



48" 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# ACR-480JR

Thank you very much for choosing this product! For future reference, please complete the owner's record below:

Model: ____ACR-480JR_____ 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 product is designed for certain applications only. The manufacturer cannot be responsible for issues arising from modification. We strongly recommend this product not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted us to determine if it can or should be performed on the product.

For technical questions please call **1-952-938-5222**.

INTENDED USE

This Acreage Rake works for dethatching large yards quickly, and can rake up small debris as well as grass/leaves.

TECHNICAL SPECIFICATIONS

Reel size: 20"

Raking Path: 48"

Tires: 12" Pneumatic

GENERAL SAFETY RULES



WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in serious injury.



CAUTION: Do not allow persons to operate or assemble this acreage rake until they have read this manual and have developed a thorough understanding of how the acreage rake works.



WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

SAVE THESE INSTRUCTIONS

WORK AREA

- **Keep work area clean**, free of clutter and well lit. Cluttered and dark work areas can cause accidents.
- **Keep children and bystanders** away while operating an acreage rake. Distractions can cause you to lose control, so visitors should remain at a safe distance from the work area.
- **Be aware of all power lines, electrical circuits**, water pipes and other mechanical hazards in your work area, particularly those hazards below the work surface hidden from the operator's view that may be unintentionally contacted and may cause personal harm or property damage.
- **Be alert of your surroundings**. Using an acreage rake in confined work areas may put you in a dangerous situation.

PERSONAL SAFETY

- **Stay alert**, watch what you are doing and use common sense when using an acreage rake. Do not use an acreage rake while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating an acreage rake 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. Do not operate when bare foot or wearing open sandals.
- **Use safety apparel and equipment**. Use safety goggles or safety glasses with side shields which comply with current national standards, or when needed, a face shield. Use a dust mask in dusty work conditions. This applies to all persons in the work area. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate.

ACREAGE RAKE USE AND CARE

- **Do not modify the acreage rake in any way**. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment. There are specific applications for which the acreage rake was designed.
- **Always check for damaged or worn out parts before using the acreage rake**. Broken parts will affect the acreage rake operation. Replace or repair damaged or worn parts immediately.
- **Do not exceed the acreage rake load capacity**.
- **Distribute the load evenly**. Uneven loads may cause the acreage rake to tip, resulting in personal injury to the operator or others.
- **Use the acreage rake on flat and level surfaces** capable of supporting the acreage rake and its maximum load. Pulling or pushing a load on a slanted or uneven surface can result in loss of control.
- **Store idle acreage rake**. When the acreage rake is not in use, store it in a secure place out of the reach of children. Inspect it for good working condition prior to storage and before re-use.

