

USER AND MAINTENANCE MANUAL



Heavy-Duty Air Hammer with 4 Hexagonal Chisels Art. 0059



TRANSLATION OF THE ORIGINAL INSTRUCTIONS

FOREWORD



Read This Manual Before Operation

TRANSLATION OF THE ORIGINAL INSTRUCTIONS

Reading this instruction manual is required before operating any of the machinery. The guarantee of smooth operation and full performance of the product is highly dependent on the application of all the instructions contained in this manual.



Operator Qualifications

The workers responsible for using this object must have all the necessary information, education and receive adequate training regarding safety, including:

- a) Conditions of use for the equipment;
 - b) Foreseeable abnormal situations;
- pursuant to art. 73 of Legislative Decree No. 81/08.

We guarantee the product's conformity to specifications and technical instructions described in the Manual on the date of issue, listed on this page; however, the machine may be subject to potentially major technical changes in future, without the Manual being updated.

Therefore, contact FERVI for information about modifications that could be implemented.



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GENERAL SAFETY INSTRUCTIONS

1. During use, maintain control of the tool.
2. The operators represent the most important aspect of safety. To better protect against the risk of injury, work cautiously and carefully.
3. The pneumatic tool should not be used and repaired by someone under the influence of drugs or alcohol.
4. When a fault / defect is detected, immediately disconnect the power supply cord from the tool.
5. Only carry the pneumatic tool by its handle, and without pressing the "trigger" power button. Always disconnect the compressed air supply hose before transport.

1.1 Risks Associated with the Work Area

1. Keep unqualified people, children, etc. away from the work environment and the pneumatic tool.
2. Only use to tool with proper lighting and visibility.
3. Pay attention to unknown work environments and areas. The pneumatic tool is not isolated from the power supply.
4. Be especially careful to avoid contact with dust, air jets or other pollutants. If necessary, wear a dust mask.
5. It is important to maintain a stable and secure position while working. Beware of air hoses, which can cause you to trip and fall.

1.2 Risks Associated with the Presence of Rotating and/or Moving Parts

Grab the pneumatic tool correctly, using the appropriate "gun" handle.

Never put your hands in front of the cutting edge of the chisel.

Vibration, repetitive motions and uncomfortable positions may be harmful to your arms and hands. Discontinue use of the air hammer if you experience symptoms of physical discomfort, tingling and pain.

While working, do not wear loose clothing or jewellery that could get caught in the moving parts of the tool. Similarly, put hair back in a net or a cap.



1.3 Personal Protective Equipment

When using the pneumatic tool, always wear the following:

- Safety shoes;
- Work gloves;
- Hearing protection (cap, earplugs, etc.);
- Protective goggles.



Figure 1 - PPE to wear

1.4 Technical Support

For any problems and/or concerns, please contact, without hesitation, the Customer Service Department of the dealer from whom you purchased the product, who has specialised staff, specific equipment and spare parts.

1.5 Identification

The following identification label can be found on the body of the air hammer.



Figure 2 – Identification label.

2 DESCRIPTION OF THE AIR HAMMER AND INTENDED USE

The **Heavy-Duty Air Hammer (Art. 0059)** is a portable pneumatic tool, to be used for chipping, chiselling and the demolition of bulk materials. By changing tools (chisels), it is possible to work with different materials, such as asphalt, concrete and wood.

The air hammer is made up of the following parts (see Figure 3):

1. the "gun" shaped shell, which contains the piston and the other mobile elements;
2. the spindle for assembling the chisels (with safety lock);
3. the hammer's "trigger" power button;
4. the supplied chisels.

