



Operating Instructions and Parts Manual
24-inch Pneumatic Planishing Hammer
Model PH-24T



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Warranty and Service

Walter Meier (Manufacturing) Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

MORE INFORMATION

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local Walter Meier distributor, or visit waltermeier.com.

WARRANTY

JET products carry a limited warranty which varies in duration based upon the product (MW = Metalworking, WW = Woodworking).

90 DAY WARRANTY	1 YEAR WARRANTY	Body Repair Kits Bottle Jacks Cable Pullers Cold Saws Hoists-Air Hoists-Electric Metal forming Mill/Drills Milling Machines MW Bandsaws MW Drill Presses MW Finishing Equipment MW Lathes MW Precision Vises	2 YEAR WARRANTY	Palet Trucks Rigging Equip. Service Jacks Stackers Surface Grinders Tapping Trolleys-Air Trolleys-Electric Web Slings Winches-Electric	3 YEAR WARRANTY	WW Benchtop Tools	5 YEAR WARRANTY	Beam Clamps Chain Hoist-Manual Lever Hoists Pullers-JCH Models Scissor Lift Tables Screw Jacks Trolleys-Gearred Trolleys-Plain Winches-Manual WW Air Filtration WW Bandsaws WW Buffers	WW Drill Presses WW Dust Collectors WW Dust Filters WW Dust Fittings WW Jointers WW Lathes WW Planers WW Sanders WW Shapers WW Tablesaws	LIFE LIFETIME WARRANTY	Fastening Tools Mechanics Hand Tools Striking Tools Vises (no -precision) Clamps
<i>Warranty reverts to 1 Year Warranty if woodworking (WW) products listed above are used for industrial or educational purposes.</i>											

WHAT IS COVERED?

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

WHO IS COVERED?

This warranty covers only the initial purchaser of the product.

WHAT IS THE PERIOD OF COVERAGE?

The general JET warranty lasts for the time period specified in the product literature of each product.

WHAT IS NOT COVERED?

Five Year Warranties do not cover woodworking (WW) products used for commercial, industrial or educational purposes. Woodworking products with Five Year Warranties that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

HOW TO GET SERVICE

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option. We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

HOW STATE LAW APPLIES

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

LIMITATIONS ON THIS WARRANTY

WALTER MEIER (MANUFACTURING) INC., LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

WALTER MEIER SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Walter Meier sells through distributors only. The specifications in Walter Meier catalogs are given as general information and are not binding. Members of Walter Meier reserve the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever. JET®-branded products are not sold in Canada by Walter Meier.

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Introduction

This manual is provided by Walter Meier (Manufacturing) Inc., covering the safe operation and maintenance procedures for the JET PH-24T Planishing Hammer. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. This machine has been designed and constructed to provide years of trouble free operation if used in accordance with instructions set forth in this manual. If there are any questions or comments, please contact either your local supplier or Walter Meier. Walter Meier can also be reached at our web site: www.waltermeier.com.

Warnings

1. Read and understand the entire owner's manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace the warning labels if they become obscured or removed.
4. This planishing hammer is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a planishing hammer, do not use until proper training and knowledge have been obtained.
5. Do not use this planishing hammer for other than its intended use. If used for other purposes, Walter Meier (Manufacturing) Inc., disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. Always wear approved safety glasses/face shields while using this planishing hammer. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
7. Before operating this planishing hammer, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended.
8. Wear ear protectors (plugs or muffs) during extended periods of operation.
9. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead based paint.
 - Crystalline silica from bricks, cement and other masonry products.
 - Arsenic and chromium from chemically treated lumber.Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.
10. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
11. Make certain the machine is properly grounded.
12. Make all machine adjustments or maintenance with the machine unplugged from the power source.
13. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on. .
14. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
15. Provide for adequate space surrounding work area and non-glare, overhead lighting.
16. Keep the floor around the machine clean and free of scrap material, oil and grease.
17. Don't use in dangerous environment. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
18. Keep visitors a safe distance from the work area. **Keep children away.**
19. Make your workshop child proof with padlocks, master switches or by removing starter keys.



