



OPERATOR'S MANUAL

A Division of Snow Joe®, LLC

MANUAL QUAD-WHEEL REEL MOWER
20-INCH | GRASS CATCHER | RAZOREEL

Model MJ502M-RM

Form No. SJ-MJ502M-RM-880E-V1

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OF A REMANUFACTURED PRODUCT.**

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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.

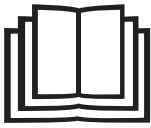







- Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- Stay alert and stop the reel mower if a child enters the area.
- Never allow children access to the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects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

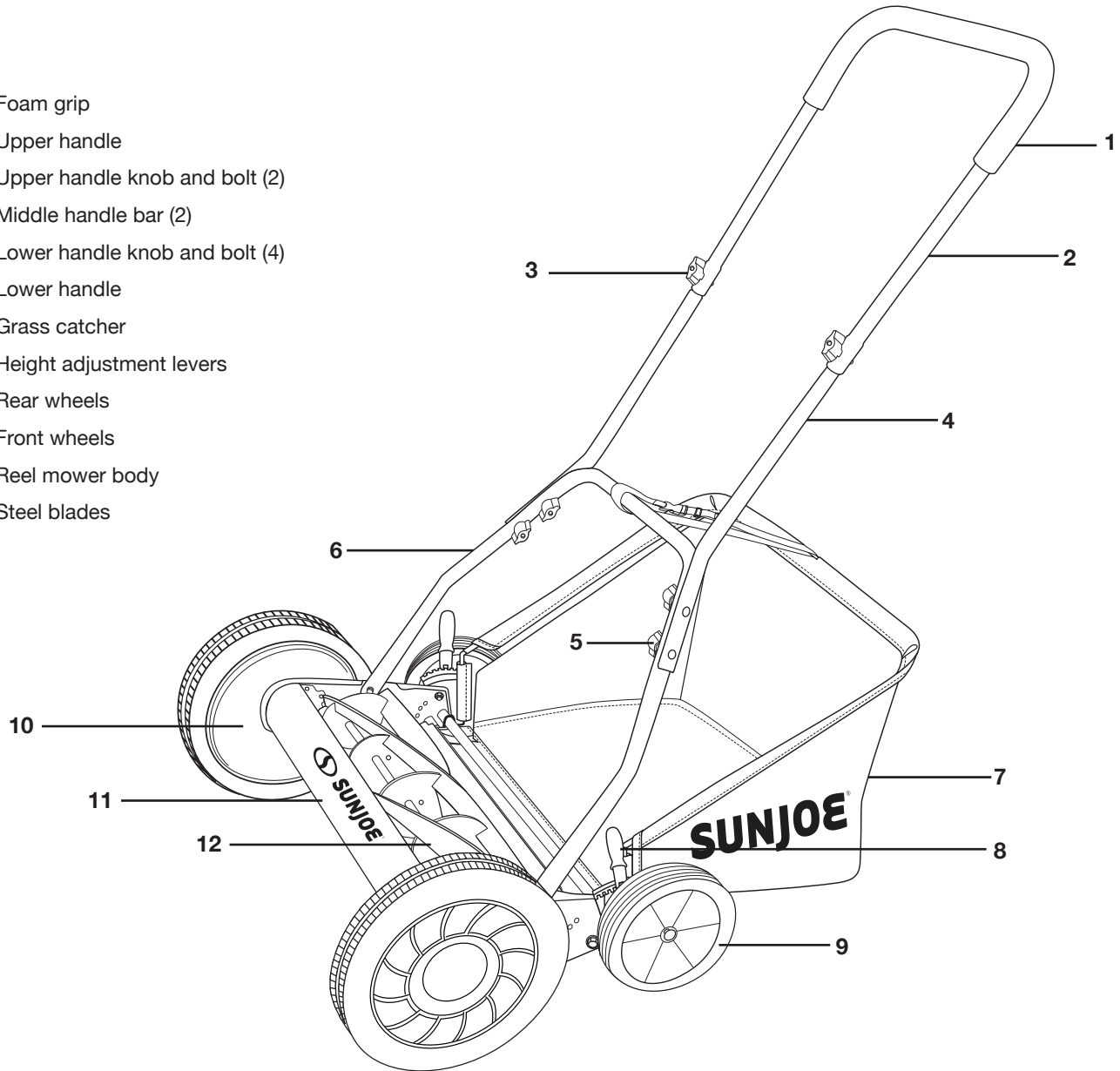
The following table depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbols	Descriptions	Symbols	Descriptions
	READ THE OPERATOR'S MANUAL(S) – Read, understand, and follow all instructions in the user manual(s) before attempting to assemble and operate.		CAUTION! Beware of stones and other foreign objects that could be thrown from the appliance.
	SAFETY ALERT – Indicates a precaution, a warning, or a danger.		Slip on slope hazard – Use extra caution when mowing on slopes to prevent slip and fall accidents.
	DANGER! Cutting/dismemberment hazard – Keep feet away from the rotating blades.		Keep bystanders and children a safe distance away.
	DANGER! Sharp blades can sever fingers and toes. Keep away from the cutting area.		DANGER! 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 (4)
6. Lower handle
7. Grass catcher
8. Height adjustment levers
9. Rear wheels
10. Front wheels
11. Reel mower body
12. Steel blades



