



# **OWNER'S MANUAL Model ER-18**

**18" Push Reel Mower**

- **Assembly**
- **Operation**
- **Maintenance**
- **Repair Parts**

**IMPORTANT:**

**Read Rules For Safe Operation  
& Assembly Instructions  
Carefully**



## • RULES FOR SAFE OPERATION

1. Read the Owner's Manual carefully. Be very familiar with the proper use of the equipment/parts before you begin.
2. Never allow children to operate the mower. Only person's well acquainted with these rules of safe operation should be allowed to use the mower.
3. Keep the area of operation clear of all persons, especially small children and pets. Make sure the area of operation is completely cleared of objects, such as limbs, rocks, wire, toys, bones, and other such foreign objects. A small object may get overlooked and could be accidentally thrown by the mower.
4. Always wear substantial closed-toed footwear and DO NOT operate equipment when barefoot or wearing open-toed sandals.
5. Always wear proper eye protection when using the mower.
6. Mow only in daylight.
7. Take a firm stand while operating the mower; keep a firm hold on the handle and walk. Never run with the mower.
8. Never operate the mower in wet grass.
9. When cleaning, repairing, or inspecting the mower, make certain the blade and all moving parts have been stopped.
10. Before attempting to unclog the mower, be sure the blades have stopped completely.
11. Mow across the face of slopes, never up or down. Exercise extreme caution when changing direction on slopes.
12. Keep all nuts, bolts and screws tight, to be sure the mower is in safe working condition at all times.



**LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS.**

**IT MEANS — ATTENTION, BECOME ALERT.**

**YOUR SAFETY IS INVOLVED.**




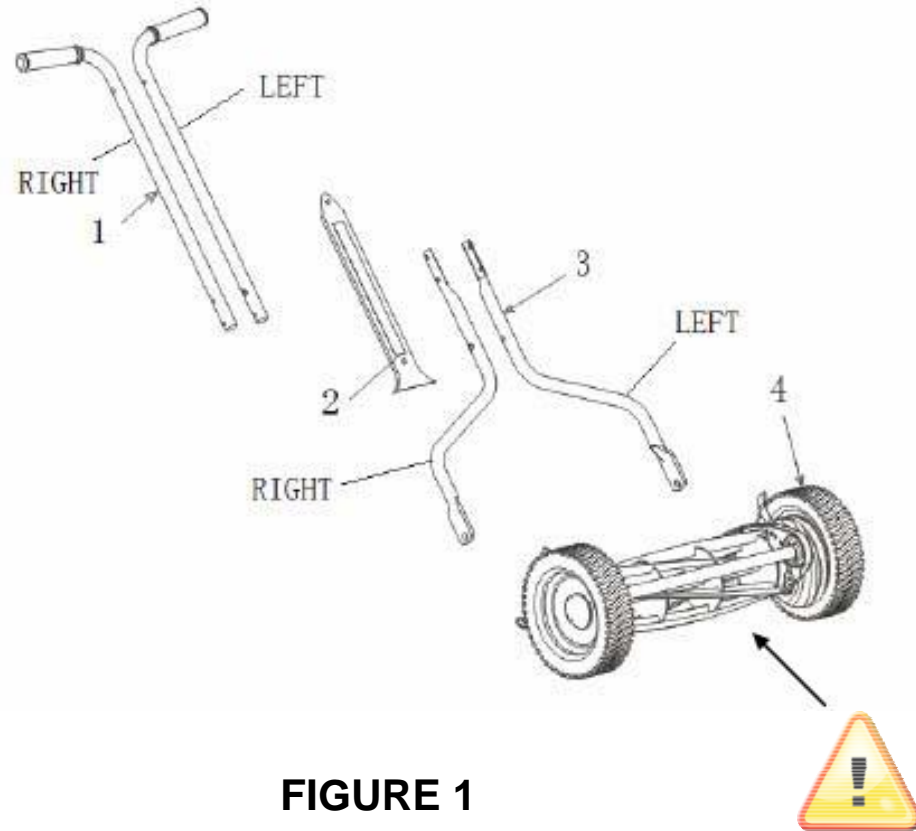
**CAUTION: THE MOWER BLADES HAVE SHARP EDGES. KEEP HANDS AND FEET CLEAR AT ALL TIMES. USE CARE WHEN ADJUSTING, CLEANING AND STORING THE MOWER.**

## • CARTON CONTENTS

Your ER-18 Eco-Reel Mower carton contains parts as shown in Figure 1 below. The carton contains parts shown in this diagram. Part numbers 1, 2, 3, 4, and 5 (not shown). Lay out and identify all parts as illustrated in Figure 1.