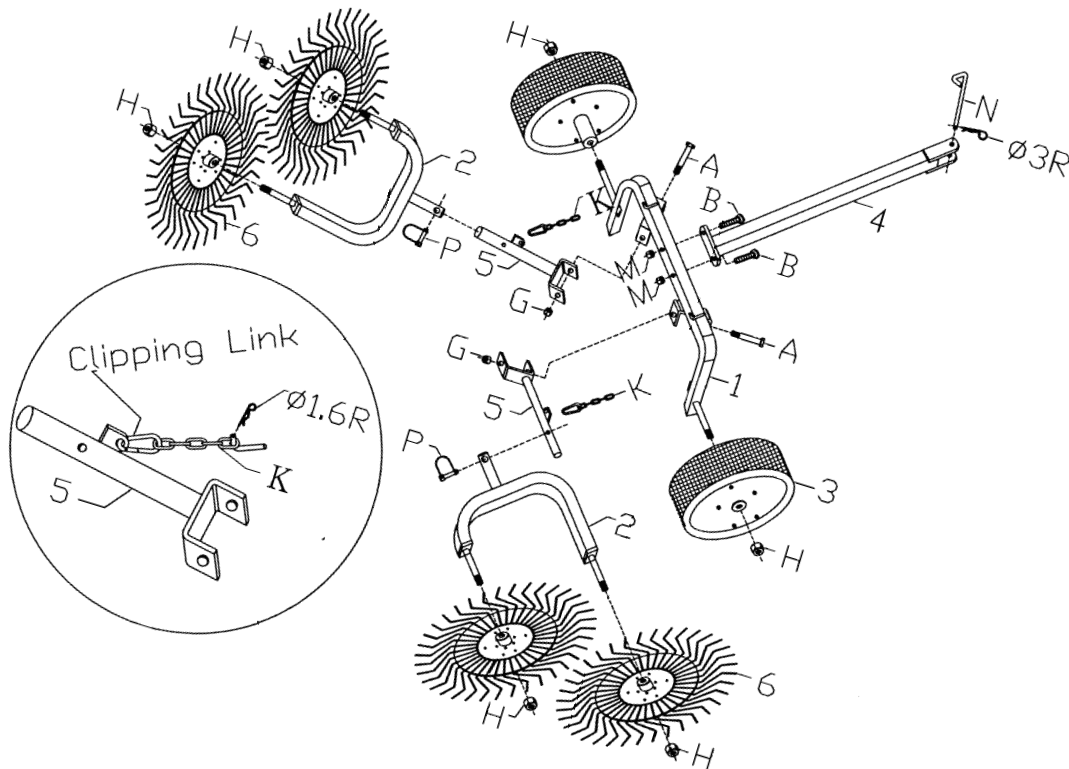
ASSEMBLY

TOOLS RECOMMENDED FOR ASSEMBLY

- (Qty 1) standard pliers (Qty 2) 1/2" combination wrenches
(Qty 1) 15/16" combination wrench (Qty 2) 3/4" combination wrenches

REMOVE ALL PARTS FROM CARTONS

1. Remove the hardware packs and all parts from the cartons.
2. Layout and identify parts included in carton contents. (see parts listing below)
3. Layout and identify parts included in the hardware pack. (see parts listing below)
4. IF ANY PARTS ARE MISSING FROM PACKAGING
Contact Mfg. at 952-938-5222



Refer to above Photo for parts and hardware listing

MAIN PARTS LISTING:

| REF# | QTY | Description |
|------|-----|---------------------|
| 1 | 1 | Axle Assembly |
| 2 | 2 | Rake Wheel Arm |
| 3 | 2 | Tire/Wheel Assembly |
| 4 | 1 | Tongue Assembly |
| 5 | 2 | Lift Arm |
| 6 | 4 | Rake Tire Wheel |

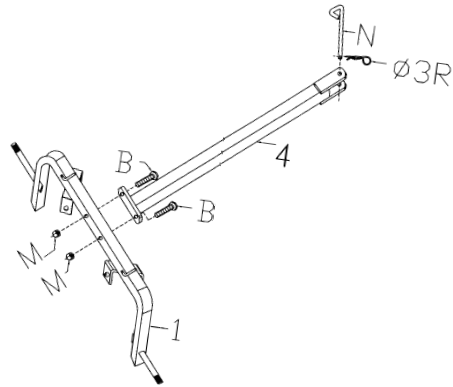
HARDWARE PACK CONTENTS:

| REF# | QTY | Description |
|------|-----|----------------------------------|
| A | 2 | Hex Bolt 1/2" x 4-1/2" (M12x120) |
| B | 2 | Hex Bolt 5/16" x 2" |
| G | 2 | Nylock Nut – 1/2" (M12) |
| H | 6 | Nylock Nut – 9/16" |
| K | 2 | Chain |
| M | 2 | Nylock Nut – 5/16" |
| N | 1 | Hitch Pin |
| P | 2 | Clevis Lock Pin |
| 1.6R | 1 | 1.6mm R-Clip for Chain |
| 3R | 1 | 3.0mm R-Clip for Hitch Pin |

