

CENTRAL PNEUMATIC®

PRESSURE BLASTING SYSTEM

Model 93889

ASSEMBLY AND OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011
Visit our Web site at: <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY,
READ AND UNDERSTAND ALL WARNINGS
AND INSTRUCTIONS BEFORE USE.**

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For technical questions, please call 1-800-444-3353.

PRODUCT SPECIFICATIONS

Item	Description
Media Tank Capacity	90 Pounds
Maximum Tank Pressure	125 PSI
Pressure Gauge Indicator	0 ~ 150 PSI
Required Compressed Air System (Not Included)	2 HP Compressor With 3/8" Diameter Air Hose
Recommended Media Type	Glass Bead / Silicon Carbide Alumina / Walnut Shell / Brass Bead
Recommended Use	Use with 80, 100, or 120 Grit Media, at 60 PSI, with 3/32" Nozzle for best results (Run Time: 45 minutes with 90 Lbs. Media)
Water Trap Type	Push Button to Drain
Accessories	3/32" Nozzle (Qty. 1) / 1/8" Nozzle (Qty. 1) 8 Ft. x 1/2" I.D. Hose (Qty. 1) / Blast Hood (Qty. 1) Sandblaster Gun (Qty. 1) / Pipe Thread Seal Tape (Qty. 1)
Net Weight	29.70 Pounds

SAVE THIS MANUAL

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

UNPACKING

When unpacking, check to make sure that all the parts and accessories **listed on page 15** are included, and the product is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

SAFETY WARNINGS AND PRECAUTIONS

1. **Do not operate the Pressure Blasting System if the Control Lever does not turn the tool on or off.** Any tool that cannot be controlled with its Control Lever is dangerous and must be replaced.
2. **Keep work area clean.** Cluttered areas invite accidents.
3.  **WARNING!** Do not operate pneumatic equipment in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Pneumatic equipment can create sparks which may ignite flammables.

4.  **WARNING!** Always wear ANSI-approved safety impact eye glasses under a full face shield, a respirator, and heavy duty work gloves when operating the Pressure Blasting System. Also, wear heavy duty work boots, long trousers, and long sleeve shirt.
5. **Stay within air pressure capacity.** Never operate the Pressure Blasting System above **125 PSI**.
6. **Keep children away.** Children must never be allowed in the work area. Do not let them handle equipment, tools, extension cords, or air hoses.
7. **Store idle equipment.** When not in use, the Pressure Blasting System must be stored in a dry location to inhibit rust. Always lock up the machine and keep out of reach of children.
8. **Use the right tool for the job.** Do not attempt to force small equipment or attachments to do the work of a larger industrial equipment and attachments. There are certain applications for which this product was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this product, and do not use this product for a purpose for which it was not intended.
9. **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.
10. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running tools or air hoses.
11. **Disconnect air hose and release any built-up air pressure.** Never service the Pressure Blasting System or disassemble with the air hose attached. Always release any built-up air even after disconnecting hose. Disconnect the Pressure Blasting System when not in use.
12. **Remove adjusting wrenches.** Check that adjusting wrenches are removed from the tool and work surface before attaching to an air source.
13. **Stay alert.** Watch what you are doing. Use common sense. Do not operate any tool or equipment when you are tired.
14. **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, and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.

15. **Replacement parts and accessories.** This product is to be repaired and serviced only by a qualified technician. When this product is serviced, only identical replacement parts should be used. 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.
16. **Do not operate this product if under the influence of alcohol or drugs.** Read warning labels if taking prescription medicine to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
17. **Maintenance.** The maintenance outlined in the “Maintenance” section should be performed regularly. For your safety, this product should be serviced or repaired regularly only by a qualified technician.
18. **Compressed air only.** Use clean, dry, regulated, compressed air at **65 to 125 PSI**. Never use oxygen, carbon dioxide, combustible gases, or any other bottled gas as a power source for this product.
19. **Transport the Pressure Blasting System safely.** Always disconnect air supply when moving the tool. Pull the tool by the handle to avoid tipping.
20. **Avoid working alone.** If an accident happens, an assistant can bring help.
21. **Maintain labels and nameplates on the Pressure Blasting System.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
22. **Maintain a firm grip on the Gun when in use.**
23. **Never point the Gun toward yourself, other people, or animals.** Keep all people and animals safely away from the work area.
24. **Maintain a safe distance away from the object being sandblasted.** Whenever possible, sandblast the object at a 45 degree angle to minimize the possibility of grit, dirt, and debris ricocheting directly backward toward your face and body.
25. **Industrial applications must follow OSHA requirements.**
26. **Whenever possible, perform a sandblasting test on a small area of the object to be sandblasted.** If necessary, adjust the distance to the object and/or change the Nozzle of the Gun for more effective results.
27. **Make sure to read and understand all safety warnings and precautions as**

outlined in the manufacturer's manual for the object you intend to sandblast.

