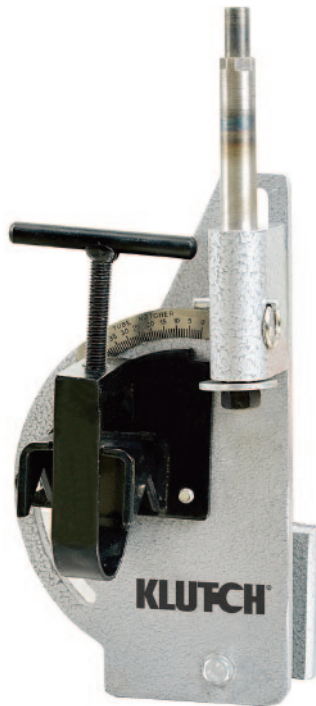




TUBING NOTCHER

OWNER'S MANUAL



⚠ WARNING:
Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item# 49651



TUBING NOTCHER

OWNER'S MANUAL

Thank you very much for choosing a Klutch product. For future reference, please complete the owner's record below:
Serial Number/Lot Date Code: _____ Purchase Date: _____
Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

This tubing notcher is designed for certain applications only. Northern Tool and Equipment cannot be responsible for issues arising from modification or use of this product in an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions please call 1-800-222-5381.

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Intended Use

This tubing notcher is great for assembling and welding tubing in your garage or workshop. Up to 45° angles can be adjusted in single degree increments. The notcher centers and aligns round tube automatically. 1/2in. and 5/8in. hole saw arbors can be accommodated (hole saws are not included).

Technical Specifications

Property	Specification
Tubing Capacity:	2" Tubing
Required Drill Size	1/2"
Spindle:	1/2"
Hole Saw Arbors:	1/2" and 5/8"

Important Safety Information

WARNING:

- Read and understand all instructions. Failure to follow all instructions may result in serious injury.
- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this tool. Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- DO NOT allow persons to operate or assemble this product until they have read this manual and have developed a thorough understanding of how the product works.
- DO NOT modify the product in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the product. There are specific applications for which the product was designed.
- Use the right tool for the job. DO NOT attempt to force a small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will do the job better and more safely at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements.

WARNING:

WORK AREA SAFETY

- Inspect the work area before each use. Keep work area clean, dry, free of clutter, and well lit. Cluttered, wet, or dark work areas can result in injury. Using the box in confined work areas may put you dangerously close to other cutting tools and rotating parts.
- Do not use the box where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The tool can create sparks, which may ignite the dust or fumes.
- Do not allow the box to come into contact with an electrical source. Contact will cause a shock.
- Keep children and bystanders away from the work area while operating the box. Do not allow children to play with the box.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be below the work surface hidden from your view and may cause personal harm or property damage if unintentionally contacted.

PERSONAL SAFETY

- Stay alert, watch what you are doing, and use common sense when operating the box. Do not use the box while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the box may result in serious personal injury.
- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught.
- Use ANSI-Z87.1 compliant safety goggles or safety glasses with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- Do not overreach. Keep proper footing and balance at all times.

CAUTION

- Check for damaged parts before each use. Carefully check that the tool will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the tool with a damaged part.
- Store the tool when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the tool for good working condition prior to storage and before re-use.

Specific Operation Warnings

WARNING:

- Use only on sturdy, level surfaces.
- Check that the workpiece is firmly clamped before use
- Check for damaged parts before each use. Carefully check that the tool will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the tool with a damaged part.
- Check that all mounting bolts are securely tightened before placing a workpiece in the notcher to prevent the notcher from unexpectedly shifting.

Assembly

- The tubing notcher must be mounted to a drill press table using the mounting plate (16). You must purchase your own hardware.
- The spindle (7) is shipped in the reverse position. Turn it around at installation.
- After mounting, make sure that the spindle travels smoothly without binding against the bushings (5).

