



52" SLIP ROLLER

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#s 49680



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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 slip roller 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 hand-powered slip roller is designed for a custom sheet metal shop and light manufacturing. Parallel rolls produce steel tubing, pipe, galvanized steel ducts and more. Reverse rolling creates tubes with the same or slightly larger diameter than the 3 in. shafts. The roller Operates on materials with a maximum thickness of 0.06" (1.5mm) and 51" (1300mm) maximum width.

Technical Specifications

Property	Specification
Maximum capacity	40"
Minimum roll size	3"
Gauge	16-gauge mild steel
Rod/wire grooves dia.	5/16", 3/8", 1/2"
Approx. ship. weight	440 lbs

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:**

- This product may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**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 tool in confined work areas may put you dangerously close to other cutting tools and rotating parts.
- Do not use the tool 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 tool 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 tool. Do not allow children to handle the tool.
- 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 tool. Do not use the tool while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool 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-approved 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:****SLIP ROLLER USE AND CARE**

- Do not force the slip roller. Tools do a better and safer job when used in the manner for which they are designed. Plan your work, and use the correct tool for the job.
- 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 slip roller when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the roller for good working condition prior to storage and before re-use.

- Use only accessories recommended by the manufacturer for use with the roller. Accessories that may be suitable for one tool may create a risk of injury when used with another tool.
- Inspect the roller and accessories for damage or excessive wear before each use. If you find damage do not use the roller.

Specific Operation Warnings**WARNING:**

- Keep hands away from the shafts and metal plate during operation. Do not attempt to form rolls from materials other than those specified.

Assembly**Unpacking**

The 50 inch slip roll machine should come assembled when unpacked. Look for any loose parts in the packing material before discarding. If any are found, find the part on the parts diagram and list and reinstall it.

Assembly and Adjustment

1. Mount the Slip Roll machine to a bench by bolting the base of the machine (21) to the bench. Be sure to provide clearance for crank arm rotation.
2. Adjust distance between Shaft 1 (8) and Shaft 2 (20) if necessary.
The distance between Shaft 2 (20) and Shaft 1 (8) is adjusted by turning the Adjusting Bolts (35)
 - To decrease the distance, turn the Adjusting Bolts (35) clockwise.
 - To increase the distance, turn the Adjusting Bolts (35) counterclockwise.
3. Adjust distance between Shaft 3 (7) and Shaft 1 (8) if necessary
The distance between Shaft 3 (7) and Shaft 1 (8) is adjusted by turning the Adjusting Bolts (22).
 - To decrease the distance, turn the Adjusting Bolts (22) clockwise.
 - To increase the distance, turn the Adjusting Bolts (22) counterclockwise
4. Removal of Shaft 1 (8), if necessary. The left end of Shaft 1 is mounted on a Square Bushing (5), and the right end of the shaft is mounted through the Right Stand (9) into the Sleeve (10).
 - a. To remove Shaft 1, remove the Sleeve (10) off the right end of Shaft 1.
 - b. Next, at the top of the Left Stand, loosen Hex Bolt (3).
 - c. Pull the right end of the Shaft 1 outward.
5. Remounting Shaft 1
 - a. Reinsert the left end of the shaft into the square bushing (5) in the Left Stand.
 - b. Tighten Hex Bolt (3) on the top of the Left Stand.
 - c. Push the Sleeve (10) onto the right end of the shaft through the Right Stand.

Before Each Use

- Check the condition of the roller and that its free of scraps or other debris and clean enough for the next operation.
- Check that the rollers, especially the gears and crank handle, are not worn or damaged.
- Rotate the Handle (23) and check whether the four gears (19, 30) have good, firm contact with each other.
- Check adjustment of the roller.

Operating Instructions**Forming Rolls**

1. Insert the edge of the steel plate for the roll between Shaft 1 (8) and Shaft 2 (20).
2. Rotate the Handle (23) to form the roll.
3. If the diameter of the metal roll is not correct, turn the Adjusting Bolts (22) clockwise to decrease the diameter of the roll or counterclockwise to increase the diameter.
4. To remove the finished roll, pull out Sleeve (10) on the right end of Shaft 1 (8), nearest the Handle (23), and swing Shaft 1 out of the Right Stand. Then remove the steel roll from Shaft 1.

Forming Rings

The half-round slots on the right side of Shaft 2 (20) and Shaft 3 (7) can be used to form rings of various dimensions.

1. Insert the end of the steel for the ring in the half-round slots of Shaft 2 (20) or Shaft 3 (7).
2. Rotate the Handle (23) to form the metal ring.

After Each Use

Cleaning the machine is relatively easy.

Clear away any scraps or debris to setup for the next operation.

Periodically wipe down the machine to remove dust and oil.

Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

Maintenance

Maintain your roller. 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.
- Grease the gears periodically with a multi-purpose or bearing grease.

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily check:

- Loose mounting bolts.
- Any other unsafe condition.