28. **Avoid unintentional starting.** Make sure the Control Lever on the Gun is in its “OFF” or “CLOSED” position when the tool is not being used.
29.  **WARNING!** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contain chemicals known (to the State of California) to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:
- * Lead from lead-based paints,
 - * Crystalline silica from bricks, cement, and other masonry products,
 - * Arsenic and chromium from chemically treated lumber.
- (California Health & Safety Code 25249.5, et seq.)*
30.  **WARNING! Abrasive blasting with media containing crystalline silica can cause serious or fatal respiratory disease.** Exposure to crystalline silica may cause silicosis (a serious lung disease), cancer, and death. Exposure to aluminum oxide (a dust generated from material removing processes) can result in eye, skin, and breathing irritation. Always use a NIOSH-approved respirator, safety impact eye glasses, and a full face shield. Avoid skin exposure. Proper ventilation in the work area is required. Read and understand the ten recommended measures below to reduce crystalline silica exposure in the workplace and prevent silicosis and silicosis related injuries and deaths.



The following ten measures are recommended to reduce crystalline silica exposures in the workplace and prevent silicosis and silicosis related injuries and deaths:

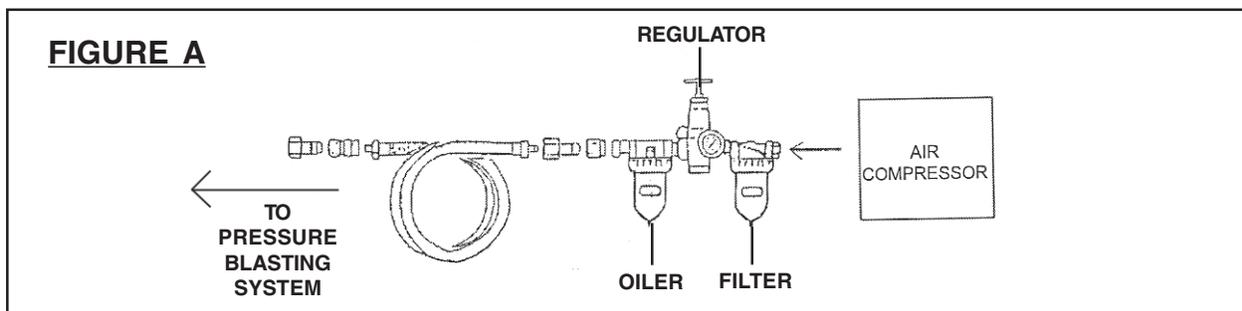
1. Prohibit silica sand (or other substances containing more than 1% crystalline silica) as an abrasive blasting material and substitute less hazardous materials.
2. Conduct air monitoring to measure worker exposures.
3. Use containment methods such as blast-cleaning machines and cabinets to control the hazard and protect adjacent workers from exposure.
4. Practice good personal hygiene to avoid unnecessary exposure to silica dust.
5. Wear washable or disposable protective clothes at the worksite. Shower, and change into clean clothes before leaving the worksite to prevent contamination of cars, homes, and other work areas.

6. Use respiratory protection when source controls cannot keep silica exposures below the recommended levels.
 7. Provide periodic medical examinations for all workers who may be exposed to crystalline silica.
 8. Post signs to warn workers about the hazard and to inform them about required protective equipment.
 9. Provide workers with training that includes information about health effects, work practices, and protective equipment for crystalline silica.
 10. Report all cases of silicosis to State health departments and to OSHA or the Mine Safety and Health Administration (MSHA).
31. **⚠ WARNING!** The brass components of this product contain lead, a chemical known to the State of California to cause birth defects (or other reproductive harm). (California Health & Safety code § 25249.5, *et seq.*)
 32. **⚠ 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.
 33. Always connect this unit securely to an electrically grounded object (such as a water pipe or metal rod driven into the earth). If this unit is not grounded, a spark could potentially ignite a cloud of flammable dust, causing fire/explosion.