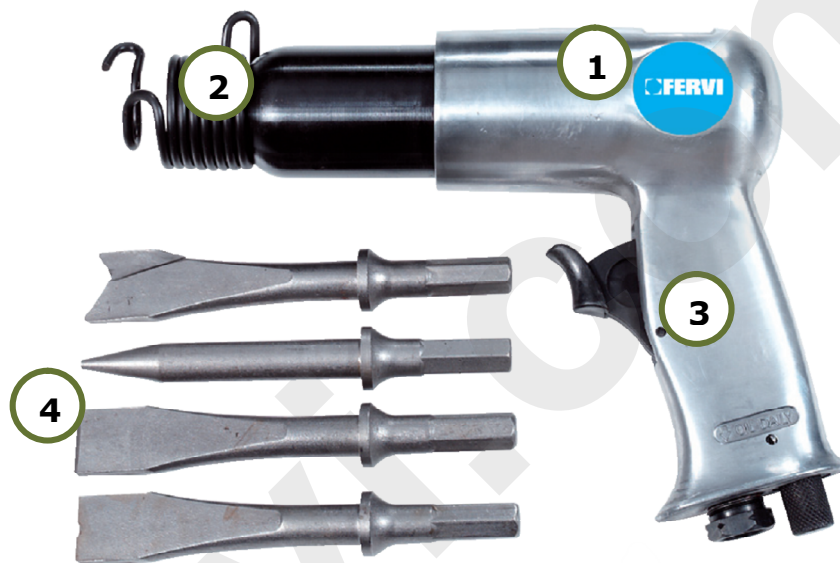


Figure 3 - Overview

Furthermore, Art. 0059 is equipped with a set of (4) tools: a pointed chisel, two hexagonal chisels and a cutting chisel.

2.1 Technical Specifications

Working pressure (kPa/bar)	600/6	Air intake (l/min)	135
Number of strokes (strokes/min)	3,500	Empty weight (kg)	1.5
Bore x Stroke (mm)	19 x 66	No. of chisels	4
Sound pressure level emitted into the environment (dB (A))			83
Vibration level emitted (m/s ²)			0.74



3 IMPROPER USES AND PRECAUTIONS



IT IS STRICTLY FORBIDDEN TO:

- Allow the tool to be used by untrained personnel and those who have not read the instruction manual;
- Use the tool for different purposes and uses other than those for which it was designed, i.e. chipping, chiselling and demolishing materials;
- Use the tool in humid conditions, explosive atmospheres or near flammable surfaces or gases;
- Use the tool without wearing appropriate PPE, such as footwear, gloves, hearing protectors and goggles;
- Touch the chisel during operation;
- Use the tool in the presence of children;
- Leave the compressed air supply hose inserted after work or while changing the chisel;
- Point the tip of the chisel in the direction of people or animals;
- Block or insert objects into the air outlet grille;
- Modify and/or tamper with the tool;
- Use pneumatic power supplies other than as prescribed;
- Place the tool in contact with electrically active objects;
- Use the tool when disassembled;
- Use chisels or other tools not suitable for the speed of the percussion tool.

4 COMMISSIONING

1. Remove the air inlet cap, then screw the supplied nozzle into hole:

1/4" NPT Male Quick-Release Coupling

2. Put a few drops of lubricating oil (without resin acid) in the air inlet nozzle.
3. Check the flexible air supply hose.
If it is damaged, broken, torn or deformed it must not be connected to the tool.
4. Check the state of the quick-release couplings (both on the tool and the hose). If signs of damage are detected, it is broken or excessively corroded, the tool or the flexible hose cannot be used.
5. The tool must be connected to the air supply source by means of an FRL air conditioning group, consisting of a filter, pressure regulator and lubricator, as shown in Figure 4.

The compressed air used must be clean and with the right mix of oil. Adjust the lubricator in such a way that it applies 3 to 6 drops of oil per minute. Furthermore, the maximum length of the hose between the lubricator and the tool must be a maximum of 6/8 meters.