Technical Data

Rotor	5 steel blades	Grass Catcher Capacity	8.5 gal (32 l)
Cutting Width	20 in (50.8 cm)	Height Control	9-position manual height adjustment
Cutting Heights	1.2 in. – 2.4 in. (3 cm – 6.1 cm)	Weight	30.3 lbs (13.8 kg)
Wheel Size	Front: 10 in. (25 cm) Rear: 6 in. (15 cm)		

Unpacking

Carton Contents:

- Reel mower body
- Upper handle
- Middle handle bar (2)
- Lower handle
- Handle knob and bolt (6)
- 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.

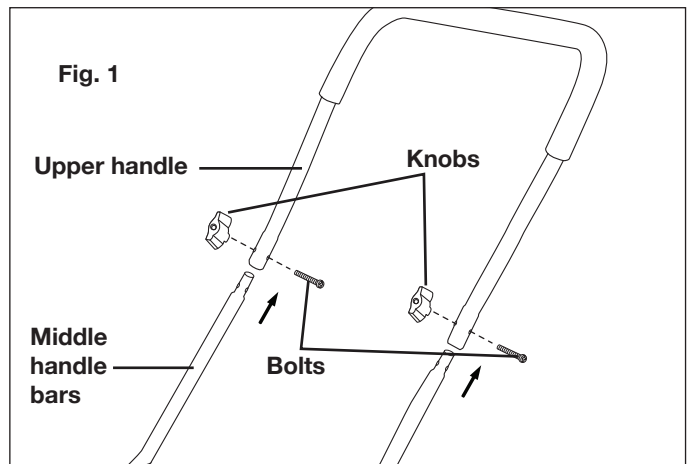
IMPORTANT! The equipment and packaging material are not toys. Do not let children play with plastic bags, foils, or small parts. These items can be swallowed and pose a suffocation risk!

