HAFCO METALMASTER

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Date: (06/25)

Instruction Manual

PNEUMATIC PLANISHING HAMMER
PPH-51

Order Code: (S227A)

MACHINE DETAILS

MACHINE.	Pneumatic Planishing Hammer
MODEL NO.	PPH-51
SERIAL NO.	
DATE OF MANF.	

Imported by

Australia

HARE&FORBES MACHINERYHOUSE

www.machineryhouse.com.au

New Zealand

MACHINERYHOUSE

www.machineryhouse.co.nz

NOTE:
This manual is only for your reference. At the time of the compiling of this manual every effort to be exact with the instructions, specifications, drawings, and photographs of the machine was taken. Owing to the continuous improvement of the HAFCO METALMASTER machine, changes may be made at any time without obligation or notice. Please ensure the local voltage is the same as listed on the specification plate before operating any electric machine.

SAFETY SYMBOLS:
The purpose of safety symbols is to attract your attention to possible hazardous conditions

⚠WARNING ***Indicates a potentially hazardous situation causing injury or death***

⚠CAUTION ***Indicates an alert against unsafe practices.***

Note: Used to alert the user to useful information

NOTE:
In order to see the type and model of the machine, please see the specification plate. Usually found on the back of the machine. See example (Fig.1)

HAFCO METALMASTER

PRODUCT SPECIFICATIONS

Model: PPH-51
Capacity: 1.2mm
Nett Weight: 25kg
MFG Date:
Air: 50 - 100psi
Air Consumption: 4CFM.

SERIAL NO:

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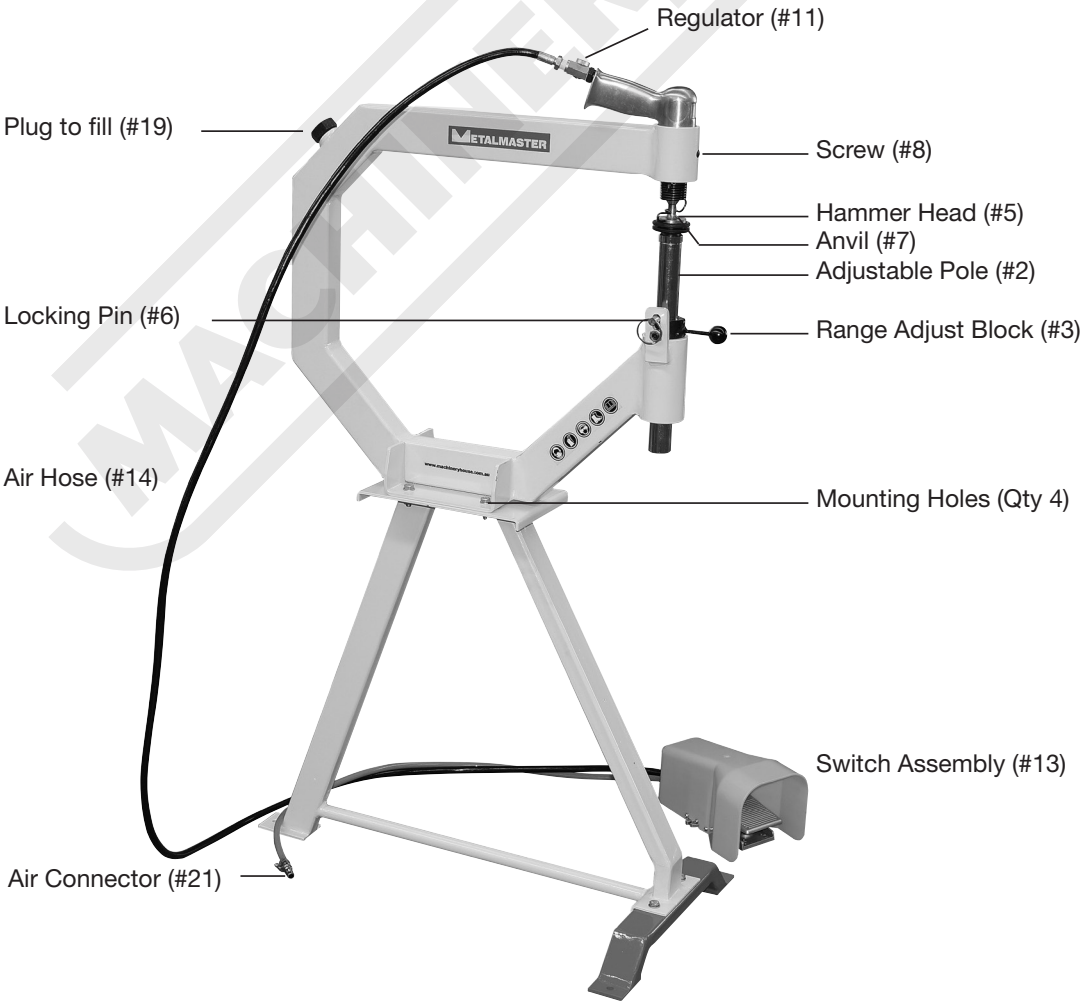
FIG.1

