



## OPERATOR'S MANUAL

A Division of Snow Joe®, LLC

# MANUAL REEL MOWER

## 16-INCH | GRASS CATCHER | RAZOREEL

Model MJ500M

Form No. SJ-MJ500M-880E-MR5

## IMPORTANT!

### Safety Instructions

### All Operators Must Read These Instructions Before Use

Always follow these safety guidelines. Failure to do so may result in serious bodily injury or death.

### General Safety WARNINGS!

When using this reel mower, basic safety precautions should always be followed to reduce the risk of personal injury. These precautions include:

**⚠️ WARNING!** This unit can be dangerous! Careless or improper use can cause serious injury.

**⚠️ WARNING!** Risk of dismemberment: keep hands and feet away from the rotating blades and the cutting area.

Before using the reel mower, familiarize yourself with the controls, especially how to stop the mower in an emergency. The only individuals who should use the mower are those who thoroughly understand these instructions and know how to properly operate the unit. Children should never be allowed access to the mower.

Retain this manual for future reference and reread it at the start of each mowing season.

### Safety Information

1. Never place hands, fingers, or feet inside the reel. Although this mower is not powered by a motor, the reel spins when the wheels turn, and it is sharp enough to cause serious injury.
2. Never mow when the grass is wet as it can be slippery.
3. Do not use the reel mower while barefoot or while wearing sandals.
4. Walk behind, never run, while using the reel mower. Always keep proper footing and balance when using this reel mower.
5. Do not intentionally strike or hit trees, fences, or other objects. Doing so can cause severe injuries or permanently damage the reel mower's mechanisms.

6. Make sure that the reel mower is in proper working order prior to use. Do not attempt to operate this reel mower if it is damaged. Contact your authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

## IMPORTANT!

### Safety Instructions for Walk-Behind Reel Mowers

#### General Operation

- Read, understand, and follow all instructions on the machine and in the manual(s) before starting.
- Do not put hands or feet near or under the machine. Always stay clear of the discharge opening.
- Only responsible adults who are familiar with the instructions should be allowed to operate this machine.
- Clear the mowing area of foreign objects such as rocks, wire, toys, and other miscellaneous articles, which could be picked up and thrown by the rotating blades.
- Make sure that the mowing area is clear of bystanders before starting the mower. Stop the mower if anyone enters the area.
- Always look down and behind before starting and while moving backward with the mower.
- Do not operate the machine without safety protective devices in place and in proper working order.
- Never operate the mower on wet grass. Always be sure of your footing; walk, never run, with the mower.
- Keep blades sharp.
- Keep hands and feet away from the cutting area.
- Always wear eye protection when operating the machine.
- Objects struck by the reel mower blades can cause severe injuries. The mowing area should always be carefully examined and cleared of all objects prior to each mowing.
- Only use identical replacement blades.

#### Slope Operation

Slopes are major factors involved in slip and fall accidents. Such accidents can cause severe personal injury. Operating this mower on any inclined surface requires extra caution. If you feel uneasy on a slope, do not mow it.

- Mow across the face of a sloped surface; never mow up and down a slope. Exercise extreme caution when changing direction on a slope.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. These may cause an unexpected slip or fall.
- Do not mow on wet grass or excessively steep slopes. Poor footing could cause a slip and fall accident.
- Do not mow near drop-offs, ditches, or embankments. You could lose your footing or balance.

## **Children**

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the mower and the mowing activity. Never assume that children will remain where you last saw them.









- Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- Stay alert and stop the reel mower if a child enters the area.
- Never allow children access to the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

## **Service**

- Keep all nuts and bolts tight.
- Never tamper with safety devices. Regularly check to ensure these devices are in place and in proper working order.
- Keep the reel mower free from grass, leaves, or other debris buildup.
- If you strike a foreign object, stop and inspect the reel mower. Repair, if necessary, before restarting.
- Check the grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts when necessary.
- The mower blades are sharp. Wrap the blades or wear gloves when handling.
- Maintain or replace safety and instruction labels as needed.