### PARTS IN CARTON

1. Upper Handle (2 pcs) left and right
2. Handle Panel
3. Handle Brace (2 pcs) left and right
4. Reel Assembly — 
5. Hardware Package (not shown) (nuts, bolts, washers, screws)



## • ASSEMBLY INSTRUCTIONS

### TOOLS REQUIRED FOR ASSEMBLY

1. 8mm Open or Boxed End Wrench (included)
2. Pair of Pliers
3. 14mm Open or Boxed End Wrench (included)

Arrange carton contents as shown in Figure 1, page 2 and contents as shown in Figures 2 and 3.

Insert the left handle brace through the slots and over the pin in the end plate (Figure 2).

Repeat step and attach right handle brace.

Insert the M8x60 hex bolt and tighten with a washer and M8 locknut (Figure 3)

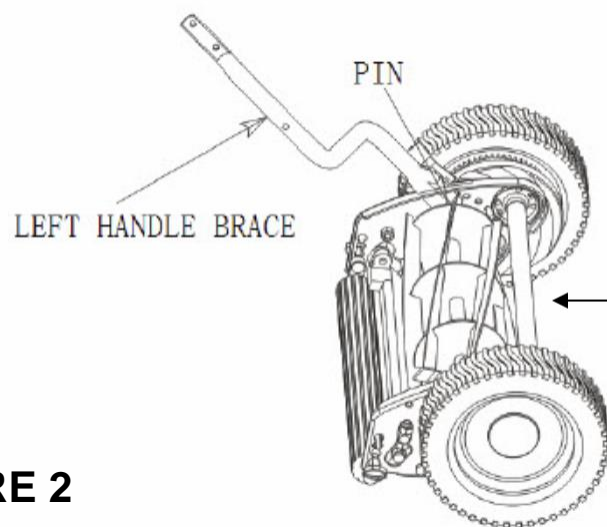


FIGURE 2

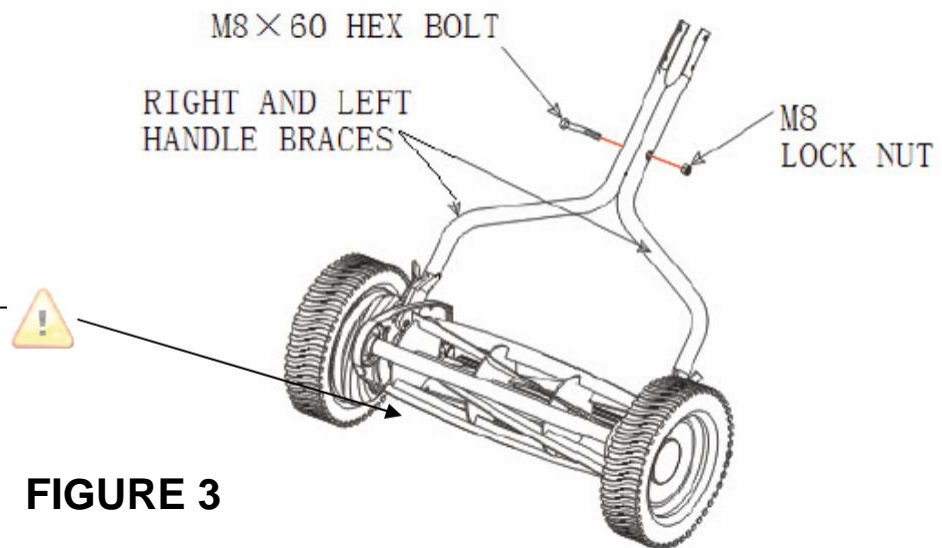
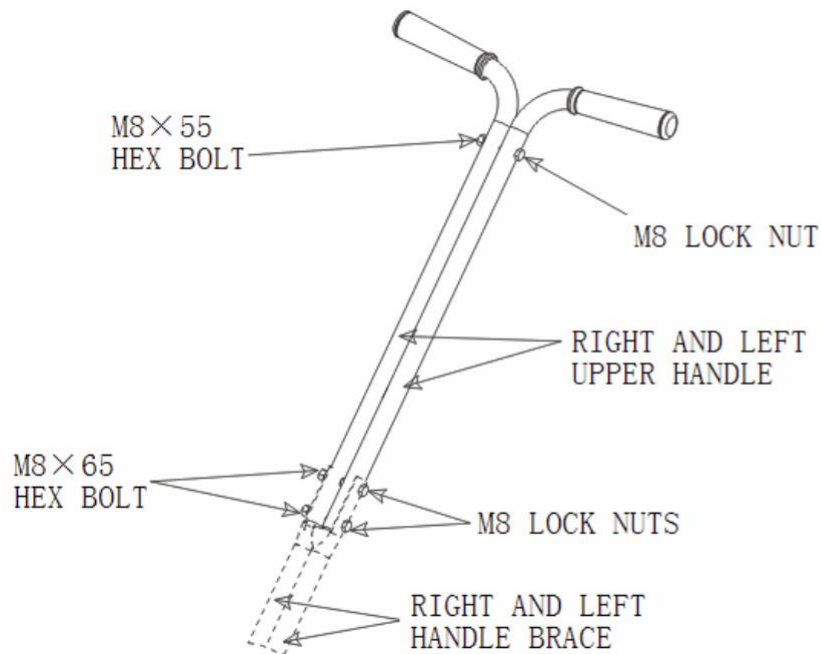


