

Eastwood

DO THE JOB RIGHT.

ABRASIVE BLASTER ASSEMBLY & OPERATING INSTRUCTIONS

Eastwood Item Numbers 51117, 51118, 51119



#51119
200-lb. Blaster

#51118
100-lb. Blaster

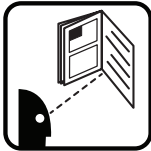
#51117
50-lb. Blaster

This **Eastwood Abrasive Blasters** are specifically designed to quickly and efficiently designed to strip away old paint and coatings, body fillers, accumulated dirt and moderate to major rust leaving a clean, bare metal surface ready for damage repair or painting.

Please read these instructions thoroughly before attempting to operate your new blaster as the set-up and operating procedures are highly detailed and must be followed in a specific sequence.

You will need to refer to these instructions frequently for the set-up, operating, maintenance and troubleshooting procedures.

SAFETY INFORMATION



READ INSTRUCTIONS!

- Thoroughly read and understand this instruction manual before using the blaster. Learn the blaster's applications and limitations as well as potential hazards.
- Before operating your abrasive blaster, inspect each connection, double checking to make sure that all are tight and properly sealed.
- Save these instructions for future reference.



HEALTH WARNING!

- Pressure blasters and blast cabinets emit abrasive particles under high pressure. Adequate respiratory, eye, and body protection must be utilized at all times during product operation. Inhalation of silica based blast media particles have been known to cause cancer and other deadly diseases and must be avoided. Always wear your blast hood, NIOSH approved respiratory protection, ANSI-approved safety glasses and heavy duty canvas gloves when operating this equipment. In addition, levels of hazardous materials such as lead, zinc chromate, etc. may be present in coatings being removed. Additional protection may be required in the presence of these substances.
- **DO NOT** use any sand or silica based abrasives with this blaster. Silica based abrasives have been linked to severe respiratory disease.



REQUIRED SAFETY EQUIPMENT!

- Use safety equipment. Eye protection should be worn at all times when operating this tool. Use ANSI approved safety glasses. Everyday eyeglasses are NOT safety glasses. NIOSH approved respiratory protection, non-skid safety shoes, blast hood, hard hat, and hearing protection should be used in appropriate conditions.
- Wear proper heavy protective gloves and clothing. Severe skin abrasion and flesh removal can quickly occur from exposure to the blast stream.



OPERATIONAL HAZARDS!

- The Eastwood Abrasive Blaster is designed to operate at optimal efficiency when used with Eastwood Abrasive Blast Media. Blockage can cause severe damage to the equipment and/or operator injury.

NOTE: If this should occur, stop work immediately, disconnect from air supply, release all pressure and drain tank by removing cap and inverting unit. Replace cap, repressurize unit and purge all remaining media from valves and hose.



OPERATIONAL HAZARDS!

- Use clamps or other practical means to secure and support the work piece to a stable location. Holding the work by hand or against your body may lead to a loss of control and result in severe injury.
- **NEVER** clamp the Safety Trigger (dead man valve) in the open position or attempt to defeat it's purpose in any way. Severe bodily injury and or property damage can quickly occur.
- **ALWAYS** check to make sure that the Safety Trigger is not open before connecting blaster to air supply. Blaster may cause damage to property or person if connected to air while the safety trigger valve is open.
- Store the blaster out of the reach of children and untrained persons. High-pressure pneumatic equipment is dangerous in the hands of untrained users.
- Never allow abrasive blaster to sit pressurized while unattended or not in use.
- **ALWAYS RELEASE THE AIR PRESSURE IN THE TANK BEFORE OPENING.** See “Releasing Pressure from the Tank” section. Make sure pressure gauge reads “0” before opening the tank. Do not attempt any maintenance on the abrasive blaster until the pressure gauge reads “0”, and it has been disconnected from air supply.
- Check for damage regularly. If any part of the blaster is damaged or, if in doubt, the part should be replaced. Only qualified persons familiar with high-pressure pneumatic equipment should perform repairs. Consult Eastwood for advice.
- Periodically check the abrasive media delivery components. Valves, hoses and nozzles that are exposed to the abrasive media after it leaves the pressure tank are subjected to abrasive blasting action and will wear out more quickly than other components.
- **ALWAYS** disconnect the air supply and release pressure from the tank before refilling media, storing, servicing, or changing accessories. Such preventative safety measures reduce the risk of releasing pressure accidentally.
- Make sure all air supply equipment is rated to the appropriate capacity. For best results, set regulator and operate at 80 to 90 psi. DO NOT exceed 125 psi.
- The safety valve is set to release at 125 psi. If the safety valve releases, stop all work immediately and release pressure from the tank (see “Releasing Pressure from the Tank” section).