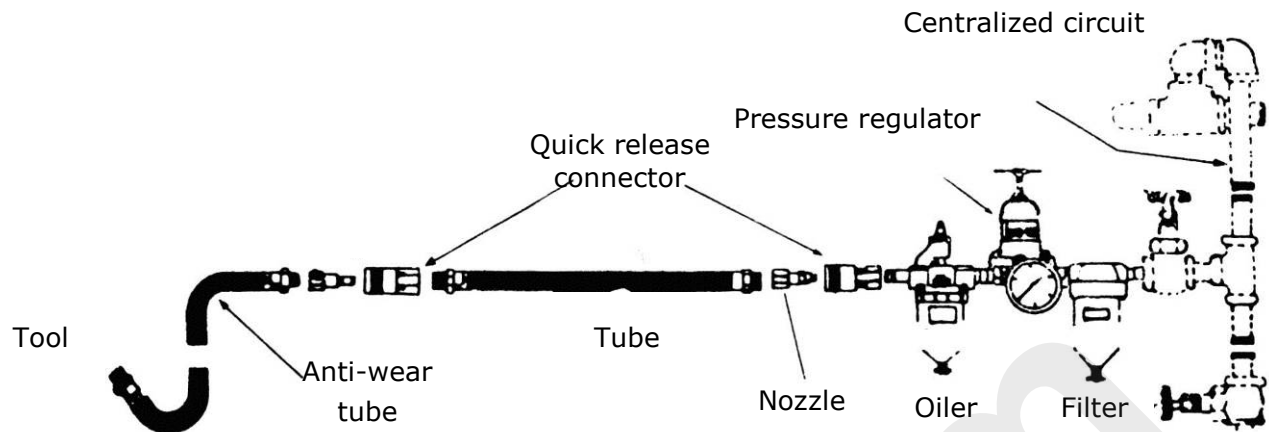


Figure 4 – Connecting the air supply

6. Insert the quick coupling of the supply hose into the air inlet nozzle at the bottom of the hammer.



Air Pressure

To ensure proper operation and compliance with safety regulations, the operating pressure of the compressed air must not exceed 600 kPa (6 bars).

Higher pressures may cause damage and excessive wear of the tool.

Information for the working pressure is displayed on the tool's CE plate and in the instructions



Crushing and Cutting

When connecting the air supply hose to the tool, while attaching the quick coupling, do not hold down the air hammer's power "trigger."



5 HOW TO USE

5.1 Attaching the Chisels



Crushing and Cutting

Before attaching and/or removing the chisels, always remove the air supply hose.



Protective gloves

Before attaching and/or removing the chisels, wear suitable protective gloves.

1. Choose the chisel with the desired shape and size.
2. Unscrew the safety lock on the spindle housing, then remove the lock (Figure 5).



Figure 5 – Removing the lock.

3. Place the chisel in the tool spindle, and push it firmly into the hole.
4. Screw the safety lock onto the spindle and tighten completely (Figure 6). This is to prevent the chisel from detaching during use.



Figure 6 - Assembling the lock.



Crushing and Cutting

- Always make sure to fully insert the bit into the hole of the tool spindle holder and tighten the safety lock.
- Always make sure that the chisel is assembled correctly while trying to manually remove it from the air hammer.
- If it is not inserted all the way or the lock is incorrectly tightened, the chisel may release suddenly and may hit the operator or someone else



Inserting the Chisel

Always check that the chisel is compatible with the pneumatic tool.

Check that the chisel is in good condition, i.e. no cracks and not completely worn out, before operating.

Make sure that the tool is sharp before using it.

5.2 Power On / Off



(Personal Protective Equipment) PPE

Before using the air hammer, wear suitable work clothing, gloves, shoes and protective goggles. Also wear a mask if you work with materials that produce dust or fumes.

Also wear protective devices for the ears (hearing protectors), such as earmuffs, earplugs, etc..



Workspace

Be familiar with the work area.

Always check the work area before using the air hammer.

Always make sure that there are no electrical cables, gas lines or waterlines installed beneath the demolition area.

Keep the work area clean, uncluttered and well lit.

After assembling the tool and connecting the flexible compressed air supply hose, grab the air hammer by its "gun" handle.

The **Air Hammer, Art. 0059**, is equipped with a dial for adjusting the percussion speed according to the type of material and the type of processing. The values in the following table are approximate:



Type of material	Number of strokes
Plaster	1,500
Tile cement	2,000
Bricks	2,200
Concrete	3,000

Manually rotate the percussion speed dial to the desired position (Figure 7).

- **UNSCREW** (anticlockwise) → to increase the speed
- **TIGHTEN** (clockwise) → to decrease the speed
-



Figure 7 - Speed dial

To start the hammer and drive the chisel, press the "trigger" power button (Figure 8).



Figure 8 – Starting the air hammer.

The air hammer's power button is a continuous hold lever, in the sense that the controlled function (i.e. the movement of the chisel) is active as long as the lever itself is kept pressed. Therefore, release the button to shut it down in an emergency.



Emergency

In case of an emergency, immediately release the air hammer's power button.

Disconnect the air hose and turn off the tool in the event of the following:

- to replace the chisel;
- to clean, rebuild or perform maintenance on the chisel;
- if the air hammer is not used for some time.

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6 MAINTENANCE AND CLEANING

The purpose of this section is to provide all the information on maintenance procedures and their frequency, as required by the **Air Hammer, Art. 0059**.

ACTION	Frequency	
	Daily	Weekly
1. General visual inspection	X	
2. General cleaning		X
3. Clean the air outlet nozzle	X	
4. Lubricate moving parts	X	

1. **General Visual Inspection:** check the overall condition of the pneumatic tool, particularly for any damaged or missing parts. Also check for the presence and legibility of labels.
2. **General cleaning:** cleaning is necessary to rid the body of oil deposits, dust or dirt accumulation.