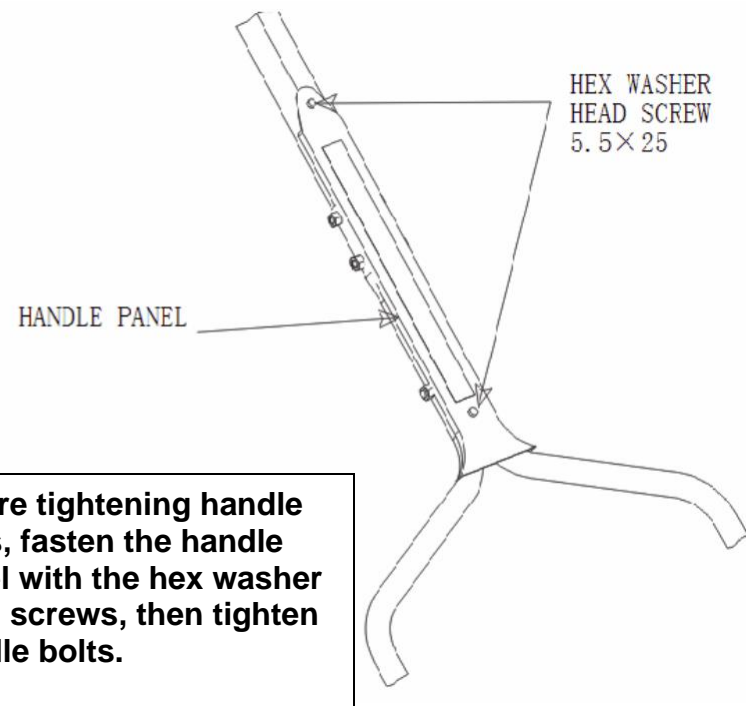
FIGURE 3

• **ASSEMBLY INSTRUCTIONS (cont.)**

4. Attach the right and left upper handles (Part 1) to the handle braces (Part 3) with two M8x65 hex bolts. Hand tighten the nuts (Figure 4).
5. Assemble the upper handles (Part 1) at the top with a M8x55 hex bolt, washer and nut.
6. Tighten all four bolts and nuts (Figures 4 and 5).
7. Place the handle panel (Part 2) in position over the handle (Figure 5).
8. Assemble the 5x5x25 hex washer head screw through the handle panel into the notch between the upper handles (Part 1). Tighten both hex washer head screws.



**FIGURE 4**



**FIGURE 5**

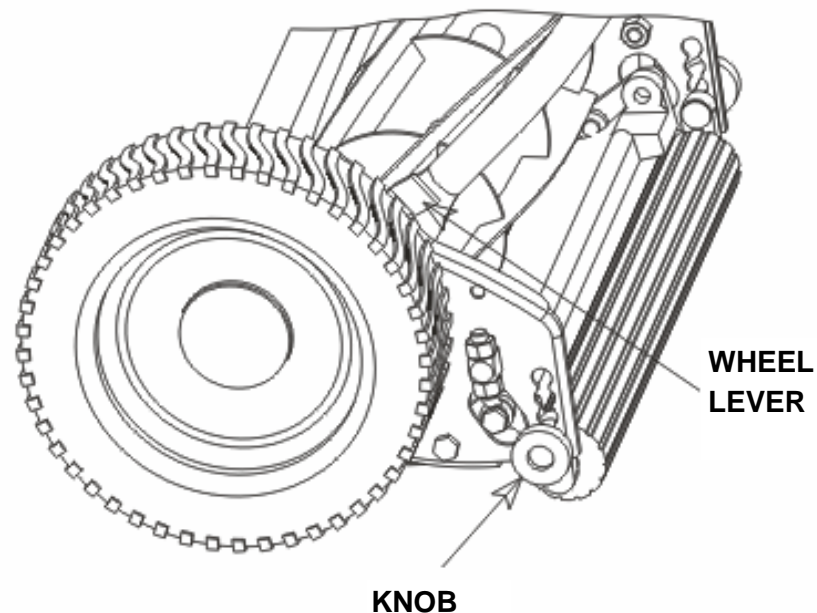
• **ADJUSTMENTS**

**CUTTING HEIGHT**

Each wheel has a lever with five positions.

