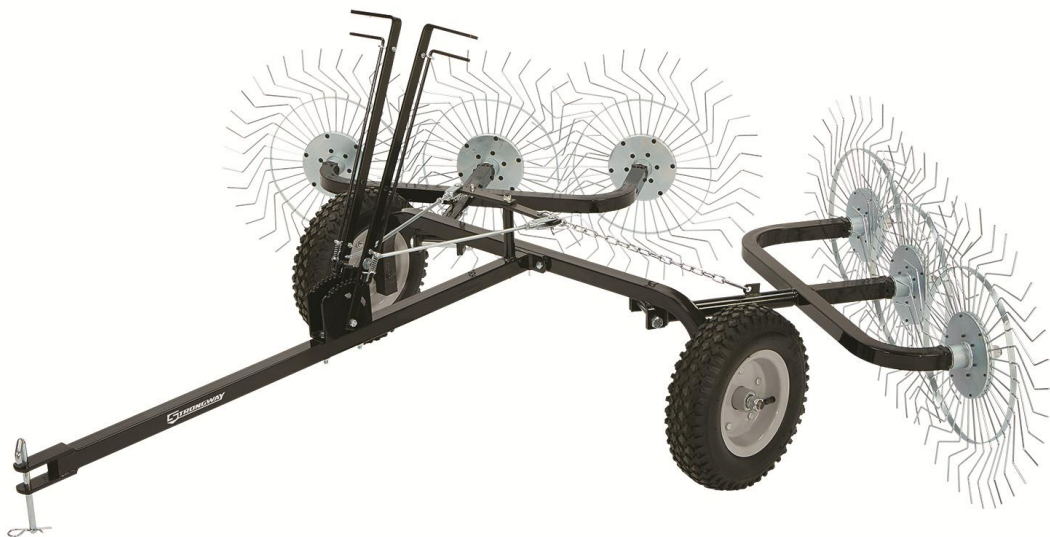




60in. Acreage Rake

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 # 49166

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, the 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 Acreage Rake 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 Acreage Rake works for raking and dethatching large yards quickly. It also works for raking acorns, or similar small particles, as well as grass and leaves.

Technical Specifications

| Property | Specification |
|-------------------|---------------|
| Number of reels | 6 |
| Reel size | 20" |
| Raking path width | 60" |
| Tires | 12" pneumatic |

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 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 Acreage Rake in confined work areas may put you dangerously close to other cutting tools and rotating parts.
- Do not allow the Acreage Rake 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 Acreage Rake.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.

⚠ 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.
- Do not use the Acreage Rake when tired or under the influence of drugs, alcohol or medication.
- Remove keys or wrenches before connecting the tool to an air supply, power supply, or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may cause personal injury.

⚠ CAUTION

ACREAGE RAKE USE AND CARE

- Do not force the acreage rake. Acreage Rake do a better and safer 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 acreage rake will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the acreage rake with a damaged part.
- Store the acreage rake 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 acreage rake. 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

- Lower equipment to ground, stop engine, remove key and set brake before dismounting tractor.
- DO NOT use if equipment is damaged. Repair equipment before continuing use.
- DO NOT exceed this implement's maximum speed of 5 MPH. Exceeding this speed may result in loss of control during transport or braking.
- Keep seat belt securely fastened while operating. Falling off can result in impalement or being run over.
- If equipped, parking stands must be functional, kept in good repair, and stored on the unit. Park and store on a hard, level surface.
- Operate from tractor seat only.
- Never allow riders on equipment.
- Keep bystanders at least 20 feet away while operating.
- Sharp points can cause injury. Be cautious when replacing tines.
- Store out of reach of children. Not for use by or around children.
- Follow tire inflation recommendations indicated on tires.
- Never inflate tires higher than the MAX PSI indicated on tires.
- When the acreage rake is not in use, keep it in a dry place.
- Oil moving parts occasionally with household light machine oil.

Falling off can result in impalement or being run over.

