



Assembly & Instruction Manual

AIR METAL SHEAR

Model 1145



Distributed Exclusively By



THANK YOU FOR BUYING CUMMINS INDUSTRIAL TOOLS

Your new Air Metal Shear has been engineered and manufactured to Cummins tools high standards for dependability, ease of operation, and operator safety. Properly cared for, it will give you years of rugged, trouble-free performance.

CAUTION: Carefully read through this entire operator's manual before using your new machine

Pay close attention to the Rules for Safe Operation, Warnings, and Cautions. If you use your machine properly and only for what it is intended, you will enjoy years of safe, reliable service.

SAVE THIS MANUAL FOR FUTURE REFERENCE



To reduce risk of injury, everyone using, installing, repairing, maintaining, changing accessories on, or working near this tool must read and understand these instructions before performing any such task.

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*You can purchase additional
items at www.cumminstools.com*

PRODUCT SPECIFICATIONS

Item	Description
Cutting Capacity	18 Gauge (Sheet Metal, Aluminum, Plastic)
Width Of Cut	7/32"
Strokes Per Minute	2600
Maximum Operating PSI	90 PSI
Air Inlet Size	1/4" NPT
Hose Size	3/8"
Recommended Replacement Blades	SKU 36583
Weight	2-1/4 Pounds

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List on page 9** are included. If any parts are missing or broken, please call Cummins Industrial Tools at the number shown on the cover of this manual as soon as possible.

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.

GENERAL SAFETY RULES

 **WARNING!**

READ AND UNDERSTAND ALL INSTRUCTIONS
Failure to follow all instructions listed in the following pages may result in electric shock, fire, and/or serious injury.
SAVE THESE INSTRUCTIONS

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate pneumatic tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Pneumatic tools create sparks which may ignite flammables.
3. **Keep bystanders, children, and visitors away while operating a pneumatic tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

PERSONAL SAFETY

1. **Stay alert. Watch what you are doing, and use common sense when operating a pneumatic tool. Do not use a pneumatic tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating pneumatic tools may result in serious personal injury.
2. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
3. **Avoid accidental starting. Be sure the Trigger (24) is off before connecting to the air supply.** Carrying pneumatic tools with your finger on the Trigger, or connecting pneumatic tools to the air supply with the Throttle Lever on, invites accidents.
4. **Remove adjusting keys or wrenches before turning on the tool.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
5. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
6. **Use safety equipment. Always wear ANSI approved safety goggles underneath a full face shield, a dust mask or respirator, and hearing protection.**

TOOL USE AND CARE


1. **Use clamps or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand is unstable and may lead to loss of control. Only work on a workpiece that is properly secured.

2. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
3. **Do not use the power tool if the Trigger does not turn it on or off.** Any tool that cannot be controlled with the Throttle Lever is dangerous and must be replaced.
4. **Disconnect the air hose from the tool before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
5. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
6. **Maintain tools with care.** Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
7. **Check for misalignment or binding of moving parts, breakage of parts, cracking or breakage of the Blades (32, 34, 35), and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
8. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.


SERVICE

1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
2. **When servicing a tool, use only identical replacement parts. Follow instructions in the "Inspection, Maintenance, And Cleaning" section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.

SPECIFIC SAFETY RULES

1. **Maintain labels and nameplates on the Shear.** These carry important information. If unreadable or missing, contact Cummins Industrial Tools for a replacement.
2.  **CAUTION!** **To avoid injury, keep hands and fingers away from the Blades (32, 34, 35).** Grip the Shear *firmly* with both hands. If both hands are

holding the Shear, your hands and fingers cannot be cut by the Blades.

