

UNIMAC®



AIR METAL SHEAR

USER MANUAL

[Revision 3.0 October 2018]

RETAIN THIS MANUAL FOR FUTURE REFERENCE

PLEASE READ THIS MANUAL CAREFULLY BEFORE USE

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SAFETY

WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use.

This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

Edisons will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

Some dust created by power sanding, sawing, and grinding, drilling, and other construction activities contains 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.

Your risk from these exposures 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 those dust masks that are specially designed to filter out microscopic particles.

SAFETY INSTRUCTIONS

- Keep all safety devices in place and in working order.
- Remove adjusting keys and wrenches. Form habit of checking to see that keys and adjusting wrenches are removed from tool before operation.
- Keep work area clean. Cluttered areas and benches invite accidents.
- Keep children and visitors away. All children and visitors should be kept at a safe distance from work area.
- Make workshop child proof. Make sure to lock your shop and shut-OFF the power and air supply.
- Do not force tool. It will do the job better and safer at the rate for which it was designed.
- Use the right tool. Do not force tool or attachment to do a job for which it was not designed.
- DO NOT USE UNDER THE INFLUENCE OF ALCOHOL, OR WHEN TIRED.
- Use correct air pressure. Exceeding the maximum PSI rating of this tool may cause seal damage, unpredictable operation, or line burst.

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- Use proper air hose. Make sure your air hose is in good condition and is long enough to reach your work without stretching.
- Secure work. Use clamps or a vise to hold work when practical. It is safer than using your hand and frees both hands to operate tool.
- Maintain tools with care. Keep tools lubricated and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- Prevent accidental operation. Do not carry tool with hand on trigger and always disconnect from air when not in use.
- Maintain tools with care. Keep tools lubricated and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- Be aware of hose location. Hoses can easily become a tripping hazard when laid across the floor in a disorganized fashion.
- Wear approved hearing protection. Air escaping from pneumatic tools can exceed safe exposure limits and may cause hearing damage with prolonged exposure.
- Air line connection inspection. An air line that becomes disconnected from a tool can whip violently, causing severe injury. Verify that air line is properly connected and the fittings are tight and free of leaks. A leaking fitting can indicate the fitting is cracked and is about to fail.
- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that may get caught in moving parts. Nonslip footwear is recommended. Wear a protective hair covering to contain long hair.
- Always use safety glasses. Also use a face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.

Changing bits

When servicing or removing metal from the jaws, disconnect the shear from air to prevent an accidental start-up injury.

Tool Stability

To establish the best control possible when cutting, hold the handle and housing with two hands, and stabilize your hands and body against a fixed object. When free-hand cutting (using one hand) use a guide to slide the pneumatic shear along when making the cut to avoid severe injury.

CAUTION!

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other tools with caution and respect.

Failure to do so could result in serious personal injury, damage to equipment or poor work results.

