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S227A
PPH-51

PNEUMATIC
PLANISHING HAMMER

INSTRUCTION & PARTS MANUAL

25-1-11

Specifications

| | |
|-------------------------|--|
| Speed | 875 - 1350 BPM |
| Operating Air Pressure | 50 to 100 (maximum) PSI; 4 SCFM |
| Air Inlet | 1/4", 18 NPT, female |
| Overall Dimensions | 23 (L) x 5-1/2 (W) x 24 (H) inches (C-frame and Hammer) |
| Anvil-to-Hammer Opening | 4 inches (maximum) |
| Anvil Height Adjustment | 2-position anvil shaft mount with lock pin 3/8" to 1-1/4" opening (between head and anvil); 4-position, stepped anvil micro-adjustment block 1/16" height difference between each level |
| Anvil Sizes | 1" Radius, 2" Radius and 3" Radius |
| Throat Depth | 19-5/8 inches |
| Foot Pedal | 7-1/4 (L) x 4 (W) x 3-1/2 (H) inches. Built-in air filter |

Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

Safety Warnings and Precautions

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

Read all instructions before using this tool!

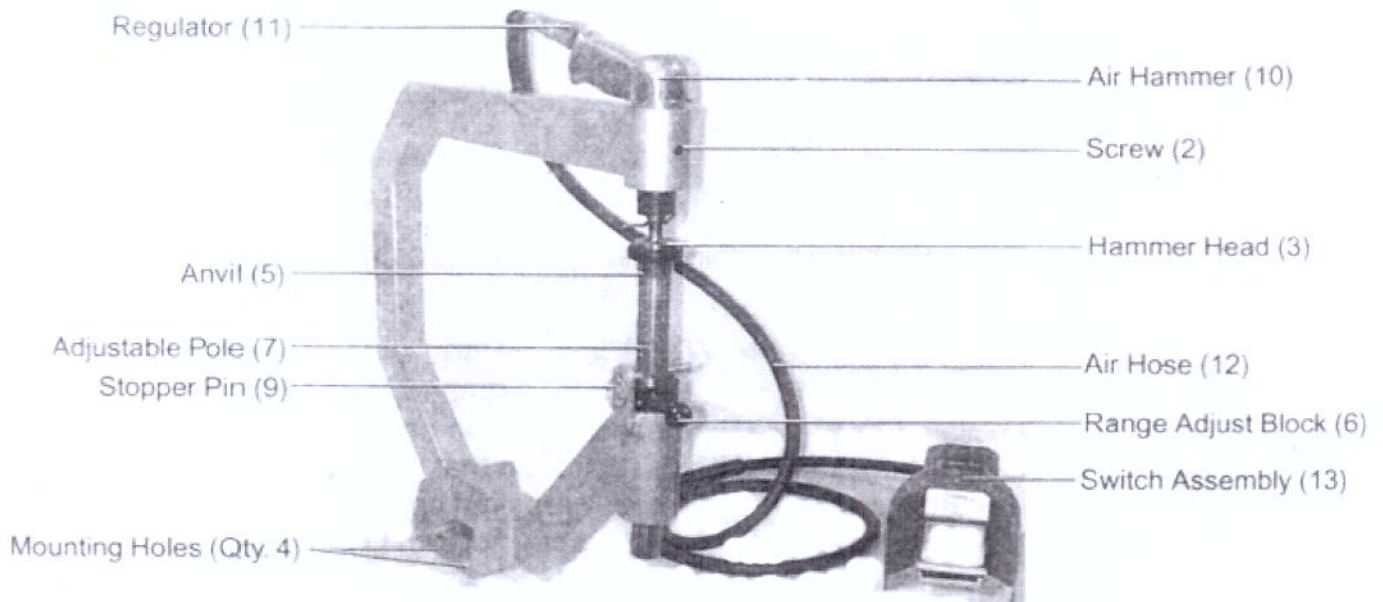
1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
4. **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.
5. **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. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
6. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles. Wear a full face shield if you are producing metal filings.
7. **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 restrictive hair covering to contain long hair.

8. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines.
9. **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 and, if damaged, have them repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
10. **Disconnect air supply.** Unplug tool from air supply when not in use.
11. **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before operation.
12. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
13. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and 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.
14. **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. Approved accessories are available from Harbor Freight Tools.
15. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
16. **Maintenance.** For your safety, service and maintenance should be performed regularly by a qualified technician.
17. **Compressed air only.** Never use combustible gas as a power source.
18. **Protect hands and body from injuries.** 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.
19. **Install this product on a proper surface.** Locate on a flat, level, and solid surface that is capable of supporting the weight of the Planishing Hammer and the material being hammered.

Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Unpacking

When unpacking, check to make sure the following parts are included. Refer to the Parts List and Assembly Drawing located at the end of this manual. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.



Installation

Mounting "C" Frame

1. Select a workbench in the shop area able to support the weight of the Planishing Hammer, the metal being worked on, and the vibration of the planishing process.
2. Mount the "C" Frame (1) to the workbench using hardware (not supplied).

The "C" Frame should be positioned so that the mounted Air Hammer (10) is extended slightly over the edge of the workbench. This will accommodate various shapes of metals being planished. Hardware should consist of nuts, bolts, flat washers, and lock washers.

Note: There is an entry hole on the side of "C" Frame (1) where sand can be inserted to reduce noise and vibration.

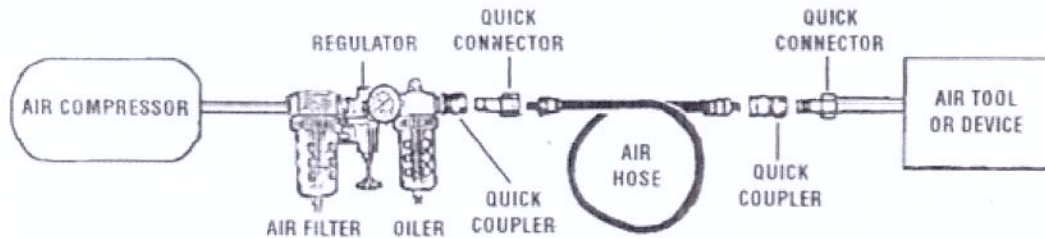
Air Connection

1. Attach a Union fitting (not supplied) into the Switch Assembly Inlet (13) fitting. A Union fitting is necessary before a connection can be made to an Air Compressor.
2. For easy connection or removal, attach an Air Coupler (not supplied) to the Union fitting, if quick-coupling is desired.
3. Retighten all couplings and fittings.
4. Attach the Air Hose (not supplied) from the Air Compressor (not supplied) to the Switch Assembly (13). Place Switch Assy on the floor next to the Planishing Hammer.

Caution: Do not turn on the Air Compressor at this time.

Oiler and Filter Connection

Dirt, water, and the lack of pneumatic tool oil are major causes for tool wear. Install an optional oiler-filter (not supplied), as illustrated below for better performance.

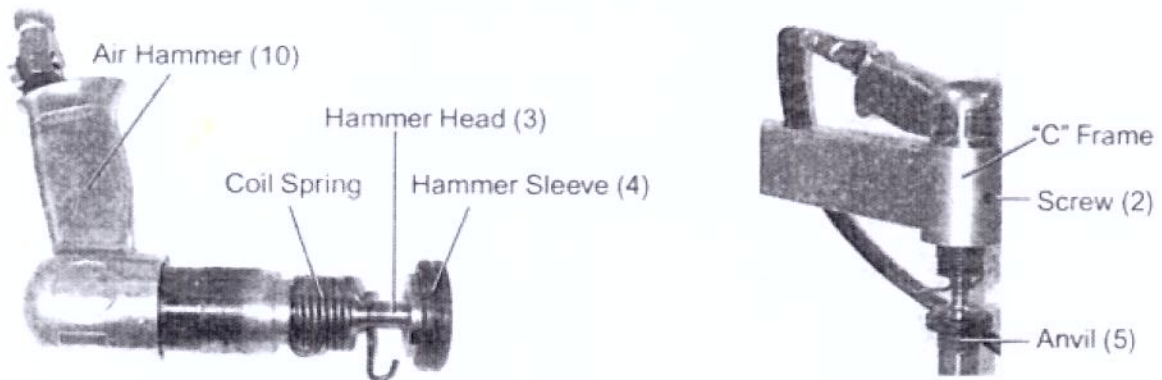


Connect the air tool, air hoses, filter, and oiler to the Compressor Air Outlet as illustrated below. Use pipe thread seal or Teflon tape on all threaded connections. The filter and oiler (not supplied) are recommended but not mandatory for operation.