# Safety Symbols

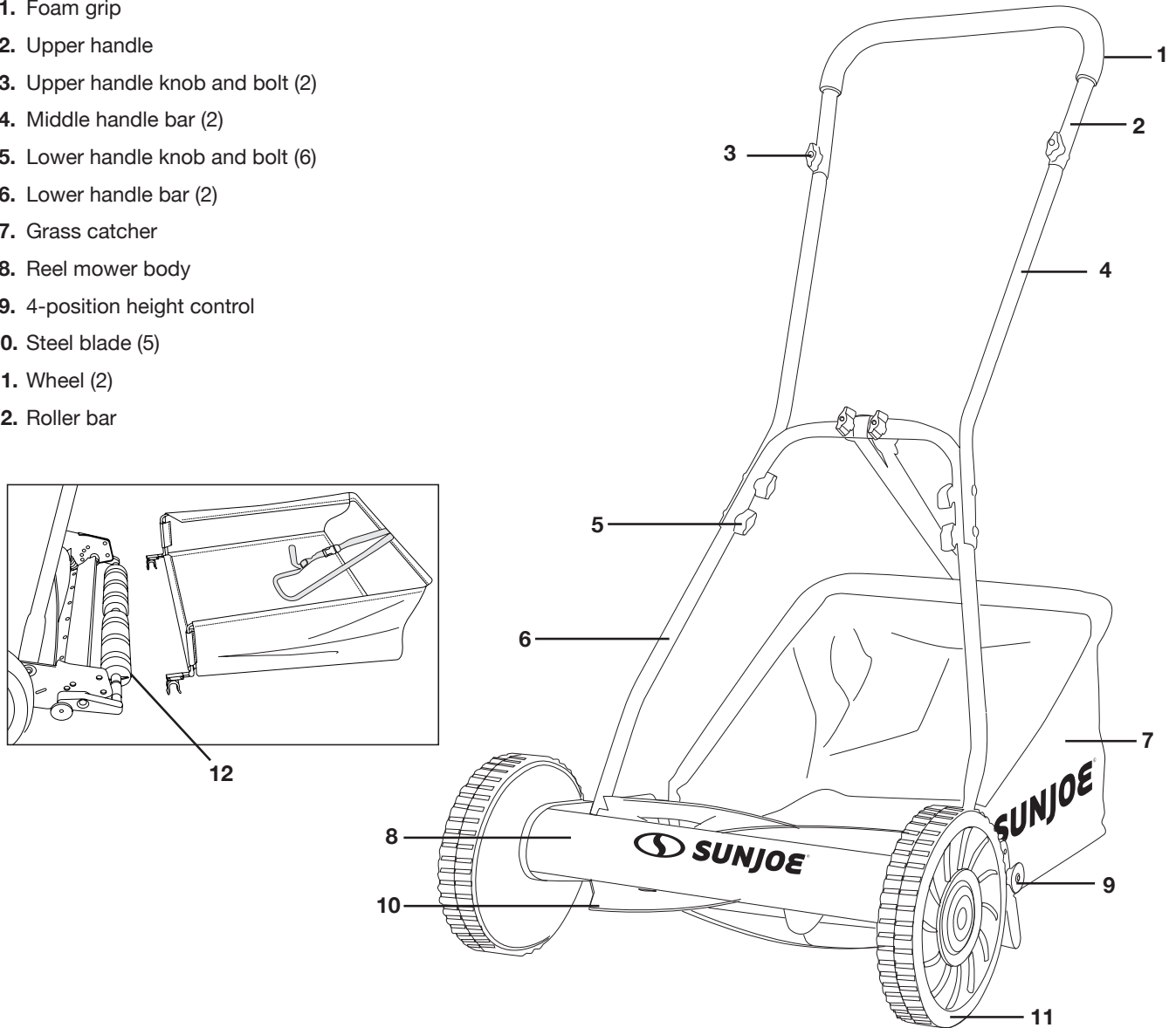
The following table depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbols	Descriptions	Symbols	Descriptions
	<b>READ THE OPERATOR'S MANUAL(S)</b> – Read, understand, and follow all instructions in the user manual(s) before attempting to assemble and operate.		<b>CAUTION!</b> Beware of stones and other foreign objects that could be thrown from the appliance.
	<b>SAFETY ALERT</b> – Indicates a precaution, a warning, or a danger.		<b>Slip on slope hazard</b> – Use extra caution when mowing on slopes to prevent slip and fall accidents.
	<b>DANGER!</b> Cutting/dismemberment hazard – Keep feet away from the rotating blades.		Keep bystanders and children a safe distance away.
	<b>DANGER!</b> Sharp blades can sever fingers and toes. Keep away from the cutting area.		<b>DANGER!</b> Cutting/dismemberment hazard – Keep hands away from the rotating blades.

# Know Your Manual Reel Mower

Read the owner's manual and safety instructions carefully before operating the reel mower. Compare the illustration below to the reel mower in order to become familiar with the location of the various controls and adjustments. Save this manual for future reference.

1. Foam grip
2. Upper handle
3. Upper handle knob and bolt (2)
4. Middle handle bar (2)
5. Lower handle knob and bolt (6)
6. Lower handle bar (2)
7. Grass catcher
8. Reel mower body
9. 4-position height control
10. Steel blade (5)
11. Wheel (2)
12. Roller bar



## Technical Data

Rotor.....	5 steel blades	Grass Catcher Capacity .....	6.6 gal (25 l)
Cutting Width .....	16 in. (40.6 cm)	Height Control .....	4-position manual height adjustment
Cutting Height .....	0.47 in. – 1.57 in. (12 mm – 40 mm)	Weight .....	22 lbs (10 kg)
Wheel Size .....	Front: 9 in. (22.9 cm) Back: 18 in L (45.7 cm L) roller bar		

# Unpacking

## Carton Contents:

- Reel mower body
- Upper handle
- Middle handle bar (2)
- Lower handle bar (2)
- Handle knob and bolt (8)
- Grass catcher
- Hex wrench
- Paper test strips (20)
- Manual with registration card

1. Carefully remove the manual reel mower and check to see that all of the above items are supplied.
2. Inspect the product carefully to make sure no breakage or damage occurred during shipping. If you find damaged or missing parts, DO NOT return the unit to the store. Please call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

**NOTE:** Do not discard the shipping carton and packaging material until you are ready to use your new manual reel mower. The packaging is made of recyclable materials. Properly dispose of these materials in accordance with local regulations.