SAVE THESE INSTRUCTIONS

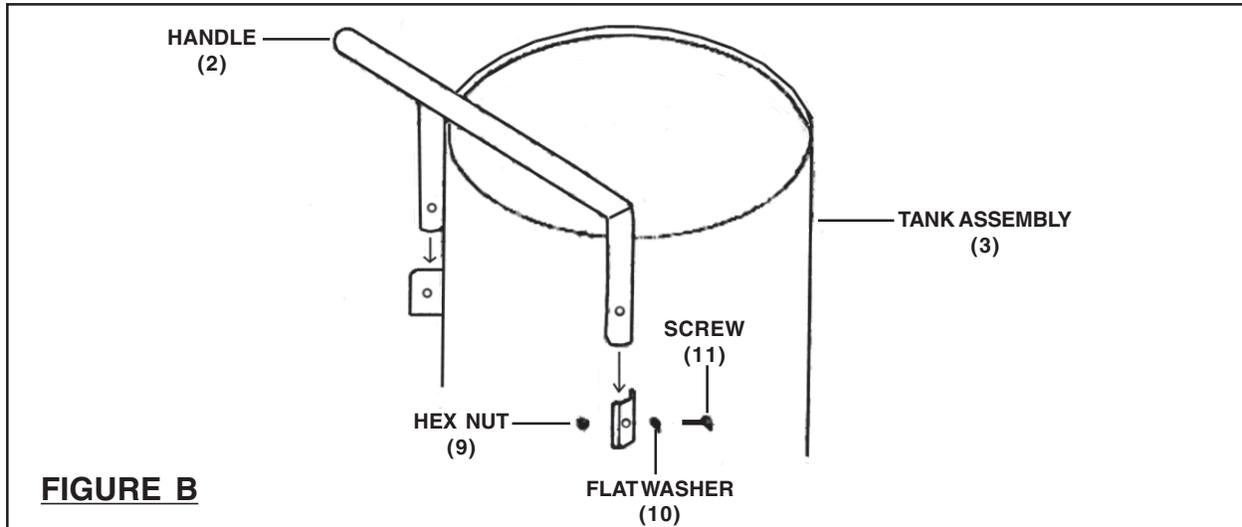
ASSEMBLY INSTRUCTIONS

For best service, you should incorporate an oiler, regulator, and in-line filter, as shown in the diagram below. Hoses, couplers, oilers, regulators, and filters are all available at Harbor Freight Tools. **NOTE:** If an automatic oiler is not used, put 3-5 drops of pneumatic Tool Oil (not included) in the tool's quick connector before each use. (See Figure A.)



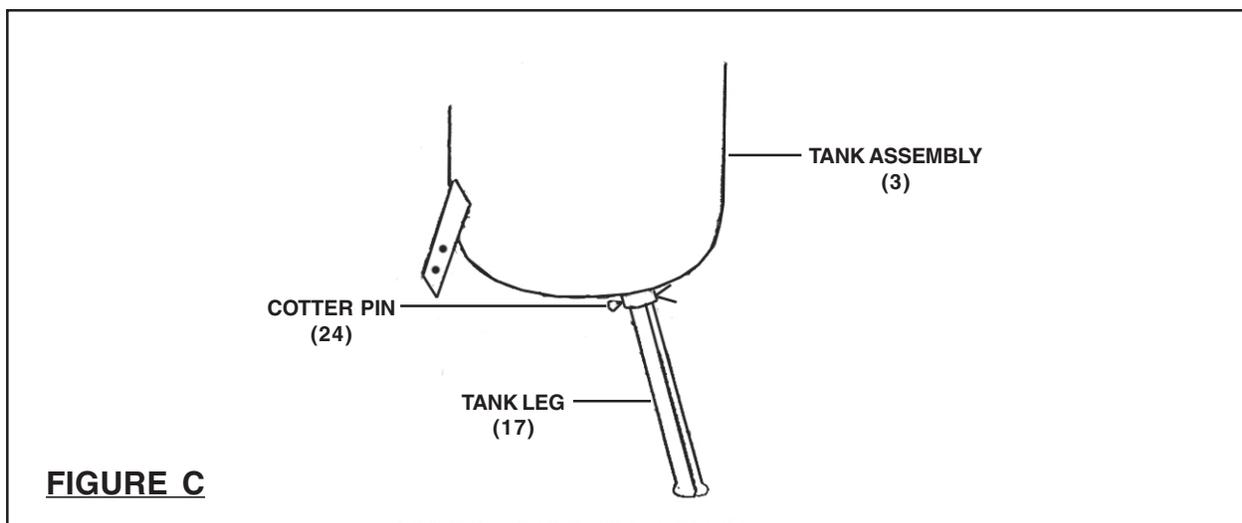
To Attach The Handle:

1. To attach the Handle (2) to the Tank Assembly (3), align the two mounting holes in the Handle with the two mounting holes located on the side of the Tank. Then secure the Handle to the Tank, using two Screws (11), two Flat Washers (10), and two Hex Nuts (9). **(See Figure B.)**