To move the lever, tilt the mower back on the roller and press the levers (one at a time) towards the outside of the mower and move the lever to the desired position.

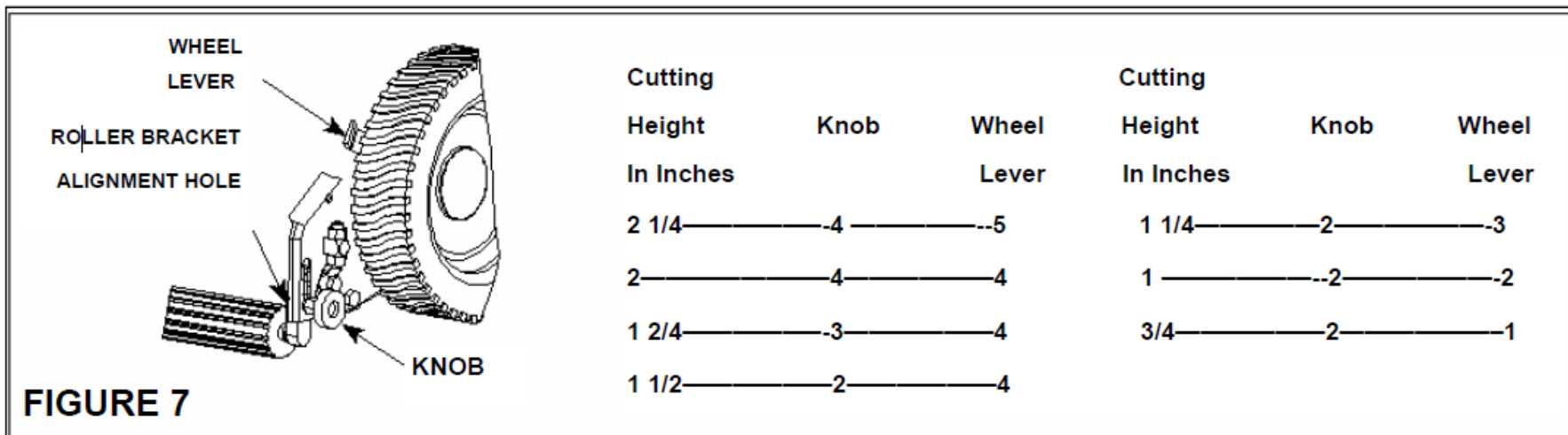
Both levers must be in the same relative position (Figure 6).



**FIGURE 6**

- To adjust wheel lever (Figure 6) use 8mm wrench to loosen bolts, set height, then tighten bolts.
- To adjust the roller, tilt the mower forward and loosen the knobs on each roller at least two full turns and move the roller to the desired position. Both roller knobs must be in the same relative position and firmly seated in the notch.

**CUTTING HEIGHT CHART:**



**FIGURE 7**



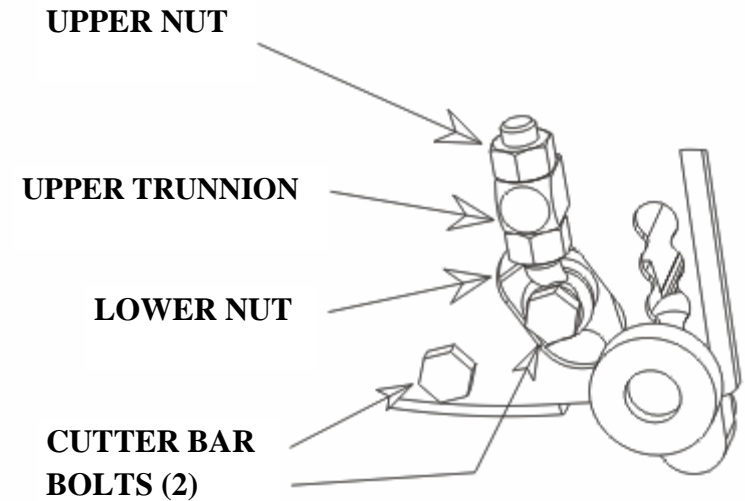
## • ADJUSTMENTS (cont.)

