20A	O-Ring
P6160-0016-21	Frame Cap
P6160-0016-22	Nut, Frame Cap
P6160-0016-23	Safety Cap
P6160-0016-24	Spring Pin
P6160-0016-27	Lock Nut, Frame
P6160-0016-28	Rubber Cushion
P6160-0016-29	Cylinder
P6160-0016-30-1	Stem, Sir Piston
P6160-0016-30-2	Piston Ring
P6160-0016-30-3	Lock Nut, Piston
P6160-0016-31	O-Ring
P6160-0016-32	O-Ring
P6160-0016-33	Cap, Cylinder
P6160-0016-35	Spanner Gauge
P6160-0016-36	Spanner
P6160-0016-37	Spring Pin, Trigger
P6160-0016-38	Spring Pin
P6160-0016-39	Trigger Rod
P6160-0016-40	Trigger
P6160-0016-42	Trigger Lever
P6160-0016-43	Spring Pin
P6160-0016-43A	O-Ring
P6160-0016-44	Pusher
P6160-0016-44A	Spring Pin
P6160-0016-45A	Valve
P6160-0016-45B	Valve
P6160-0016-45C	Collar, Valve
P6160-0016-45D	O-Ring
P6160-0016-45E	O-Ring
P6160-0016-45F	O-Ring
P6160-0016-46	Spring, Valve
P6160-0016-47A	O-Ring
P6160-0016-47B	O-Ring
P6160-0016-48	Collar, Valve
P6160-0016-48A	O-Ring
P6160-0016-48B	O-Ring
P6160-0016-49	Spring, Valve
P6160-0016-51	O-Ring
P6160-0016-52	Cap, Valve

TECHNICAL SPECIFICATION

TECHNICAL SPECIFICATION

PRODUCT TYPE	
3/16" Air hydraulic riveter	
MODEL: 6160-0014	VIBRATION LEVEL: 1.2 m/sec ²
TRACTION POWER: 1219 kg (2680) lbs	MEASUREMENT UNCERTAINTY: K = 0.61 m/sec ²
WEIGHT: 1.50 kg 3.3 lbs	Tested in accordance with EN ISO 20643
AIR PRESSURE: 6.2 bar (90 PSI)	
RECOMMENDED MAXIMUM HOSE LENGTH: 30 ft / 10 m	OTHER DATA:
RECOMMENDED MINIMUM HOSE BORE DIAMETER: 1/2" / 13 mm	AIR INLET 1/4" (6.3 mm)
NOISE LEVEL:	RIVET CAPACITY FOR SETTING BLIND RIVETS UP TO 3/16" (4.8 mm)
	NO LOAD
SOUND PRESSURE LEVEL	TOOL STROKE 14 mm
SOUND POWER LEVEL	NOISE PIECES 2.4 mm
MEASUREMENT UNCERTAINTY: K = 3dB	NOISE PIECES 3.2 mm
	NOISE PIECES 4.0 mm
Tested in accordance with EN ISO 15744	NOISE PIECES 4.8 mm
	RIVET MATERIAL Aluminium
RECOMMENDED PERSONAL SAFETY EQUIPMENT	RIVET MATERIAL Steel
	RIVET MATERIAL Stainless steel
	USE: Safety glasses and ear protectors

PRODUCT TYPE	
1/4" Heavy-duty air hydraulic riveter	
MODEL: 6160-0016	VIBRATION LEVEL: 0.6 m/sec ²
TRACTION POWER: 1894 kg (4166) lbs	MEASUREMENT UNCERTAINTY: K = 0.56 m/sec ²
WEIGHT: 2.0 kg 4.4 lbs	Tested in accordance with EN ISO 20643
AIR PRESSURE: 6.2 bar (90 PSI)	
RECOMMENDED MAXIMUM HOSE LENGTH: 30 ft / 10 m	OTHER DATA:
RECOMMENDED MINIMUM HOSE BORE DIAMETER: 1/2" / 13 mm	AIR INLET 1/4" (6.3 mm)
NOISE LEVEL:	RIVET CAPACITY FOR SETTING BLIND RIVETS UP TO 1/4" (6.4 mm)
	NO LOAD
SOUND PRESSURE LEVEL	TOOL STROKE 16 mm
SOUND POWER LEVEL	NOISE PIECES 2.4 mm
MEASUREMENT UNCERTAINTY: K = 3dB	NOISE PIECES 3.2 mm
	NOISE PIECES 4.0 mm
Tested in accordance with EN ISO 15744	NOISE PIECES 4.8 mm
	NOISE PIECES 5.6 mm
RECOMMENDED PERSONAL SAFETY EQUIPMENT	NOISE PIECES 6.4 mm
	RIVET MATERIAL Aluminium
	RIVET MATERIAL Steel
	RIVET MATERIAL Stainless steel
	USE: Safety glasses and ear protectors