Assembly

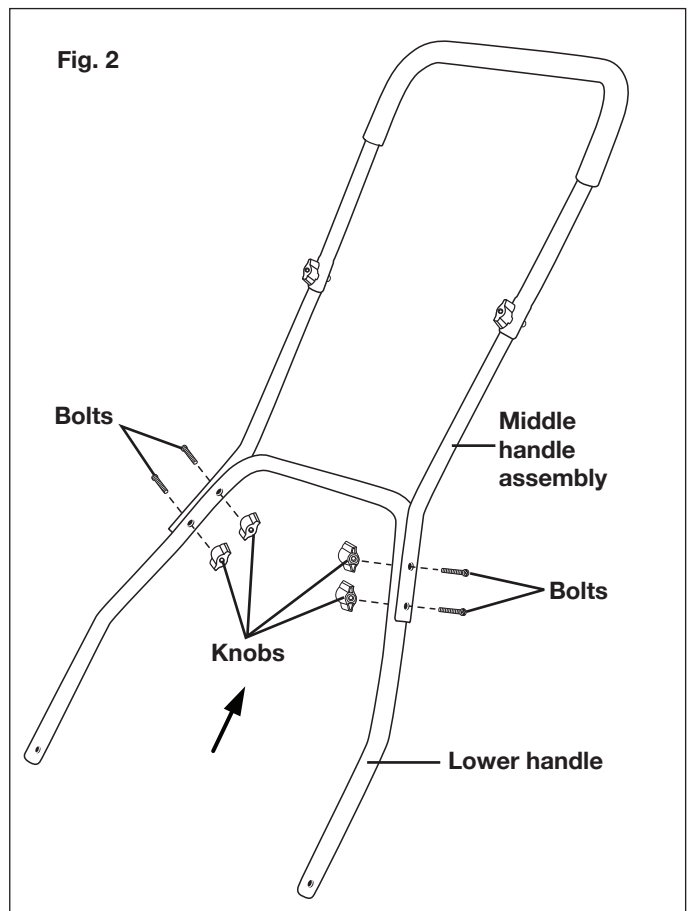
Fitting the handle

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

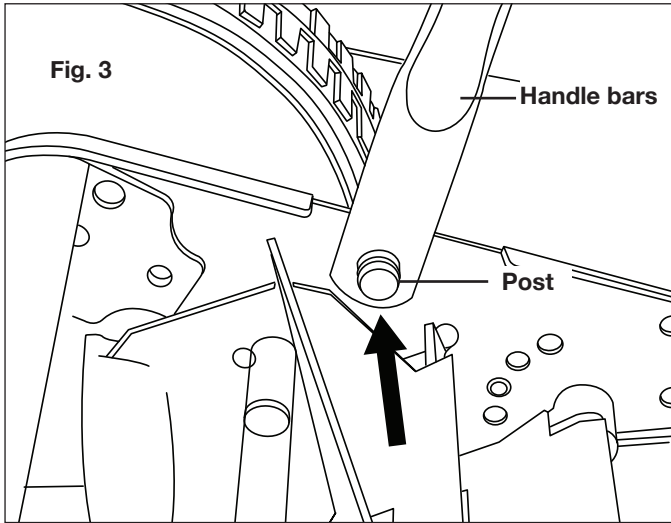
1. Secure the two middle handle bars to the upper handle using the first set of knobs and bolts provided. Tighten the knobs on each side to ensure a secure fit (Fig. 1).



2. 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. 2).



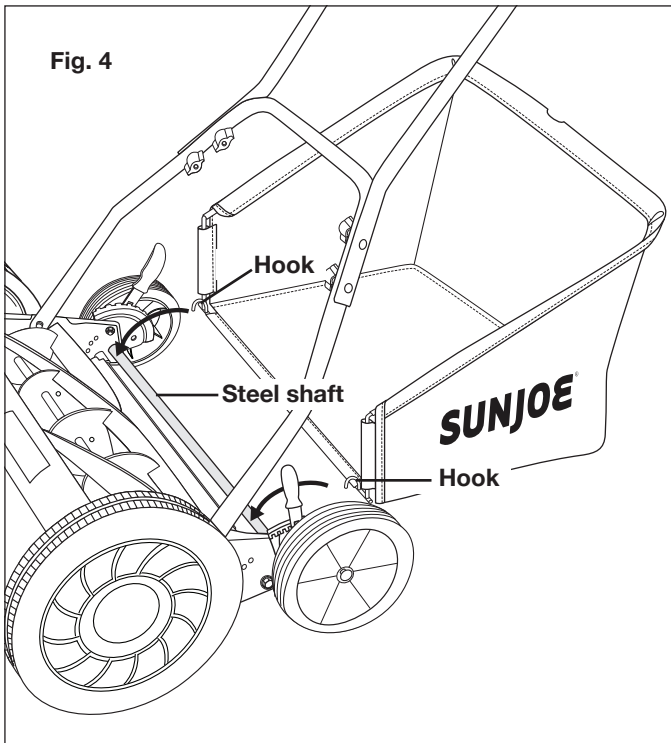
- 3 After assembling the handle, line up the holes at the lower end of each handle arm with the short posts that extend from the side plates of the mower base (Fig. 3).