- To increase the clearance between the cutter bar and the blades, loosen the lower nut 1/4 turn and then tighten the upper nut 1/4 turn. Adjust each side of the mower equally until a 0.003" clearance is obtained (Figure 8).
- To adjust the roller, tilt the mower forward and loosen the knobs on each roller at least two full turns and move the roller to the desired position. Both roller knobs must be in the same relative position and firmly seated in the notch.

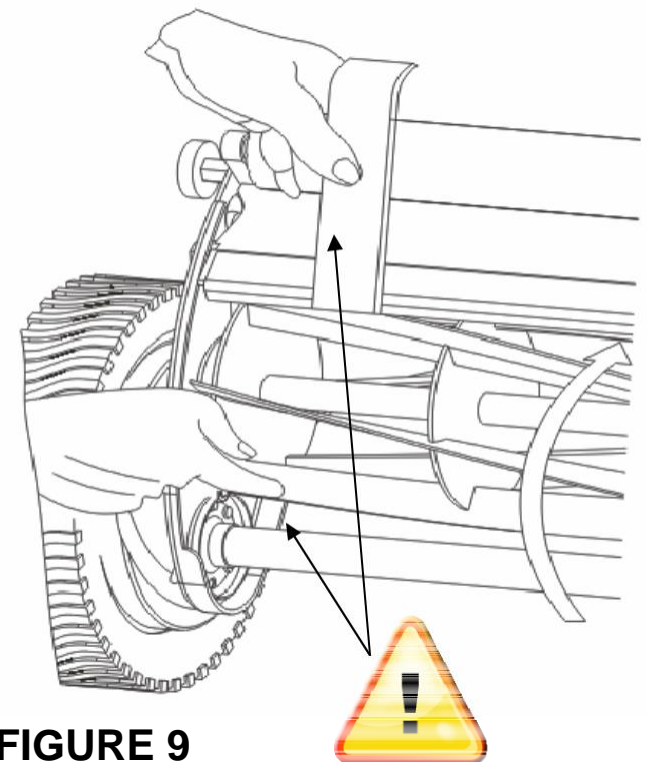
**\*NOTE:** To eliminate any play or looseness before adjusting the cutter bar, make certain the bolt and the trunnion which are threaded into the cutter bar are tight.

### Paper Test

1. Push the handle of the mower forward and let it rest on the ground. (The roller will be off the ground.)
2. Using paper as a gauge, insert a strip of quality 0.003" thick paper (writing paper approximately 2" wide x 6" long between the cutter bar and the blades as show in (Figure 9). Correct cutter bar clearance should pinch, but not cut the paper.
3. Perform this test in at least three different points along the cutter bar.



**FIGURE 8**



## • LUBRICATION

Once a season or whenever the reel is sharpened also lubricate the wheels and bearings. (Figure 10)

- A. Remove the hub cap.
- B. Remove the E-ring with a screwdriver.
- C. Lift off the wheel.
- D. If rust is on the axle, clean with solvent and crocus cloth.
- E. Coat the axle with light grease.
- F. Take off the snap ring with a pair of snap ring pliers and remove the pinion gear (Figure 10).
- G. Pull the pawl from the reel shaft.
- H. Apply light grease to the gear teeth on the inside of the wheel.

### NOTE:

- Use the proper tool to remove the snap ring. Overstretching the snap ring will result in a loss of holding power and the pinion gear will come off.
- Be sure the pawl is installed the same way it was removed or the wheel will not drive.
- Using engine oil, lightly lubricate points indicated in (Figure 11) on roller and between the end plates and the wheel dust covers. Periodic lubrication for these points will ensure smooth mechanical operation. (Figure 11).