- Tractor must be equipped with Roll Over Protection Structure (or ROPS CAB) and seat belt. Keep foldable ROPS system in "locked up" position at all times.
- Keep seat belt securely fastened.
- Never allow riders on equipment.

Assembly

STEP 1: ATTACH TONGUE TO AXLE

Place Tongue Assembly (#4) and Axle Assembly (#1) on a flat surface. Position the Tongue Assembly (#4) so that the shaft welded to the tongue is straight up. Place the Axle (#1) so the lift arm hinges welded to the axle face away from the tongue - see Figure 1. Connect the Tongue (#4) to the Axle (#1) using two 5/16"x2" hex bolts (B), two 5/16" nylock nuts (M). Fully tighten connections.



Figure 1

STEP 2: ATTACH WHEELS TO AXLE

Assemble the Tire/Wheel Assembly (#3) (inflation valve stem facing out) onto the Axle (#1), securing the tire/wheel with one 9/16" nylock nut (H) - see Figure 2. Repeat on opposite side of the Axle (#1). CAUTION: DO NOT over-tighten the lock nut; this can result in damage to the bearings in the wheel hub. When properly tightened, the wheel should spin freely.



Figure 2

STEP 3: ATTACH LIFT HANDLE TO TONGUE

Attach the Lift Handle (#7) to the top of the Tongue (#4) where two holes are located - see Figure 3 for position of lift handle on tongue. Secure using two 5/16"x2" (B) hex bolts and two 5/16" nylock nuts (M). Fully tighten connections.

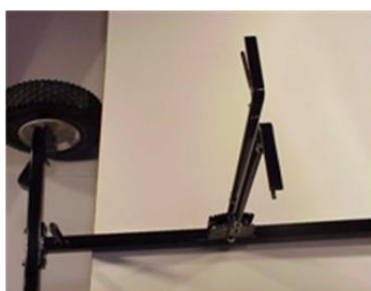


Figure 3

STEP 4: ATTACH CABLE PIVOT BAR

Attach the two Chain Bar with Chain (K) to the tongue assembly. Install each Chain Bar with Chain (K) on top of shaft using one 5/16" nylock nut (M). The chains should be positioned facing the rear of rake - see Figure 4.



Figure 4

STEP 5: ATTACHING LIFT ROD

Attach the end of the Lift Rod (L) to the 1/4" hole on the inside of lifting handle. Install 1/4" flat washer (C). Secure with cotter pin. See Figure 5.



Figure 5

STEP 6: ATTACH CLEVIS TO PIVOT BAR

Attach the clevis (opposite end of lift handle) to the Chain Bar with Chains (K) from STEP 4, secure with one clevis pins (I). See Figure 6.

Do not insert cotter pin (J) until adjustment procedure in STEPS 11 to 13. Repeat STEPS 5 and 6 for second lifting rod.



Figure 6

STEP 7: ATTACH LIFT ARMS TO AXLE

Attach the Lift Arm (#5) to the wheel axle (#1) using one 1/2" x 4-1/2" hex bolt (A) and one 1/2" nylock nut (G). See Figure 7.

Repeat on the opposite side.

USAGE NOTE: Note the lift arm offset in Figure 7. Assembling lift arms with the offset towards inside will make a narrower space when raking. Narrow space is recommended when using Sweeper attachment.



Figure 7

STEP 8: ATTACHING RAKE ARMS

Insert the Rake Wheel Arm (#2) into the Lift Arm (#5) from in STEP 7. Secure rake wheel arm to the lift arm using clevis lock pin (P). See Figure 8 for rake arm position.

Repeat procedure for the rake arm on the opposite side.



Figure 8

STEP 9: ATTACH RAKING WHEELS

Attach three Rake Tine Wheels (#6) to Rake Wheel Arm (#2) as shown in Figure 9. Secure each with one 9/16" nylock nut (H). Make certain that tines on all three wheels are pointed in the same direction. Look at the tips of rake tines for direction.