SPECIFICATION

Order Code	S227A
MODEL	**PPH-51**
Operation	Foot Pedal
Capacity	1.2/18 Mild Steel - 1.5/16 Aluminium
Throat Depth	500mm
Throat Height	390mm
Speed	875 ~ 1350bpm
Operating Air Pressure	50 to 100psi
Air Consumption	4CFM
Anvil Sizes	25, 50, 76mm
Working Height	965mm
Machine Dimensions (LxWxH)	400 x 710 x 1230mm
Nett Weight	25kg

IDENTIFICATION



2. IMPORTANT INFORMATION

SAFETY WARNINGS AND PRECAUTIONS

WARNING: When using this tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to the equipment.

Read All Instructions Before Using This Tool!

- ✓ Keep the work area clean. Cluttered areas invite injuries.
- ✓ Observe work area conditions. Do not use machines or power tools in damp or wet locations. Do not expose this tool to the rain. Keep the work area well lit. Do not use electrically powered tools in the presence of flammable gases or liquids.
- ✓ Keep children away. Children must never be allowed in the work area. Do not let them handle machines, tools or extension cords.
- ✓ Store idle equipment. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
- ✓ Use the right tool for the job. Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. Do not modify this tool. Do not use this tool for purposes it was not intended for.
- ✓ Use eye and ear protection. Always wear ANSI-approved impact safety goggles.
- ✓ Dress properly. Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear a restrictive hair covering to contain long hair.
- ✓ Do not overreach. Keep proper footing and balance at all times. Do not reach over or across running machines.
- ✓ Maintain tools with care. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically. If damaged, have the cord repaired by an authorized service provider. The handles must be kept clean, dry and free from oil and grease at all times.
- ✓ Disconnect the air supply. Unplug the tool from the air supply when not in use.
- ✓ Remove adjusting keys and wrenches. Check that keys and adjusting wrenches are removed from the tool and machine work surface before operation.
- ✓ Stay alert. Watch what you are doing and use common sense. Do not operate a tool when you are tired.
- ✓ Check for damaged parts. Before using a tool, carefully check parts for damage to determine that the tool will operate properly and perform its intended function. Check for alignment; binding of moving parts; any broken parts or mounting fixtures; or any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn On and Off properly.
- ✓ Replacement parts and accessories. When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool.

2.1 SAFETY WARNINGS AND PRECAUTIONS Cont.

- ✓ Do not operate the tool if under the influence of alcohol or drugs. If taking prescription medicine, read the warning label to determine if your judgment or reflexes are impaired while on the drug. If there is any doubt, do not operate the tool.
- ✓ Maintenance. For your safety, service and maintenance should be performed regularly by a authorized service provider.
- ✓ Use compressed air only. Never use combustible gas as a power source.
- ✓ Protect your hands and body from injury. Always wear leather gloves and body protection when handling metal for use on the Planishing Hammer. Keep hands, fingers, and arms away from the hammer head and anvil during operation.

WARNING!