If the filter and oiler are not used, connect the air hose directly to the 1/4 inch, 18 NPT connector located at the Air Switch Assembly Inlet (13) fitting. Also, a few drops of pneumatic tool oil must be added through the air line before each use.

Mounting Air Hammer to "C" Frame

1. Unscrew Screw (2) so it is out of the way of the Air Hammer (10) when inserting it into the "C" Frame. Do not remove Screw (2). See photo below, right.



2. Screw off the Coil Spring from the Air Hammer (10) and slip it off, along with the Hammer Head (3) and Hammer Sleeve (4). See photo below, left.
3. Slide the Air Hammer body into the "C" Frame mounting hole as shown below, right.
4. Insert the desired size Anvil (5) onto the Adjustable Pole (7).
5. Place the Hammer Head (3) through the Coil Spring, then into the Air Hammer. Screw on the Coil Spring until it stops.
6. Retighten Screw (2) completely.

Operation

1. To change the height of the Anvil (5) to within 1-1/2 inches of the desired height, pull out Stopper Pin (9), and move the Adjustable Pole (7) up or down to one of two Stopper Pin holes. Replace Stopper Pin.
2. To adjust closer to the desired height, move the Range Adjust Block (6) to the right or left to reach the desired height.
3. Turn on the Air Compressor and set its regulator to 90 PSI.
4. Before planishing, test the operation by pressing down on the foot Switch Assy (13) with your foot.
5. Adjust the cycle speed of the Air Hammer by turning the Regulator (11) valve clockwise or counterclockwise.
6. Use both gloved hands to hold the material to be planished and place it between the Anvil (5) and the Hammer Head (3).
7. Press down on the Switch Assy (13) on the floor with your foot to operate.
8. When finished planishing, remove your foot from the Switch Assy, and wait for the Air Hammer to stop completely.
9. Turn the Air Compressor off.
10. Press down on the Switch Assy (13) again to release any remain air pressure in the Air Hammer.

Changing Anvils

1. Unscrew Screw (2) so it is out of the way of the Air Hammer (10) when removing it from the "C" Frame. Do not remove Screw (2). See photo on page 5, bottom-right.
2. Screw off the Coil Spring from the Air Hammer (10) and slip it off, along with the Hammer Head (3) and Hammer Sleeve (4). See photo on page 5, bottom-left.
3. Slide the Air Hammer body out of the "C" Frame mounting hole.
4. Replace Anvil (5) with desired size onto the Adjustable Pole (7).
5. Replace the Air Hammer into the "C" Frame. Then, attach the Hammer Head (3) through the Coil Spring, then into the Air Hammer. Screw on the Coil Spring until it stops.
6. Retighten Screw (2) completely.

Troubleshooting

| Problem | Probable Cause | Solution |
|--|--|--|
| Planishing Hammer does not operate when Switch pressed | No air pressure in air line | Check air line and compressor |
| Planishing Hammer operates at diminished pressure | Air pressure below normal operating pressure | Check regulator on compressor and Air Hammer |

Maintenance

1. After each use, wipe all components of the Planishing 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 5.
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 Planishing Hammer and keep in a clean and dry location.

Parts List

| Part | Description | Qty. |
|------|------------------------------|------|
| 1 | "C" Frame | 1 |
| 2 | Screw | 1 |
| 3 | Hammer Head | 1 |
| 4 | Hammer Sleeve | 1 |
| 5 | Anvil (small, medium, large) | 3 |
| 6 | Range Adjust Block | 1 |
| 7 | Adjustable Pole | 1 |
| 8 | Screw | 1 |
| 9 | Stopper Pin | 1 |
| 10 | Air Hammer | 1 |
| 11 | Regulator | 1 |
| 12 | Air Hose | 1 |
| 13 | Switch Assembly | 1 |
| 14 | Cover | 1 |
| 15 | Quick Connector (male) | 1 |
| 16 | PVC Air Hose | 1 |
| 17 | Male Thread Fitting | 1 |
| 18 | Hose Clamp | 2 |
| 19 | Screw | 4 |

Note: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Assembly Drawing

