



## Mini Manual Tire Changer

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 #54412

**SAVE THESE INSTRUCTIONS**

Thank you very much for choosing a Strongway™ product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Save the receipt, warranty, and this manual. It is important that you read the entire manual to become familiar with this product before you begin using it.

This tire changer is designed for certain applications only. Northern Tool & Equipment is not responsible for issues arising from modification or improper use of this product such as 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

Strongway's completely portable Mini Manual Tire Changer is ideal for changing tires on lawn equipment, trailers, and other vehicles with smaller tires.

## Technical Specifications

Property	Specification
Ship Weight	17.0 lbs
Recommended Use	Tire changer
Machine Type	Manual
Tire Type	For all tires with 4" to 12" rims (excluding wide ATV tires)
Control Mechanism	Handle
Center Hole Sizes	Accepts 50 mm to 295 mm

## Important Safety Information

### ⚠WARNING

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- 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 the product until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this 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 small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will be a safer experience and the product will do a better job 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 product in confined work areas may put you dangerously close to other cutting tools and rotating parts.
- Do not use the product where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The product can create sparks, which may ignite the flammable liquids, gases, or dust.

- Do not allow the tool to come into contact with an electrical source. The tool is not insulated and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the tool. Do not allow children to handle the Portable Mini Tire Changer.
- Make sure that the tire changer must be mounted on solid ground.

## **⚠WARNING**

### **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 in moving parts. Air vents on the tool often cover moving parts and should be avoided.
- Wear the proper personal protective equipment when necessary. Use ANSI Z87.1 compliant safety goggles (not 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.
- Secure the work with clamps or a vise instead of your hand when practical. This safety precaution allows for proper tool operation using both hands.

## **⚠CAUTION**

### **PRODUCT USE AND CARE**

- Do not force the product. Products are safer and do a better job when used in the manner for which they are designed. Plan your work, and use the correct product for the job.
- Check for damaged parts before each use. Carefully check that the product will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the product with a damaged part.
- Store the product 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.
- Use only accessories that are recommended by the manufacturer for use with your product. Accessories that may be suitable for one product may create a risk of injury when used with another tool. Never use an accessory that has a lower operating speed or operating pressure than the tool itself.
- Keep guards in place and in working order. Never operate the product without the guards in place.

## **Specific Operation Warnings**

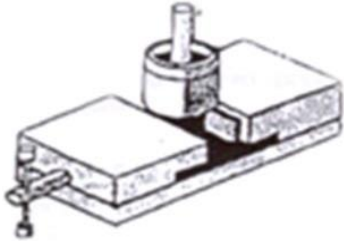
### **⚠WARNING**

- Do not exceed the rated capacity.
- Wear ANSI Z87.1. Compliant safety goggles, steel toed boots, and protective gloves while operating.

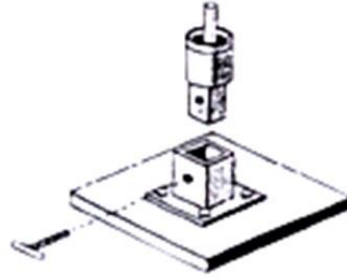
## Assembly Instructions

Permanently mount the base (#15) on a workbench or stand at a comfortable working height. The portable hub holder (#16) may be removed and mounted on a vise (not provided by the supplier).

Note: For the best results, mount the tire changer at waist level.



HUB HOLDER MOUNTED IN A VISE



HUB HOLDER MOUNTED TO A  
BASE OR STAND

**Fig. 1**

## Operating Instructions

### Preparing the Tire Before Use

1. Place the hub holder (#16) in the desired position. See Fig. 2.
2. Remove the air from the tire assembly. For best results, remove the tire's valve core.
3. Place the tire and wheel assembly over the threaded shaft (#18).

**Note:** The tire is first assembled to the hub holder in an inverted position, with the valve stem down.

4. Thread the locking nut onto the threaded shaft and tighten.

**Note:** If the tire is still loose, a spacer (#2) and alignment cone (#1) are provided to properly hold the tire assembly to the hub holder.

5. Once the tire is clamped in position, it's ready for bead breaking, dismounting, and remounting.

### Attaching the Bead Busters (Fig.3)

Place the two piece bead busters (#4 & #5) on the ear of the locking nut (#3). Insert one of the two alignment tools (attached to the handle) through the holes provided.

1. Position the bead buster B (#5) so its shoe is touching the edge of the tire's rim.
2. Insert the second alignment pin (#6) through the holes provided on the bead buster A (#4).
3. This locks the bead busters (#4 & #5) in position for proper operation.

