

## PRODUCT SPECIFICATIONS

Rotor:	5 Steel blades
Cutting width:	18" (45.8 cm)
Cutting heights:	1.1" – 3.2" (2.7 cm – 8.2 cm)
Wheel size:	Front: 10" (25 cm) Rear: 6" (15 cm)
Height control:	5-Position manual height adjustment
Weight:	34.6 lbs (15.7 kg)

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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 our customer support center at 866-332-2464.

## **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.

## **SAVE THESE INSTRUCTIONS**

### **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.

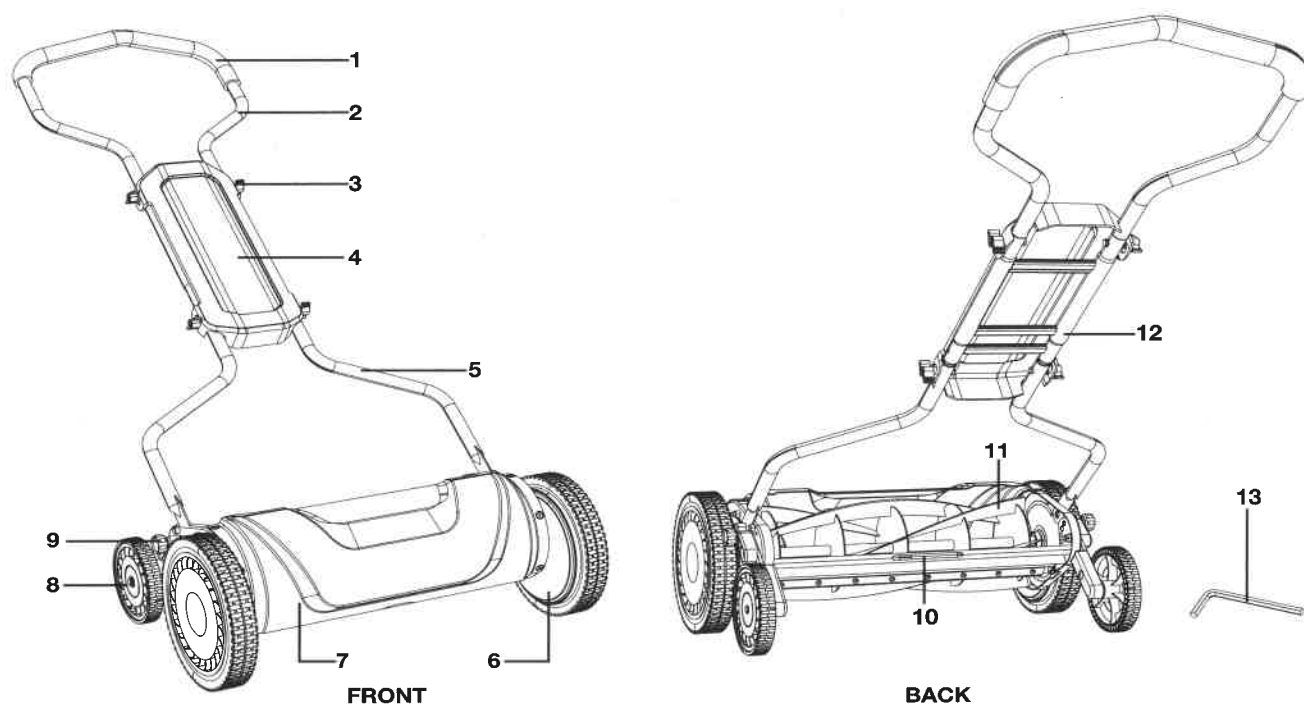
- Stay alert and stop the reel mower if a child enters the area.
- Never allow children access to the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

## **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.
- The mower blades are sharp. Wrap the blades or wear gloves when handling.
- Maintain or replace safety and instruction labels as needed.

## KNOW YOUR 18" PUSH 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 frame
3. Handle shield knobs (4)
4. Handle shield
5. Lower handlebar (2)
6. Front wheel (2)
7. Mower housing

8. Rear wheel (2)
9. Height adjustment lever (2)
10. Lifting handle
11. Steel blades
12. Middle handle frame
13. Allen wrench

### 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.

	<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.