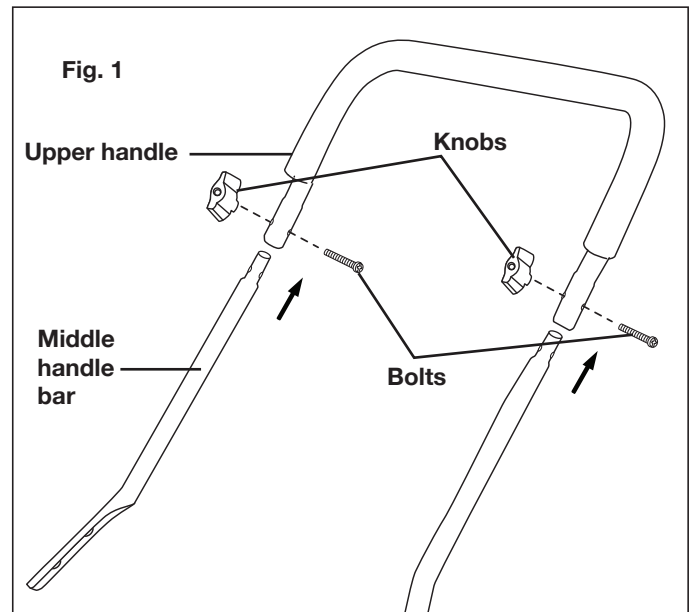
**IMPORTANT!** The equipment and packaging material are not toys. Do not let children play with plastic bags, foils, or small parts. These items can be swallowed and pose a suffocation risk!

# Assembly

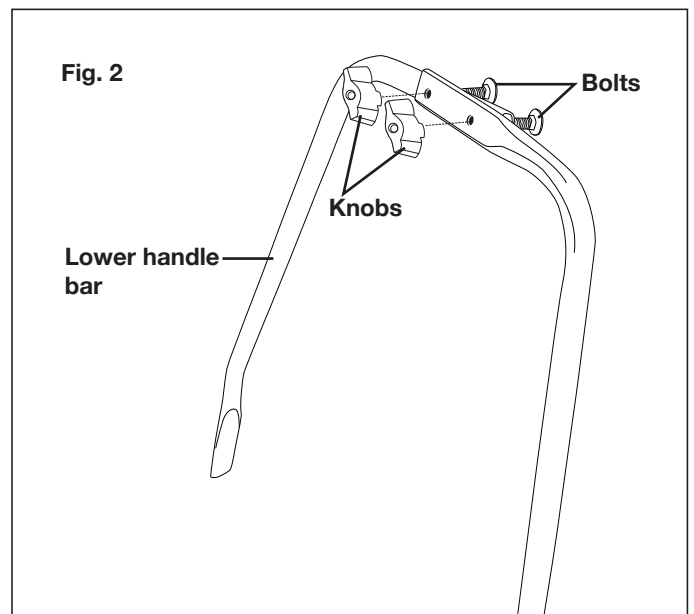
## Fitting the handle

**NOTE:** Do not tighten the knobs completely until assembly is complete.

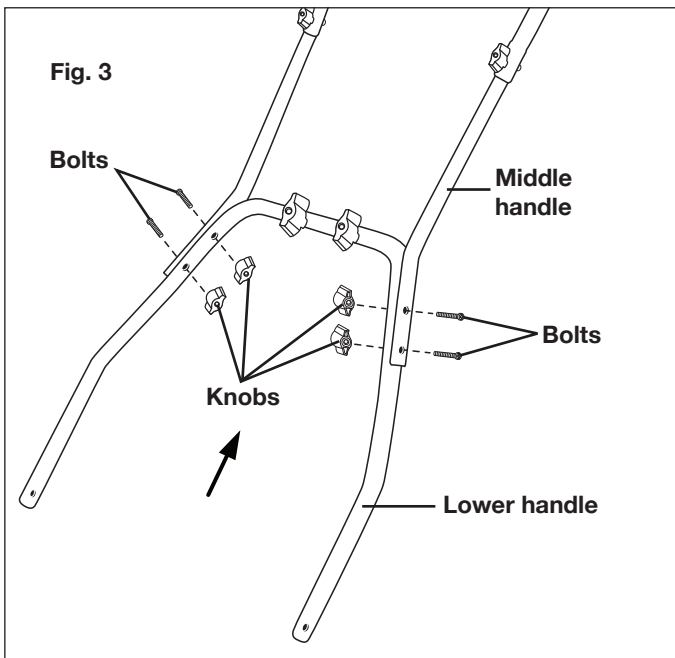
1. Secure the two middle handle bars to the upper handle using the first set of knobs and bolts provided. Tighten the knobs on each side to ensure a secure fit (Fig. 1).



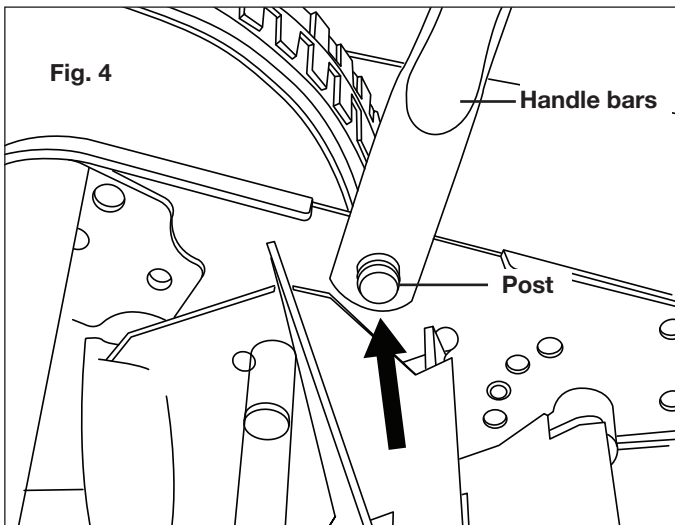
2. Connect the two pieces of the lower handle bars using the second set of knobs and bolt provided. Tighten the knobs on each side to ensure a secure fit (Fig. 2).