### Bead Breaking (Fig. 4)

**Note:** Make sure the tire is firmly fastened to the tire changer before proceeding with any operation.

1. Apply firm pressure to bead buster A (#4) by pushing down on the long handle.
2. Guide the shoe of bead buster B (#5) along the rim to force the tire bead off the rim seat.
3. When the first bead is completely loose, remove and repeat for the opposite side of the tire.

Fig. 2

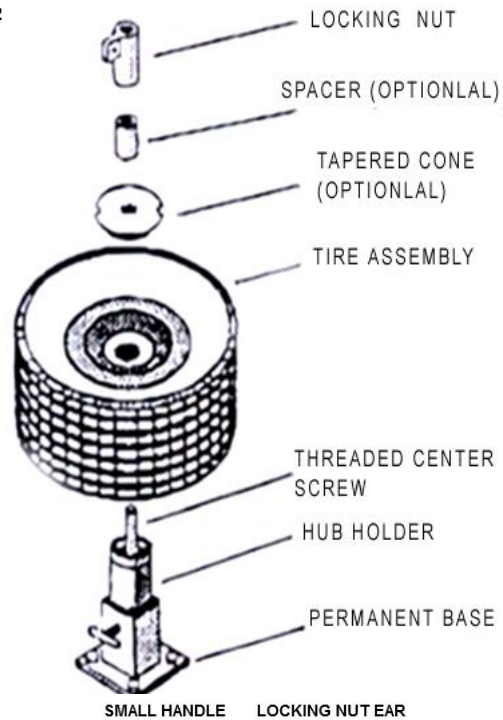


Fig. 3

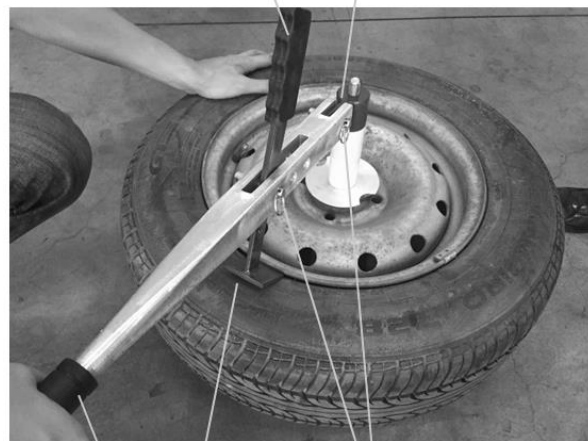


Fig. 4

## Removing the Upper Bead from the Rim

**Note:** Sharp edges can be left on the rims.

Use caution when handling the tire.

1. Remove the bead breaking buster assembly from the hub assembly.
2. Lubricate both tire beads. Coat each bead liberally to ensure the tire will slide easily over the rim.
3. Push down on the tire until there is enough room to place the ball end of the mount demount/remount tool (#11) under the bead on the opposite side of the tire.
4. Pull the handle of the demount/remount tool (#11) down, raising the bead above the rim.
5. While the ball end is still under the bead, pull the handle of the tool around in a clockwise direction while holding the tire to prevent it from turning.

## Removing the Lower Bead from the Rim (Fig. 5)

1. Raise the tire so that the lower bead is just under the upper lip of the rim.
2. Position the ball end of the demount/remount tool (#11) under the lower bead of the tire.
3. Pull down on the handle to push the lower bead above the rim.
4. Pull the handle of the tool clockwise to remove the bottom bead from the rim.

**Note:** Failure to use bead lubricant when removing the tire from the rim can result in damage to the bead.

## Installing the Lower Bead on the Rim (Fig. 6)

1. To mount a new or repaired tire first, lubricate the inside and outside of both tire beads.
2. Push the lower bead onto the rim as far as it will go without forcing it.

**Note:** Failure to use bead lubricant when removing the tire from the rim can result in damage to the bead

3. Place the cut-out center of the demount/remount tool (#11) over the locking nut (#3).
4. Pull the hook snug against the outside edge of the rim.
5. Push the tire down at a point opposite of the hook.
6. Hold the tire to prevent it from turning and pull the demount/remount tool (#11) clockwise, to force the tire bead over the rims upper edge.

**Note:** With proper use of the the bead lubricant, the first bead should slide completely onto the rim. In cases where it is difficult, the demount/remount tool can be used to install the first bead.