Warnings

20. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
21. Do not overreach. Keep proper footing and balance at all times.
22. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and more safely.
23. Use recommended accessories; improper accessories may be hazardous.
24. Maintain tools with care. Follow instructions for lubricating and changing accessories.
25. Disconnect tools before servicing or changing accessories.
26. Use leather gloves when handling sheet metal.
27. Keep hands, fingers and arms away from the hammer and anvil during operation.
28. Do not exceed the maximum rated air pressure to the regulator.
29. Disconnect tool from air supply when not in use.
30. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
31. Do not stand on the machine. Serious injury could occur if the machine tips over.
32. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
33. Remove loose items and unnecessary work pieces from the area before starting the machine.

Familiarize yourself with the following safety notices used in this manual:



This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.



This means that if precautions are not heeded, it may result in serious injury or possibly even death.

Specifications for PH-24T Planishing Hammer

ModelPH-24T
Stock Number.....756121

Electrical Power:

Incoming Power..... 110V, Single-Phase, 60Hz
Controls foot pedal, 110V
Power Plug included.....yes
Power Cable..... 16AWG, 9 ft.
Foot Pedal Cable Length3-1/2 ft.

General Dimensions:

Throat 24"
Head Opening2-1/2"
Wheels..... 3-1/4" Dia. x 1-1/4" W
Hammer Die flat Ø2"
Anvil Die crown R2"
Anvil shaft insert end diameter0.079"

Operation:

Workpiece Maximum Gauge (mild sheet steel) 16 ga.
Workpiece Maximum Thickness (aluminum, copper) 1/8"
Air Intake Connector..... 1/4" NPT
Air Regulator 3-position (3 speed ranges)
Blows per Minute 4400-4600 / 3200-3500 / 1800-2000
Maximum Pounds per Hit..... 45
Air Pressure Required..... 90-120 PSI (6.33-8.47 kg/cm²)
Air Consumption 8.8 CFM
Noise Level.....92.26 to 104.3 dB
Lubrication required..... Lubricator cup, ISO32/SAE10W

Construction:

Frame welded and gusseted – 0.137" steel tubing
Frame Tube size4" x 4"
Support Tube size.....3" x 2"
Handwheels polished cast iron

Other:

Shipping Weight..... 250 lbs.
Net Weight..... 220 lbs.
Overall Dimensions, shipping36-1/4" L x 14-3/5" W x 67-3/4" H
Overall Dimensions, fully assembled 34" L x 29" W x 66" H

The specifications in this manual are given as general information and are not binding. The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, Walter Meier reserves the right to effect, at any time and without prior notice, changes or alterations to parts, fittings, and accessory equipment deemed necessary for any reason whatsoever.

⚠WARNING Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!