## UNPACKING

### CARTON CONTENTS:

- Reel mower body with front wheels
- Rear wheels (2)
- Rear wheel bolt and washer (2)
- Allen wrench
- Upper handle frame
- Middle handle frame
- Lower handlebar (2)
- Handle shield
- Handle shield knobs (4)
- Handle shield bolts (4)
- Manual

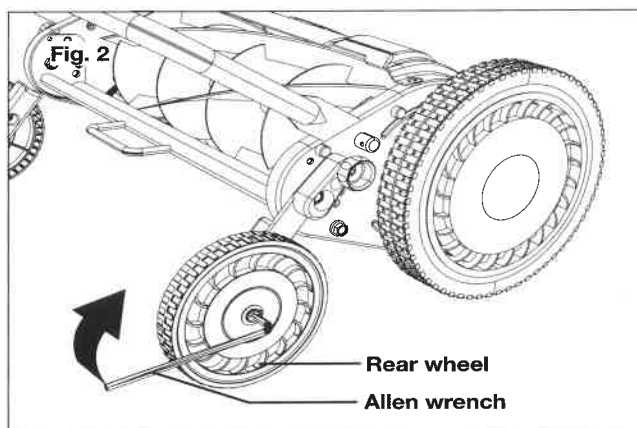
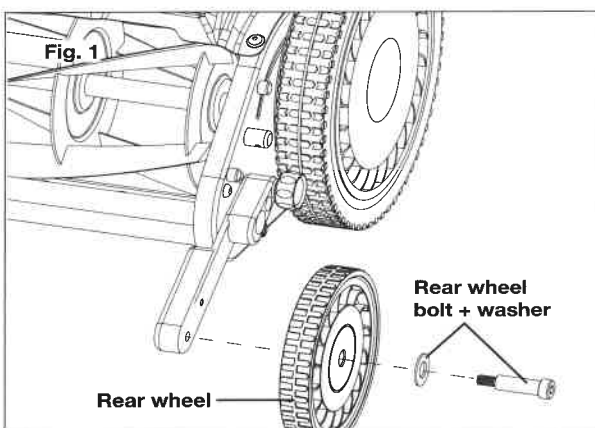
1. Carefully remove the manual reel mower and check to see that all of the above items are supplied.

2. Inspect the product carefully to make sure no breakage or damage occurred during shipping. If you find damaged or missing parts, missing parts, DO NOT return the unit to the store. Contact our customer support center at 866-332-2464.

**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



1. Align one rear wheel with the hole on the end of the mower body, and connect with one set of rear wheel washer and bolt, as shown (Fig. 1).