SPECIFICATIONS

TANK VOLUME

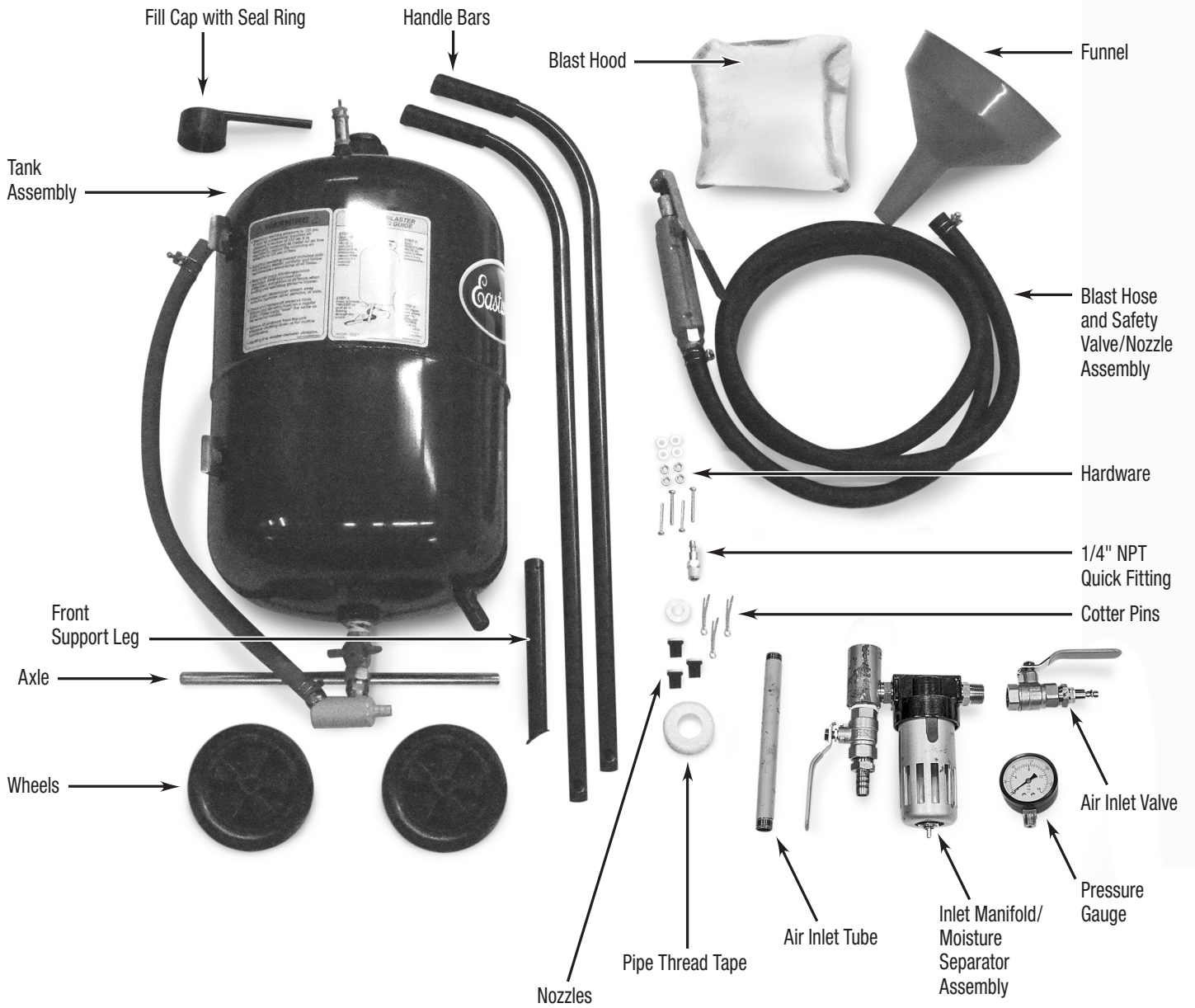
- #51117 5 gallons/50-lbs. abrasive media
- #51118 10 gallons/100-lbs. abrasive media
- #51119 20 gallons/200-lbs. abrasive media
- Hose Length (all) 8 ft. x 1/2" I.D.
- Working Pressure (all) 60-125 psi

AIR & ABRASIVE MEDIA SUPPLY REQUIREMENTS

Hose I.D.	Hose Length	Nozzle I.D.	CFM @ 90 psi	Abrasive Use/Hr
3/8"	50 ft.	2mm	10	30-lbs.
3/8"	25 ft.	2.5mm	12	80-lbs.
1/2"	50 ft.	3mm	16	120-lbs.
3/4"	25 ft.	3.5mm	20	150-lbs.