Features and Terminology

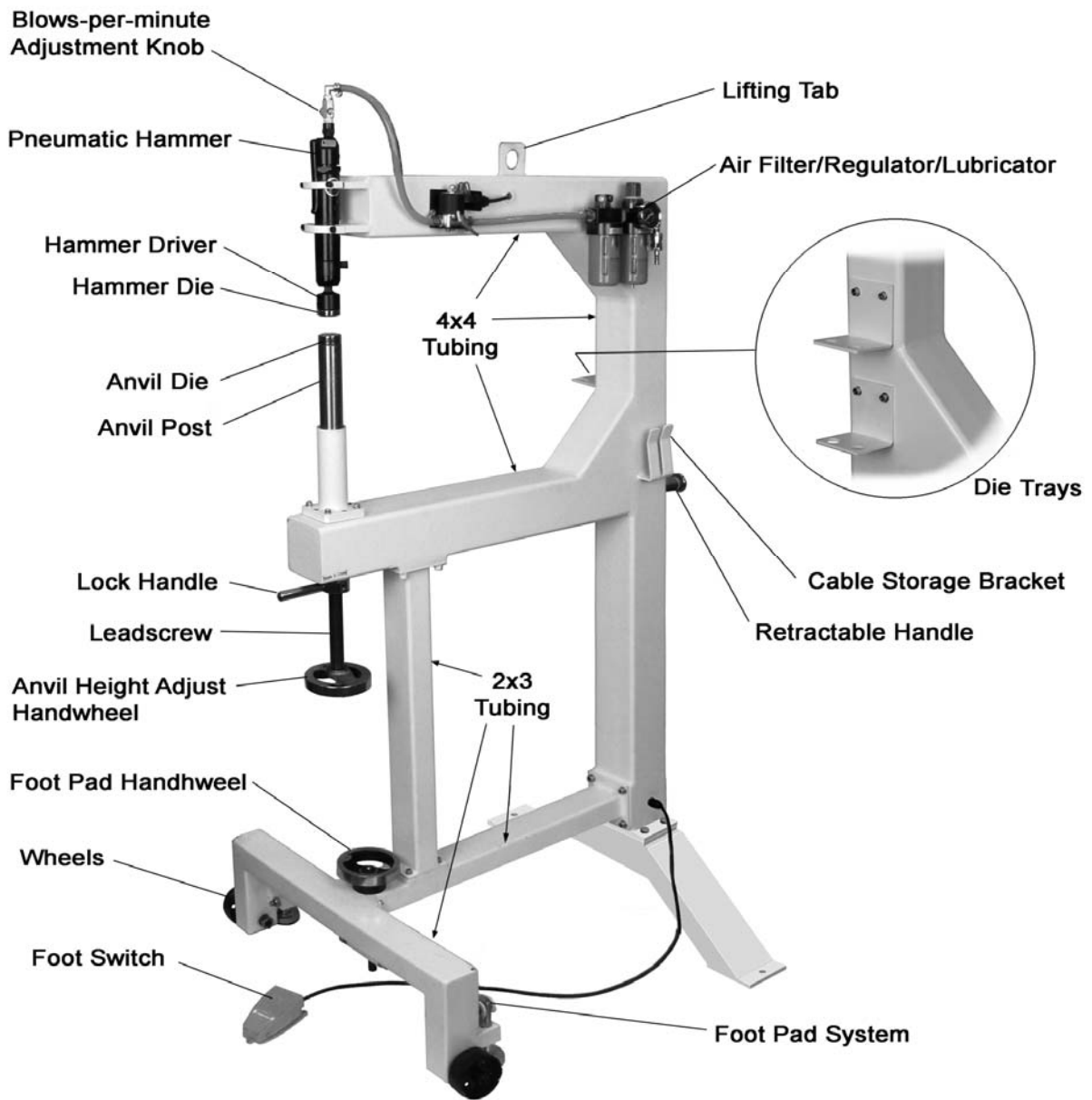


Figure 1 - Features

Unpacking, Mounting and Assembly

1. With the help of an assistant, carefully uncrate the planishing hammer. A tab is welded to the top tube if you choose to use a hoist to set up the machine.
2. Determine the most suitable location for your planishing hammer based on the planned usage of the machine. Larger workpieces require a larger space around the planishing hammer.
3. Mount any loose items to the frame, such as the die trays, using the photo on page 7 and the breakdown on page 10 as guides.
4. Lower the foot pads to contact the floor, using the handwheel.
5. Secure the planishing hammer to the floor using fasteners (not included) appropriate for the floor type. These are inserted through the holes on the frame's back leg.

Referring to Figure 2:

6. Attach the *pneumatic hammer* to the *frame* with the *upper clamp* (has rounded notch) and *lower clamp*. Secure the clamps with four M6x25 socket head cap screws and M6 lock washers.

Referring to Figure 3:

7. Check the oil level in the *lubricator*. If the oil level is low, refill. Refer to *Maintenance* section for instructions.
8. Install a male 1/4" *quick connector* fitting onto the air inlet of the planishing hammer.