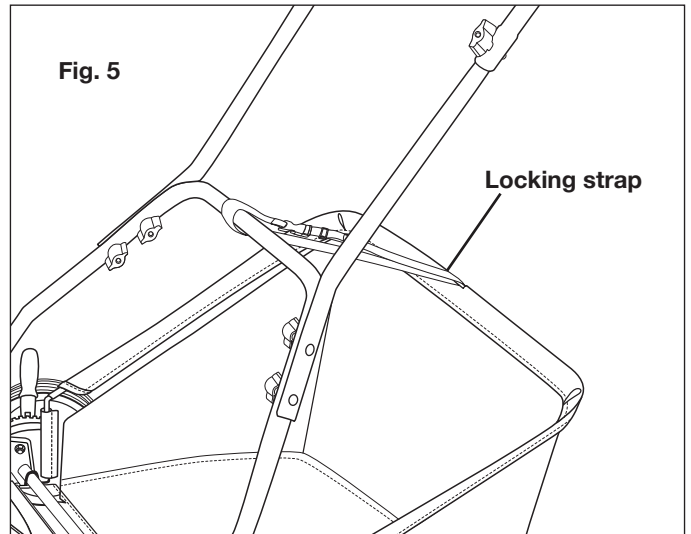
- 4 Pull both sides of the lower handle bars over the posts on the mower body. Press inward on the handle bars to ensure a secure fit over the posts.

Fitting the grass catcher

1. Hook the pre-assembled grass catcher onto the mower body by connecting the hooks to both ends of the steel shaft (Fig. 4).



2. 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. 5).



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.

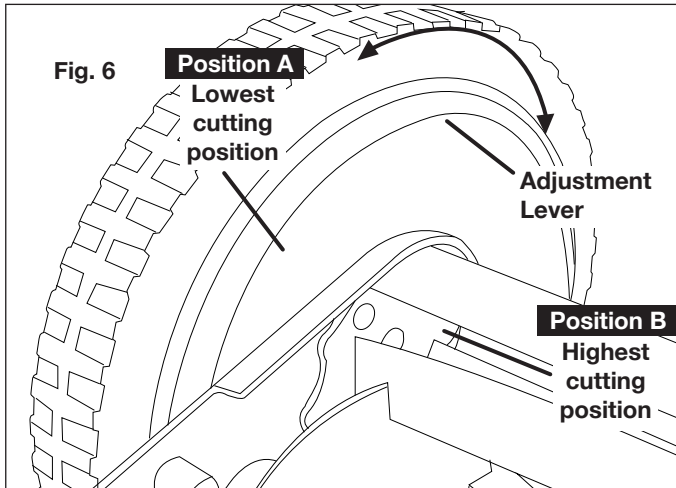
Operation

Cutting height adjustment

1. The cutting height of the 20" (50.8 cm) reel mower can be adjusted from 1.2" to 2.4" (3.0 to 6.1 cm) by moving the 9-position height adjustment levers to the desired setting. The height adjustment levers are located next to the smaller wheels.
2. In order to set the mower to its lowest cutting position, pull the adjustment levers on both sides, one at a time, and set them to position A (Fig. 6).

3. In order to set the mower to its highest cutting position, move the adjustment levers on both sides to position B (Fig. 6).

NOTE: The two adjustment levers MUST be set to the same position (height).