PARTS LIST

- (1) Tank Assembly with pre-installed Outlet Manifold, Inlet Hose, Pressure Relief Valve and Fill Cap with Seal Ring
- (1) Left and Right Handle Bars with Handgrips (Two Pieces in #'s 51117 & 51118, One Piece in #51119)
- (1) Blast Hood
- (1) Funnel
- (1) Inlet Manifold and Moisture Separator Assembly
- (1) Air Inlet Tube
- (1) Pressure Gauge
- (1) Air Inlet Valve
- (1) Roll of Pipe Thread Tape
- (1) 1/4" Female Quick Connect Fitting
- (1) Blast Hose and Safety Valve/Nozzle Assembly (Inc. 2mm Nozzle)
- (3) Additional Nozzles (2mm, 2.5mm & 5mm)
- (4) 6mm x 1-3/8" (35mm) Long Screws
- (4) 6mm Nuts
- (4) 6mm Washers
- (1) Front Support Leg
- (1) Axle
- (2) Wheels
- (3) 1/2" x 1/4" Axle Washers
- (3) 1-1/2" x 1/8" Cotter Pins
- (1) Replacement 2-1/8" x 1-3/4" x 3/16" Fill Cap Seal Ring
- (1) Replacement 11/16" x 3/8" Nozzle Seal Ring
- (1) Instructions (#51116Q)



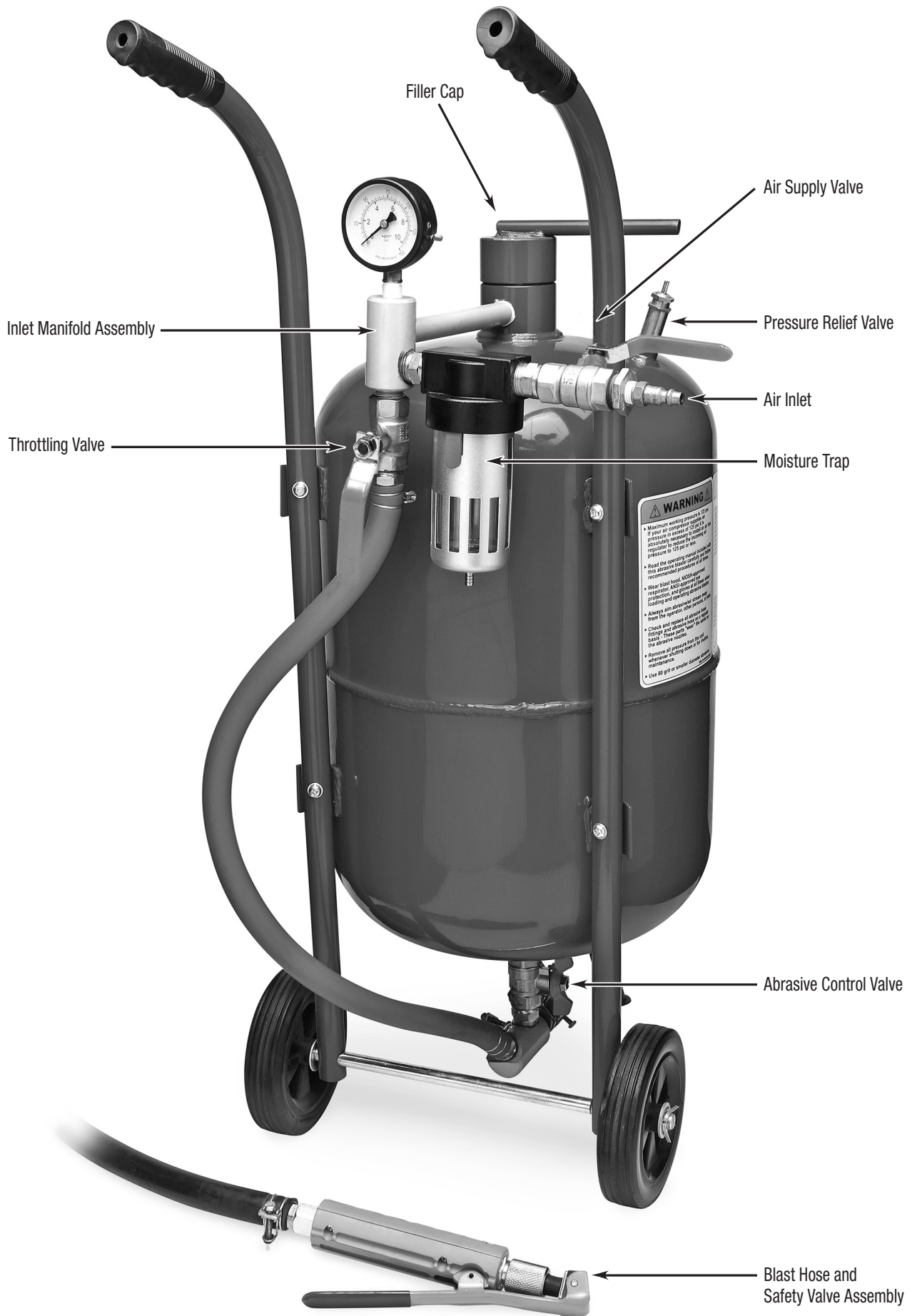
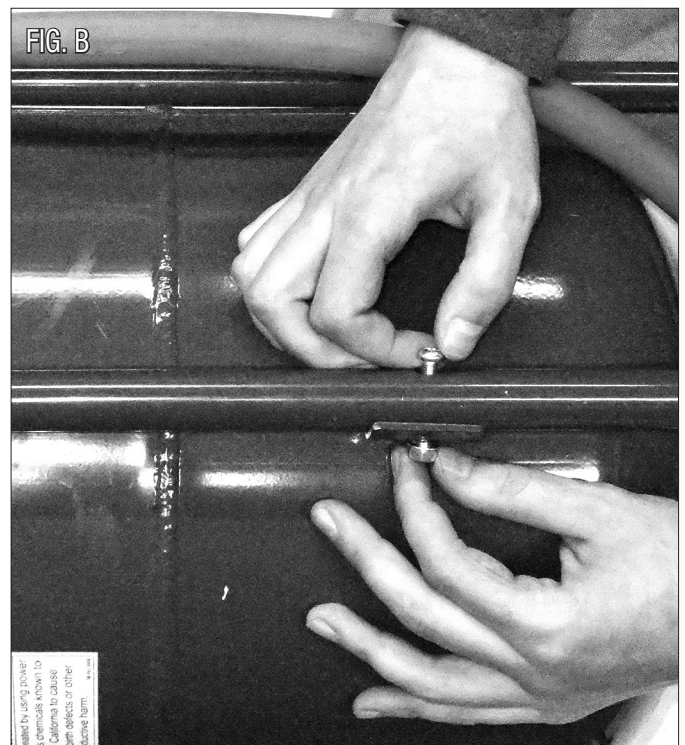