Figure 9

⚠ CAUTION

Do not over-tighten lock nut. Over-tightening will cause bearing damage in the rake tine wheel hub. Rake tine wheel should spin freely. Assemble the opposite side.

Make certain that the three rake tine wheels on the opposite side are positioned as shown in Figure 10. All rake tine tips should rotate towards the center in same the direction.



Figure 10

ADJUST THE OPERATING HEIGHT of LIFT ARMS

NOTE: Adjustments may be needed based on the height of the towing vehicle hitch.

STEP 10: Attach the Acreage Rake to the towing vehicle hitch.

Follow Steps 11, 12, and 13 for each lift arm.

These steps are to make sure the rake reel tines will do the following: (1) lift high enough for towing clearance and (2) reach the ground properly for raking or dethatching.

STEP 11: Position one lift handle fully forward. The handle should be positioned in the front notch on the lift handle - see Figure 11. Check that the rake tines are high enough off the ground for towing clearance when rake assembly is not in use. If handle is fully forward and the rake tines are not lifting high enough off the ground for clearance when towing, go to the next step for needed adjustment.



Figure 11

STEP 12: Remove clevis pin (I) (from STEP 6) and rotate clevis in either direction to achieve the desired stopping position or lifting height. Reinstall Clevis Pins when finished - see Figure 12.



Figure 12

STEP 13: Move the Lift Handle to the rear position on the lift assembly. This is the operating/down position for the rake tine wheels. The cable should have little slack in it when in operating position - see Figure 13. If the chain does not have slack when lift handle is in the back notch of the lift assembly, adjustment is needed. Remove the clevis pin (P) and rotate clevis until there is slack in lifting chain. No adjustment is needed after this step.

NOTE: This step allows the rake tine wheel assembly to float when being used on uneven ground. It is okay if the lift handle does not go all the way to the front notch after this step.



Figure 13

Before Each Use

It is recommended to mow or cut grass to 3" or shorter before raking or dethatching. When in operating position, adjust the height of the Rake Tine Wheels so raking tines contact the ground lightly. Keep the lifting chain almost tight when operating, if possible. For deep raking or dethatching, allow rake tines to contact the ground fully.

Operating Instructions

Attach receiver hitch of the Acreage Rake to ATV, lawn tractor, or other towing vehicle. Never operate Acreage Rake at speeds higher than 5 mph. Avoid sharp turns.

SETTING RAKE TINE WHEELS FOR DE-THATCHING VS. RAKING

Note the direction of the tine tips you have just assembled.

If tine tips are rotating so the tips “dig” into the ground – this is dethatch mode.
When tine tips rotate so the tips are “brushing” the ground – this is rake mode.

NOTE: Dethatch mode is very hard on tine reels.

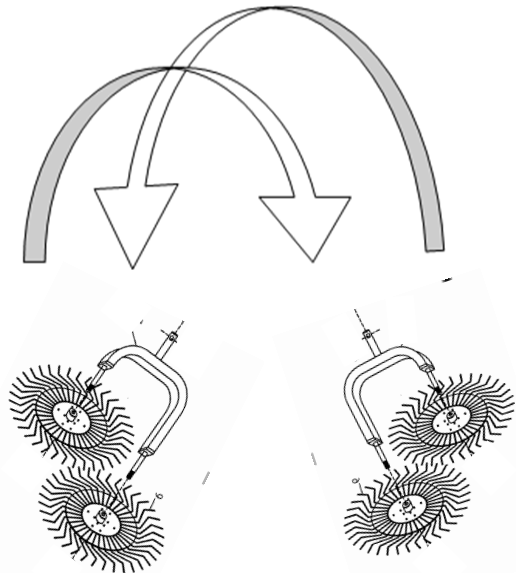
Flip Each Arm 180 degrees

To change rake tine wheels from/to dethatching or raking, follow these steps:

Remove clevis lock pin from both lift arms, and then remove both assemblies from the rake.

Take the left side assembly, flip it over 180 degrees and re-install on the right side.