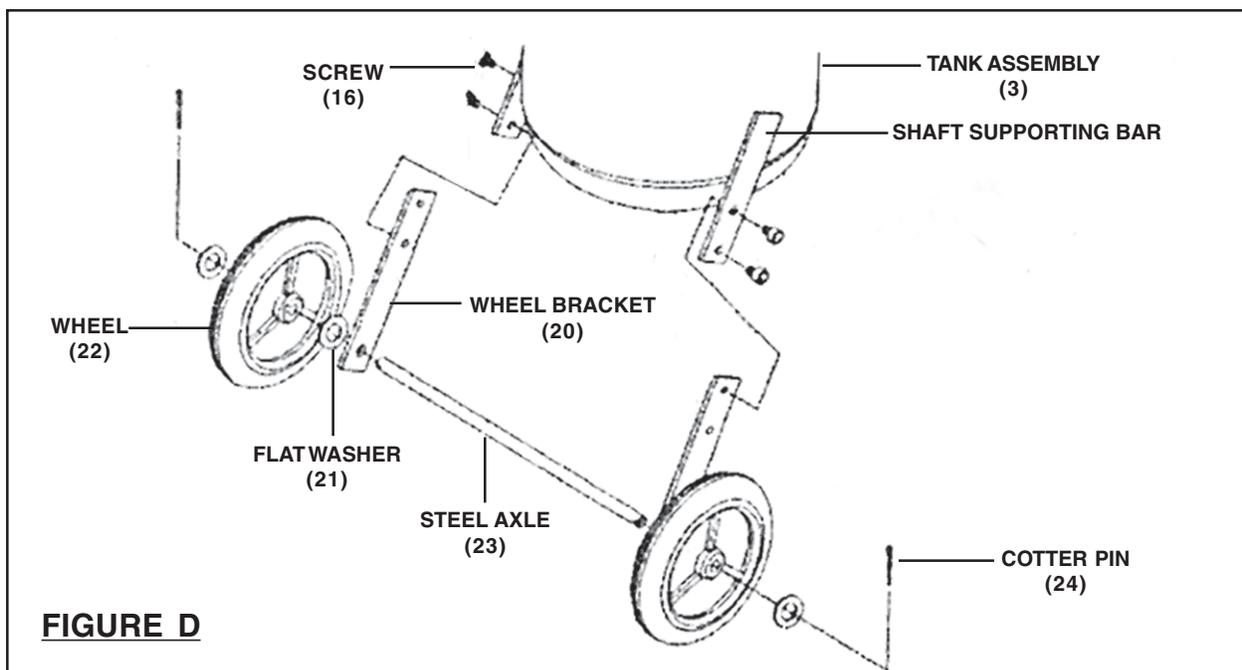
To Attach The Tank Leg:

1. To attach the Tank Leg (17) to the Tank Assembly (3), insert the Tank Leg into the bottom mounting sleeve of the Tank. Then secure the Tank Leg to the Tank, using one Cotter Pin (24). **(See Figure C.)**



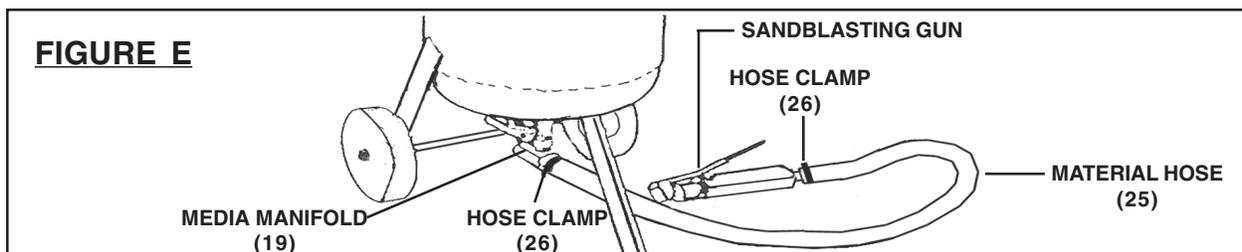
To Attach The Wheels:

1. Align the two mounting holes in each of the two Wheel Brackets (20) with the two *threaded* mounting holes in each of the two Shaft Supporting Bars at the bottom of the Tank Assembly (3). Then, use four Screws (16) to secure the Wheel Brackets to the Shaft Supporting Bars. **(See Figure D.)**
2. Insert the Steel Axle (23) through the bottom hole of each of the two Wheel Brackets (20). Place a Flat Washer (21) onto each end of the Steel Axle. Insert a Wheel (22) onto each end of the Steel Axle. Place another Flat Washer (21) onto each end of the Steel Axle. Then secure the Wheels to the Steel Axle, using one Cotter Pin (24) for each Wheel. **(See Figure D.)**



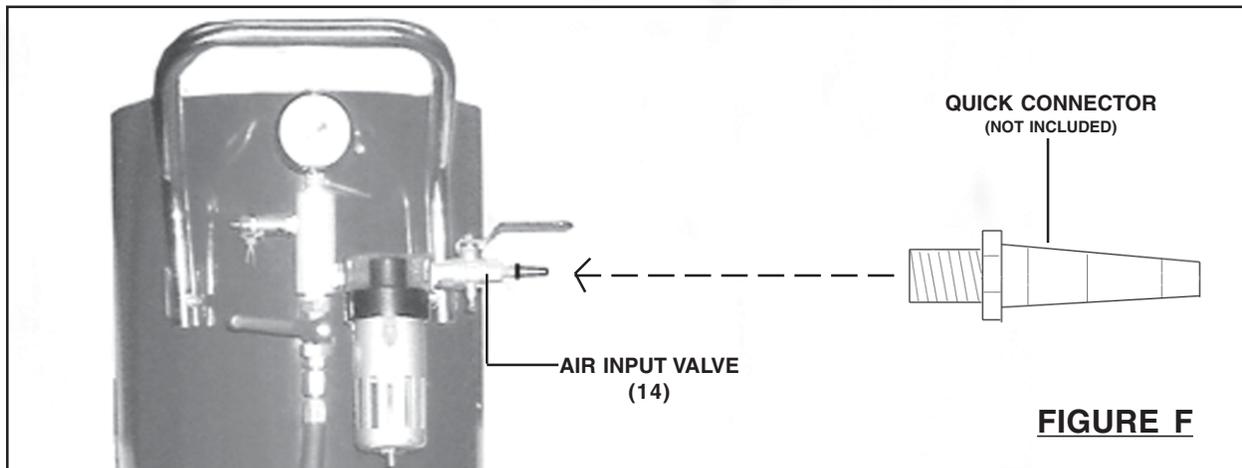
To Attach The Material Hose:

1. Insert two Hose Clamps (26) onto the Material Hose (25). Insert one end of the Material Hose onto the Media Manifold (19). Insert the other end of the Hose onto the Barb Fitting (44) of the Sandblasting Gun. Then secure the Hose to the Media Manifold and Sandblasting Gun, using the two Hose Clamps. **(See Figure E.)**



To Attach A Quick Connector:

1. Prior to use, the Pressure Blasting System requires the attachment of a *Quick Connector* (not included) to its Air Input Valve (14). To do so, make sure the screen Air Filter within the Valve Body is properly seated in the Valve Body. Wrap approximately 3" of Pipe Thread Seal Tape (47) around the male threads of the Quick Connector. Then, firmly tighten the Quick Connector into the Valve Body. (See Figure F.)



OPERATING INSTRUCTIONS

Abrasive Selection:

1. The type of *media* chosen will greatly influence the amount of time needed to clean a particular surface area.
2. Sandblasting media include silicon carbide, glass bead, walnut shell, brass bead, and alumina.
3. If you decide to reuse media, remember, it does wear out. The sharp edges become rounder and are less effective. At that point you should replace the tank of media you are using.

To Load Media Into The Tank:

1.  **WARNING!** Never service the Pressure Blasting System or disassemble with the air hose attached. Always release any built-up air even after disconnecting the hose.

2. Make sure the media used is dry to avoid clogging the Media Metering Valve (18), Media Manifold (19), or Material Hose (25). **(See Figure G.)**
3. **⚠ WARNING!** Always wear ANSI-approved safety impact eye glasses under a full face shield, a respirator, and heavy duty work gloves when operating the Pressure Blasting System. Also, wear heavy duty work boots, long trousers, and long sleeve shirt.
4. Turn the Air Input Valve (14) to the “OFF” (horizontal) position. **(See Figure G.)**
5. Check the Pressure Gauge (5) to make sure it reads “0” pressure. **(See Figure G.)**
6. Pour the media into the Tank (3), making sure to pour enough into the Tank to do the job at hand. **NOTE:** If this is a large job, fill the Tank only 3/4 full and reload as needed to finish the job. **(See Figure G.)**
7. **IMPORTANT TIP:** If the humidity is 90 to 100%, the Water Trap (12) will not be able to trap all of the moisture in a 3/4 full Tank (3). It is recommended to reduce the amount of media, load more frequently, and empty the Water Trap more often. This will reduce the possibility of clogging the bottom of the Tank or the line. **(See Figure G.)**
8. Depending on the size (diameter) of the media, install the proper size Nozzle (42 or 42A) onto the Sandblasting Gun. To do so, unscrew and remove the Nozzle