FIG. A

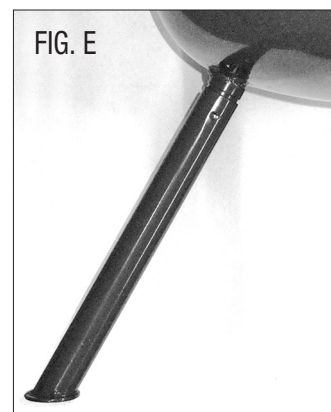
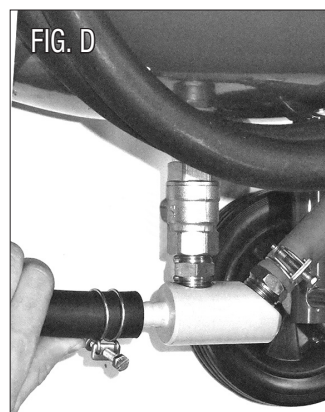
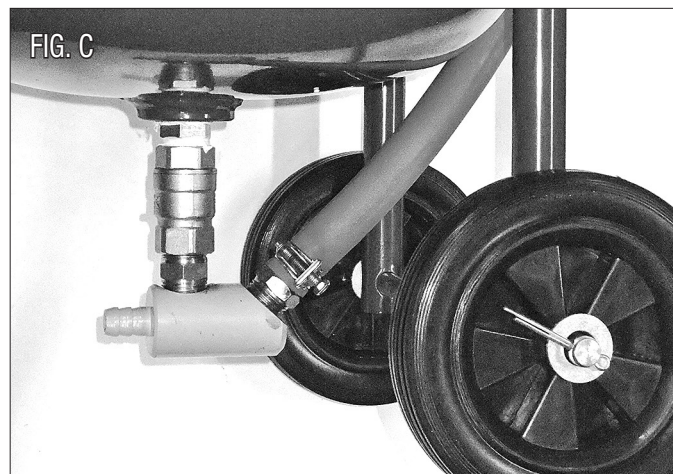


ASSEMBLY

1. Remove parts from container and verify that all components are present (**Fig A**).
2. Place Tank Assembly on a soft work surface for assembly with the welded-on Handle Bar mounting tabs facing upward (**Fig B**).
3. Place left and right tubular Handle Bars (**NOTE: 2 pieces on Item #'s 51117 & 51118. One piece Handle on #51119**) over the welded-on Handle Bar mounting tabs. The curved ends with rubber hand grips should point upward and be oriented toward the top of the Tank Assembly (**Fig B**).
4. Attach the left and right tubular Handle Bars to the 4 outward curved mounting tank mounting tabs with 4 supplied 1-3/8" long Phillips head screws and nuts. Note: Place screws through holes with nuts and washers facing forward to avoid possible future injury (**Fig B**).
5. Slide Axle through 2 holes in lower ends of tubular Handle Bars.