Before operating any machine, take time to read and understand all safety signs and symbols. If not understood seek explanation from your supervisor or an experienced operator.

3 SET-UP

UNPACKING

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed tems from packaging materials and inspect them for shipping damage. If items are damaged, please contact your distributor.

NOTE: Save all the packaging materials until you are completely satisfied with the machine and have resolved any issues with the distributor, or the shipping agent.

When unpacking, check the packing list to make sure that all parts shown are included. If any parts are missing or broken, please contact your distributor.

CLEAN - UP

The unpainted surfaces of the machine have been coated with a waxy oil to protect them from corrosion during shipment. Remove the protective coating with a solvent cleaner or a citrus based degreaser.

Optimum performance from your machine will be achieved when you clean all moving parts or sliding contact surfaces that are coated with rust preventive products.

It is advised to avoid chlorine based solvents, such as acetone or brake parts cleaner, as they will damage painted surfaces and strip metal should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

SITE PREPARATION

When selecting the site for the machine, consider the largest size of workpiece that will be processed through the machine and provide enough space around the machine for operating the machine safely. Consideration should be given to the installation of auxiliary equipment. Leave enough space around the machine to open or remove doors/covers as required for the maintenance and service as described in this manual.

It is recommended that the machine is anchored to the floor to prevent tipping or shifting. It also reduces vibration that may occur during operation.

LIFTING INSTRUCTIONS

⚠WARNING ***This machine is very heavy. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance from another person when moving the shipping crate and removing the machine from the crate.***

On the day that the machine arrives, make sure that there is assistance available to unload the machine from the vehicle. Ensure access to the chosen site is clear and that doors and ceilings are sufficiently high and wide enough to receive the machine.

ASSEMBLY

The machine must be fully assembled before it can be operated. First clean any parts that are coated in rust preventative to ensure the assembly process can proceed smoothly.

To Assemble Planishing Hammer:

1. Find the front foot of the stand and attach it to the stand with the hardware supplied.
2. With help of an assistant, raise the main frame to upright position, then place it on to the stand and secure with the four bolts, nuts and washers. (Fig. 3.1)
3. Attach the air hammer to the frame and secure with the hex screw in the frame. (Fig. 3.2)

Fig. 3.1

Fig. 3.2

WARNING!

Machines are safeguarded to protect the operator from injury or death with the placement of guards. Machines must not be operated with the guards removed or damaged.

ANCHORING TO THE FLOOR

The machine is best mounted on a concrete slab.
Masonry anchors with bolts are the best way to anchor machinery, because the anchors sit flush with the floor surface, making it easy to unbolt and move the machine later if needed. (Fig. 3.3)