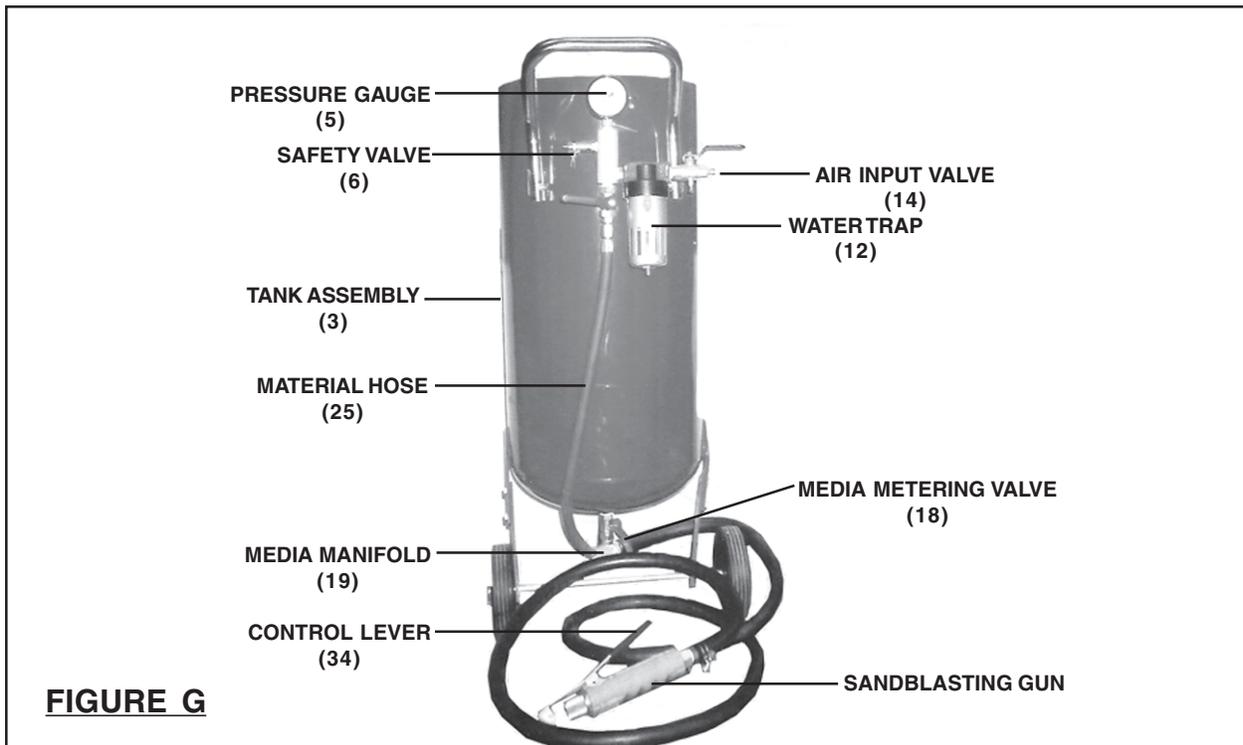
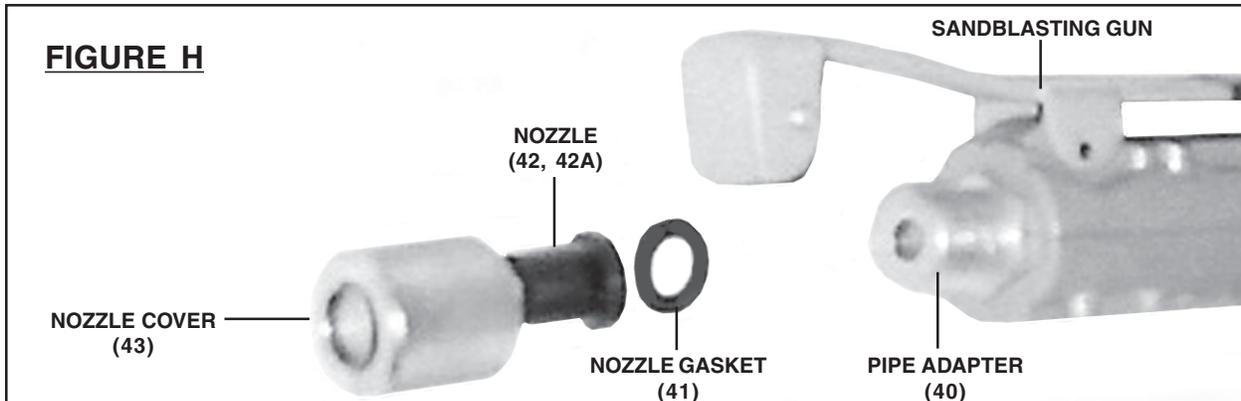


FIGURE G

Cover (43). Position the Nozzle Gasket (41) against the Pipe Adapter (40). Position the proper Nozzle against the Nozzle Gasket. Then screw the Nozzle Cover back onto the Pipe Adapter to secure the Nozzle Gasket and Nozzle in place. **(See Figure H.)**



To Operate The Pressure Blasting System:

1. If possible, place the workpiece inside a sandblast cabinet. Otherwise, isolate the workpiece to make sure no damage can occur to nearby walls, tools, personal property, etc.
2. Turn the Media Metering Valve (18) and Air Input Valve (14) to the “**OFF**” position. **(See Figure G.)**
3. Connect the air compressor’s hose to the previously installed Quick Connector. Then turn on the air compressor, and set its regulator between **65 to 125 PSI. Do not exceed 125 PSI. (See Figure F.)**
4. Pull up and hold the T-Handle w/Seal (1) to seal the opening in the Tank Assembly (3). **(See Figure I.)**
5. Turn the Media Metering Valve (18) and Air Input Valve (14) to the “**ON**” position. At this point, the Tank Assembly (3) will begin to pressurize. **(See Figure G.)**
6. Once the Tank Assembly (3) is fully pressurized, release the T-Handle w/Seal (1). The air pressure within the Tank should now hold the T-Handle w/Seal in place. **NOTE:** Should an air leak develop around the T-Handle w/Seal, shut off the air compressor. Turn the Media Metering Valve (18) and Air Input Valve (14) to the “**OFF**” position. Use the Safety Valve (6) to release any remaining air pressure within the Tank. Reposition the T-Handle w/Seal. Then, turn on the air compressor and resume pressurizing the Tank. **(See Figure G.)**
7. Grip the Sandblasting Gun firmly with both hands.