Before Each Use

WARNING:

- Wear ANSI Z87.1 compliant safety goggles.
- Use only on sturdy, level surfaces.
- Check that the workpiece is firmly clamped before use
- Check for damaged parts before each use. Carefully check that the tool will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the tool with a damaged part.
- Check that all mounting bolts are securely tightened before placing a workpiece in the notcher to prevent the notcher from unexpectedly shifting.

Operating Instructions

- Before placing a workpiece in the notcher, make sure that the spindle (7) travels smoothly without binding against the bushings (5). Any undue friction will cause premature wear.
- The angle of the notcher can be adjusted by loosening the left bolt (10) that holds the clamp assembly to the adjustment plate (15), rotating the assembly as necessary according to the angle indicator (12), and then retightening the bolt. For side-to-side adjustments, loosen the bolt (10) that holds the adjustment plate (15) to the mounting plate (16).
- When installing a hole saw (not included), check first to see if its arbor is 1/2" or 5/8". The threads on the spindle are for 1/2" hole saws, however, there is an adapter (3) for 5/8" models that can be screwed on over the 1/2" threads. You may need to use the adapter washer (4) to ensure a good, secure fit.

NOTE: This notcher is designed for use only with threaded, metal cutting holes saws. DO NOT use locking pliers or clamps to hold the spindle (7) when installing a hole saw. Always secure the spindle with the locking pin (14) by sliding the pin in through the hole on the side of the spindle support (6) when the machine is not in use.

⚠ WARNING:

- Make sure the pin is removed prior to engaging the drill!

⚠ WARNING:

- Make sure the workpiece pipe is firmly clamped in place before notching to prevent it from suddenly shifting position during notching.
- Insert the workpiece tubing in the clamp assembly (1) underneath the inverted "V". The inverted "V" feature of the clamp will hold your tubing (up to 2") in place. Do not insert the tubing more than half way of its length. When engaging in severe angles, only insert the tubing far enough so that you can start the cut. Secure the tubing in position using the handle/clamp screw (2).
- Set the RPM of your drill press to approximately 500 RPM. When cutting thin wall, moly-tubing, higher speeds are required.
NOTE: Practice on different types of scrap tubing and at different angles before working with valuable or important tubing.
- As you work, lubricate both the whole saw and the bushings with cutting oil to extend service life.
- When doing severe angle cuts with large diameter tubing you will need to put the spindle support (6) in its uppermost position in order to accommodate its size. However, you should always position the support as low as possible to preserve accuracy.
- To move the spindle support, simply loosen the two bolts (17) that secure it to the body, reposition, and tighten the bolts.

After Each Use

After use in a run of same-type notches and tubes, clean up any excessive cutting oil or metal shavings to prepare for the next run.