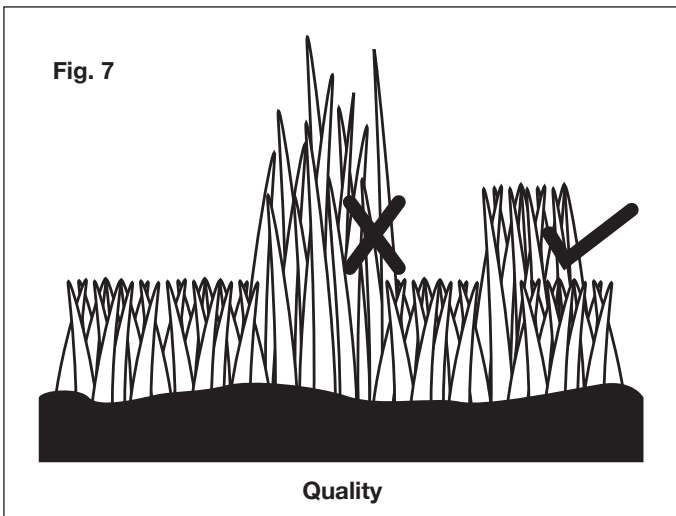
4. Other cutting heights are achieved by moving the adjustment levers to the settings between the highest and lowest positions.

Ensuring a clean cut

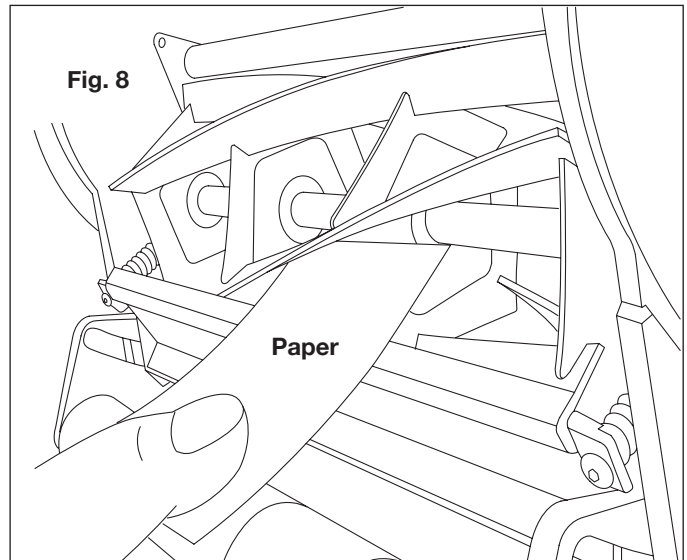
⚠ WARNING! The steel blades are extremely sharp. To avoid injury, do not touch the blades while making adjustments.

NOTE: Although the blades are pre-adjusted prior to leaving the factory, it is recommended that the adjustment be verified prior to first use.

NOTE: Vibrations during shipping can cause blade misalignment, which often causes the blades to become too loose or too tight. This will result in a rough, uneven cut, or make the mower difficult to push (Fig. 7).



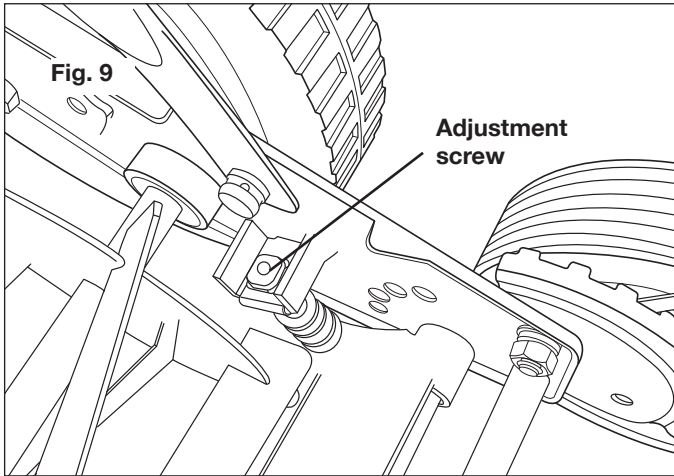
1. To verify proper blade alignment, place the mower on a flat surface. Remove the handles and the grass catcher. Turn the mower reel upside down to expose the cutting bar.
2. Using one of the twenty (20) pieces of paper provided, insert one of these pieces of paper between the cutting bar and the reel blades, then slowly turn the wheel by hand (Fig. 8).