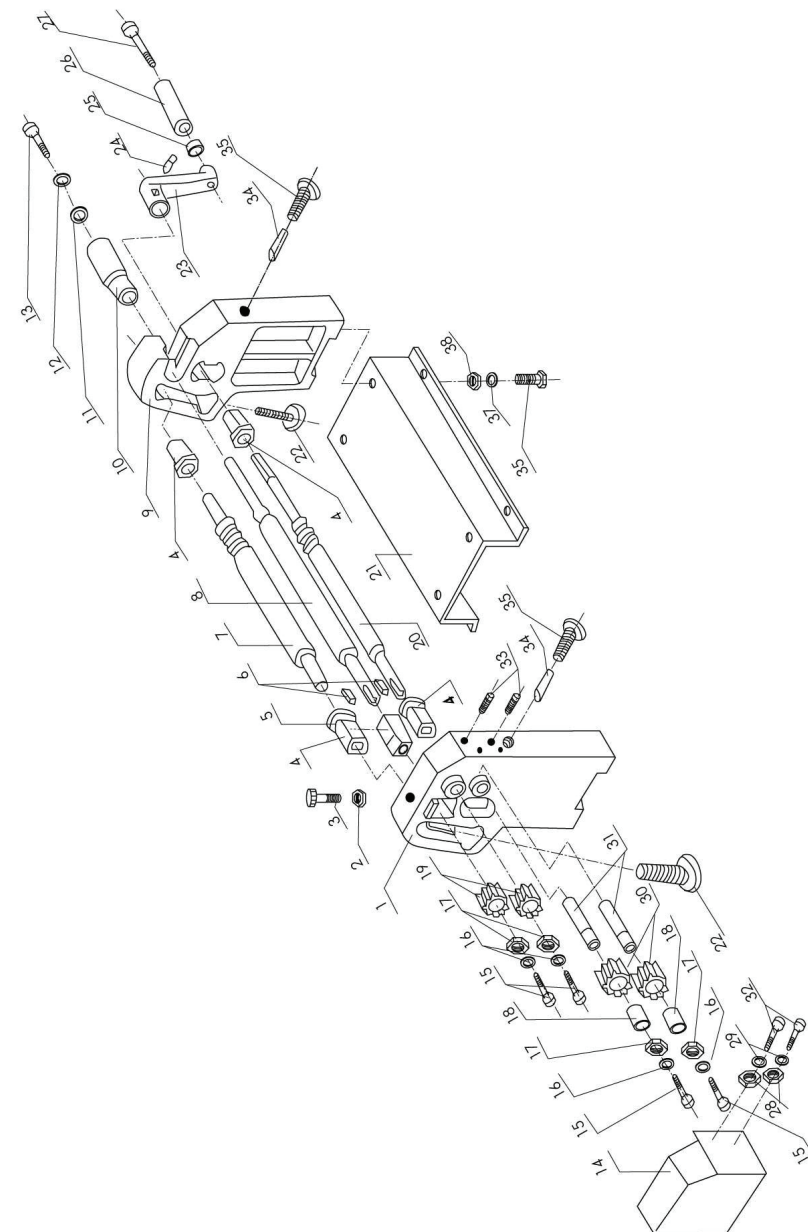
Weekly Maintenance:

- Clean machine.
- Lubricate gears.
- Lubricate bushings

Parts List

Part No.	Description	Q'ty	Part No.	Description	Q'ty
1	Left Stand	1	20	Shaft 2	1
2	Nut M12	1	21	Base	1
3	Hex Bolt	1	22	Adjusting Bolt	2
4	Support Bushing	4	23	Handle	1
5	Square Bushing	1	24	Locking Screw	1
6	Flat Key	3	25	Hex Nut	1
7	Shaft 3	1	26	Handle Bushing	1
8	Shaft 1	1	27	Hex Bolt	1
9	Right Stand	1	28	Washer	2
10	Sleeve	1	29	Spring Washer	2
11	Washer	1	30	Large Gear	2
12	Spring Washer	1	31	Small Shaft	3
13	Screw	1	32	Hex Bolt	2
14	Cover	1	33	Locking Screw	2
15	Hex Bolt	4	34	Pin	2
16	Spring Washer	4	35	Adjusting Bolt	2
17	Washer	4	37	Spring Washer	4
18	Bearing	1	38	Flat Washer	4
19	Small Gear	2	41		

Parts Diagram





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Troubleshooting

Problem	Possible Cause	Solution
Slip roll creates cones when trying to create cylinders.	1. Rollers are not parallel.	1. Adjust rear roller adjustment knobs as necessary to be sure the rear roller and upper roller are parallel.
A noticeable crease is formed in the workpiece.	1. Excessive pressure applied in one spot.	1. Reduce the radius and perform the bend in several passes.
Crank does not turn upper and lower rollers.	1. Gearbox end of upper roller is not secure. 2. Gears are damaged.	1. Re-center the bushing and secure the hex bolt. 2. Check/replace gears.
Slip roll does not bend material.	1. Machine capacities exceeded. 2. Rear roller not engaged.	1. Use materials within the capacity of the slip roll. 2. Check/adjust rear roller

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 Ironon 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.



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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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