Take right side assembly, flip it over 180 degrees and re-install on the left side.



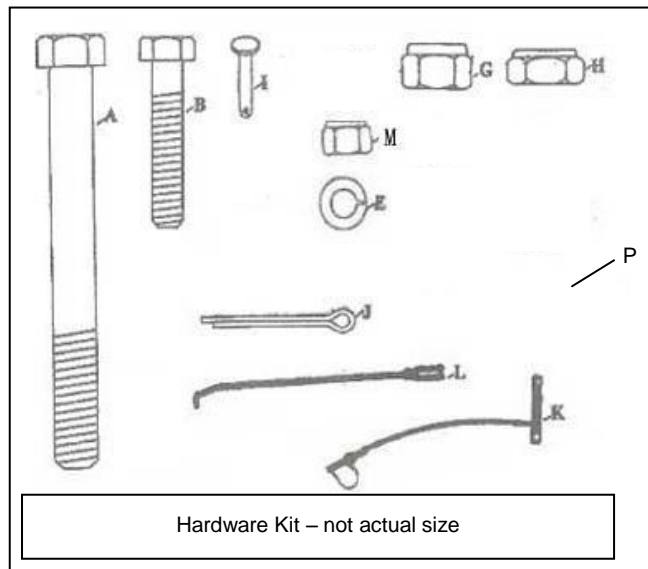
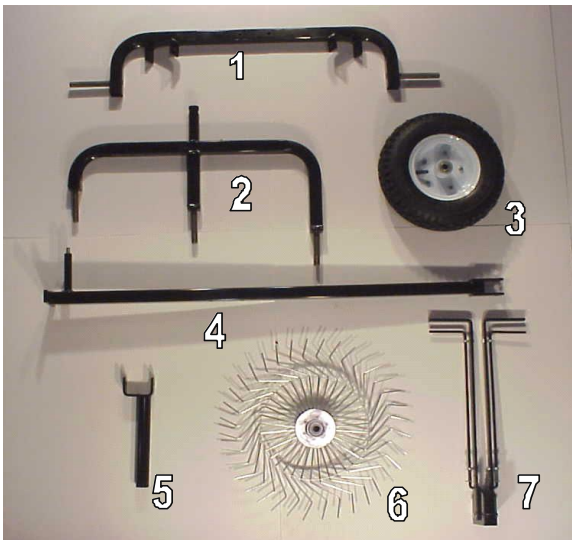
After Each Use

Oil moving parts occasionally with household light machine oil. Rotate Rake Tine Wheels occasionally.

Maintenance

Maintain your tool. It is recommended that the general condition of any tool be examined before it is used. 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 all cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control. Keep handles dry, clean, and free from oil and grease.

Parts Diagram



Hardware Kit – not actual size



N: Hitch Pin and Clip

Parts List

| Part No. | Description | Quantity |
|----------|-------------------------------------|----------|
| 1 | Axle Assembly | 1 |
| 2 | Rake Wheel Arm | 2 |
| 3 | Tire/Wheel Assembly | 2 |
| 4 | Tongue Assembly | 1 |
| 5 | Left & Right Lift Arm (1 ea.) | 2 |
| 6 | Rake Tine Wheel | 6 |
| 7 | Lift Handle | 1 |
| A | Hex Bolt 1/2" x 4-1/2" or M12 x 120 | 2 |
| B | Hex Bolt 5/16" x 2" | 4 |
| C | Flat Washer 1/4" | 2 |
| G | Nylock Nut 1/2" or M12 | 2 |
| H | Nylock Nut 9/16" | 8 |
| I | Clevis Pin 1/4" x 1" or 6x25 | 2 |
| J | Cotter Pin 1/16" x 5/8" | 2 |
| K | Chain Bar with Chain | 2 |
| L | Lift Rod | 2 |
| M | Nylock Nut 5/16" | 5 |
| N | Hitch Pin with Clip (not shown) | 1 |
| P | Clevis Lock Pin | 2 |

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 will be required: 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 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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