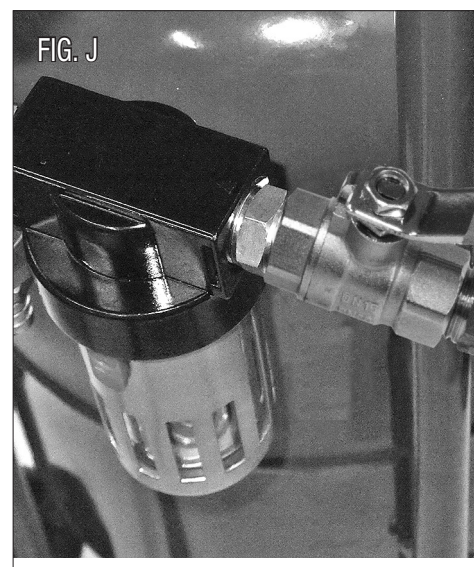
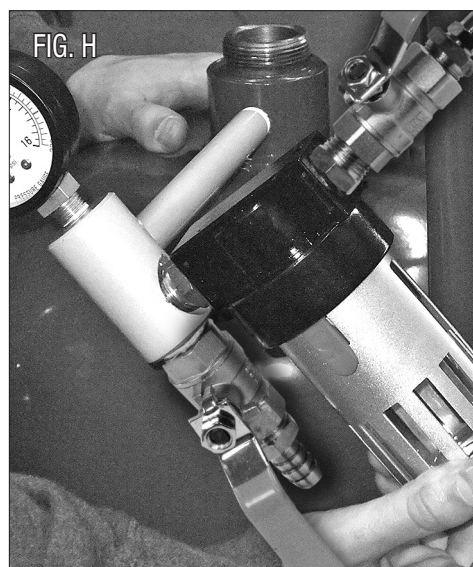


6. Place 2 wheels with offset hubs inward onto axle ends with washers on outboard ends. Push Cotter Pins through holes in axle and bend split ends around axle (**Fig C**).
7. Slip the Hose Clamp over the Blast Hose (black), then slip the open end of the hose over the hose barb on the Outlet Manifold (**Fig D**). Tighten Hose Clamp securely.
8. Slide the Front Support Leg over the leg stub welded to the front of the tank. Place a cotter pin through the holes and fold split ends over (**Fig E**).



NOTE: Steps 9-10 are not necessary on the #51117, 50-lb. Blaster.

9. Apply Teflon Tape (included) to the Air Inlet Tube Threads by wrapping it in clockwise direction as viewed from the open end (**Figs F & G**). Apply 4 to 5 layers of tape. Thread Air Inlet Tube into the Air Inlet Manifold and the Moisture Separator.
10. Attach Inlet Manifold Assembly to the Tank Assembly by threading the Air Inlet Tube into the threaded port in the side of the Filler Cap base (**Fig H**).
IMPORTANT NOTE: Approx. 5 to 6 turns will be required to fully tighten.
CAUTION: Over tightening will cause permanent damage.
11. Locate the Pressure Gauge and wrap the threads with Teflon Tape. Insert the threaded end of the Pressure Gauge into the Inlet Manifold and firmly tighten.
12. Slip the Hose Clamp over the Flow Hose (red) then slip the open end of the hose fully over the hose barb (**Fig I**). Tighten Hose Clamp securely.
13. Apply Teflon Tape (included) to the 1/4" Female Quick Connect fitting (included) by wrapping it in clockwise direction as viewed from the open end. Apply 4 to 5 layers of tape. Thread it into the brass 1/2" x 3/8" NPT reducer (pre-installed in the Inlet Manifold Assembly) and tighten securely (**Fig J**).



OPERATION

WARNING: Always wear your Blast Hood, NIOSH approved respiratory protection, ANSI-approved safety glasses, heavy duty canvas gloves, long sleeves and long pants when operating the abrasive blaster.

WARNING: Before operating your abrasive blaster, inspect each connection, double checking to make sure that all are tight and properly sealed.

ABRASIVE SELECTION

The type of abrasive you choose will greatly influence the amount of time needed to clean a given surface area. Abrasive materials include glass beads, aluminum oxide, and others. **NOTE:** Too large of a media particle size will clog the Nozzle outlet. To avoid potential Nozzle clogging, use 60 grit abrasive or finer. **Never** exceed 60 grit media size. For best results, Eastwood recommends #13792, Aluminum Oxide, 90 Grit as an excellent all purpose media.

- Make sure that the abrasive you use is thoroughly dry. Damp abrasive can cause clogging of your abrasive blaster.
- While you may reuse abrasive, remember that abrasive does wear out. After use, abrasive becomes smoother and rounder, thus reducing abrasive effectiveness.
- Reusing abrasive may also cause clogging due to debris contained in the mixture from prior use. If you wish to re-use media, it must be first sifted using an Eastwood #22022 Blast Media Screen Sifter.

WARNING: THIS BLASTER IS NOT INTENDED FOR USE WITH SILICA BASED ABRASIVES. SILICA BASED ABRASIVES HAVE BEEN LINKED TO SEVERE RESPIRATORY DISEASE. ALWAYS USE SILICA SUBSTITUTES (SUCH AS EASTWOOD #22019 SILICON CARBIDE, #13792 ALUMINUM OXIDE, OR #13780 GROUND GLASS) WHEN ABRASIVE BLASTING!