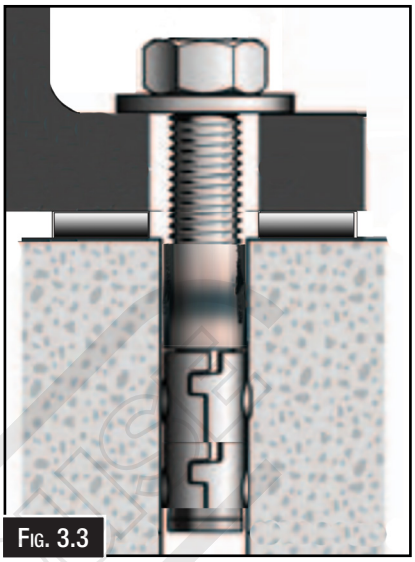


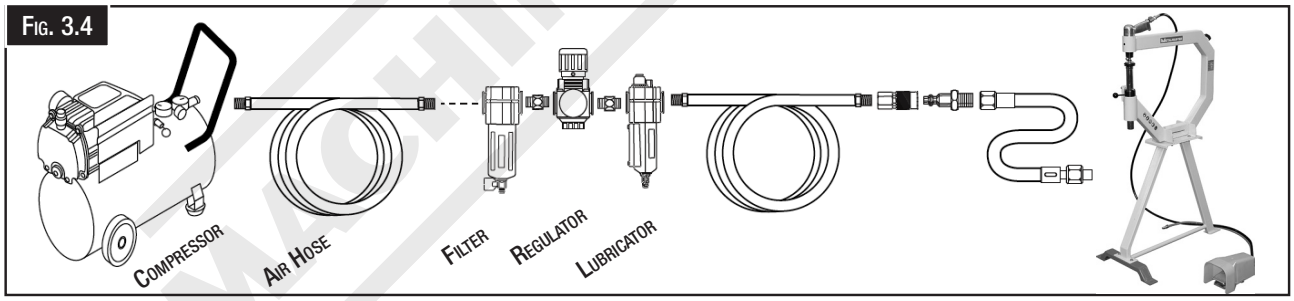
Fig. 3.3

AIR SUPPLY CONNECTION

Hafco Metalmaster suggest that connection of the planishing hammer to the air supply, is as shown in Fig. 3.4.

Note: The quick connect couplings supplied with the machine may not be suitable as there are many different types. The correct adapters may need to be purchased.

Fig. 3.4



4. OPERATION

4.1 OPERATION OVERVIEW

The planishing hammer basic operation consists of inserting the work piece sheet metal between the hammer and die, then operating the hammer while moving the sheet metal back and forth to shape it.

Two main variables can be adjusted to change the result of your work:

- Die Radius: Controls the curve of the shaped workpiece. This can be changed by installing dies with a different radius.
- Air Supply PSI: This controls how fast and how hard the hammer strikes the die when the foot switch is pressed. To change the air pressure, adjust the air pressure between 90–120 PSI.

4.2 OPERATING THE MACHINE

To Operate The Machine

1. Change the height of the Anvil (7) to within 38mm of the desired height, pull out the Locking Pin (6) and move the Adjustable Pole (2) up or down to the Locking Pin hole. Replace the Locking Pin.
2. To adjust it closer to the desired height, move the Range Adjust Block (3) to the right or to the left.
3. Turn on the Air Compressor and set its regulator to 90 PSI.
4. Before planishing, test the tool by pressing down on the Foot Switch Assembly (13).
5. Adjust the cycle speed of the Air Hammer by turning the Regulator valve (11) clockwise or counterclockwise.
6. Use both hands to hold the material to be planished and place it between the Anvil (7) and the Hammer Head (5). Make sure you wear gloves.
7. Press down on the Foot Switch Assembly (13) to operate.
8. When finished planishing, remove your foot from the Foot Switch Assembly and wait for the Air Hammer to stop completely.
9. Turn the Air Compressor off.
10. Press down on the Foot Switch Assembly (13) to release any remaining air pressure in the Air Hammer.

Changing Anvils

1. Unscrew Screw (8) so it is out of the way of the Air Hammer (10) when removing it from the “C” Frame. Do not remove Screw (8). (Fig. 4.1).
2. Screw off the Coil Spring from the Air Hammer (9) and slip it off, along with the Hammer Head (5) and Hammer Sleeve (4) (Fig. 4.1)
3. Slide the Air Hammer body out of the “C” Frame mounting hole.
4. Replace Anvil (7) with desired size onto the Adjustable Pole (2}.
5. Replace the Air Hammer into the “C” Frame. Then, attach the Hammer Head (5) through the Coil Spring, then into the Air Hammer Screw on the Coil Spring until it stops
6. Re-tighten Screw (8) completely.