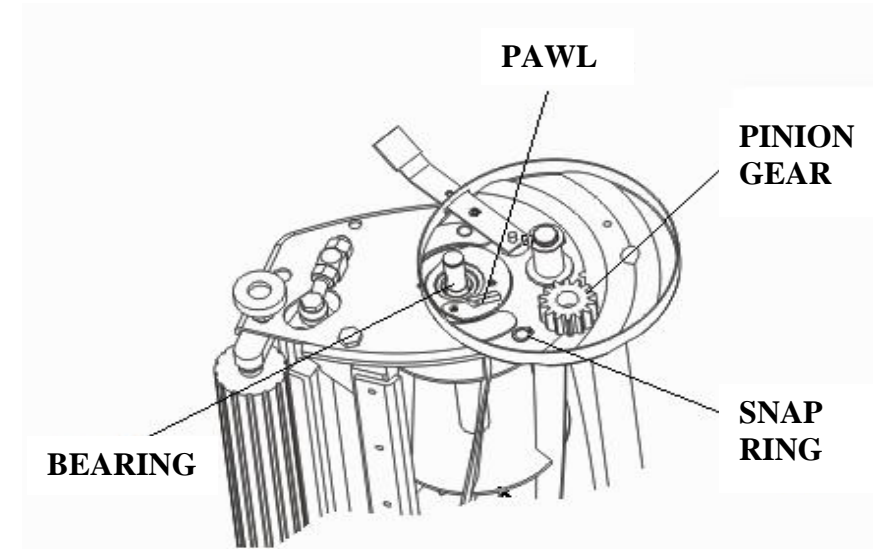


FIGURE 10

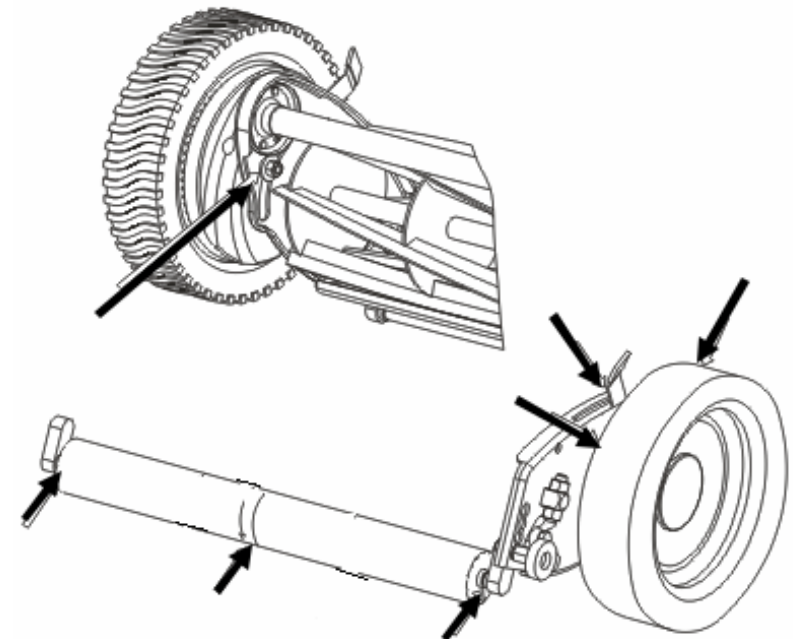


FIGURE 11



## • MAINTENANCE

### SHARPEN BLADES

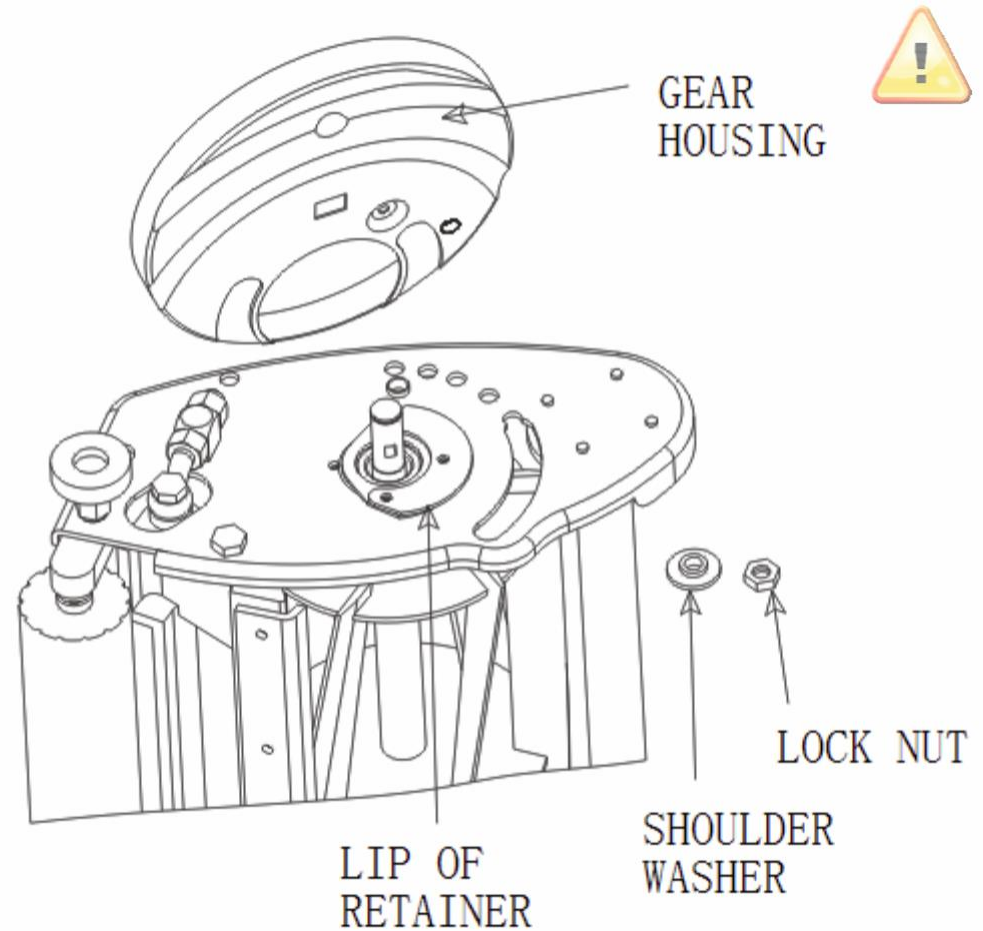
Sharpen blades when the mower will not cut satisfactory without the reel blades wiping on the cutter bar.