Assembly

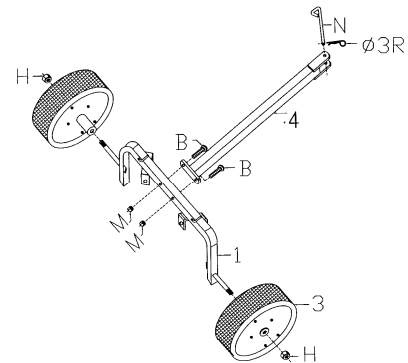
STEP 1: ATTACH TONGUE TO AXLE

Attach Tongue assembly (Ref#4)
to Axle Assembly (Ref# 1) using
2 – 5/16"x2" Hex Bolts (Ref# B) and
2 Nylock Nuts – 5/16" (Ref# M)



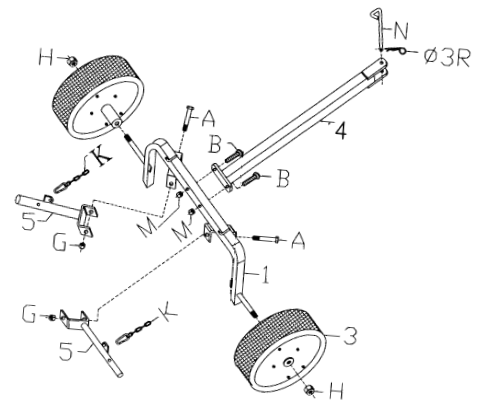
STEP 2: ATTACH WHEELS TO AXLE

Attach tire/wheel assembly (Ref#3)
to each side of axle assembly from step #1 above.
Secure tire/wheel assembly with 9/16" Nylock Nut (Ref # H)
Note: Do not over tighten, be sure wheel spins freely



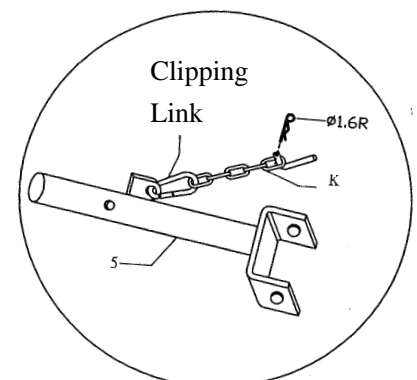
STEP 3: ATTACH LIFT ARM TO AXLE FRAME ASSEMBLY

Attach Lift Arm (Ref #5) to Axle frame assembly
from above step. Use Hex Bolt (Ref #A)
1/2"x 4-1/2" and 1/2" Nylock Nut (Ref# G).
Note: Do not over tighten, be sure
lift arm moves freely. The offset (larger
space on lift arm hinge) should be towards
middle of axle assembly. Or, the lift arm
should be to the outside once assembled.



STEP 4: ATTACH CHAIN TO LIFT ARM AND AXLE ASS

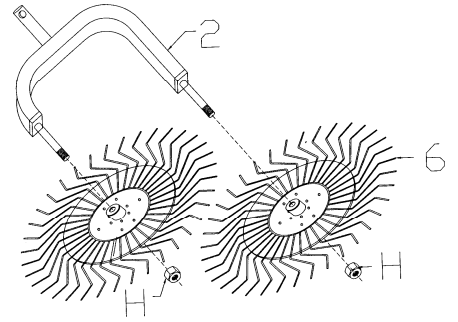
Attach chain end with clipping link to lift arm.
Attach opposite end of chain to axle frame, and secure
with R-pin clip (Ref# 1.6R).
Note: the link with clip should be un-hooked to lower reels
to the ground operating position (for dethatching and raking).
When finished raking or de-thatching, raise reels,
re-hook chain clipping link to arm (non-operating position).