IMPORTANT NOTES

Check to make sure the abrasive is dry and clean so that it does not clog the unit. The use of an Eastwood #22022 Blast Media Screen Sifter or a #50417 Abrasive Media Funnel Strainer is highly recommended to help avoid possible media clogging.

Never attempt to use blast media with a grit size greater than 60 or nozzle clogging will occur.

To avoid compressor pump damage, it is advisable to have your compressor located in another room away from the possibility of in taking damaging dust and debris.

LOADING ABRASIVE

1. **Before opening tank, be sure that it is not pressurized and the air gauge reads "0"**. To release the pressure from the Tank, depress Nozzle Safety Trigger until air stops.
2. Close the Air Supply Valve.
3. Remove the Filler Cap.
4. Using the included Funnel, pour the selected abrasive media into the tank. Eastwood #13792 Aluminum Oxide 90 Grit Abrasive Media is recommended for best performance. **CAUTION:** Do not fill the tank more than 3/4 full. The use of an Eastwood #22022 Blast Media Screen Sifter or a #50417 Abrasive Media Funnel Strainer is highly recommended to help avoid possible media clogging. If humidity in your region is 90% or more, only fill the tank half full and check the water trap more frequently.
5. Thread on the Filler Cap, tightening it securely, assuring the Rubber Seal Ring is in place.

TO BEGIN ABRASIVE BLASTING

IMPORTANT NOTES:

Start with all valves in the closed position.

Following the instructions below will help prevent the formation of clogs in the Outlet Manifold, Abrasive Hose the Safety Trigger and Nozzle.

Please note that as a result of many influencing variables such as the available compressed air supply CFM and pressure as well as the weight, density and grit size of the selected media combined with atmospheric pressure and humidity will all greatly affect the Blaster valve settings. The set-up process requires some repeated “trial and error” while following step 8 to achieve the best blaster performance.

1. Connect air compressor to the Inlet Connector.
2. Open Air Supply Valve fully.
3. Open Throttling Valve to approx. 1/2 way.
4. Check for leaks at the Filler Cap and along all hoses and fittings as the system pressurizes. If leaks are observed, release the pressure from the tank and repair immediately.
5. Point Safety Trigger Nozzle in a safe direction away from people, pets or anything around you that may be harmed by direct or indirect high-pressure abrasive stream.
6. Press and hold Safety Trigger until air is flowing through the Nozzle.
7. While holding the Safety Trigger open, slowly open the Abrasive Control Valve until abrasive material begins to flow out of the Safety Trigger Nozzle. Do not open Abrasive Control Valve any further at this point but follow procedure below.
8. Abrasive Flow Adjustment as follows:
 - IMPORTANT NOTE:** The Abrasive Flow is a finely tuned combination of two adjustments (Throttling Valve and Abrasive Control Valve) which will vary widely with different media, air supply and atmospheric conditions. It is necessary to follow this “tuning” procedure at the beginning of every blasting job.
 - NOTE:** Operating the blaster with all valves wide open will result in decreased performance and effectiveness. Too much air flow/not enough media will result in a high velocity but ineffective stream. Too much media/not enough air flow will result in a soft, weak blast stream.
 - a. Adjust air pressure with the Throttling Valve. The Throttling Valve controls the velocity of material flow.
 - b. Adjust abrasive flow with Abrasive Control Valve. The Abrasive Control Valve controls the amount of abrasive introduced into the stream.
 - c. Increase Throttling Valve first in small increments followed by the Abrasive Control Valve second until an ideal smooth, forceful flow is achieved.
 - d. The above steps may need to be repeated in sequence until an ideal balance can be reached.
9. Begin blasting.
10. Drain moisture trap frequently during use. Do not allow moisture to fill more than 1/2 the water trap bowl. Do not leave water standing in moisture trap when done blasting.



TO STOP BLASTING

1. While continuing to press and hold the Safety Trigger, turn the Abrasive Control Valve to the closed position (this is to prevent any clogging.)
2. When you notice only air (no abrasive) is coming out of the Safety Trigger Nozzle, you can stop the air flow by releasing the Trigger. This ensures a clean and clog-free Abrasive Manifold, Hose, and Nozzle.

RELEASING PRESSURE FROM THE TANK

1. When you are finished blasting, point the Safety Trigger Nozzle in a safe direction away from people, pets or anything around you that may be harmed by direct or indirect high-pressure abrasive stream.
2. Press and hold the Safety Trigger to expel any remaining abrasive material from the Abrasive Hose.
3. Close the Abrasive Flow Valve.
4. Release pressure on the Safety Trigger.
5. Close the Throttling Valve and the Air Supply Valve.
6. Disconnect air supply hose from abrasive blaster.
7. Press the Safety Trigger until air stops flowing and Pressure Gauge reads "0".

CAUTION: Pay particular attention to the Abrasive Hose, the Abrasive Control Valve, and the Nozzles as they will wear out much more quickly than the other pieces.