3. **Always use recommended replacement Blades.** The recommended replacement *Left Blade (32)*, *Center Blade (34)*, and *Right Blade (35)* are available as from Cummins Industrial Tools.
4. **To avoid accidental injury, always wear an ANSI approved safety impact full face shield, hearing protection when operating the Shear. Also, always wear heavy duty work gloves when handling sheet metal.**
5. **Use clean, dry, regulated, compressed air at 90 PSI.** Do not exceed the recommended 90 PSI. Never use oxygen, carbon dioxide, combustible gases, or any other bottled gas as a power source for this tool.
6. **When connecting to the air supply:** Prior to each use, if an automatic oiler is *not* used, add two drops of air tool oil (not included) into the Air Inlet fitting of the Shear.
7. **Always disconnect the Shear from its compressed air supply source, and squeeze the Trigger (24) to release all compressed air in the tool before performing any maintenance or services.**
8. **Before using the Shear, make sure the Blades (32, 34, 35) are properly attached to the tool.** Make sure the Blades are not dull, cracked, or bent.
9. **The Blades (32, 34, 35) of the Shear will become hot while cutting.** Allow the Blades to completely cool before touching.
10. **Allow the Blades (32, 34, 35) to move at full speed before feeding them into the workpiece.** Do not force the Blades into the workpiece when cutting. Apply moderate pressure, allowing the Blades to cut without being forced. When turning off the Shear, allow the Blades to stop on their own. Do not press against the Blades to stop them.
11. Be careful when handling sharp edges and curled up corners of cut materials. Protect hands and fingers by wearing heavy duty gloves.
12. **Industrial applications must follow OSHA requirements.**
13.  **WARNING!** Some dust created by power sanding, cutting, 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 and cement or 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. (California Health & Safety Code 25249.5, et seq.)

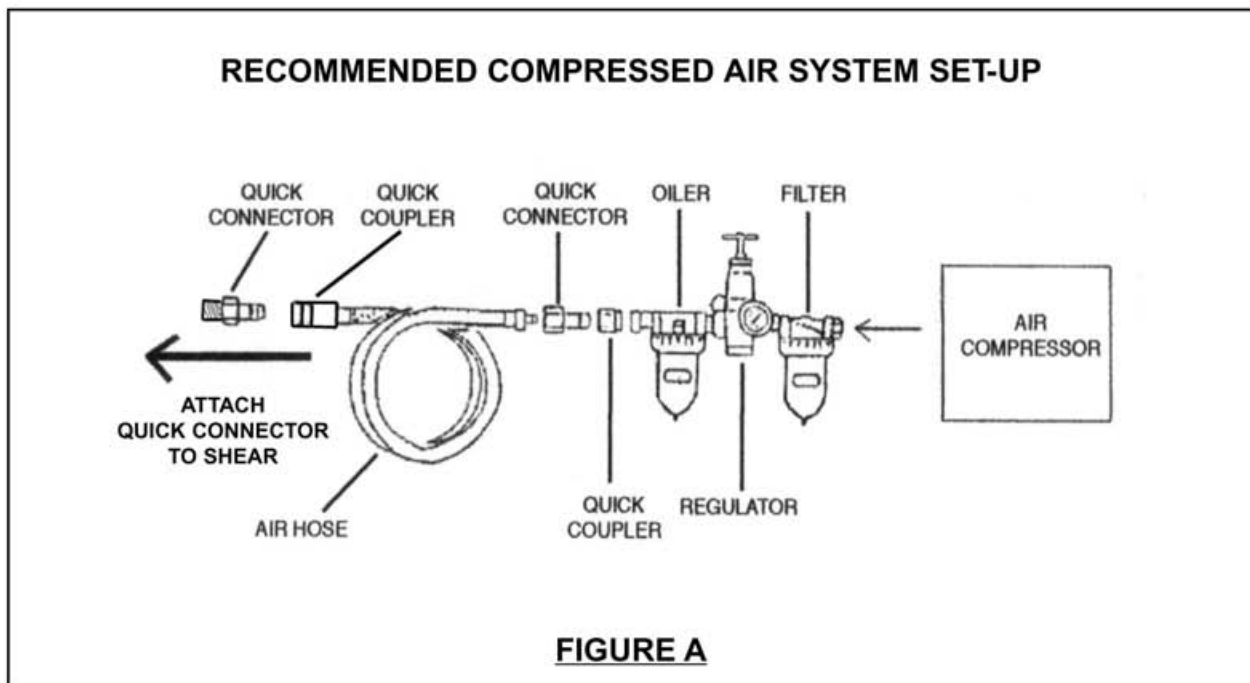
14. **⚠ WARNING!** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