STEP 5: ATTACH REEL TO LIFT ARMS

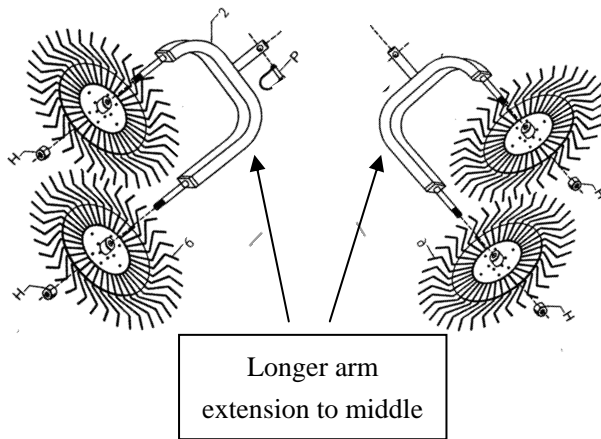
Attach each reel to lift arm using 9/16" Nylock Nut.

IMPORTANT: The reel tips need to point same direction on each side. When pulling rake, reels spin towards center of rake. All tips need to rotate towards the center in the same direction. SEE operating instructions below for further info.



STEP 6: CONNECT REELS TO LIFT ARMS

Connect each rake wheel arm to each lift arm using clevis lock pin (Ref# P). The longest arm extension needs to be at the center of rake for each side. Reminder, tine tips need to rotate towards center in same direction.



STEP 7: CONNECT HITCH PIN

Insert hitch pin into front of axle, secure using clip pin (Ref# 3R)

The Rake is now completely assembled.

SEE OPERATION NOTES BELOW.

OPERATION



WARNING:

- Keep the operating speed LOW!!!! Do not operate over 5 MPH (8KMH).
- Allow only responsible adults who are familiar with these instructions to operate this product. Never allow children to operate this product.
- Be sure the area is clear of other people before operating. Children are often attracted to the product and the operating activity. **Never assume that children will remain where you last saw them.** Keep children under the watchful care of another responsible adult.
- Follow tire inflation printed on tires. Never inflate tires higher than the MAX PSI printed on tires.

SET REELS TO RAKE or DETHATCH

Once rake is attached to tow vehicle, un-hook chain links to allow reels to contact the ground.

Reminder to be sure tips are rotating the same direction towards the center.

When finished, use chain to lift reels off the ground for towing in non-operating position.

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.

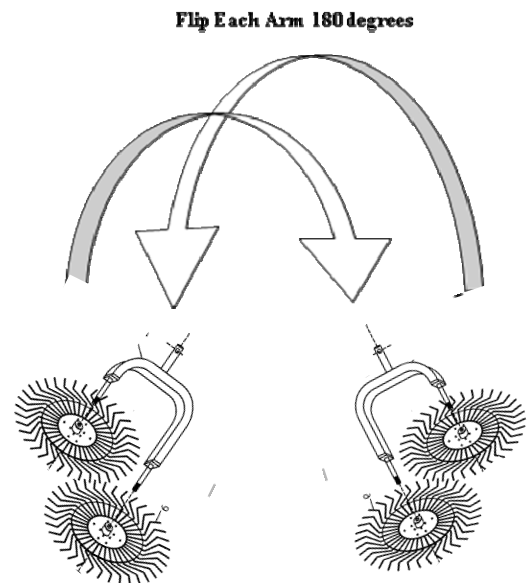
Note: dethatch mode is very hard on tine reels.

To change rake tine wheels from/to de-thatching or raking, fall these steps. Remove clevis lock pin from both lift arms, 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.

SEE figure to right.



MAINTENANCE

- **Maintain your acreage rake.** It is recommended that the general condition of any acreage rake be examined before it is used. Keep your acreage rake in good repair by adopting a program of conscientious repair and maintenance. If any abnormal vibrations or noise occurs, have the problem corrected before further use. Have necessary repairs made by qualified service personnel.
- Oil moving parts from time to time with household lubricant.

RAKE TINE WHEEL MAINTENANCE:

Following these recommendations will make the raking wheels last longer.