- Attach the upper and middle handle assembly to the lower handle using the remaining knobs and bolts provided. Tighten the knobs on each side to ensure a secure fit (Fig. 3).



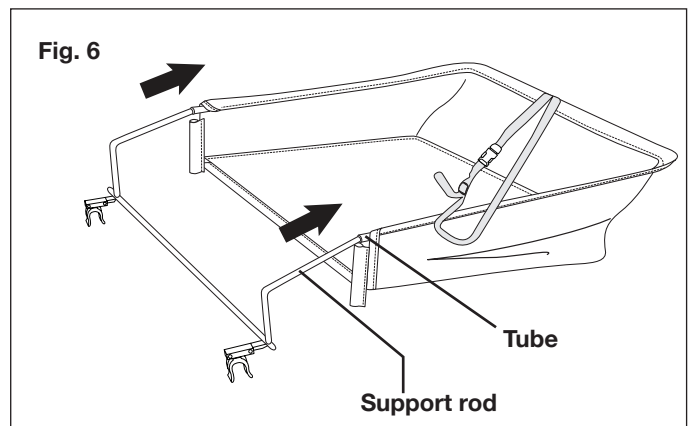
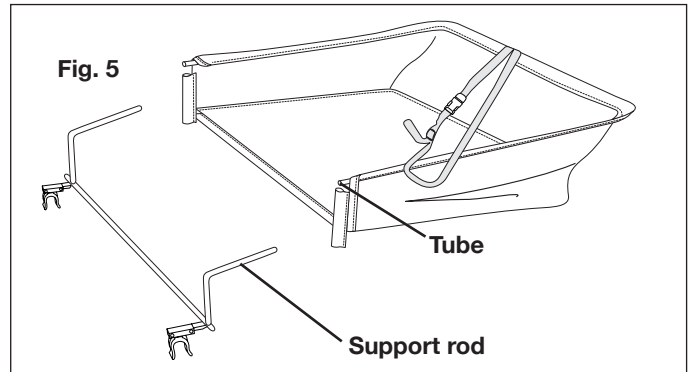
- After assembling the handle, line up the holes at the lower end of each handle arm with the short posts that extend out from the side plates of the mower base (Fig. 4).



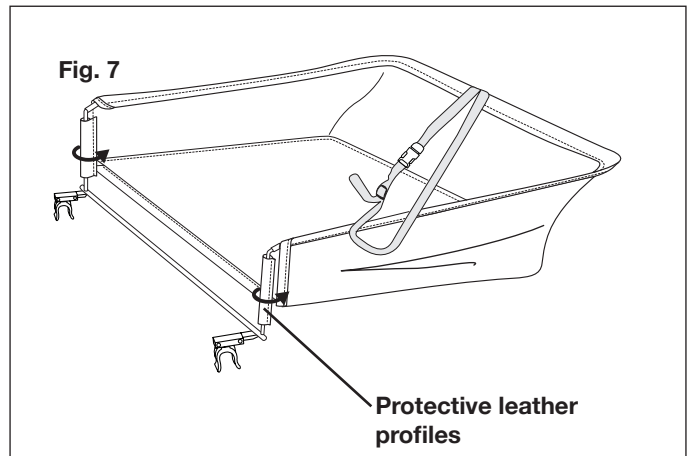
- Pull both sides of the lower handle bars over the posts on the mower body. Press inward on the handle bars to ensure a secure fit over the posts.

## Assembling and attaching the grass catcher

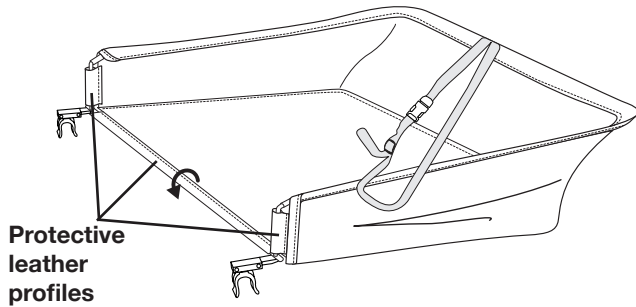
- Fit the support rod into the tube of the grass catcher (Figs. 5 & 6).



- Clip the protective leather profiles onto the support rod (Figs. 7 & 8).