2. Use the supplied Allen wrench to secure the bolt (Fig. 2).

3. Repeat the above instructions for the other wheel.



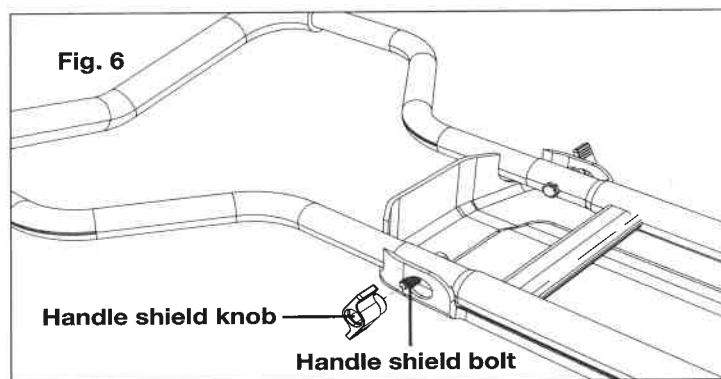
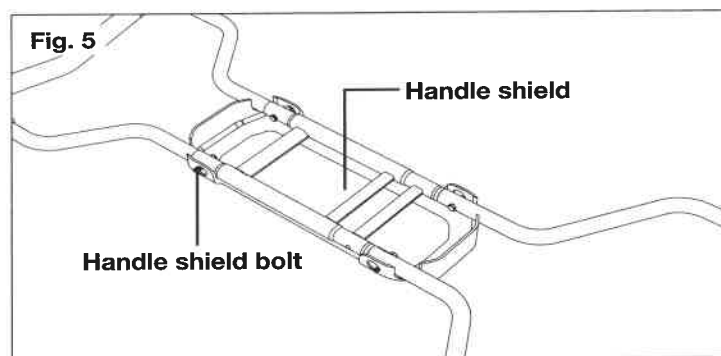
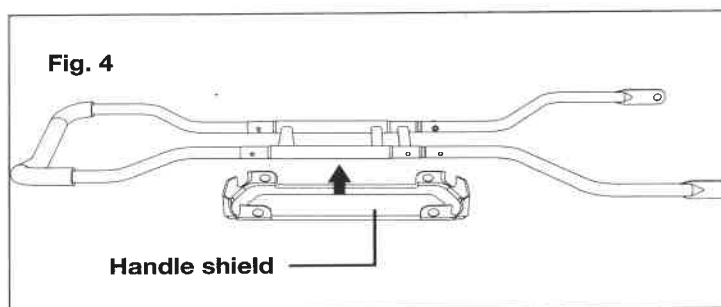
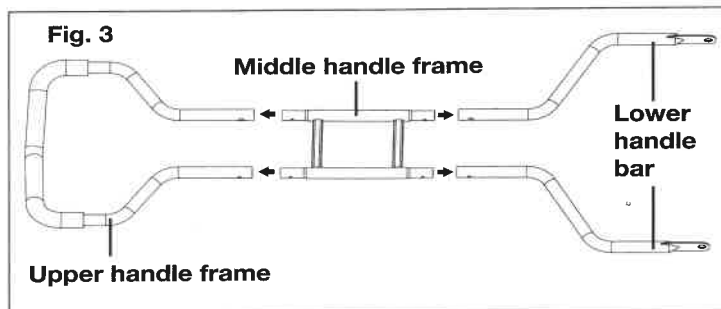
### HANDLE ASSEMBLY

1. Lay out the handle parts upside down as shown for easier assembly. Make sure the arch of the upper handle frame is pointing down. Enter the end of the upper handle frame into the middle handle frame, and enter the end of the middle handle frame into the lower handlebar. Roughly align the holes (Fig. 3).

2. Slide the handle shield in place from below. Align the holes, and slide a handle shield bolt through each hole from inside (Figs. 4 – 5).

3. Align the handle shield knob with the bolt, then use your hand to tighten. Repeat for the remaining three bolts (Fig. 6).

**NOTE:** Make sure all the bolts and knobs are secured.



## **FITTING THE HANDLE**

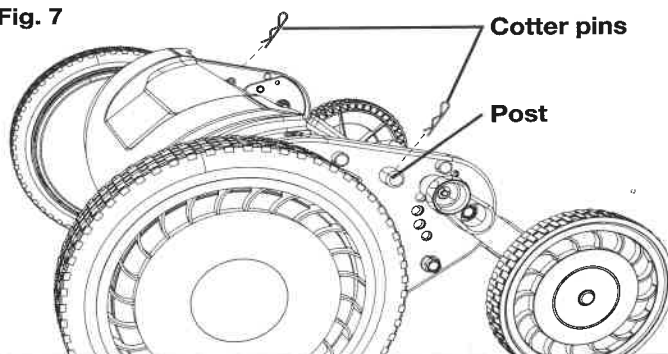
1. Remove the cotter pins on the posts on both sides of the mower body (Fig. 7).

2. To assemble the handle assembly on the mower body, insert the posts on both sides into the holes on the ends of the lower handle bars (Fig. 8).