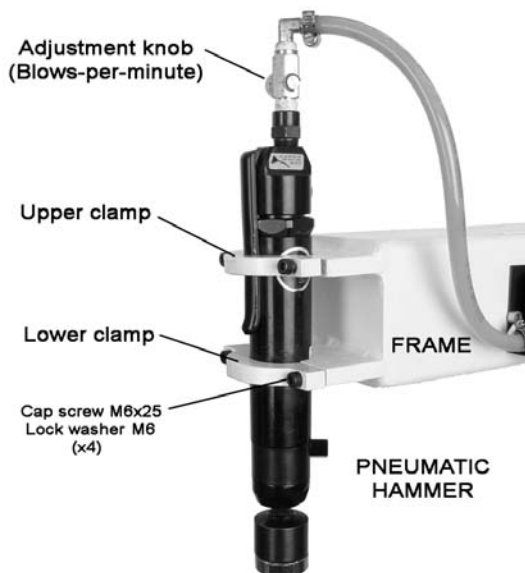


Figure 2

Operation

WARNING Keep hands clear of hammer and anvil area at all times! Failure to comply may cause serious injury!

Referring to Figure 3:

1. Connect the air compressor to the *quick connector*.
2. Set the desired air pressure between 90-120 PSI using the pressure dial on the filter/regulator (clockwise to increase). Lock the setting by pushing down the pressure dial. Pull up on the dial to readjust a setting. Note: A lower air pressure will provide a softer hammer blow. **Do not exceed 120 psi air pressure.**
3. Adjust the oil flow using the dial at the top of the *lubricator*. A setting of 2 drips per minute is sufficient for regular operation.

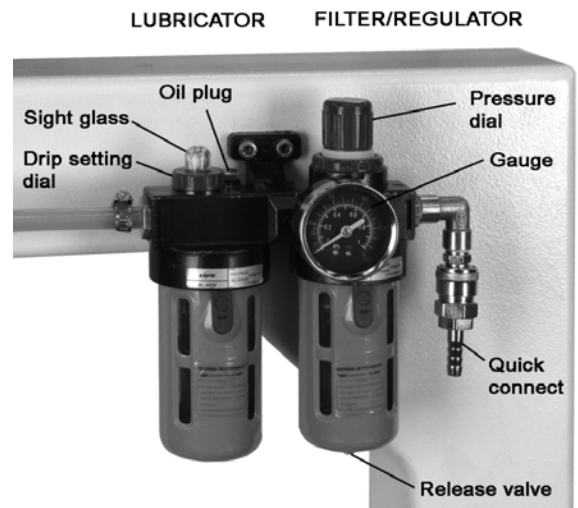


Figure 3

Referring to Figure 4:

4. Adjust the anvil height with the *handwheel*, and secure the anvil in position by snugging the *lock collar* against the *frame*.
5. The *lock handle* can be inserted into any of the threaded holes in the collar, and tightened using a wrench on the flats.

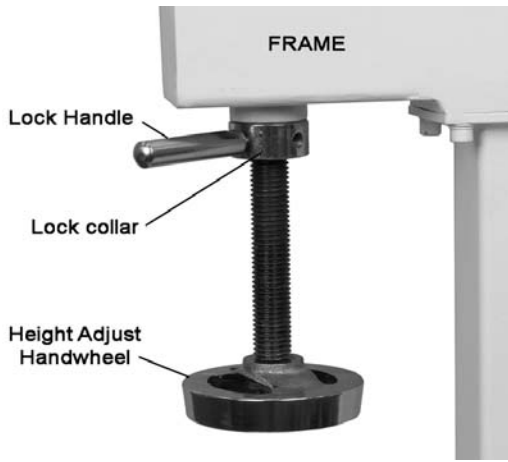


Figure 4

6. Plug the planishing hammer into the power supply.
7. With the workpiece between the *hammer* and *anvil* (Figure 5), press the foot switch to begin planishing.

Note: Planishing blows-per-minute can be adjusted by turning *adjustment knob* (see Figure 2).



Figure 5

Changing Dies

Referring to Figure 6:

The PH-24T is shipped with one crowned anvil (or lower) die, and one flat hammer (or upper) die, which is already installed in the driver.

To remove an *anvil die*, loosen the set screw and pull straight up on the anvil die. Install a new anvil die and tighten set screw. The anvil post accepts dies with a standard 0.79" insert end.

To remove a *hammer die* from the driver, use a tool to separate them. When the die is removed, check the condition of the o-ring inside the driver. To reinstall a hammer die, insert it into the driver and raise the anvil post up until it contacts and pushes the die in.