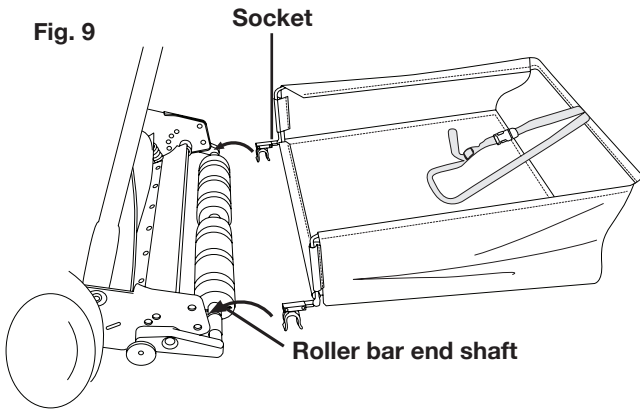


**Fig. 8**



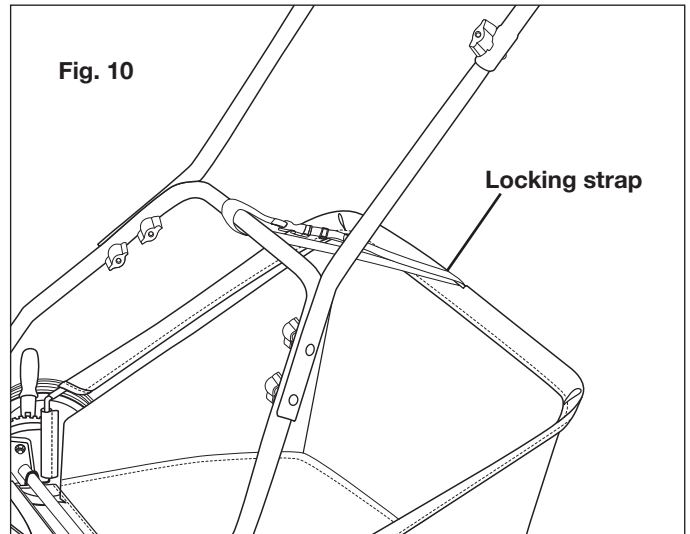
3. Hook the assembled grass catcher onto the mower by connecting the sockets to both ends of the roller bar end shaft (Fig. 9).

**Fig. 9**



4. Secure the locking strap on the grass catcher to the center bar on the lower handle of the mower. Adjust the strap to an appropriate height so that the grass catcher does not rub against the ground while mowing or transporting the unit (Fig. 10).

**Fig. 10**



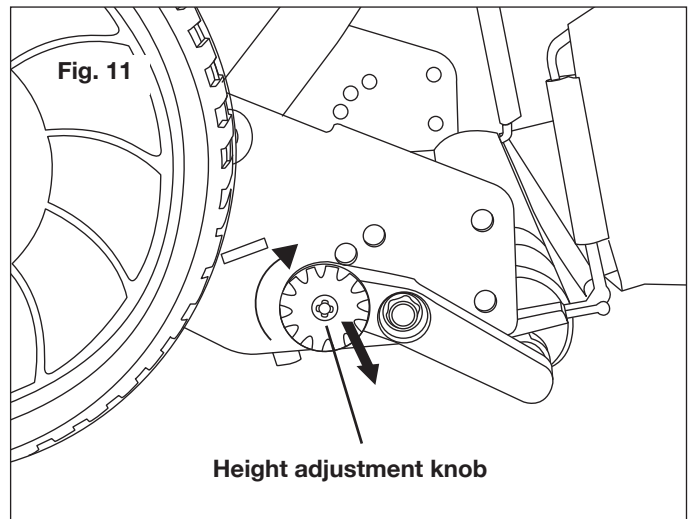
**NOTE:** If you have any questions, please call the Snow Joe® + Sun Joe® customer service department at 1-866-SNOWJOE (1-866-766-9563) for assistance.

## Operation

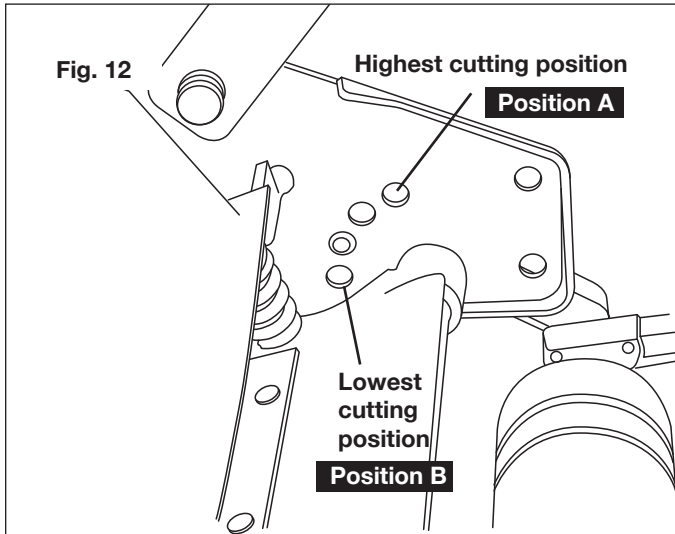
### Cutting height adjustment

1. The cutting height of the 16" (40.6 cm) reel mower can be adjusted from 0.47" to 1.57" (12 mm to 40 mm) using the 4 position settings on the roller assembly.
2. To adjust the cutting height, pull out the height adjustment knobs on both sides of the reel mower frame and rotate the knobs to the desired setting (Fig. 11).

**Fig. 11**



3. To adjust the reel to the highest cutting position, place the adjustment knobs through the top hole (position A) located on the side of the reel mower frame (Fig. 12).
4. To adjust the reel to the lowest cutting position, place the adjustment knobs through the bottom hole (position B) located on the side of the frame (Fig. 12).



5. Other cutting heights are achieved by moving the adjustment knobs to the settings between the highest and lowest positions.