8. Point the Sandblasting Gun at the workpiece so that the media will strike the surface of the workpiece at about a 45 degree angle.
9. Squeeze the Control Lever (34) of the Sandblasting Gun to release the media. **NOTE:** The flow rate of the media may be irregular when the Sandblasting Gun is first started. Provided the media is dry, the flow rate will become normal in approximately one minute. **(See Figure G.)**
10. Adjust the Media Metering Valve (18) to increase or decrease the media flow rate. **(See Figure G.)**
11. Adjust the Air Input Valve (14) to regulate the total air flow and pressure at the Sandblasting Gun. **(See Figure G.)**
12. Move the Sandblasting Gun in a circular or right to left motion until you have achieved the desired appearance (finish) on the workpiece.
13. Periodically, check the Water Trap (12) for excessive water build-up. If necessary, hold a container beneath the Water Trap and press the button located at the bottom of the Water Trap to drain the water. **(See Figure G.)**
14. When the sandblasting job is completed, release pressure on the Control Lever (34) of the Sandblasting Gun. Turn off the air compressor. Turn the Media Metering Valve (18) and Air Input Valve (14) to the “OFF” position. **(See Figure G.)**
15. Use the Safety Valve (6) to release any remaining air pressure in the Tank Assembly (3). **Check to make sure the Pressure Gauge reads “0” PSI.** **(See Figure G.)**
16. Squeeze the Control Lever (34) of the Sandblasting Gun to release any remaining air pressure and media. **(See Figure G.)**
17. Disconnect the compressor air hose from the Quick Connector on the Pressure Blasting System. **(See Figure F.)**
18. If necessary, empty the Tank Assembly (3) of any remaining media. Then, store the Pressure Blasting System in a clean, dry, safe location out of reach of children and other unauthorized people.

INSPECTION, MAINTENANCE, AND CLEANING

1.  **WARNING!** Prior to performing any inspection, maintenance, or cleaning of the Pressure Blasting System, turn off the air compressor. Turn the Media

Metering Valve (18) and Air Input Valve (14) to the “**OFF**” position. Use the Safety Valve (6) to release any remaining air pressure in the Tank Assembly (3). **Check to make sure the Pressure Gauge reads “0” PSI.** Then, disconnect the compressor air hose from the Quick Connector on the Pressure Blasting System.

2. **Before each use**, inspect the general condition of the Pressure Blasting System and its accessories. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged air hoses, and any other condition that may affect safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**
3. **Before, during, and after use:** Periodically, check the Water Trap (12) for excessive water build-up. If necessary, hold a container beneath the Water Trap and press the button located at the bottom of the Water Trap to drain the water. **(See Figure G.)**
4. **To clean the exterior of the Pressure Blasting System**, wipe with a clean, damp cloth using a mild detergent or mild solvent. Do not immerse the tool in liquids.
5. **When storing**, always store the Pressure Blasting System in a clean, dry, safe location out of reach of children and other unauthorized people.
6.  **CAUTION!** All maintenance, service, and repairs not mentioned in this manual must only be performed by a qualified service technician.

PLEASE READ THE FOLLOWING CAREFULLY
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THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER 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 RISKS 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.

TROUBLESHOOTING

Problem	Possible Solution
Blast flow surges.	<ol style="list-style-type: none"> 1. Air pressure too low. Increase air pressure. 2. Too much media. Adjust media valve.
Excessive media consumption.	<ol style="list-style-type: none"> 1. Media valve open too far. Close slightly. 2. Air pressure too low. Increase air pressure.
Clogging and plugging of blast flow.	<ol style="list-style-type: none"> 1. Excessive debris in media. Purge and filter. 2. Media size too large. Use smaller grit size. 3. Nozzle plugging. Use larger nozzle. 4. Nozzle plugging. Adjust media valve. 5. Wet media. Dry media. Drain water from water trap.
Moisture in abrasive media.	<ol style="list-style-type: none"> 1. Wet media. Change or use dry media. 2. Water in air. Drain water from water trap. 3. Water in tank. Empty tank, and refill.
Humid weather.	<ol style="list-style-type: none"> 1. Moderate humidity: Keep media as dry as possible. 2. Moderate humidity: Use dryer or moisture separator. 3. High humidity: Avoid that period of use if possible.
Overtaxed compressor.	<ol style="list-style-type: none"> 1. Compressor too small. Use larger compressor or restrict time used. 2. Nozzle size too large. Use smaller nozzle. 3. Too many leaks in air compressor system. Seal and tightening all leaks. 4. Holes in media hose. Replace hose. 5. Air filter on compressor plugged. Clean filter. 6. T-Handle Seal worn or dirty. Replace or clean Seal.
Lack of abrasive flow.	<ol style="list-style-type: none"> 1. Tank empty. Fill tank. 2. Moisture in media. Dry media. 3. Not enough air pressure. Increase air pressure. 4. Media Hose kinked. Straighten hose. 5. Excessive debris in media. Clean or filter media. 6. Metering Valve (18) open too much, or too little.

PARTS LIST

Part #	Description	Part #	Description
1	T-Handle w/Seal	26	Hose Clamp
2	Handle	27	Union
3	Tank Assembly	28	Gun Body (Lower)
4	Hood	29	Screw (ST4.2x16)
5	Pressure Gauge	30	Steel Pipe
6	Safety Valve	31	Screw (ST4.2x12)
7	Brass Nipple (3/8" NPT)	32	Gun Body (Upper)
7A	Brass Nipple (3/8" NPT/37 Degree Flare)	33	Spring
8	Intake Manifold	34	Control Lever
9	Hex Nut (M6)	35	Roll Pin
10	Flat Washer (M6)	36	Hex Nut (M3)
11	Screw (M6x30)	37	Screw (M3x25)
12	Water Trap	38	Steel Pad
13	Air Hose (3/8"x32")	39	Rubber Pad
14	Air Input Valve	40	Pipe Adapter
16	Screw (M8x10)	41	Nozzle Gasket
17	Tank Leg	42	3/32" Nozzle
18	Media Metering Valve	42A	1/8" Nozzle
19	Media Manifold	43	Nozzle Cover
20	Wheel Bracket	44	Fitting
21	Flat Washer (M12)	45	O-Ring
22	Wheel	46	Hood Shield Insert
23	Steel Axle	47	Pipe Thread Seal Tape
24	Cotter Pin		
25	Material Hose		