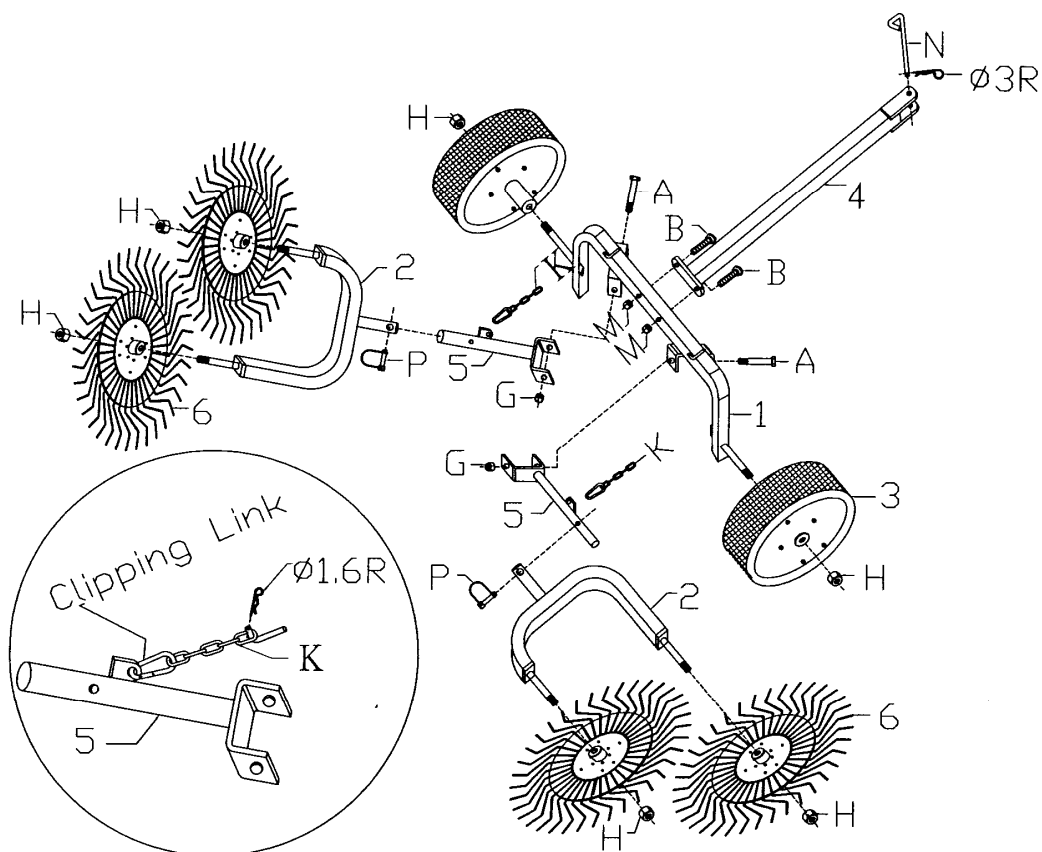
1. It is recommended to mow or cut grass to 3" or less before raking or de-thatching.
2. Rake Wheel Tine Recommendation:
When in operating position, try adjusting the height of rake tine wheels so raking tines contact ground lightly. Keep the lifting chain almost tight when operating if possible.
For deep raking or de-thatching, allow raking tines fully down on ground.
3. Rotate rake tine wheels from time to time:

Flip rake tines 180° as in Figure 15 for raking vs. de-thatching.

Remove rake wheel and fully turn around. This will keep tines from bending in one direction.

Since all grasses are different, you may need to rotate rake wheels more often when used in thicker grasses.

PARTS BREAKDOWN



| REF# | QTY | Description |
|------|-----|---------------------|
| 1 | 1 | Axle Assembly |
| 2 | 2 | Rake Wheel Arm |
| 3 | 2 | Tire/Wheel Assembly |
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| 5 | 2 | Lift Arm |
| 6 | 4 | Rake Tine Wheel |

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| N | 1 | Hitch Pin |
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| 1.6R | 1 | 1.6mm R-Clip for Chain |
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For replacement parts and technical questions, please call **1-952-938-5222**.

WARRANTY

One-year limited warranty



TG
PO BOX 202
Hopkins, MN 55343