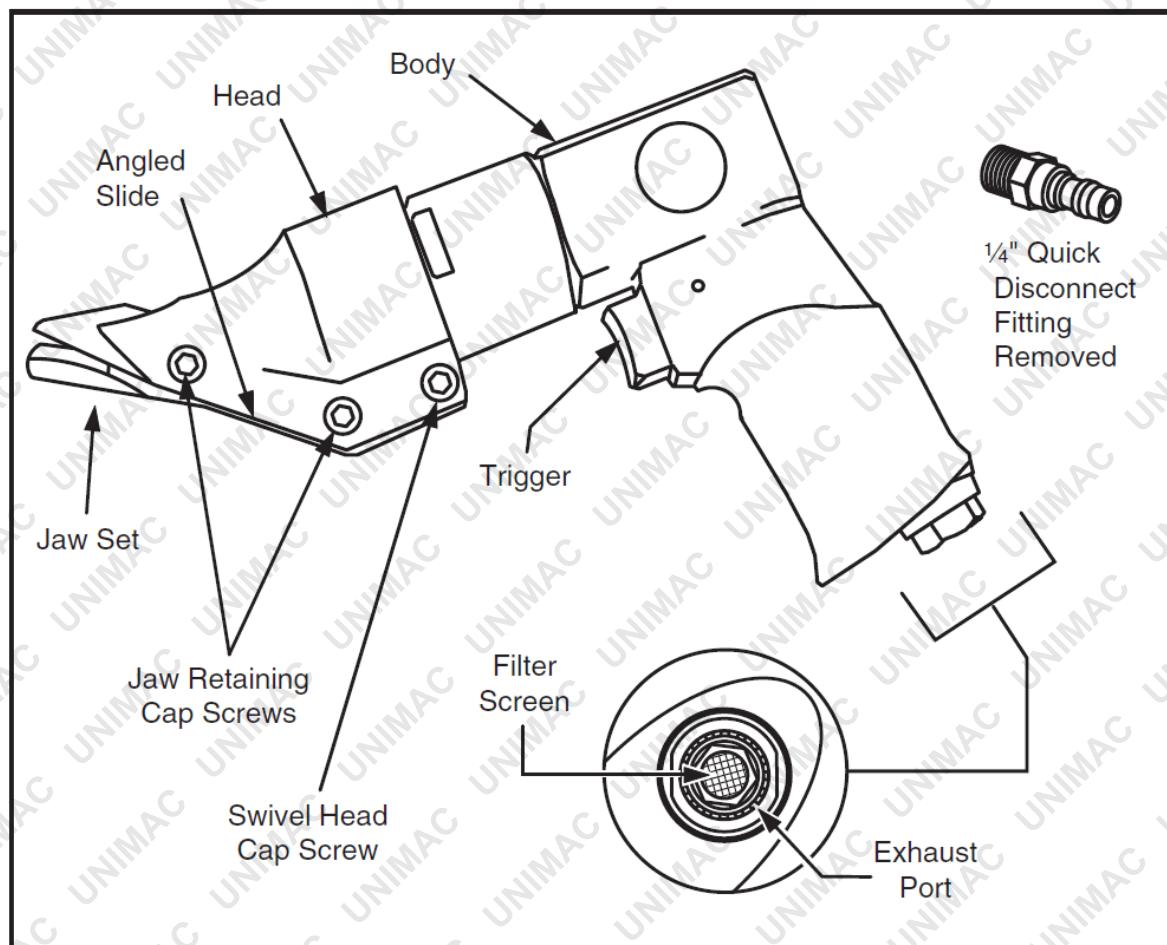
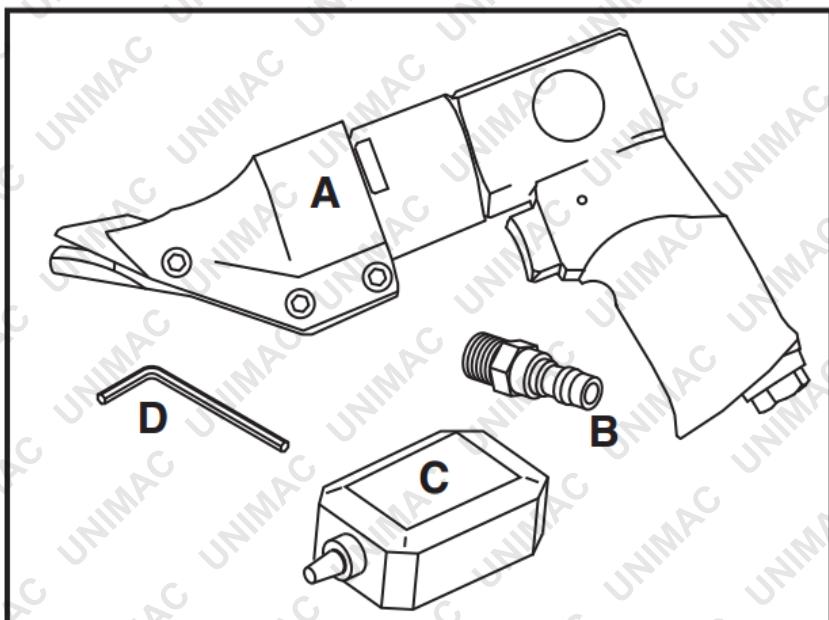
SET-UP**COMPONENTS AND CONTROLS**

Figure 1. Components and controls.