To remove the entire driver from the hammer barrel, push the tab on the air hammer housing and pull down on the driver. To reinstall the hammer drive, orient the notch toward the general direction of the tab, and push driver upward while still pushing back on the tab. When the driver is properly inserted, the tab will snap back into place.

CAUTION Make sure driver and dies are properly inserted before operating machine.

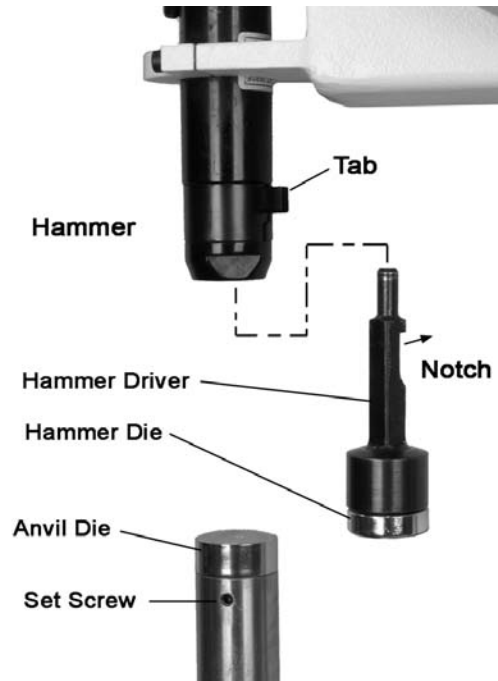


Figure 6

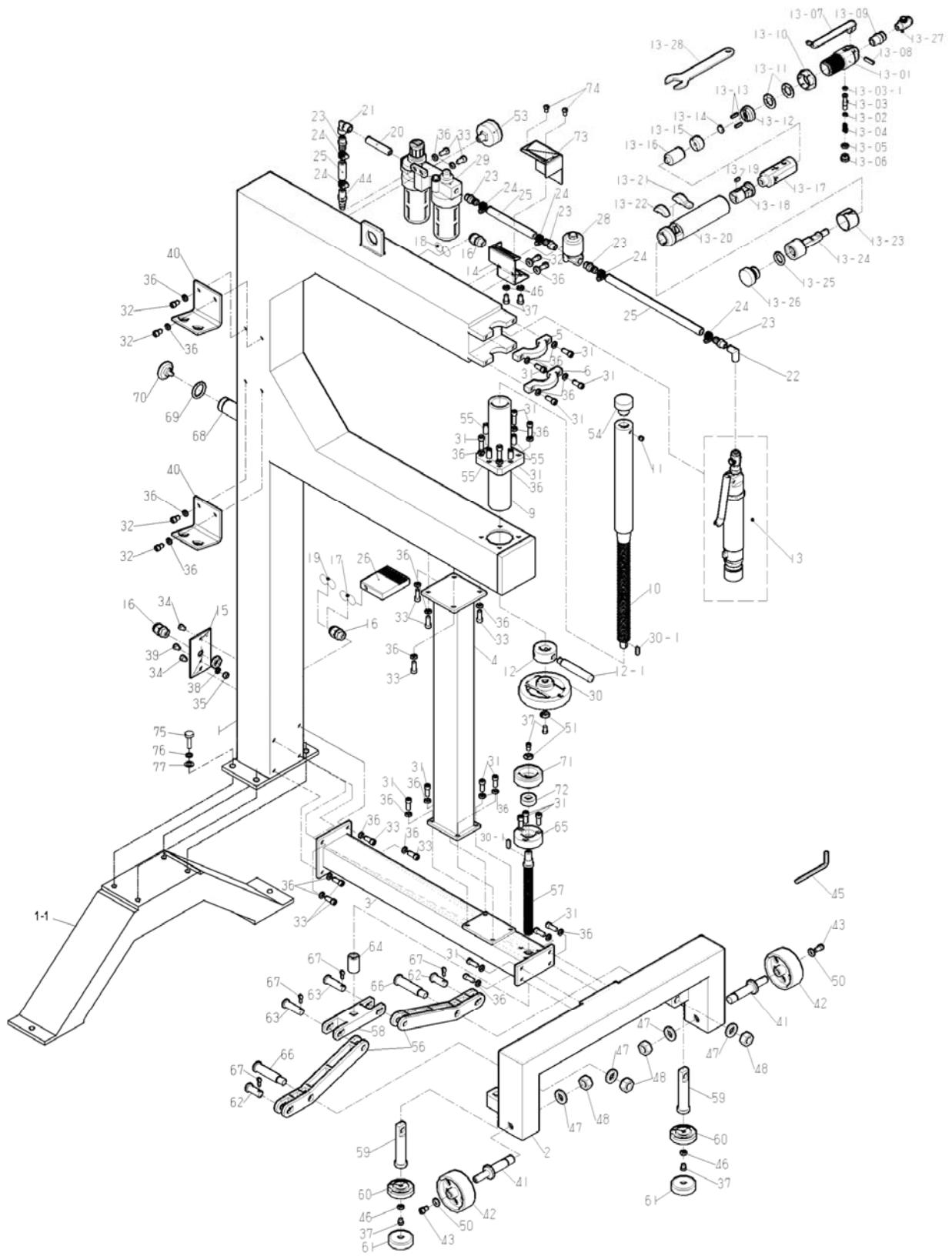
Maintenance

Check the following before every use:

- Oil level in the lubricator; refill as needed with ISO 32/SAE 10W non-detergent, non-additive oil. Remove oil plug with a screwdriver to fill.
- All mounting and component hardware and fasteners; adjust/tighten as necessary.
- All air connections; replace leaking or defective connections.
- Worn or shorted wiring; replace as necessary.

Periodically check the filter/regulator bowl for fluids or sediment accumulation, and empty it if needed. To remove a bowl, shut off air supply and bleed excess air; then press the tab, rotate bowl to the left, and pull down. Reverse procedure to reinstall bowl. *Make sure bowl is locked in position before applying air to the system!*

Assembly Drawing for PH-24T Planishing Hammer



Ordering Replacement Parts

To order parts or reach our service department, call 1-800-274-6848 Monday through Friday (see our website for business hours, www.waltermeier.com). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Parts List for PH-24T Planishing Hammer

Index No.	Part No.	Description	Size	Qty