3. All the blades should slice the paper evenly along the entire length of the cutting bar while the reel is turned smoothly.
4. If the mower cuts the paper intermittently, adjustment should be made to the appropriate side of the blades to achieve optimal cutting performance.

Adjusting the mower blades

1. Each end of the cutting bar can be adjusted separately.
2. The cutting bar blade, which is located under the reel, is able to pivot. The two adjustment nuts located at the back of the mower move the cutting bar away from the blades when they are turned counterclockwise, and closer to the blades when they are turned clockwise (Fig. 9).



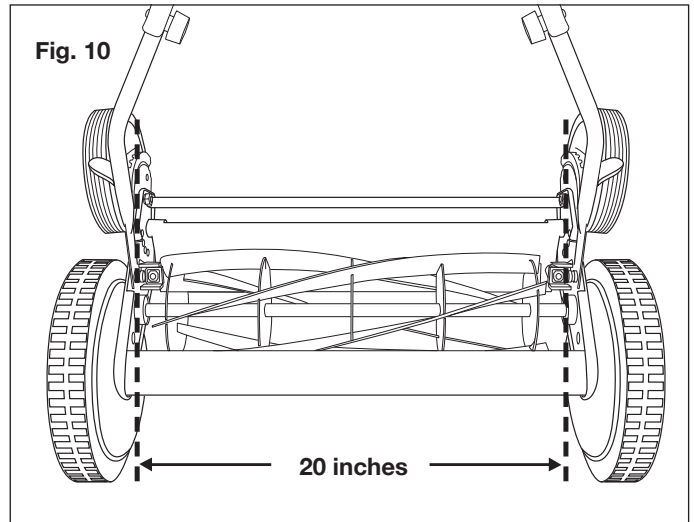
⚠ WARNING! Do not overtighten the adjustment screws as this could damage the cutting bar. Both screws must be tight on final adjustment.

3. To loosen the blades, use the hex wrench provided and turn both adjustment screws by an equal amount counterclockwise.
4. To tighten the blades, tighten both screws by an equal amount by turning them clockwise.

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.

5. Once the mower blades have been properly adjusted and their alignment has been verified, you can now proceed to use your reel mower. Align the cutting path indication arrow with the previously cut path (Fig. 10).

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.