ITEM PARTS

(Refer to right image)

- A. Pneumatic Metal Shear.....1
- B. Quick Disconnect Air Fitting.....1
- C. Bottle for Oil.....1
- D. Hex Wrench 4mm.....1



AIR METAL SHEAR**UNPACKING**

Your tool was carefully packaged for safe transportation. Remove the packaging materials from around your tool and inspect it. If you discover the tool is damaged, *please immediately call our customer service hotline*. Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult. When you are completely satisfied with the condition of your shipment, inventory the contents.

If any non-proprietary parts are missing (e.g., a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

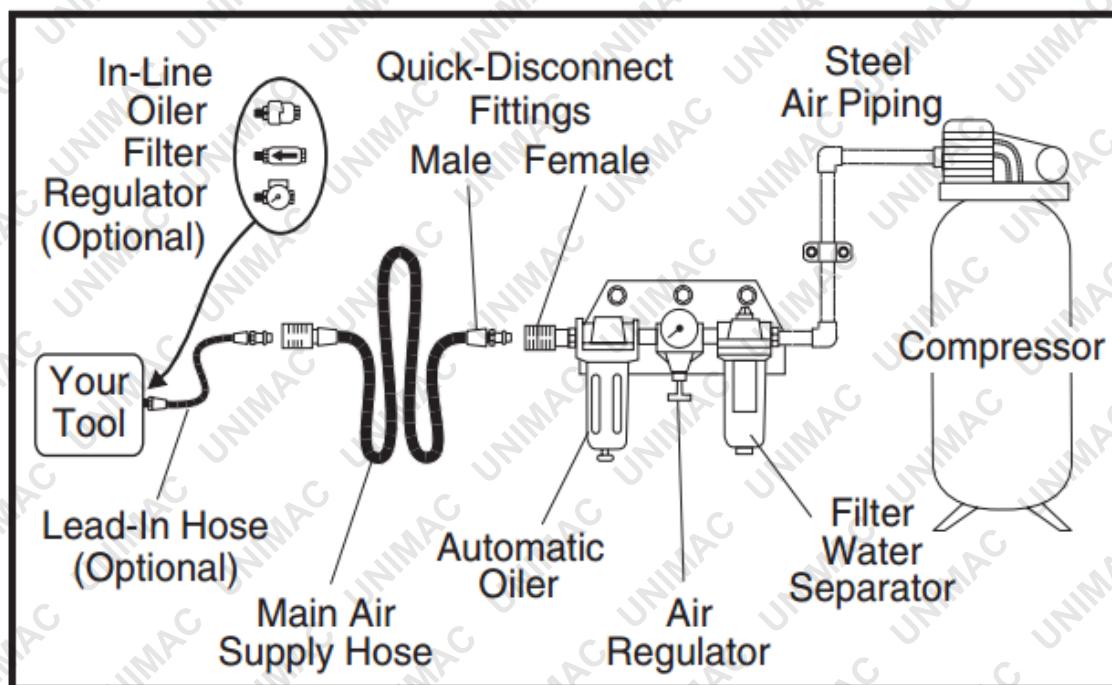
ASSEMBLY

1. Remove the plastic plug from the air inlet in the handle.
2. Apply pipe sealant on the threads of the quick disconnect fitting.
3. Thread the fitting into the pneumatic shear air inlet and tighten.
4. Press the trigger, and place a few drops of air tool oil into the air inlet, and release the trigger. The pneumatic shear is ready for use.

AIR SUPPLY SET-UP TIPS

- If the air hose is longer than 25-feet, increase the air pressure to 100 PSI to compensate for air flow restriction.
- For consistent air flow, use air hoses with an inside diameter of 3/8" or larger.
- To eliminate air system moisture and maintain automatic lubrication, install a main or in-line filter water separator as far as possible from the air compressor, but before any automatic in-line oiler.