### GEAR HOUSING ASSEMBLY

If the gear housing assembly is removed for service, it is very important for the gear housing assembly to fit **UNDER** the lip of the retainer. The shoulder on the shoulder washer must fit into the slot on the end plate. (Figure 12)



If the gear housing is not assembled properly, it will result in loose wheels and an early failure of the pinion and wheel. (Figure 12)



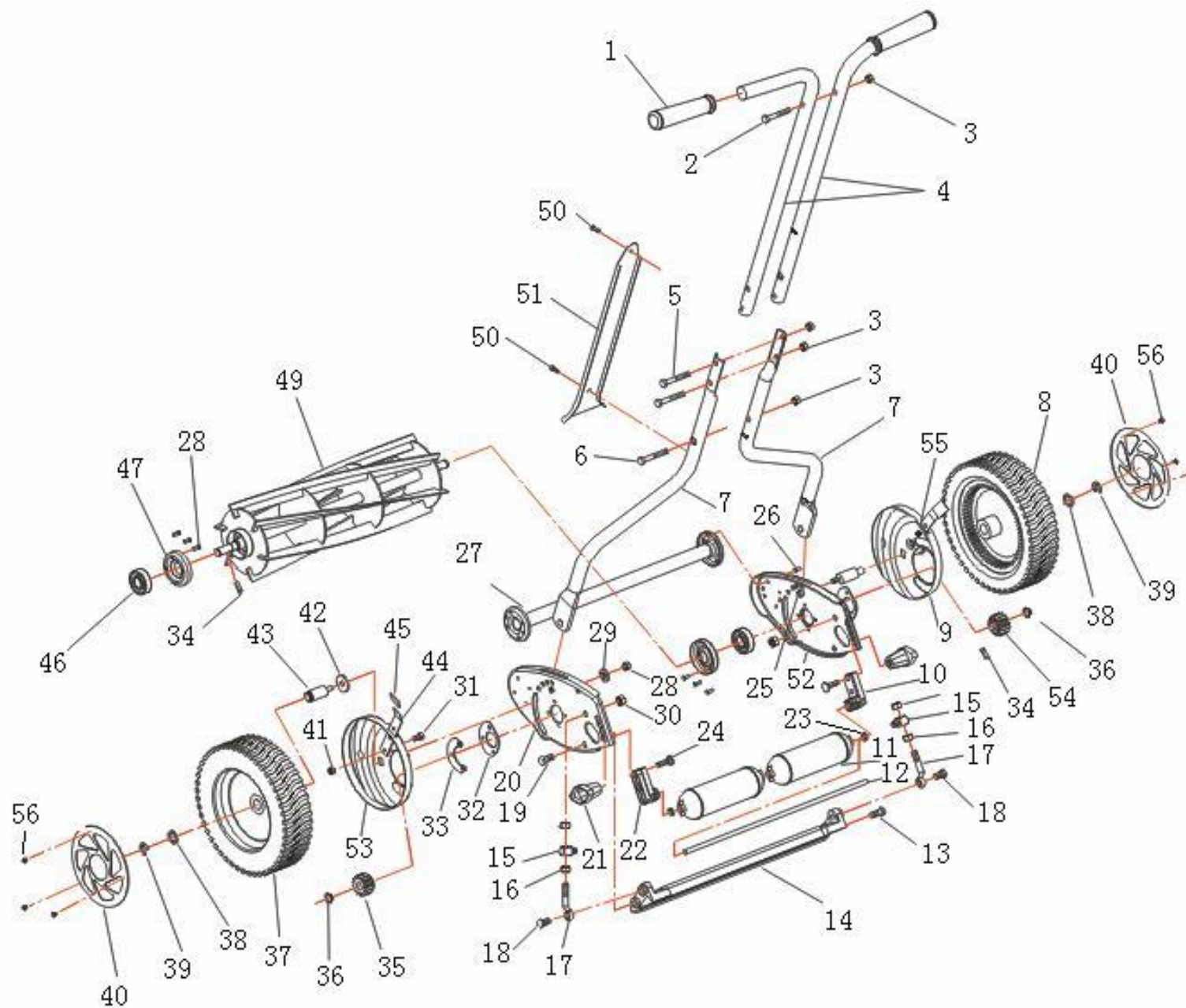
**FIGURE 12**

## **. STORAGE**

**The following steps should be taken to prepare reel mower for storage. remove the hub cap.**

- 1. Clean and lubricate mower thoroughly as described in the maintenance instructions.**
- 2. DO NOT use water to clean the mower — use a broom or brush to remove grass and dirt.**
- 3. Coat mower's cutting blades with a chassis grease to prevent rusting.**
- 4. Store mower in a dry, clean area.**

• REPAIR PARTS FOR ECO-REEL® MODEL ER-18 / 18" PUSH REEL MOWER



## • SPARE PARTS FOR ECO-REEL® MODEL ER-18 / 18” PUSH REEL MOWER

REF NO.	PART NO.	QTY.	DESCRIPTION	REF NO.	PART NO.	QTY.	DESCRIPTION	REF NO.	PART NO.	QTY.	DESCRIPTION
1	1834	2	Handle	20	1801-1	1	Plate LH	39	B-02	2	Unlock bead flange
2	B-07	1	M8x55 Hex Bolt	21	1828	2	Roller Knob	40	1842	2	Hub cap
3	B-10	4	M8 Lock Nut	22	1829	1	Roller Bracket LH	41	B-08	2	Lock nut M5
4	1835	2	Right and left upper Handle	23	B-20	2	Flat washer 8	42	B-15	2	Flat washer 20
5	B-23	2	M8x65 Hex Bolt	24	B-14	2	Square neck bolt	43	1822	2	Axle
6	B-06	1	M8x60 Hex Bolt	25	1802	2	Pin	44	1808	2	Wheel Lever
7	1836	2	Right and left Handle Brace	26	B-18	8	Self-plugging rivet	45	1814	2	Protecting jacket