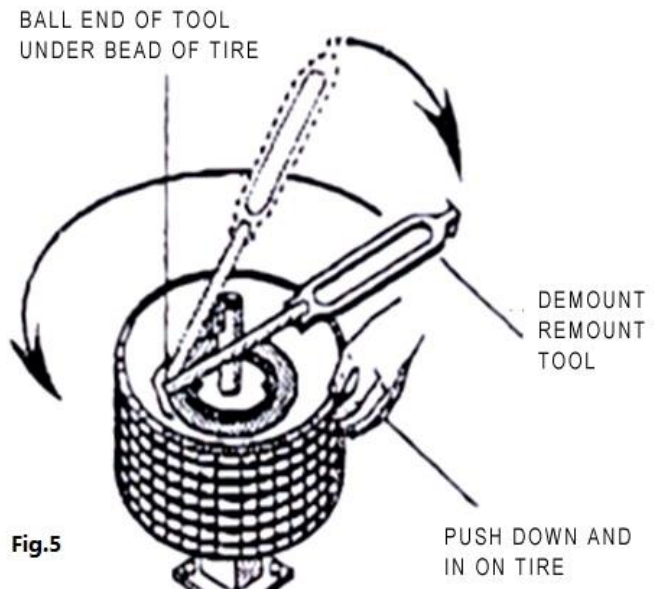
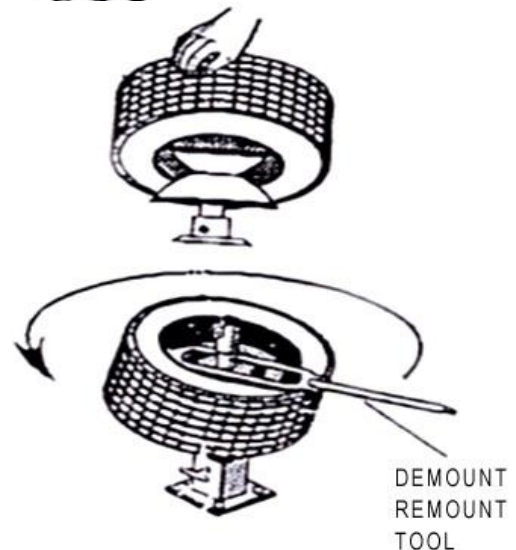


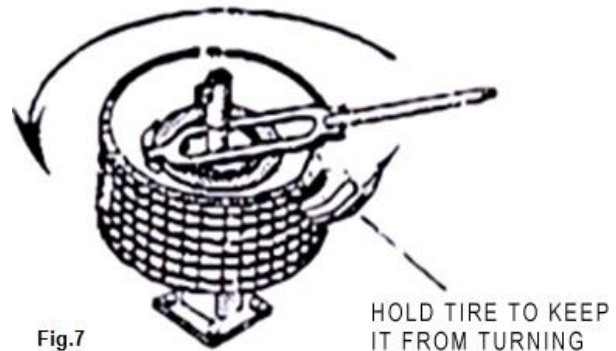
Fig.6





### Installing the Upper Bead on the Rim (Fig. 7)

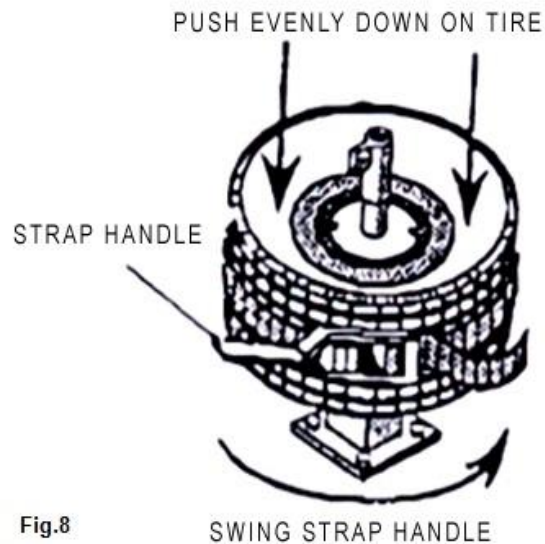
1. Once the lower bead is completely over the edge of the rim, you can install the upper bead.
2. Follow the same steps above to install the upper bead.
3. Remove the demount/remount tool (#11) when the tire is on the rim.



### Optional: Assembling the Inflation Strap (Fig. 8)

**Note:** The inflation strap is an optional accessory that aids in seating the tire.

1. Thread the strap as shown. Proper threading is important to correct operation.
2. Push evenly down on the upper side of the tire until the lower bead is seated on the rim.
3. Place the inflation strap around the tire at the center of the tread. Tighten by pulling the loose end of the strap until it is evenly secure, all around the tire.
4. Pull the handle of the inflation strap around to squeeze the tire until the upper bead is seated on the rim.