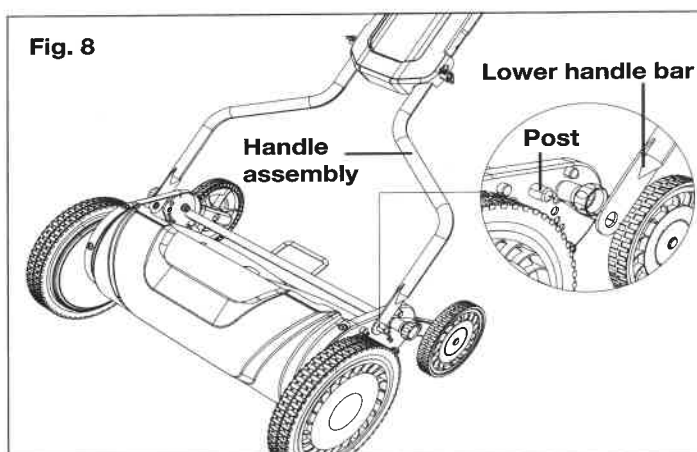
**NOTE:** Some force may be needed to separate the handle legs so they fit over the posts.

3. Insert the cotter pins in the original slots on the posts on both sides to secure the handle assembly (Fig. 9).

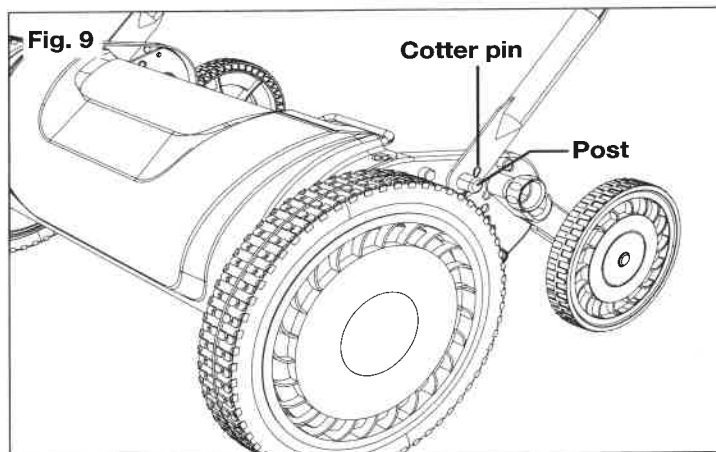
**Fig. 7**



**Fig. 8**



**Fig. 9**



## OPERATION

### CUTTING HEIGHT ADJUSTMENT

1. The cutting height of the 18" (45.8 cm) reel mower can be adjusted from 1.1" to 3.2" (2.7 to 8.2 cm) by moving the 5-position height adjustment levers to the desired setting. The height adjustment levers are located next to the rear wheels.

2. In order to set the mower to its lowest cutting position, hold the mower by its lifting handle, and pull the adjustment levers on both sides, one at a time, and set them to position A (Fig. 10).

3. In order to set the mower to its highest cutting position, hold the mower by its lifting handle, and move the adjustment levers on both sides to position B (Fig. 10).

**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.

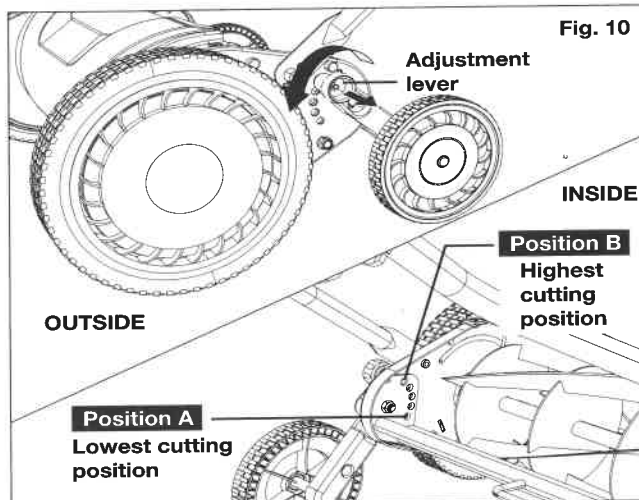


Fig. 10

### ENSURING A CLEAN CUT

**WARNING!** The steel blades are extremely sharp. To avoid injury, wear gloves while making adjustments. Keep fingers away from the interface between the cutting reel blades and stationary blade.