Storage

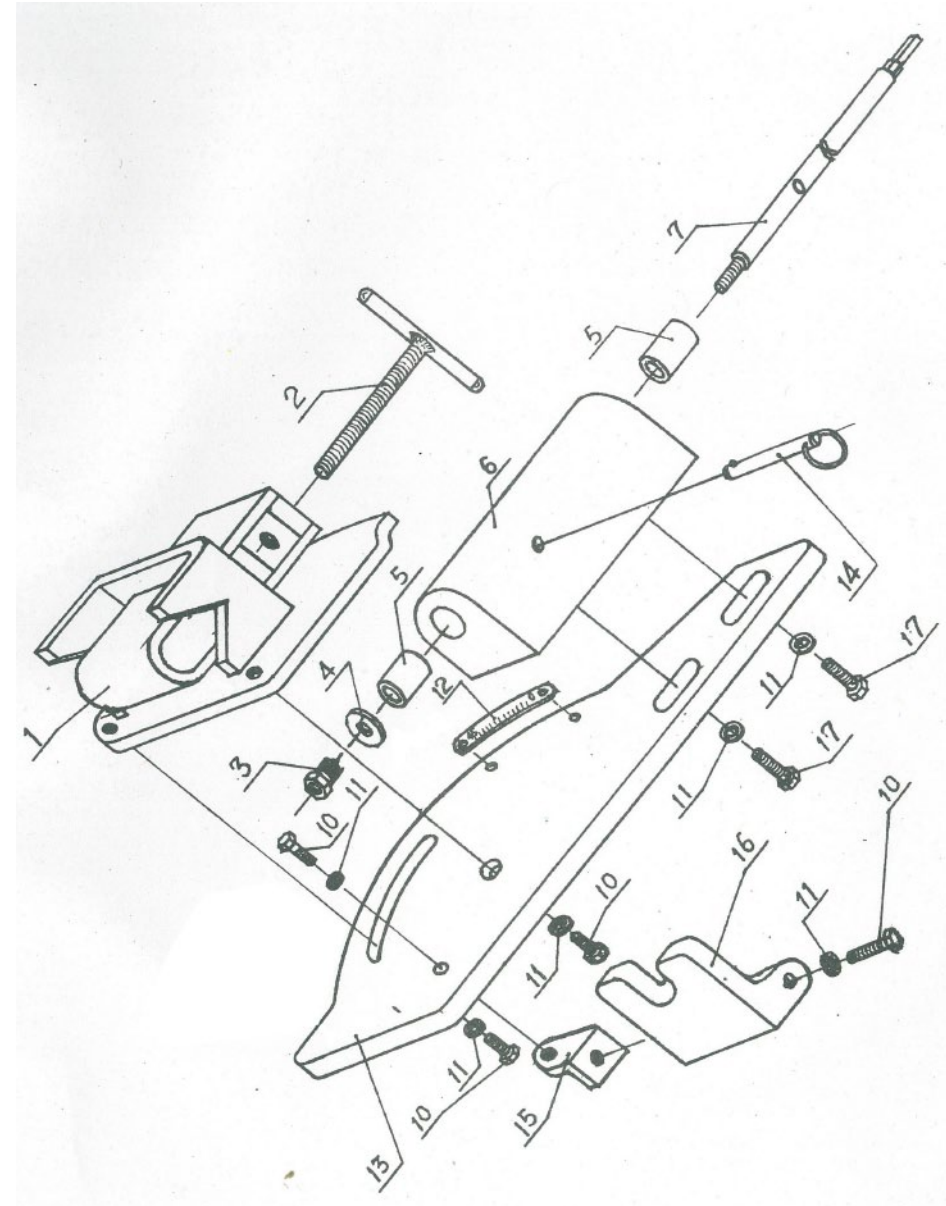
If storing the notcher, follow these steps:

1. Clean up any cutting oil or metal shavings from the notcher.
2. Secure the spindle (7) with the locking pin (14) by sliding the pin in through the hole on the side of the spindle support (6)
3. Remove the notcher from the drill press table, cover the notcher to protect it from dust

Maintenance

Maintain your tool. Keep your tool in good repair by adopting a program of conscientious repair and maintenance in accordance with the recommended procedures found in this manual. Keep handles dry, clean, and free from oil and grease.

Parts Diagram



Parts List

Part No.	Description	Q'ty	Part No.	Description	Q'ty
1	Clamp Assembly	1	11	08 Washer	6
2	Handle/Clamp Screw	1	12	Angle Indicator	1
3	5/8" Hole Saw Adapter	1	13	Body	1
4	5/8" Hole Saw Adapter Washer	1	14	Locking Pin	1
5	Bushing	2	15	Adjustment Plate	1
6	Spindle Support	1	16	Mounting Plate	1
7	Spindle	1	17	M8x25 Bolt	2
10	M8x20 Bolt	4			

Replacement Parts

- For replacement parts and technical questions, please call Customer Service at 1-800-222-5381.
- Not all components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts.
- The following are required when ordering parts: model number, serial number/lot date code, and description.
- The distributor reserves the rights to make design changes and/or improvements to product lines and manuals without notice.

Limited Warranty

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the Ironton Air Tool product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of one year from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace the product without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) accessories both consumable and durable; (c) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (d) damage from misapplication, overloading, or improper installation; (e) improper maintenance and repair; and (f) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-800-222-5381, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product; or any indirect, incidental or consequential damages of any kind for any reason.

Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.



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