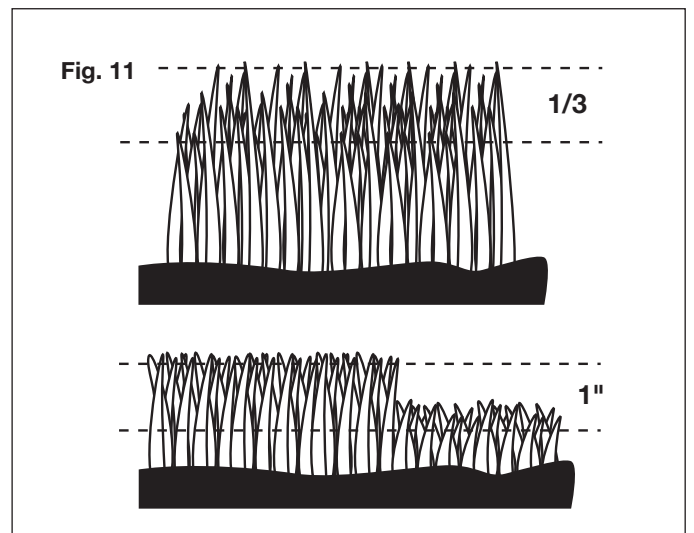


Mowing Tips

Follow the 1/3 rule

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

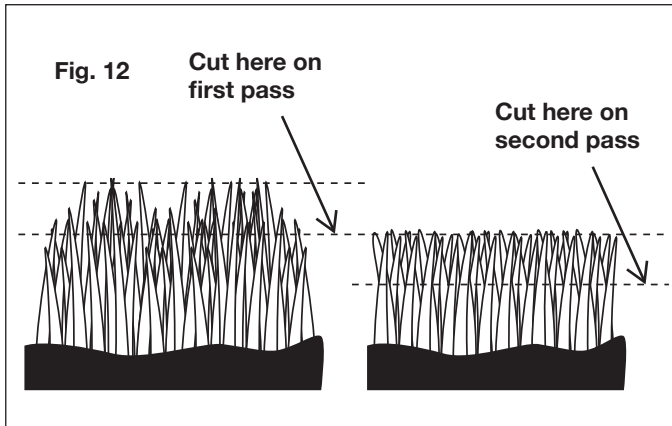
1. You should mow your lawn regularly, at least once a week, during the growing season.
2. Be guided by observing the lawn and taking care not to remove more than 1/3 of the total height of the turf at any mowing session and never more than 1 inch at a time (Fig. 11).



- 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. 12).



- 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.
- 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

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

Sharpening the Cutting Blades

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

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

- 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.

NOTE: Lubricate the axle and pinion with a light film of wheel bearing grease.

Cleaning and Storage

- Clean the exterior of the machine thoroughly using a soft brush and cloth before storing. Do not use water, solvents, or polishes.

- 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.

- 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 with grass catcher 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 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 2 M - R M _____

Serial #: _____



SNOW JOE® + SUN JOE® REFURBISHED GOODS WARRANTY

GENERAL CONDITIONS:

Snow Joe® + Sun Joe® operating under Snow Joe®, LLC warrants this refurbished product to the original purchaser for 90 days against defects in material or workmanship when used for normal residential purposes. If a replacement part or product is needed, it will be sent free of charge to the original purchaser except as noted below.

The duration of this warranty applies only if the product is put to personal use around the household. It is the owner's responsibility to correctly perform all maintenance and minor adjustments explained in the owner's manual.

HOW TO OBTAIN YOUR REPLACEMENT PART OR PRODUCT:

To obtain a replacement part or product, please visit snowjoe.com/help or email us at help@snowjoe.com for instructions. Please be sure to register your unit beforehand to speed up this process. Certain products may require a serial number, typically found on the decal affixed to the housing or guard of your product. All products require a valid proof of purchase.

EXCLUSIONS:

- Wearing parts like belts, augers, chains and tines are not covered under this warranty. Wearing parts can be purchased at 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.

Snow Joe® + Sun Joe® may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating Snow Joe® + Sun Joe® to incorporate such design changes into previously manufactured products, nor shall such changes be construed as an admission that previous designs were defective.

This warranty is intended to cover product defects only. Snow Joe®, LLC is not liable for indirect, incidental or consequential damages in connection with the use or misuse of the Snow Joe® + Sun Joe® products covered by this warranty. 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. Some states do not allow exclusions of incidental or consequential damages so the above exclusions may not apply in all states. This warranty may give you specific legal rights in your state.

HOW TO REACH US:

We're here to help Monday through Friday from 9AM to 6PM EST. You can reach us at 1-866-SNOWJOE (1-866-766-9563), online at snowjoe.com, via email at help@snowjoe.com or tweet us @snowjoe.

EXPORTS:

Customers who have purchased Snow Joe® + Sun Joe® products exported from the United States and Canada should contact their Snow Joe® + Sun Joe® distributor (dealer) to obtain information applicable to your country, province or state. If for any reason, you are not satisfied with the distributor's service, or if you have difficulty obtaining warranty information, contact your Snow Joe® + Sun Joe® seller. If in the event your efforts are unsatisfactory, please reach out to us directly.



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⚠️WARNING! This product or its power cord contains chemicals, including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling. For more information go to www.P65Warnings.ca.gov.

⚠️WARNING! Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known [to the State of California] to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specifically designed to filter out microscopic particles. For more information go to www.P65Warnings.ca.gov.