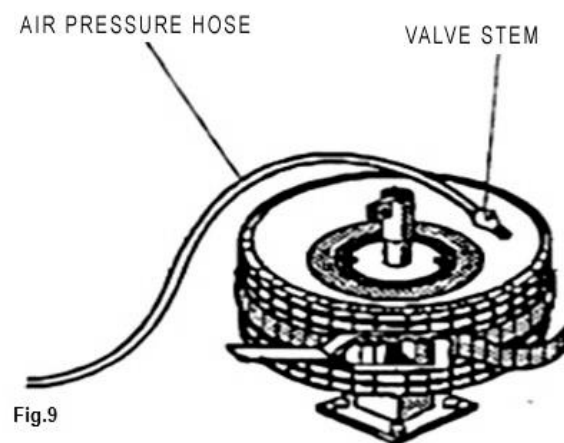


### Inflating the Tire (Fig. 9)

1. Once both beads are seated on the rim, begin filling the tire with air.

**Note:** Keep the inflation strap around the tire.

2. Continue filling the tire until both upper and lower beads are seated on the rim.
3. Release the inflation strap from the tire and reinstall the valve core if it has been removed.
4. Inflate the tire to the correct air pressure. The proper air pressure is indicated on the side wall of your tire.



5. Remove the tire assembly from the hub holder (#16) and place all parts back in the box.

## ⚠WARNING

Over inflation of the tire can cause an explosion and personal injury.

## Maintenance

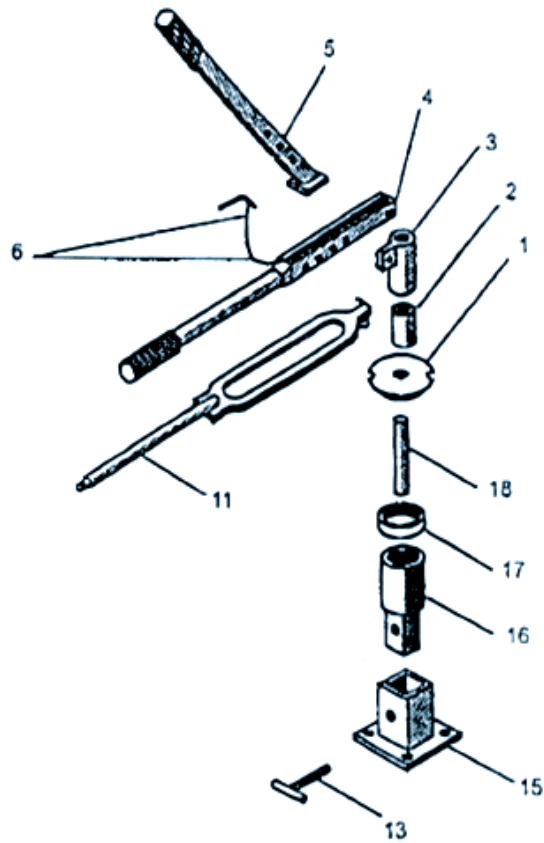
Maintain the product by adopting a program of conscientious repair and maintenance in accordance with the following recommended procedures. It is recommended that the general condition of any tool be examined before it is used. Keep your tool in good repair. Keep all cutting tools sharp and clean. Keep handles dry, clean, and free from oil and grease.

## Troubleshooting

Use the table below to troubleshoot problems before contacting service personnel or your local dealer. If the problem continues after troubleshooting, call your local dealer for assistance.

Failure	Possible Cause	Corrective Action
Poor performance (cannot dismount tire)	The tire and hub are not divided.	Press the tire in many locations to divide tire and hub.
	Failed to install wheel on the changer.	Check and find the unmatched position, and revolve the wheel then tighten the upper screw.
	Did not add the lubricant or enough was not added.	Add more lubricant on the lateral and medial of the tire.
	Used the wrong direction while removing the rod.	The rounded side is for demounting the tire, while the other side is for remounting the tire.

## Parts Diagram



## Parts List

Part Number	Description	Quantity
1	Tapered Cone	1
2	3" Spacer	1
3	Locking Nut	1
4	Bead Buster A	1
5	Bead Buster B	1
6	Alignment Pin	1
12	Demount-Remount Tool	1
13	Base Pin	1
15	Permanent Base	1
16	Hub Holder	1
17	Protector Ring	1
18	Threaded Shaft	1

## Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-800-222-5381**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following information will be required: item description, item model number, item serial number/item lot date code, and the replacement part reference number.
- The distributor reserves the rights to make design changes and 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 Strongway 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 or product component 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) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) 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 product component; 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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