See examples in **Figure 3** below.



OPERATION

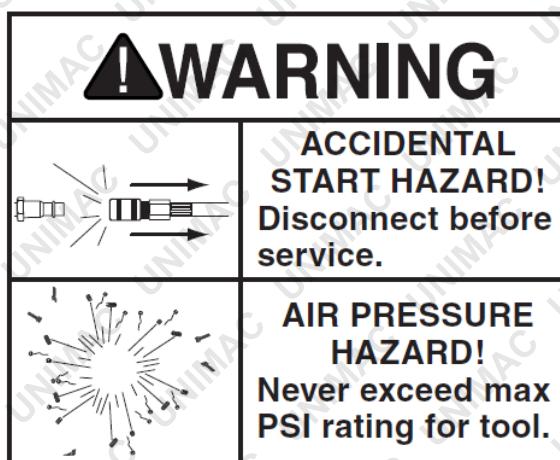
To complete a typical cutting operation, the following is done:

1. Put on safety goggles and gloves.
2. Mark the cut line, secure the workpiece, and clamp a guide to the workpiece if needed.
3. Determine if the swivel head needs to be rotated for optimum tool control and cut line viewing.

If so, loosen the swivel head cap screw (see Figure 1), rotate the head to the required angle, and retighten the cap screw.

4. Apply a few drops of air tool oil on the jaws and in the air inlet fitting.
5. Connect the air supply hose to the pneumatic shear.
6. Engage the tip of the jaws against the edge of the sheet metal.
7. Pull the trigger, and in a controlled manner, push the shear into the workpiece to begin cutting. As the cut progresses, keep the angled slide (see Figure 1) flat against the surface of the sheet metal, so the jaws and sheet metal do not bind.
8. When finished, or if leaving the area, disconnect the shear from air, and store it away from children.

MAINTENANCE

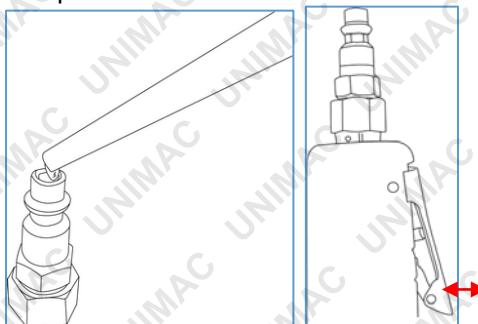


AIR METAL SHEAR**LUBRICATION**

In most cases for periodic tool use, manual lubrication is sufficient. However, if the tool is to be used on a consistent basis, we recommend installing an automatic oiler to eliminate dry runs and ensure maximum tool life.

The two methods are explained below:

Add a few drops of Pneumatic/Air Tool Oil before each use into the airline connection before operation (fig 1). Pump lever a few times to ensure oil runs through tool (fig 2).



Position the end of the tool safely away from you, and run the tool for 30 seconds to completely circulate the oil through the tool and into the rag.

Automatic Lubrication: Adjust the automatic in-line oiler. Place a sheet of paper next to the exhaust port, run the tool at three or four 30-second intervals. When finished, the paper should show a slight oil stain. If no oil is seen or excessive oil drips from the paper, adjust the oiler and repeat this process until the adjustment is correct.

DAILY MAINTENANCE**Before and after each use:**

- Check and replace any leaking air fittings; bubbled, cut, or worn hoses.
- Drain water from the compressor tank, water filter separator reservoirs, and lubricate the pneumatic shear.

Periodically as required:

- Clean the filter screen behind the air inlet fitting.
- If used, check and adjust any automatic in-line oiler as required to maintain a fine oil mist at the tool.
- Sharpen dulled jaws edges by removing both jaw retaining cap screws, and the jaws. Next use a dressing stone at the locations shown below. Do not use a grinder.