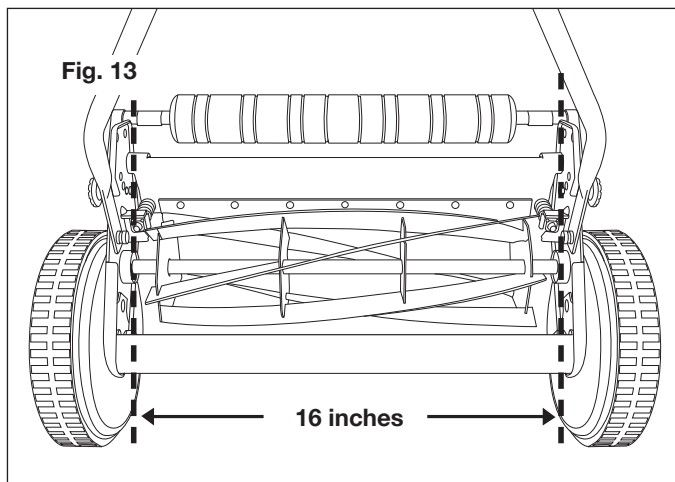
#### 4-Position Height Adjustment:

1. Low: 0.47 in. (12 mm)
2. Medium: 0.94 in. (24 mm)
3. Medium: 1.34 in. (34 mm)
4. High: 1.57 in. (40 mm)

The cutting height tolerance is +/- 0.12 in. (3 mm).

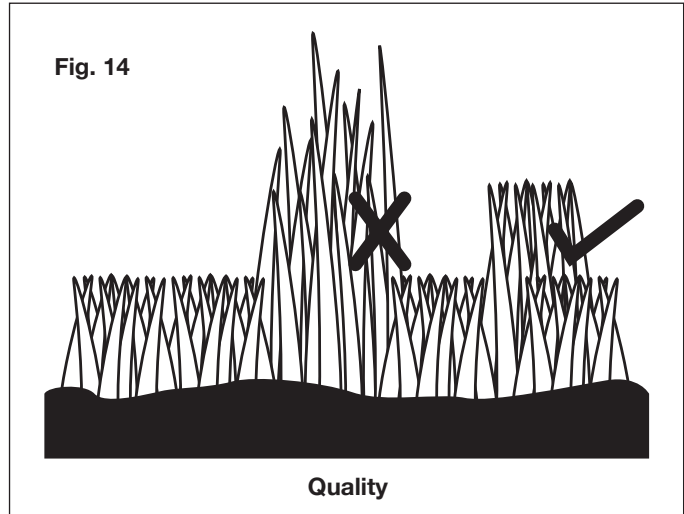
6. Align the cutting path indication arrow with the previously cut path (Fig. 13).

**NOTE:** The width of the reel mower's actual cut is indicated below. Do not use the mower's wheels as a reference point for the grass cut line.

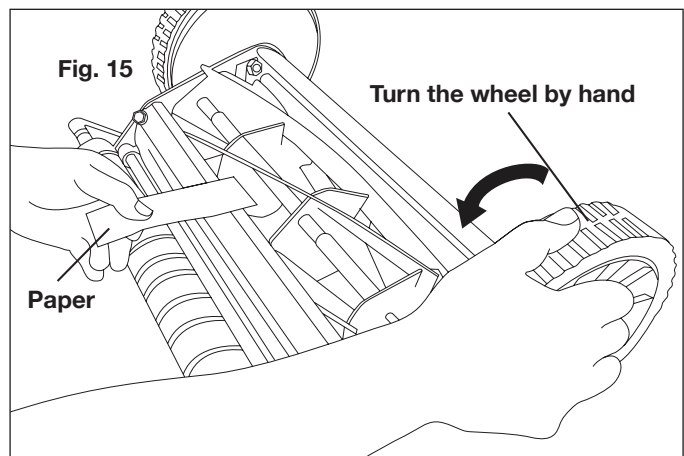


## Ensuring a clean cut

**⚠️ WARNING!** The steel blades are extremely sharp. To avoid injury, do not touch the blades while making adjustments. Misalignment of the blades can occur, which often results from blades that are either too loose or too tight. This can cause an uneven cut or difficulty pushing the mower (Fig. 14).



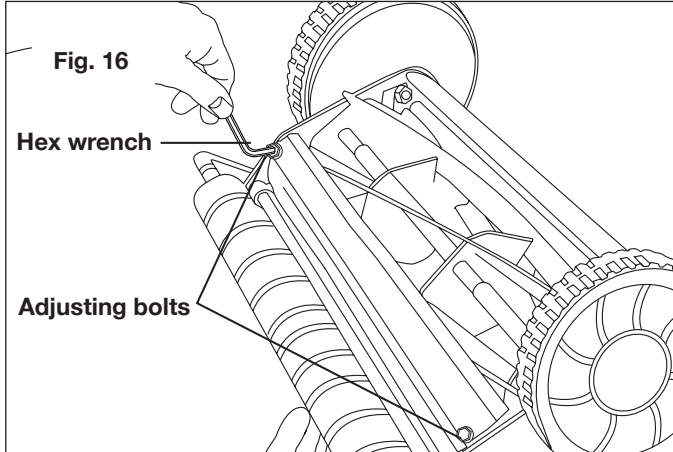
1. Place the mower on a flat surface. Remove the handles and the grass catcher. Turn the mower reel upside down to expose the cutting bar.
2. Using one of the twenty pieces of paper provided, insert one of these pieces of paper between the cutting bar and the reel blades, then slowly turn the wheel by hand (Fig. 15).