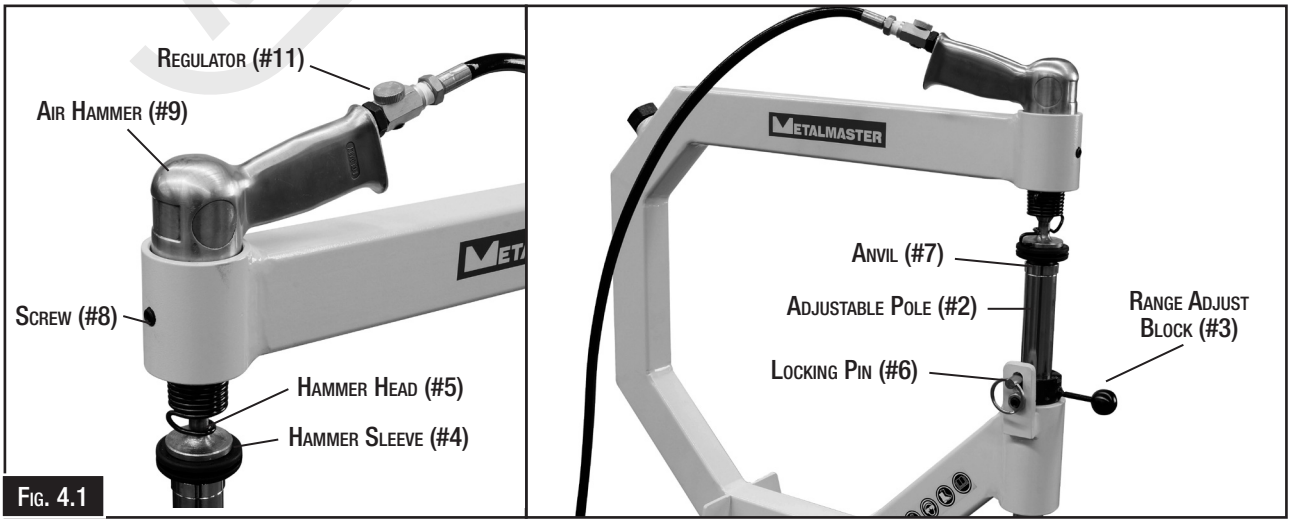


Fig. 4.1

TROUBLESHOOTING

Review the troubleshooting and procedures in this section if a problem develops with your machine. If you need replacement parts then follow the procedure in the beginning of the spare parts section or if additional help with a procedure is required, then contact your distributor.

Note: Make sure you have the model of the machine, serial number,and manufacture date before calling.

Symptom	Possible Cause	Possible Solution
Planishing tool doe not work when switched on.	No pressure in the air line.	Check air line and compressor
	Regulator closed	Adjust regulator
Tool operates at diminished pressure	Air pressure below normal operating level	Check regulator on compressor and air hammer
	Clogged air inlet	Clean or replace the inlet filter
	Worn parts	Replace parts that are worn
	Lack of lubrication	Increase the method of lubrication