8	18-01	2	Gear case assembly	27	18-03	1	Beam components	46	B-01	2	Bearing
9	1809-2	1	Gear Housing RH.	28	B-09	2	Lock nut M8	47	1803	2	Bearing block
10	1829	1	Roller Bracket RH	29	1810	2	Shoulder Washer	48	B-17	6	Self-plugging rivet
11	1830	1	18” Roller	30	B-12	2	Lock nut M10x1	49	18-04	1	The Blades
12	1831	1	Roller Axle	31	B-05	2	Hex bolts M5x10	50	B-13	2	5.5x25 Hex Washer Head Screw
13	1818	1	Locating screw ( II )	32	1804	2	Retainer	51	1838	1	Handle Panel
14	18-02	1	Cutter Bar	33	1805	2	Lip Of Retainer	52	1801-2	1	Plate RH
15	1815	2	Upper Trunnion	34	1819	2	Pawl	53	1809-1	1	Gear Housing LH
16	B-12	4	Nut M10x1	35	1820-1	1	Pinion Gear LH	54	1820-2	1	Pinion Gear RH
17	1816	2	Movable bolt	36	B-03	2	Snap Ring	55	1813	2	Dirt-proof boot
18	1817	2	Cutter bar bolt ( I )	37	1839	2	Wheel	56	B-22	6	Self-drilling tapping screws ST2.9x8
19	1818	1	Cutter bar bolt ( II )	38	B-16	2	Flat washer 16	N/A	N/A	N/A	NOT SHOWN

• **PACKING LIST FOR ECO-REEL® ER-18 / 18” PUSH REEL MOWER**

<b>REFERENCE NO.</b>	<b>DESCRIPTION</b>	<b>PART NO.</b>	<b>QUANTITY</b>	<b>NOTES</b>
1	Reel Assembly	N/A	1	
2	Upper Handle	1835	2	
3	Handle Brace	1836	2	
4	Handle Panel	1838	1	
5	Box End Wrench	N/A	2	
6	M8 x 55 Hex Bolt	B-07	1	
7	M8 x 60 Hex Bolt	B-06	1	
8	M8 x 65 Hex Bolt	B-23	2	
9	Hex Washer Head Screws	B-13	2	
10	M8 Locknut	B-10	4	
11	Flat Washer	B-20	4	
12	Owner's Manual	N/A	1	

**For More Information Contact:**

**Encore Power Equipment, Inc.**

**401 N Commerce St**

**Beatrice, NE 68310**

**PH: 402-228-4255**

**FAX: 402-223-4103**