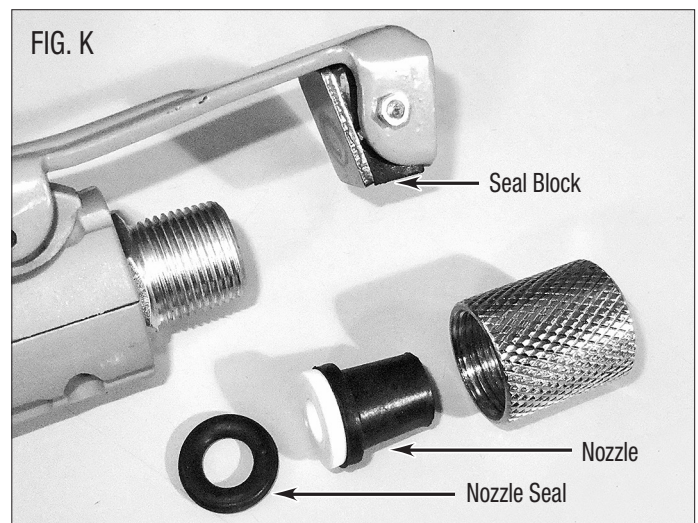
The Abrasive Hose needs to be replaced immediately if its side walls develop leaks or show blisters in the surface. Do not use if any of these problems are present.

NOZZLE REPLACEMENT

1. Disconnect air supply to Blaster.
2. Release pressure in accordance to the "Releasing Pressure from the Tank" section above.
3. While holding the Safety Trigger against spring pressure in the open position, unthread the knurled Nozzle Retaining Collar of the Safety Trigger and remove the Retaining Collar, Nozzle and Rubber Seal (**Fig K**). **NOTE:** Do Not lose the Rubber Seal that is placed behind the ceramic base of the Nozzle.
4. Insert replacement Nozzle into the Retaining Collar followed by the Rubber Seal and again while holding the Safety Trigger against spring pressure in the open position, thread the knurled Nozzle Retaining Collar of the Safety Trigger onto the Safety Trigger and tighten securely.

NOZZLE SEAL PAD REPLACEMENT

1. Disconnect air supply to Blaster.
2. Release pressure in accordance to the "Releasing Pressure from the Tank" section above.
3. Remove the Phillips head screw and nut then pull the Seal Pad from the recess (**Fig K**).
4. Insert the replacement Seal Pad into the recess making sure the metal plate surface is parallel with the Nozzle outlet. Replace the Phillips head screw and nut (**Fig K**).



MAINTENANCE

1. Drain water trap frequently during use. Do not allow moisture to fill more than 1/2 the water trap bowl. Do not leave water standing in water trap when done blasting.
2. Keep your Eastwood Abrasive Blaster clean, and protect it from damage.
3. Release pressure from the tank after each use.
4. When initially pressurizing, check for leaks at the tank top and at all hoses and fittings.
5. Leaking joints may be repaired by replacing worn or damaged parts and using Teflon tape at joints.
6. Check for worn abrasive hose and fittings. The Abrasive Control Valve, Abrasive Manifold, and all related parts after the abrasive flows from the tank are subject to rapid wear due to the flow of abrasive.
7. Watch especially for leaks, blistering, bulging or thinness of the hose. Replace any parts which appear worn.

TROUBLESHOOTING

1. The most frequent cause of poor Abrasive Blaster performance is improper set-up or “tuning” of the Abrasive Flow and Throttling Valves.

The Abrasive Flow is a finely tuned combination of two adjustments (Throttling Valve and Abrasive Control Valve) which will vary widely with different media, air supply and atmospheric conditions.

It is necessary to follow this “tuning” procedure at the beginning of every blasting job.

NOTE: Operating the blaster with all valves wide open will result in decreased performance and effectiveness.

Too much air flow/not enough media will result in a high velocity but ineffective stream.

Too much media/not enough air flow will result in a soft, weak blast stream.

To “tune” the flow:

- a. Adjust air pressure with the Throttling Valve. The Throttling Valve controls the velocity of material flow.
- b. Adjust abrasive flow with Abrasive Control Valve. The Abrasive Control Valve controls the amount of abrasive introduced into the stream.
- c. Increase Throttling Valve first in small increments followed by the Abrasive Control Valve second until an ideal smooth, forceful flow is achieved.
- d. The above steps may need to be repeated in sequence until an ideal balance can be reached.

2. The second most common problem encountered with Abrasive Blasting is clumping and caking of media due to media contamination due to moisture and/or large particle contamination.

This can occur in the Abrasive Flow Manifold located at the underside Tank outlet, in the Nozzle or in the Tank.

Remove source of moisture contamination.

Drain water trap frequently during use. Do not allow moisture to fill more than 1/2 the water trap bowl.
Do not leave water standing in water trap when done blasting.