Risks Associated with Cleaning

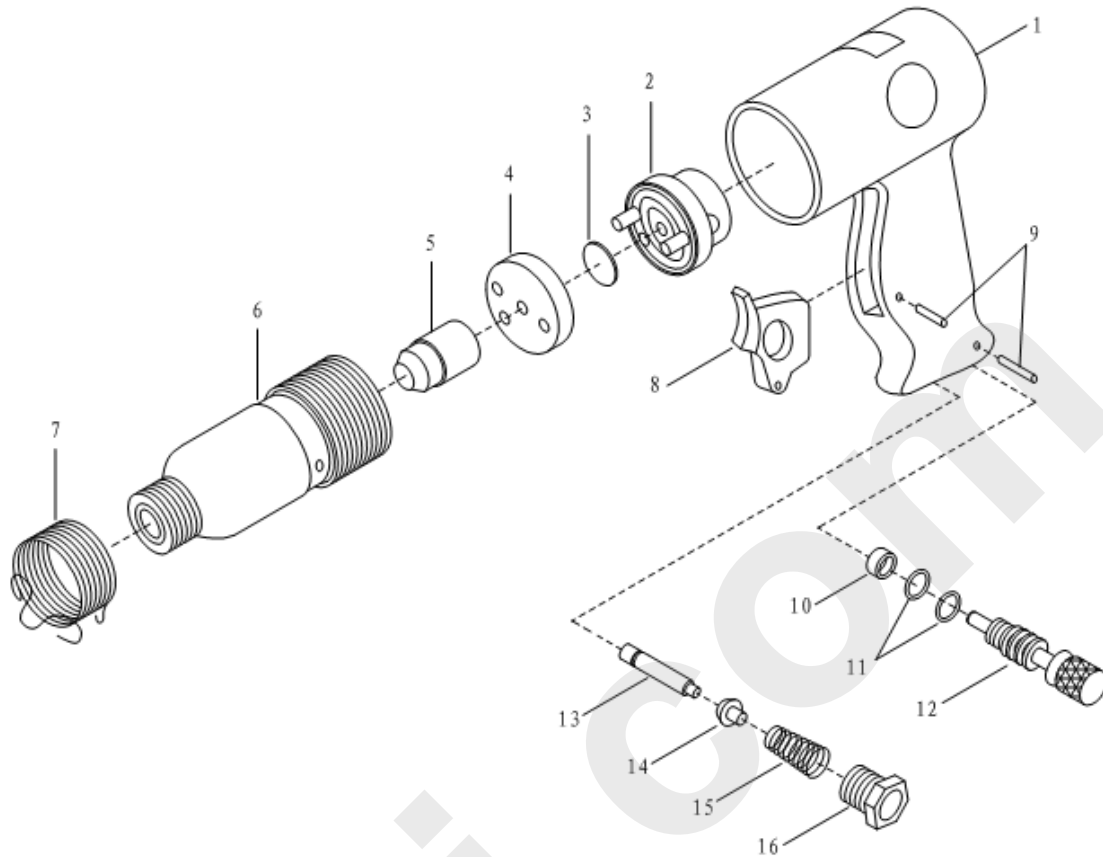
Disconnect the air supply hose and clean the body of the tool. Do not use organic solvents to avoid corrosion or discolouration.

3. **Clean the air outlet nozzle:** cleaning is necessary to free the hot air outlet nozzle and filter of dirt accumulation.
Do not use paint thinner, gasoline, or similar substances to clean the nozzle.
4. **Lubricate moving parts:** lubricate all the moving mechanical parts on the air hammer by inserting, at least once a day, lubricating oil within the compressed air intake nozzle. To do this, disconnect the air hose, turn over the air hammer and put a few drops of oil into the nozzle using a suitable oiler (Figure 9).



Figure 9 – Lubricating the nozzle.

7 BILL OF MATERIALS AND SPARE PARTS



Ref.	Description	Ref.	Description
0059/01	BODY	0059/10	BUTTERFLY VALVE
0059/02	CLOSING VALVE	0059/11	O-RING
0059/03	FLAT VALVE	0059/12	AIR REGULATOR
0059/04	VALVE COVER	0059/13	PIN
0059/05	PISTON	0059/14	AIR INTAKE VALVE
0059/06	CYLINDER	0059/15	CONICAL SPRING
0059/07	SUSPENSION SPRING	0059/16	AIR INTAKE CONNECTOR
0059/08	TRIGGER	0059/17	COATING
0059/09	STRAIGHT PIN		