ASSEMBLY AND OPERATING INSTRUCTIONS

NOTE: For additional references to the parts listed in the following pages, refer to the **Assembly Diagram on page 10.**

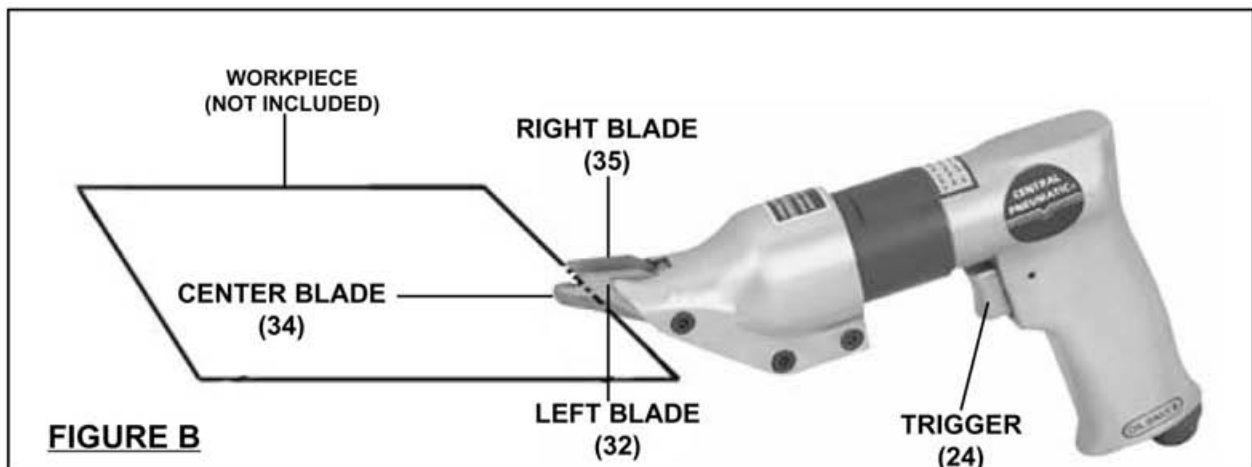
To Attach A Quick Connector:

1. **⚠ WARNING!** Prior to performing any assembly and/or adjustment procedures, make sure the air supply hose is disconnected from the Shear.
2. Prior to use, the Shear requires the attachment of a *Quick Connector* (not included) into its Air Inlet (29). To do so, wrap approximately 3" of pipe thread sealer tape (not included) around the male threads of a Quick Connector. Then, firmly tighten the Quick Connector into the Air Inlet. **(See Figure A.)**



To Operate The Shear:

1. **WARNING!** always wear an ANSI approved safety impact full face shield, hearing protection when operating the Shear. Also, wear heavy duty work gloves when handling sheet metal. **NEVER** touch the Blades (32, 34, 35) when the Shear is connected to the air compressor (not included).
2. **IMPORTANT:** Before first use, it is recommended to test the Shear on *scrap* material to determine the cutting capacity of the Blades (32, 34, 35).
3. Connect the air supply hose to the Shear. Turn on the air compressor, and set its regulator to the recommended 90 PSI for the Sander. **(See Figure A.)**
4. In order to keep the air supply hose out of the way, hang it over your shoulder. Grip the Shear firmly with **both** hands.
5. Place the Center Blade (34) underneath the lip of the workpiece. Make sure the Left Blade (32) and Right Blade (35) are above the lip of the workpiece. **(See Figure B.)**
6. Squeeze the Trigger (24) and allow the Blades (32, 34, 35) to move at their fullest speed. Then move the Blades slowly along the cut line of the workpiece. Either cut completely through the workpiece or pull the Shear back through the cut portion of the workpiece before releasing the Trigger. This will help keep the Blades from getting caught in the workpiece. **(See Figure B.)**
7. When finished cutting, release pressure on the Trigger (24) to turn off the Shear. Turn off the air compressor. Squeeze the Trigger of the Shear to release any remaining air pressure from the tool. Then, disconnect the Shear from the air supply hose. **(See Figure B.)**