Removal of moisture or particle contaminated media from the Tank may be necessary. To do so:

- Close the Abrasive Flow Valve.
- Release pressure on the Safety Trigger.
- Close the Throttling Valve and the Air Supply Valve.
- Disconnect air supply hose from abrasive blaster.
- Press the Safety Trigger until air stops flowing and Pressure Gauge reads "0".
- Open and remove Inlet Fill Cap.
- Invert blaster and shake out contaminated media.
- Refill Tank. The use of an Eastwood #22022 Blast Media Screen Sifter or a #50417 Abrasive Media Funnel Strainer is highly recommended to help avoid possible media clogging.

To clear Nozzle:

- Close the Abrasive Flow Valve.
- Release pressure on the Safety Trigger.
- Close the Throttling Valve and the Air Supply Valve.
- Disconnect air supply hose from abrasive blaster.
- Press the Safety Trigger until air stops flowing and Pressure Gauge reads "0".
- Remove Nozzle and clear clog with a piece of wire or suitable object.
- Replace Nozzle and "retune" the blaster for optimal flow.

To clear Abrasive Flow Manifold at Tank Outlet:

- Close the Throttling Valve. This will divert full pressure to the Tank.
- Release pressure on the Safety Trigger. This will discharge a slow, soft stream of blast media.
- Reopen the Throttling Valve and "retune" the blaster for optimal flow.

To clear Abrasive Flow Manifold at Flow Port:

- Close the Abrasive Flow Valve. This will divert full pressure to the Flow Hose and Abrasive Hose.
- Release pressure on the Safety Trigger. This will discharge a rapid, thin stream of blast media.
- Reopen the Abrasive Flow Manifold and "retune" the blaster for optimal flow.

If the above steps fail to clear the clog:

- Close the Abrasive Flow Valve.
- Release pressure on the Safety Trigger.
- Close the Throttling Valve and the Air Supply Valve.
- Disconnect air supply hose from abrasive blaster.
- Press the Safety Trigger until air stops flowing and Pressure Gauge reads "0".
- Open and remove Inlet Fill Cap.
- Invert blaster and shake out contaminated media.

3. The third most common cause of unsatisfactory Abrasive Blaster performance is insufficient CFM flow. CFM = Cubic Feet per Minute. This is based on compressor output and is listed on all compressor data plates. The greater the CFM output of a compressor, the better an Abrasive Blaster will perform. Also, a smaller Nozzle I.D. will require less CFM. Generally, a 2mm Nozzle will require 10 CFM @ 90 psi while a 3.5mm Nozzle will require 20 CFM.

In addition, excessive hose length and an increased number of fittings will reduce available CFM to the Abrasive Blaster. A larger hose I.D. and shorter length will serve to increase CFM delivery to the Abrasive Blaster.

Generally, if a compressor runs constantly while blasting, it is an indication that it is undersized and a larger capacity unit may be required. Continuing to run a compressor at that rate can cause overheating and permanent damage.

WARRANTY

This product has a one year warranty covering any manufacturing defects. Despite our strict quality control standards implemented during our manufacturing process, sometimes a product gets shipped that does not meet our specifications. If you have a product that does not work correctly within 30 days of your purchase, it can be returned to The Eastwood Company for credit or replacement. Before returning any product, you must contact the Eastwood Company at 800-345-1178 to acquire a Return Authorization Number.

When sending your product you must include:

1. A copy of the dated receipt showing the original purchase,
2. Your full name, street address and telephone number.

Please ship to:

The Eastwood Company
263 Shoemaker Rd.
Pottstown, PA 19464
ATTN: Warranty Return

We will examine the product. If the problem is due to a manufacturing defect, we will repair or replace the product at no charge and return to you postage or UPS paid. If the problem is due to misuse, abuse, user modification or it is out of warranty, we will contact you with a repair estimate and ask for a credit card number for payment. After the product has been repaired, it will be returned via postage or UPS paid.

ACCESSORIES

- #22022 Abrasive Sifter Screen, 11"
- #50417 Abrasive Media Funnel Strainer, 8"
- #12123 Blast Nozzle Sealing Pads, 3 Pack
- #51556 2mm Blast Nozzle, 3 Pack
- #12111 2.5mm Blast Nozzle, 3 Pack
- #12112 3mm Blast Nozzle, 3 Pack
- #51557 3.5mm Blast Nozzle, 3 Pack
- #11780 Replacement Safety Trigger Assembly (Deadman Valve)
- #13792 Aluminum Oxide Abrasive Media, 90 Grit, 50-lbs.
- #22019 Silicon Carbide Abrasive Media, 60 Grit, 50-lbs.
- #22023 Glass Bead Abrasive Media, 70/100 Grit, 50-lbs.
- #51360 Soda Blasting Retrofit Kit

If you have any questions about the use of this product, please contact

The Eastwood Technical Assistance Service Department: 800.544.5118 >> email: techhelp@eastwood.com

PDF version of this manual is available online >> eastwood.com/51116manual

The Eastwood Company 263 Shoemaker Road, Pottstown, PA 19464, USA

US and Canada: 800.345.1178 Outside US: 610.718.8335

Fax: 610.323.6268 eastwood.com