3. All the blades should slice the paper evenly along the entire length of the cutting bar while the reel is turned smoothly.



- If the mower cuts the paper intermittently, use the hex wrench provided to tighten the adjustment bolt closest to where the intermittent cut was observed. Tighten the bolt on the appropriate end of the cutting bar by turning it clockwise approximately 1/8<sup>th</sup> of a turn until the reel blades make contact (Fig. 16).



- If it becomes too difficult to move the wheel by hand while adjusting the reel blades, back off the adjustment bolt slightly by turning it counterclockwise. Test again with a new piece of paper to verify proper cutting action.
- Make the same adjustment at the other end of the cutting bar.

**⚠️ WARNING!** Both adjustment bolts should have tension on final adjustment. Do not overtighten the adjustment bolts as this could damage the cutting bar.

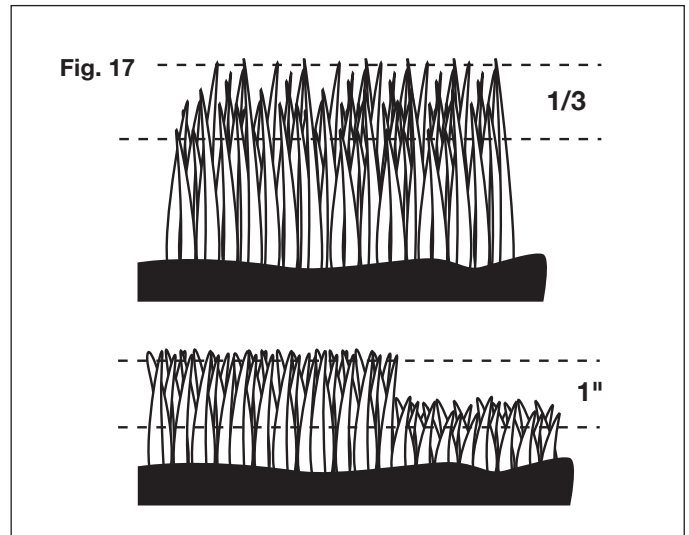
**NOTE:** If you have any questions, please call the Snow Joe® + Sun Joe® customer service department at 1-866-SNOWJOE (1-866-766-9563) for assistance.

## Mowing Tips

### Follow the 1/3 rule

The 1/3 rule is key to an enjoyable mowing experience and a healthy lawn.

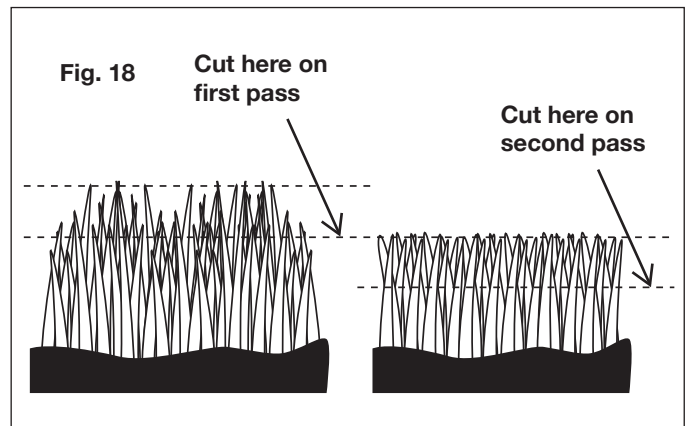
- You should mow your lawn regularly, at least once a week during the growing season.
- Be guided by observing the lawn and taking care not to remove more than 1/3 of the total height of the turf at any mowing session and never more than 1 inch at a time (Fig. 17).



- Following this rule will stimulate the turf's root growth, maintain its health, and encourage its natural ability to crowd out unwanted weeds.

### Tall grass requires incremental cutting

- For extremely tall grass, set the cutting height at the mower's maximum setting for the first pass, and then reset it to the desired height and mow a second or third time (Fig. 18).



2. Removing too much of the turf's height, especially in the heat of summer, can cause root shock and weaken the lawn; bringing down the height by successive mowing over two or more days can avoid this damage and maintain the health of the turf.
3. If the lawn is overgrown (to higher than 4 inches) it may be necessary to use a brush cutter to remove the excess turf mass before resuming mowing at normal heights.

**NOTE:** Do not cover the grass surface with a heavy layer of clippings. Consider using a grass collection system and starting a compost pile.

## Care and Maintenance

1. Minimum care is required to ensure smooth operation of your mower.
2. To avoid damage to the mower or cutting blades, keep the area to be mowed free from debris.
3. For best results, regularly apply lubricant to the mower's cutting surfaces, cutting reel axle shaft, and wheels.

## Sharpening the Cutting Blades

1. Spread a thin layer of lapping compound on the front edge of the reel blades.
2. Adjust the cutting bar so that the blade has light but firm contact across the full width of the cutting bar.

**⚠ CAUTION!** Do not overtighten the adjusting screws, as this could damage the cutting bar. Tighten both screws during final adjustment.

3. Turn the reel blades until the front edge of the cutting bar blade is polished.

**⚠ WARNING!** Clean any grinding compound or debris from the cutting bar blade, reel blade, pinions, and pawls.

**NOTE:** Use industrial or valve lapping compound between 100 and 240 grit. Lubricate the axle and pinion with a light film of wheel bearing grease.