1	PH24T-1	Frame		1
1-1	PH24T-1-1	Frame Back Leg		1
2	PH24T-2	Wheel Leg		1
3	PH24T-3	Cross Leg		1
4	PH24-4	Support Leg		1
5	PH24-5	Upper Air Hammer Clamp		1
6	PH24-6	Lower Air Hammer Clamp		1
9	PH24-9	Lead Screw Housing		1
10	PH24-10	Lead Screw		1
11	TS-1523021	Socket Set Screw	M6x8	1
12	PH24-12	Lock Collar		1
12-1	PH24-12-1	Lock Collar Handle		1
13	PH24-13	Air Hammer		1
13-01	PH24-13-01	Back Head		1
13-02	PH24-13-02	O-Ring	3.2x1.9 mm	1
13-03	PH24-13-03	Throttle Valve		1
13-03-1	PH24-13-03-1	O-Ring	3.5x1.5 mm	1
13-04	PH24-13-04	Spring		1
13-05	PH24-13-05	O-Ring	7.8x2.4 mm	1
13-06	PH24-13-06	Valve Cap		1
13-07	PH24-13-07	Lever		1
13-08	PH24-13-08	Spring Pin	Ø5x22.5 mm	1
13-09	PH24-13-09	Hose Adapter		1
13-10	PH24-13-10	Lock Ring		1
13-11	PH24-13-11	Alignment Shim		2
13-12	PH24-13-12	Rear Valve Block		1
13-13	PH24-13-13	Pin		2
13-14	PH24-13-14	Valve		1
13-15	PH24-13-15	Front Valve Block		1
13-16	PH24-13-16	Piston		1
13-17	PH24-13-17	Barrel Sleeve		1
13-18	PH24-13-18	Nose		1
13-19	PH24-13-19	Flat Key		1
13-20	PH24-13-20	Barrel		1
13-21	PH24-13-21	Driver Retainer		1
13-22	PH24-13-22	Retainer Buffer		1
13-23	PH24-13-23	Retainer Cap		1
13-24	PH24-13-24	Hammer Driver		1
13-25	PH24-13-25	O-Ring	20x3 mm	1
13-26	PH24T-13-26	Hammer Die		1
13-27	PH24-13-27	Regulator	G3/8"	1
13-28	PH24-13-28	Open End Wrench	26 mm	1
14	PH24-14	Solenoid Valve Mount		1
15	PH24-15	Cover Plate		1
16	PH24-16	Strain Relief	M16x1.5	3
17	PH24-17	Foot Control Switch Cord	1.25x3C	1
18	PH24-18	Solenoid Valve Cord	1.25x3C	1
19	PH24-19	Power Cord		1
20	PH24-20	Pipe Nipple Air Fitting	1/4"	1
21	PH24-21	Elbow Air Fitting	1/4"	1