**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. 11).

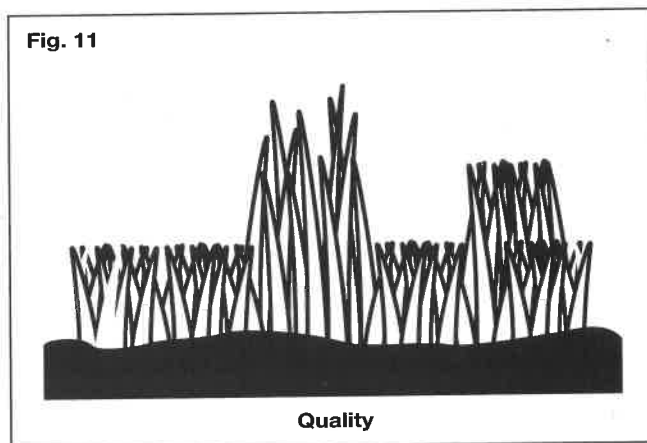


Fig. 11

1. To verify if the blades make contact, place the mower on a firm level surface with blocks in the front on the rear wheels so the mower will not move during testing. Raise the cutting height to the highest setting to improve access.

2. With the mower resting on all four wheels, slowly turn the cutting reel by lifting it upward, one blade at a time, through a full rotation or two. If you hear scraping or feel resistance, the blades are contacting each other and need adjustment (Fig. 12).

3. Follow the instructions to adjust the mower blade.

4. To check if the mower cuts properly, turn the mower on its side.

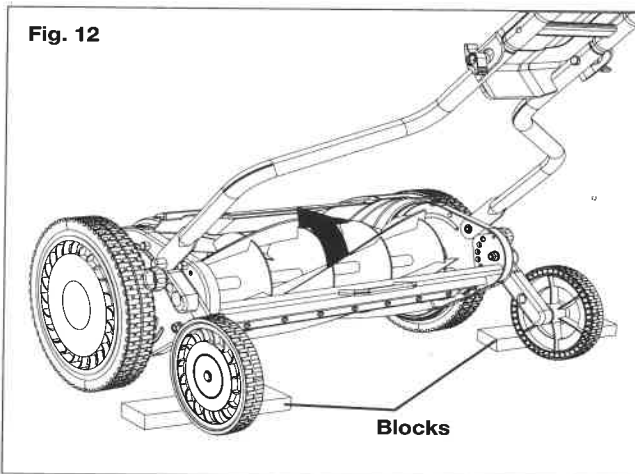
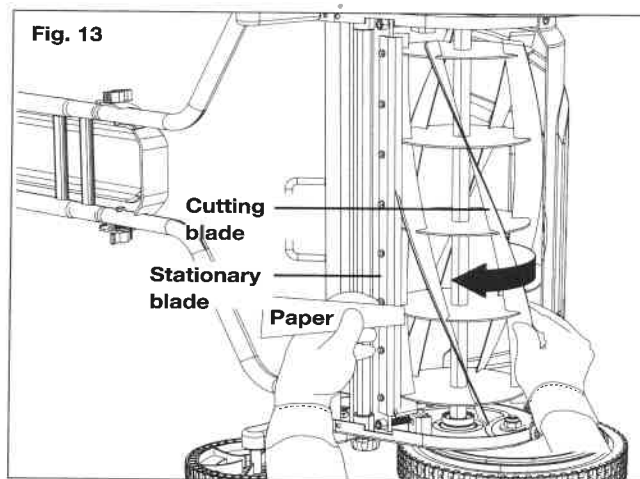
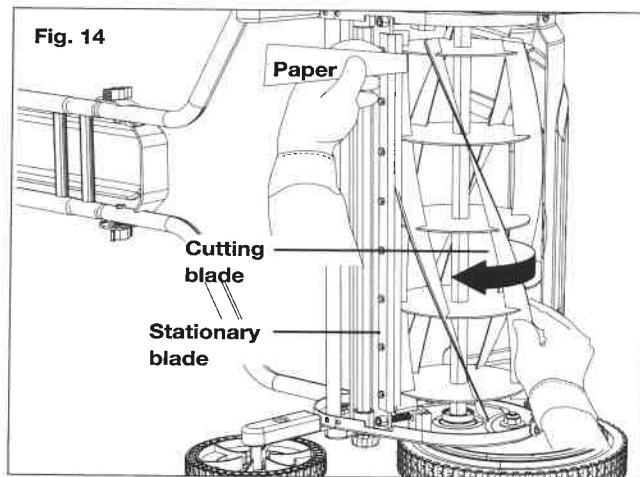
5. Starting with the end close to the ground, feed a strip of paper between a cutting reel blade and the stationary blade, keeping the paper flush against the side of the stationary blade. About half an inch of the strip should be visible beyond the stationary blade.