## Cleaning and Storage

1. Clean the exterior of the machine thoroughly using a soft brush and cloth before storing. Do not use water, solvents, or polishes.
2. Turn the mower on its side to clean the blade area.

**⚠ WARNING!** Do not place your hands inside or near the cutting area. If grass cuttings are compacted in the blade area, remove them using a wood or plastic cleaning tool appropriate for blade cleaning.

3. Store the mower in a dry place. Do not place other objects on top of the mower during storage.

## Maintenance Tips

Reel mowers are relatively low maintenance. For consistent cutting, follow the below instructions:

- Always keep the cutting bar properly adjusted. Refer to the instruction manual for further directions.
- Regularly clean and lubricate cutting edges with light spray oil.

**IMPORTANT!** Reel mowers have difficulty cutting tall weeds, such as dandelions, and will often bend, rather than cut, such weeds. Cut often to prevent this.

## Service and Support

If your Sun Joe® manual reel mower requires service or maintenance, please call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

## Model and Serial Numbers

When contacting the company or reordering parts, you will need to provide the model and serial numbers of your product. These are found on the decal affixed to the housing or handle of your reel mower with grass catcher. Copy these numbers into the space provided below.

Record the following numbers from the housing or handle of your new product:																			
															Model #:				
M	J	5	0	0	M														
															Serial #:				



## SNOW JOE® + SUN JOE® CUSTOMER PROMISE

**ABOVE ALL ELSE**, Snow Joe® + Sun Joe® are dedicated to you, our customer. We strive to make your experience as pleasant as possible. Unfortunately, there are times when a product does not work or breaks under normal operating conditions. We think it's important that you know what you can expect from us. That's why we created the Snow Joe® + Sun Joe® promise.

**OUR PROMISE:** Snow Joe® + Sun Joe® warrant new products for two years from the date of purchase. If your product does not work, or there's an issue with a specific part, we will fix this by either sending you a free replacement part or by sending you a new or comparable product at no charge. How cool is that! Before you know it, you'll be back in action cutting, sawing, mowing, washing and...?

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### PRODUCT REGISTRATION:

Snow Joe®, LLC ("Snow Joe® + Sun Joe®") strongly encourages you to register your purchase. You can register online at [snowjoe.com/ProductRegistration](http://snowjoe.com/ProductRegistration), or by printing and mailing in a registration card available online from our website, or calling our Customer Service Department at **1-866-SNOWJOE (1-866-766-9563)**, or by e-mailing us at [help@snowjoe.com](mailto:help@snowjoe.com). Failure to register your product purchase will not diminish your warranty rights. However, registering your purchase will allow Snow Joe® + Sun Joe® to better serve you with any of your customer service needs.

### WHO CAN SEEK WARRANTY COVERAGE?

This Warranty is extended by Snow Joe® + Sun Joe® to the owner of this new product for residential and personal household use only. This Warranty does not apply to products used for commercial, rental or re-sale purposes. Should ownership of this product change during the 2-year period, please update the product's owner information at [snowjoe.com/ProductRegistration](http://snowjoe.com/ProductRegistration).

### WHAT IS COVERED?

Snow Joe® + Sun Joe® warrants to the owner that if this product fails within 2 years from the date of purchase due to a defect in material or workmanship or as a result of normal wear and tear from ordinary household use, Snow Joe® + Sun Joe® will send a replacement part or product, as needed, free of charge and with free shipping to the original purchaser.

If, in Snow Joe® + Sun Joe®'s sole discretion, the failed product cannot be repaired with a part, Snow Joe® + Sun Joe® will elect to either (A) send a new product at no charge and with free shipping or (B) refund the full purchase price to the owner.

### WHAT IS NOT COVERED?

This Warranty does not apply to products that have been used commercially or in non-household applications. This Warranty does not cover cosmetic changes that do not affect performance.

This Warranty is only valid if the product is used and maintained in accordance with the instructions, warnings and safeguards contained in the owner's manual. Snow Joe® + Sun Joe® will not be responsible for the cost of any unauthorized warranty repairs. This warranty does not cover any cost or expense incurred by the purchaser in providing substitute equipment or service during reasonable periods of malfunction or non-use of this product while waiting for a replacement part or unit under this warranty. Wearing parts like belts, augers, chains and tines are not covered under this warranty, and can be purchased at [snowjoe.com](http://snowjoe.com) or by calling **1-866-SNOWJOE (1-866-766-9563)**. Batteries are covered in full for 90-days from the date of purchase.

Repair, replacement or refund of the purchase price are the exclusive remedies of purchaser and the sole liability of Snow Joe® + Sun Joe® under this warranty. No employee or representative of Snow Joe® + Sun Joe® is authorized to make any additional warranty or any modification to this warranty which may be binding upon Snow Joe® + Sun Joe®. Accordingly, purchaser should not rely upon any additional statements made by any employee or representative of Snow Joe® + Sun Joe®. In no event, whether based on contract, indemnity, warranty, tort (including negligence), strict liability or otherwise, shall Snow Joe® + Sun Joe® be liable for any special, indirect, incidental, or consequential damages, including, without limitation, loss of profit or revenue.

Some states do not allow limits on warranties. In such states, the above limitations may not apply to you.

Outside the USA, other warranties may apply.



[snowjoe.com](http://snowjoe.com)