Index No.	Part No.	Description	Size	Qty
22	PH24-22	Elbow Air Fitting	1/4"	1
23	PH24-23	Air Fitting Connector	1/4"	5
24	PH24-24	Hose Clamp	Ø10-16 mm	6
25	PH24-25	Air Hose	PVC Ø12x8 mm	1
26	PH24-26	Foot Control		1
27	PH24-27	Cable Protector	Ø16	1
28	PH24-28	Solenoid Valve		1
29	PH24-29	Air Filter-Regulator-Lubricator		1
30	PH24-30	Handwheel		1
30-1	PH24-30-1	Flat Key	4x16 mm	2
31	TS-1503081	Socket Head Cap Screw	M6x35	16
32	TS-1503051	Socket Head Cap Screw	M6x20	6
33	TS-1503071	Socket Head Cap Screw	M6x30	10
34	TS-1534052	Phillips Pan Head Machine Screw	M6x15	2
35	TS-1540031	Hex Nut	M5	1
36	TS-2361061	Lock Washer	Ø6 mm	32
37	TS-1533052	Phillips Pan Head Machine Screw	M5x15	2
38	708315-128	External Tooth Lock Washer	Ø5 mm	1
39	TS-1533042	Phillips Pan Head Machine Screw	M5x12	1
40	PH24-40	Die Tray		2
41	PH24-41	Wheel Shaft		2
42	PH24-42	Wheel		2
43	TS-1503021	Socket Head Cap Screw	M6x10	2
44	PH24-44	Quick Connect Coupler	1/4"	1
45	PH24T-45	Hex Wrench	6 mm	1
46	TS-1550030	Flat Washer	Ø5 mm	2
47	TS-155010	Flat Washer	Ø16 mm	4
48	TS-154010	Hex Nut	M16	4
50	PH24-50	Washer		2
51	TS-1550031	Flat Washer	Ø5 mm	2
53	PH24-53	Pressure Gauge	0-140 psi	1
54	PH24-54	Lower Anvil		1
55	TS-1524041	Socket Set Screw	M8x15	4
56	PH24T-56	Hinge Lever		2
57	PH24T-57	Lead Screw		1
58	PH24T-58	Lead Screw Seat		1
59	PH24T-59	Shaft		2
60	PH24T-60	Block		2
61	PH24T-61	Pad		2
62	PH24T-62	Short Pin		2
63	PH24T-63	Long Pin		2
64	PH24T-64	Positioning Collar		1
65	PH24T-65	Bearing Seat		1
66	PH24T-66	Pin		2
67	PH24T-67	Cotter Pin	Ø2.5 mm	4
68	PH24T-68	Handle		1
69	PH24T-69	O-Ring	3.1x26 mm	1
70	PH24T-70	Handle Cover		1
71	PH24T-71	Rolling Handle		1
72	PH24T-72	Thrust Bearing	Ø15xØ32x12	1
73	PH24T-73	Cover Plate for Switch		1
74	TS-2284082	Phillips Pan Head Machine Screw	M4x8	2
75	TS-1491041	Hex Cap Screw	M10x30	4
76	TS-2361101	Lock Washer	Ø10mm	4
77	TS-1550071	Flat Washer	Ø10mm	4

Note: Some parts are shown for illustration purposes only and may not be available individually as replacement parts. Fasteners with part numbers beginning with TS-, are standard sizes and can usually be found at local hardware stores.