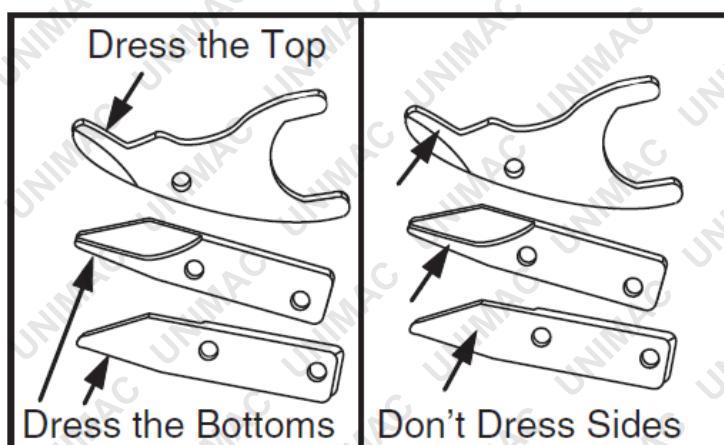


Figure 11. Jaw sharpening locations.

TROUBLESHOOTING

| SYMPTOM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| Tool runs at normal speed but bogs down when cutting, or tool runs slowly with little air exiting the exhaust | Pneumatic shear is being overloaded | Reduce feed pressure. Only cut materials within limits of tool |
| | Jaws are dull or loose | Dress or replace jaws |
| | Trigger is at fault | Remove any metal that may be binding trigger from full travel |
| | Intake filter screen is clogged | Clean the filter screen behind the air supply fitting |
| | Insufficient air supply volume or pressure | Set the regulator to 90 PSI, 100 PSI if the air hose is longer than 25 feet. Repair any leaking fittings, remove all restrictions and hose kinks. Ensure that all hoses and lines have an inside diameter of at least 3/8". |
| | Incorrect lubrication is affecting tool | Make sure tool is lubricated correctly and does not run dry. Prevent oil from flooding the air tool by re-adjusting the automatic oiler. |
| | Water is entering tool | Service or reposition the air filter water separator as far as possible from the compressor. This allows for maximum air cooling and water condensation for the water separator. |
| | Air tool motor clogged with oil-water sludge. | Clean or rebuild the air tool as required, and correct moisture or lubrication problem in the air. |
| Tool does not operate when the trigger is pressed, but air runs freely from exhaust | Motor is at fault | Motor may be stuck in position from improper storage. Lubricate the air tool, remove the swivel head cap screw and the head. Using a 17mm wrench, rotate the spindle back and forth slightly a few times. Next, operate the tool while re-oiling several times in the process of flushing the tool. |
| | Motor or gearing is at fault | Replace tool |
| Tool runs slowly, and only a small amount of air exits from the exhaust port | Air regulator or tool adjustment is faulty | Adjust the air regulator to 90 PSI, or 100 Psi if the air hose is longer than 25 feet. Re-adjust the throttle valve screw to the fully open position |
| | Trigger throttle valve is obstructed | Disassemble the throttle valve and clean out sludge and contaminants |
| | Intake filter screen is clogged | Clean the filter screen behind the air supply fitting |
| | Motor loaded with moisture or oil sludge | Disassemble air tool, clean, and relubricate. Lubricate air tool and rotate spindle by hand a few times. Next, use the trigger to operate the air tool, re-oiling several times in the process to flush the system |
| Tool does not shut off when | Trigger binding or throttle valve at fault | Remove matter that is binding trigger, |

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| SYMPTOM | POSSIBLE CAUSE | SOLUTION |
|---|---|--|
| trigger is released | | so throttle valve is free to fully release |
| | Throttle valve stuck open | Replace throttle valve spring or O-rings |
| Air tool becomes hot or noisy during operation | Air tool heats up from insufficient lubrication or a worn bearing | Repair air tool, and correct in-line oiler lubrication adjustment, or follow manual lubrication requirements |
| Air tool becomes too cold to hold, or ice crystals from at exhaust port | The intake of moisture and the pressure drop is causing moisture | Keep compressor tank drained, service, reposition, or add additional water separators in the supply system |



Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.



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