INSPECTION, MAINTENANCE, AND CLEANING

1. **⚠ WARNING!** Always make sure the Trigger (24) is in its "OFF" position, and disconnect the Shear from its compressed air supply before performing any inspection, adjustments, maintenance, or cleaning.
2. **Before each use**, inspect the general condition of the Shear. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged air hoses, loose, cracked, or bent Blades (32, 34, 35), and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use.
Do not use damaged equipment.
3. **Daily:** With a soft brush, cloth, or vacuum, remove all dust and debris from the Shear. Then, use a premium quality, lightweight machine oil to lubricate all moving parts.
4. **To replace the Blades:** Use only the recommended replacement Blades (32, 34, 35) for this Shear available from Cummins Industrial Tools). Remove the two Lock Screws (30) and two Lock Nuts (31) from the Cutter Housing (38) of the Shear. Remove the Center Blade (34) first. Then remove the Left Blade (32), Right Blade (35), and the two Bushings (33). Install the new Blades. Place the two Bushings between the new Left and Right Blades, and insert into the Cutter Housing. Thread in the two Lock Screws, and tighten the two Lock Nuts. (See Figure C.)

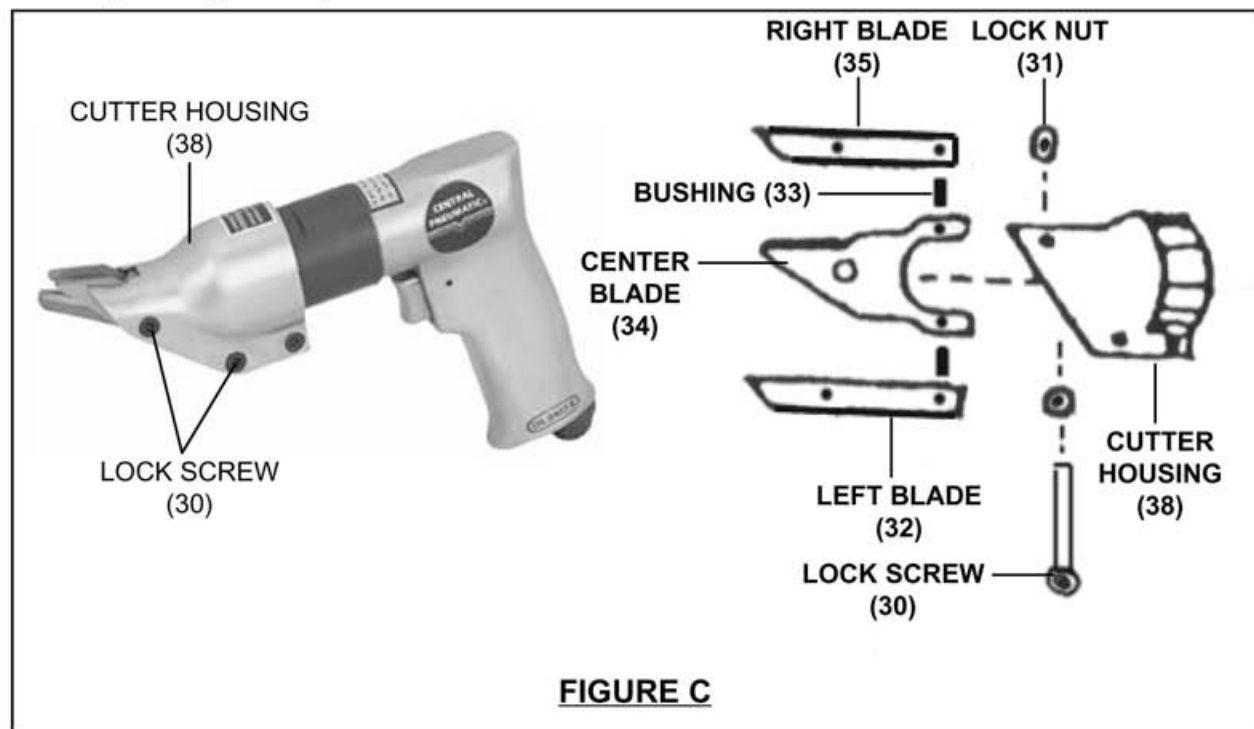


FIGURE C

PLEASE READ THE FOLLOWING CAREFULLY

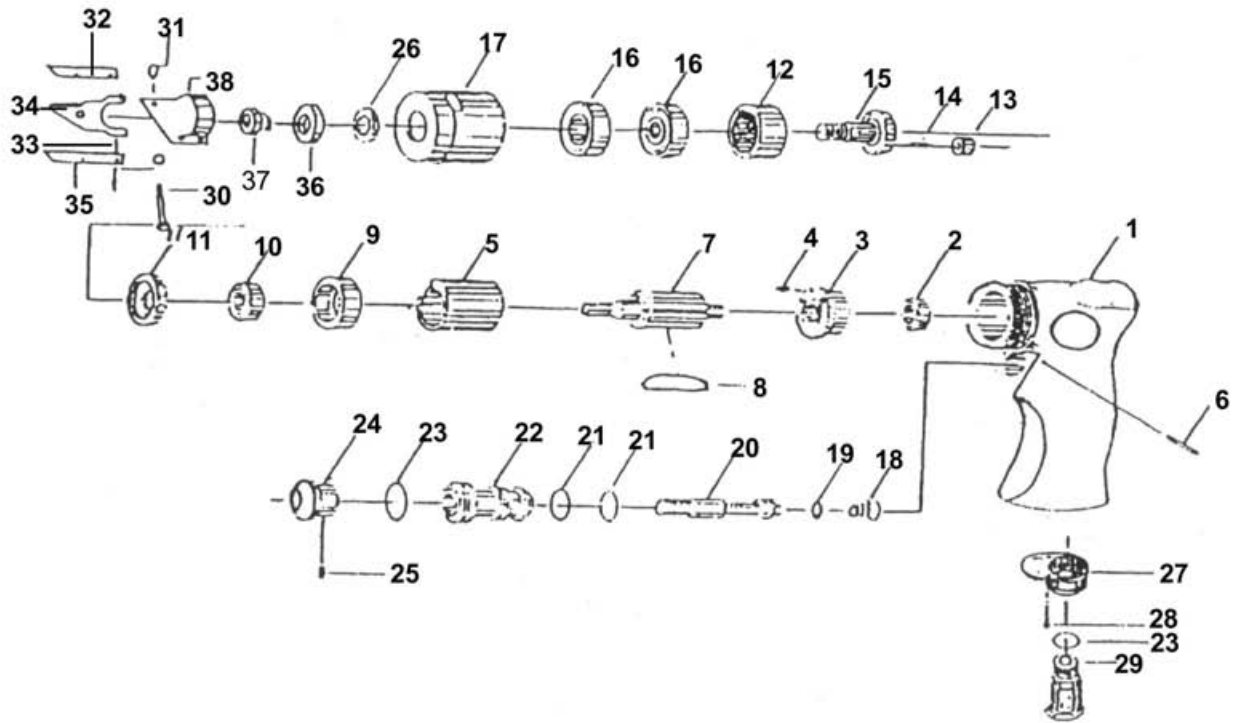
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PARTS LIST

Part #	Description	Qty.	Part #	Description	Qty.
1	Housing	1	20	Valve Spindle	1
2	Ball Bearing	1	21	O-Ring	2
3	Rear End Plate	1	22	Bushing Throttle Valve	1
4	Pin	1	23	O-Ring	2
5	Cylinder	1	24	Trigger	1
6	Pin	1	25	Set Screw	1
7	Rotor	1	26	Washer	1
8	Rotor Blades	4	27	Exhaust Diffuser	1
9	Front Plate	1	28	Screw	2
10	Ball Bearing	1	29	Air Inlet	1
11	Washer	1	30	Lock Screw	3
12	Internal Gear	1	31	Lock Nut	3
13	Planet Gear	3	32	Left Blade	1
14	Pin	3	33	Bushing	2
15	Link Spindle	1	34	Center Blade	1
16	Ball Bearing	2	35	Right Blade	1
17	Clamp Nut	1	36	Ball Bearing	1
18	Spring	1	37	Eccentric Nut	1
19	O-Ring	1	38	Cutter Housing	1

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

ASSEMBLY DIAGRAM



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