6. Slowly rotate the cutting reel toward the stationary blade, and observe whether the paper is cut as the first cutting reel blade passes (Fig. 13).

7. Continue to feed the paper into the reel horizontally half an inch at a time to check the other blades.

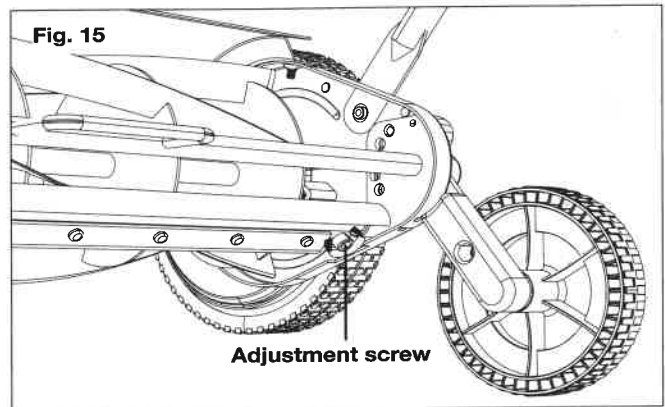
8. After all blades have been tested, start testing on the other end. Feed a strip of paper between a cutting reel blade and the stationary blade on the end furthest from the ground, and slowly rotate the cutting reel to see whether the paper is cut. Continue to feed the paper into the reel to test other blades (Fig. 14).

9. If most of the blades cut on both ends, the cutting system is set correctly. If all or most of the blades do not cut on one or both ends, the cutting system needs to be adjusted. Follow the instructions for adjusting the blade below.

**Fig. 12****Fig. 13****Fig. 14**

## 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 screws 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. 15).



**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 Allen 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, contact our customer support center at 866-332-2464.

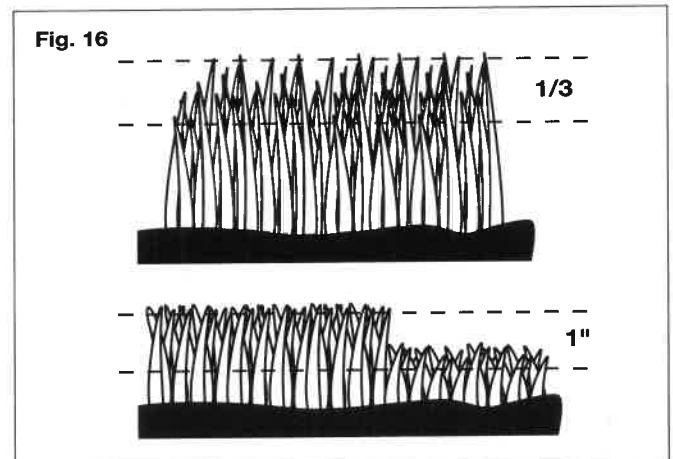
5. Once the mower blades have been properly adjusted and their alignment has been verified, you can now proceed to use your reel mower. Align the cutting path indication arrow with the previously cut path.

## 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" (2.5cm) at a time (Fig. 16).



3. 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

1. 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.
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.