NOTE:

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



CENTRAL PNEUMATIC®

LIMITED 90 DAY WARRANTY

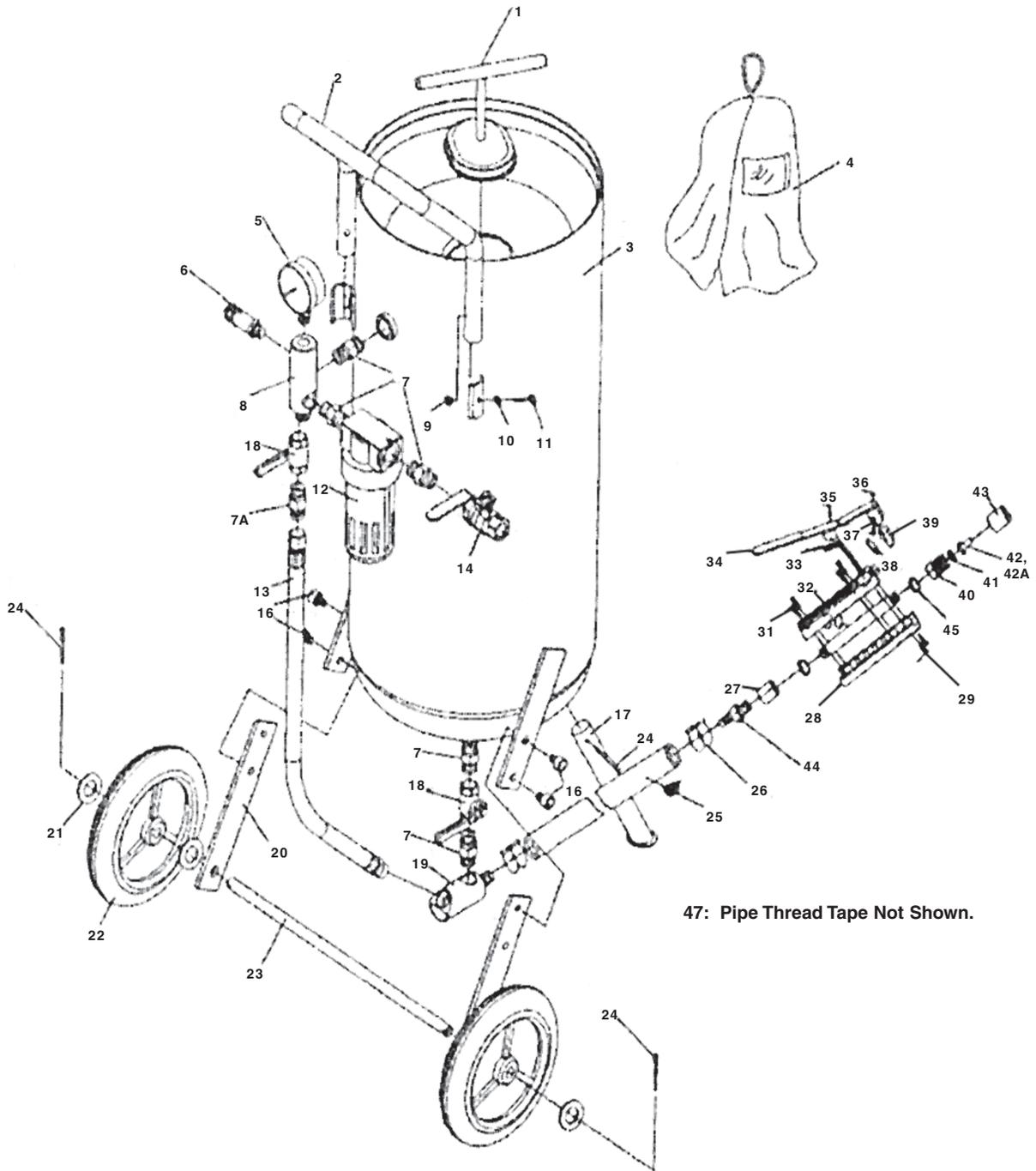
Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of ninety days from the date of purchase. This warranty does not apply to damage due directly or indirectly to misuse, abuse, negligence or accidents; repairs or alterations outside our facilities; or to lack of maintenance. We 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 product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

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

3491 Mission Oaks Blvd. • PO Box 6009 • Camarillo, CA 93011 • (800) 444-3353

ASSEMBLY DIAGRAM



47: Pipe Thread Tape Not Shown.

NOTE:

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