MAINTENANCE

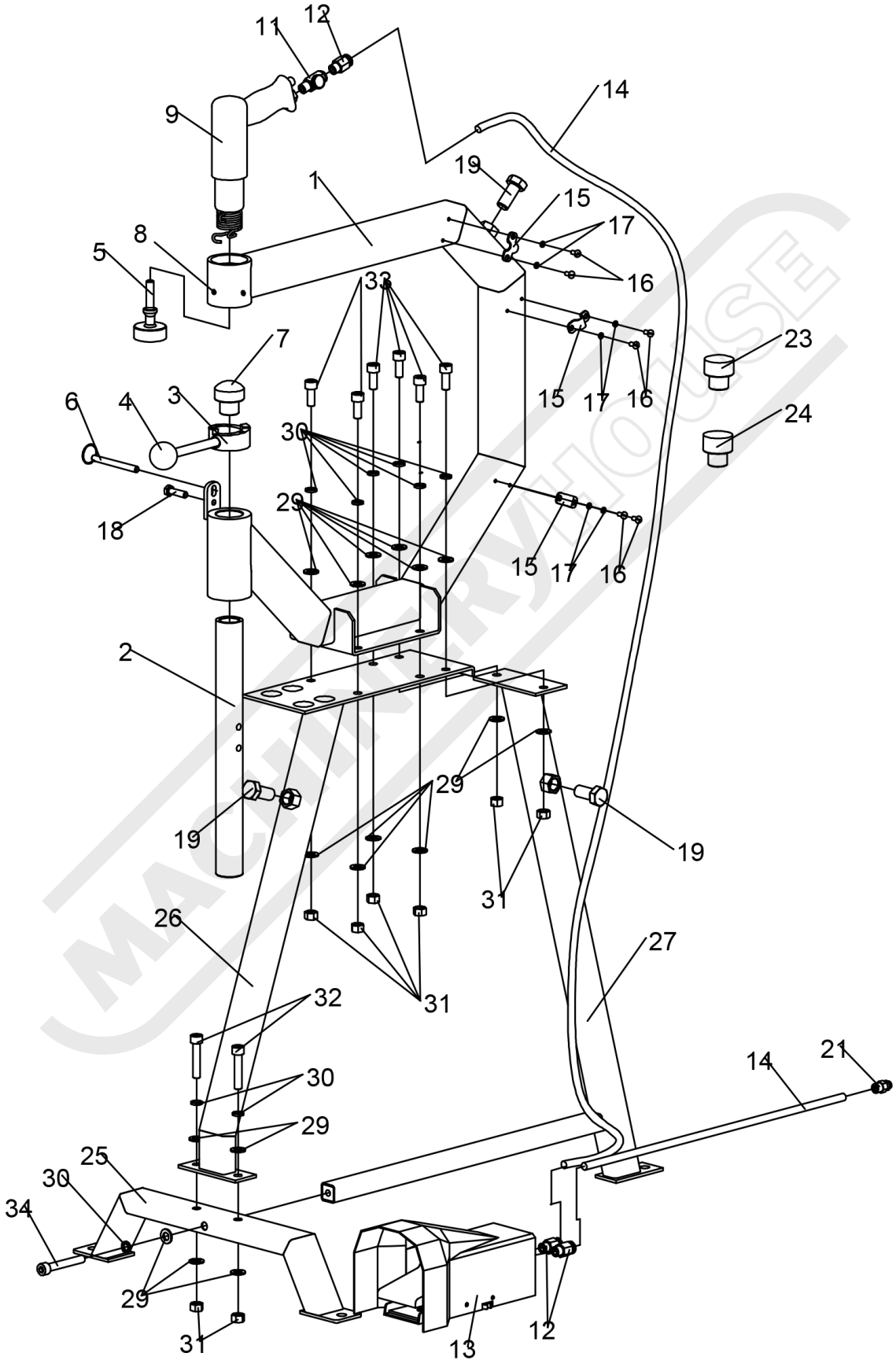
1. After each use, wipe all components of the Ptanishing Hammer with a clean cloth to remove any dirt and grease buildup
2. To maintain tool life, always lubricate the air line by adding a few drops of pneumatic tool oil to the air line (or Air Inlet) before each use. Or, install the automatic oiler-filter system as illustrated on page 7.
3. Before each use, drain water out of the air compressor tank and condensation from the air lines Refer to the Air Compressor Operation Manual.
4. Cover the Planishtng Hammer and keep in a clean and dry location.

SPARE PARTS LIST

Part	Description	Qty
1	C FRAME	1
2	ADJUSTABLE POLE	1
3	RANGE ADJUST BLOCK	1
4	KNOB OF HANDLE	1
5	HAMMER HEAD	1
6	LOCKING PIN	1
7	1" LOWER DIE	1
8	INNER HEX.LOCKING SCREW	3
9	GUN	1
11	REGULATOR	1
12	MALE THREAD FITTING	3
13	FOOT PEDAL	1
14	AIR HOSE	2
15	DIA.10 HOSE CLAMP	3
16	SLOTTED PAN HEAD SCREW	6
17	SPRING WASHER	6
18	HEX.HEAD FULLY THREADED BOLT	1
19	HEX.HEAD FULLY THREADED BOLT	3

Part	Description	Qty
21	QUICK CONNECTOR	1
23	2" LOWER DIE	1
24	3" LOWER DIE	1
25	BASE FOR FRONT LEG	1
26	FRONT LEG	1
27	REAR LEG	1
28	FLAT WASHER	17
30	SPRING WASHER	9
31	HEX. NUT	8
32	HEX. SOCKET CAP SCREW	2
33	HEX. SOCKET CAP SCREW	6
34	HEX. SOCKET CAP SCREW	1

SPARE PARTS DIAGRAM



NOTES:

ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

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