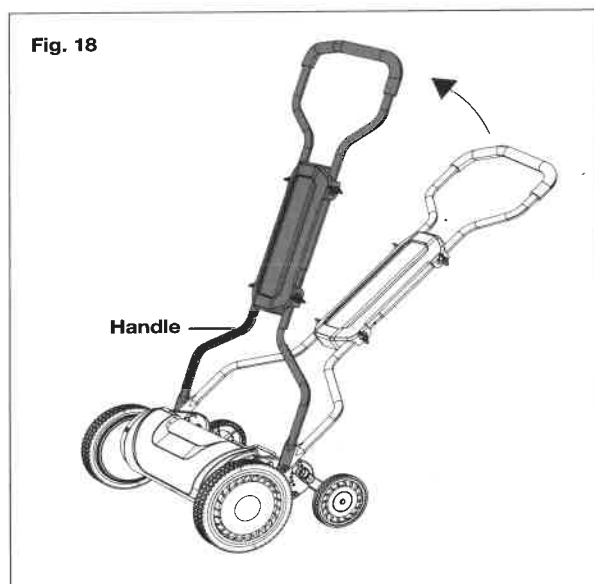
3. If the lawn is overgrown (to higher than 4" or 10.1cm) it may be necessary to use a brush cutter to remove the excess turf mass before resuming mowing at normal heights.

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

### TRANSPORTING THE MOWER

During normal operation, the blade reel will turn anytime the mower's front wheels are turning. To safely move the mower from one location to another without the blade reel turning, simply pivot the handle over the reel and push the mower from the opposite side. Pushing the mower in this manner (transport mode) prohibits the blade reel from turning (Fig. 18).

Fig. 18



### CARE + 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 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.

**NOTE:** 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.

## SUPPORT

If your reel mower requires support, please contact our customer support center at 866-332-2464.

## 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. Copy these numbers into the space provided below.

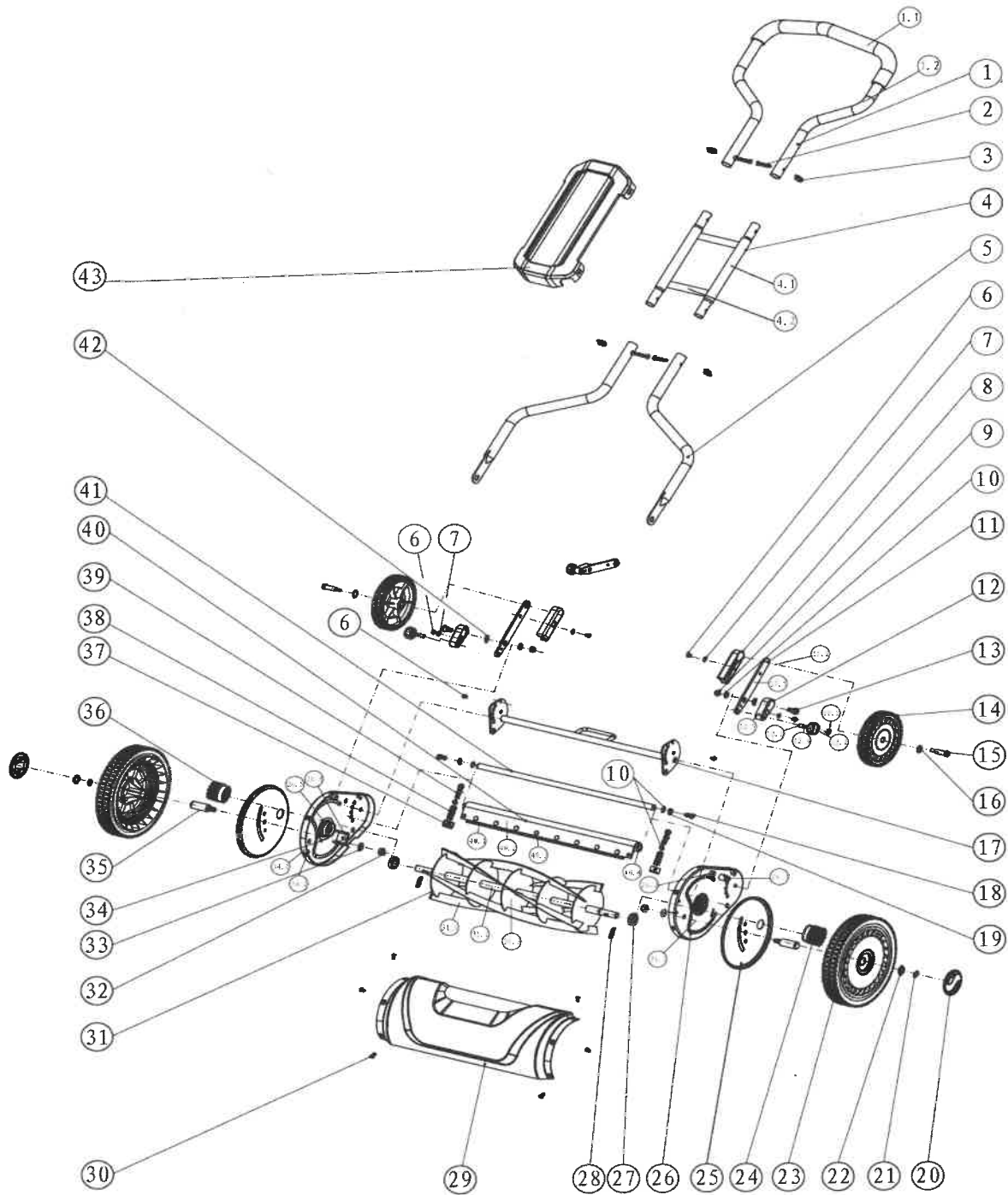
Record the following numbers from the housing or handle of your new product:

Model #:

M J 1 8 0 0 M

Serial #:

## EXPLODED VIEW





## PARTS LIST

No.	DESCRIPTION	Qty	SPECIFICATION	REMARK
01	Upper handle assy.	01		
02	M6*65 hexagon bolt	04		
03	S-shaped knob	04		Height Increase
04	Middle handle assy.	01		
05	Lower handle	02	φ25×1.2	
06	Inner hexagon flat screw	06		
07	Washer	04	Φ12Xφ6X0.8	
08	Support cover	02		
09	M8 insert nut	02	GB/T6170	
10	Washer	06	φ17×φ8.2×1.2	
11	Rear wheel support	02		
12	Cover assy. for rear wheel support	02		
13	Step bolt	02	M8x24x8	
14	Rear wheel	02		
15	Rear wheel axle	02	level 8.8	
16	Wheel washer	02	φ27Xφ14X1.5	
17	Stiffening plate	01		
18	Outer hexagon bolt	02		
19	Spring washer	02		
20	Wheel cap	02		
21	Circlip	02		
22	Washer	02	t0.8	
23	Wheel	02		
24	Left pinion	01	φ41	
25	Connecting disk	02		
26	Left supporting plate assy.	01		
27	Bearing	02	6002Z	
28	Pin	02	19X8X4	
29	Cover plate	01	T1.5	
30	M5* 12 Inner hexagon flat screw	06	level 10.9	
31	Rotating plate	01		
32	M10 Insert nut	02		

## PARTS LIST

No.	DESCRIPTION	Qty	SPECIFICATION	REMARK
33	Washer	02	Φ30Xφ10.5X2.5	
34	Right supporting plate assy.	01		
35	Wheel axle	02	φ19	Galvanized
36	Right pinion	01	Φ41	
37	Square adjusting nut	02	23X14X6	Galvanized
38	Adjusting spring	02	Φ17Xφ4X36	
39	Adjusting linkage	02	M8x1x55	
40	Fixed blade	01		
41	Locating rod for fixed blade	01		Electrophoresis
42	Corrugated elastic washer	04		
43	Handle cover	01		

## **WARRANTY**

### **BENCHMARK 18" PUSH REEL MOWER WARRANTY**

If this Benchmark tool fails due to a defect in material or workmanship within five years from the date of purchase, return it to any Home Hardware store with the original bill of sale for exchange. This warranty does not include expendable parts including but not limited to blades, brushes, belts, light bulbs and/or batteries. This warranty covers defects in material or workmanship only. It does not cover normal wear and tear, failure due to abuse/misuse, or defects caused by careless or accidental mishandling. If this Benchmark product is used for commercial or rental purposes, this warranty does not apply.