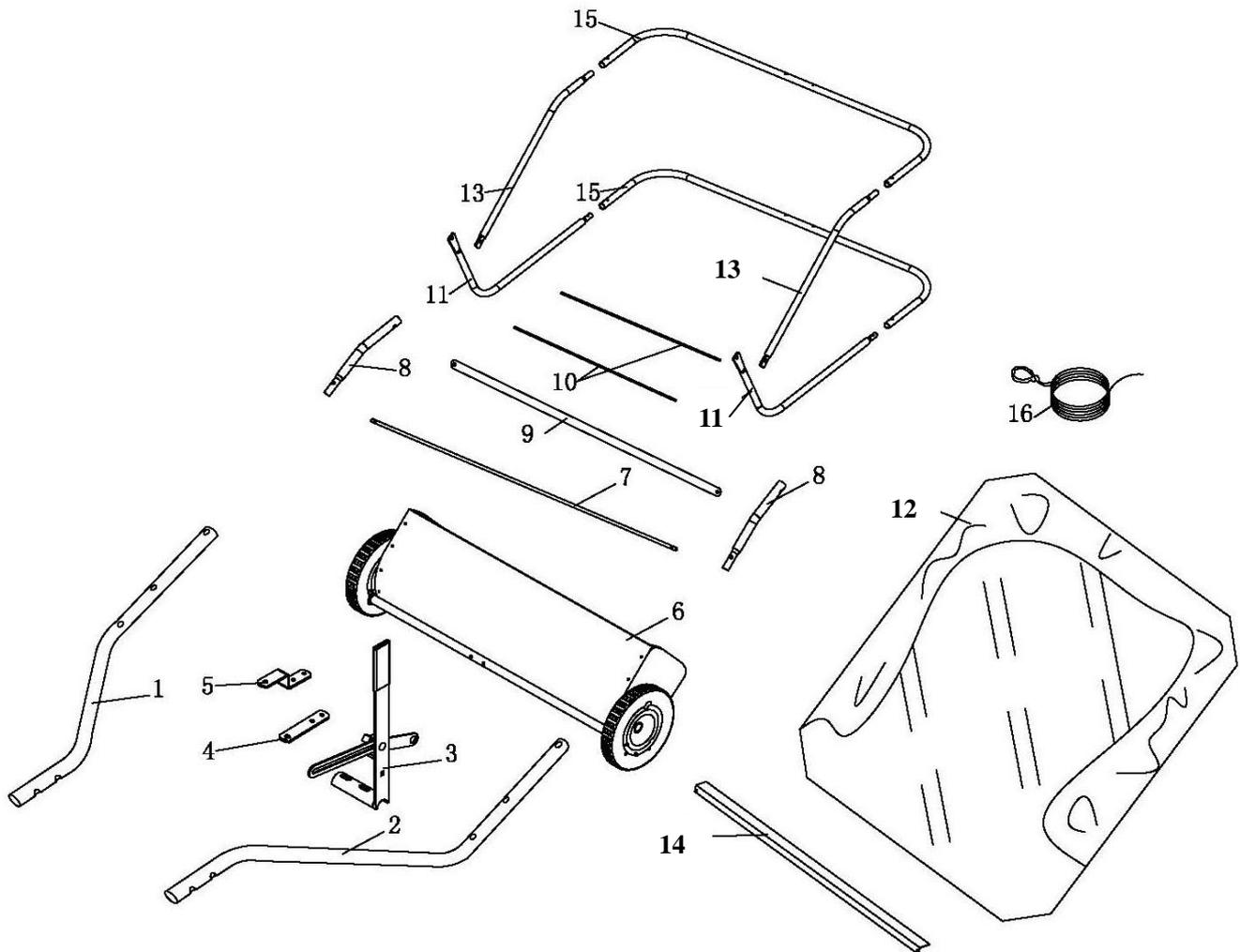


# 48 " Lawn Sweeper

## Instruction Manual

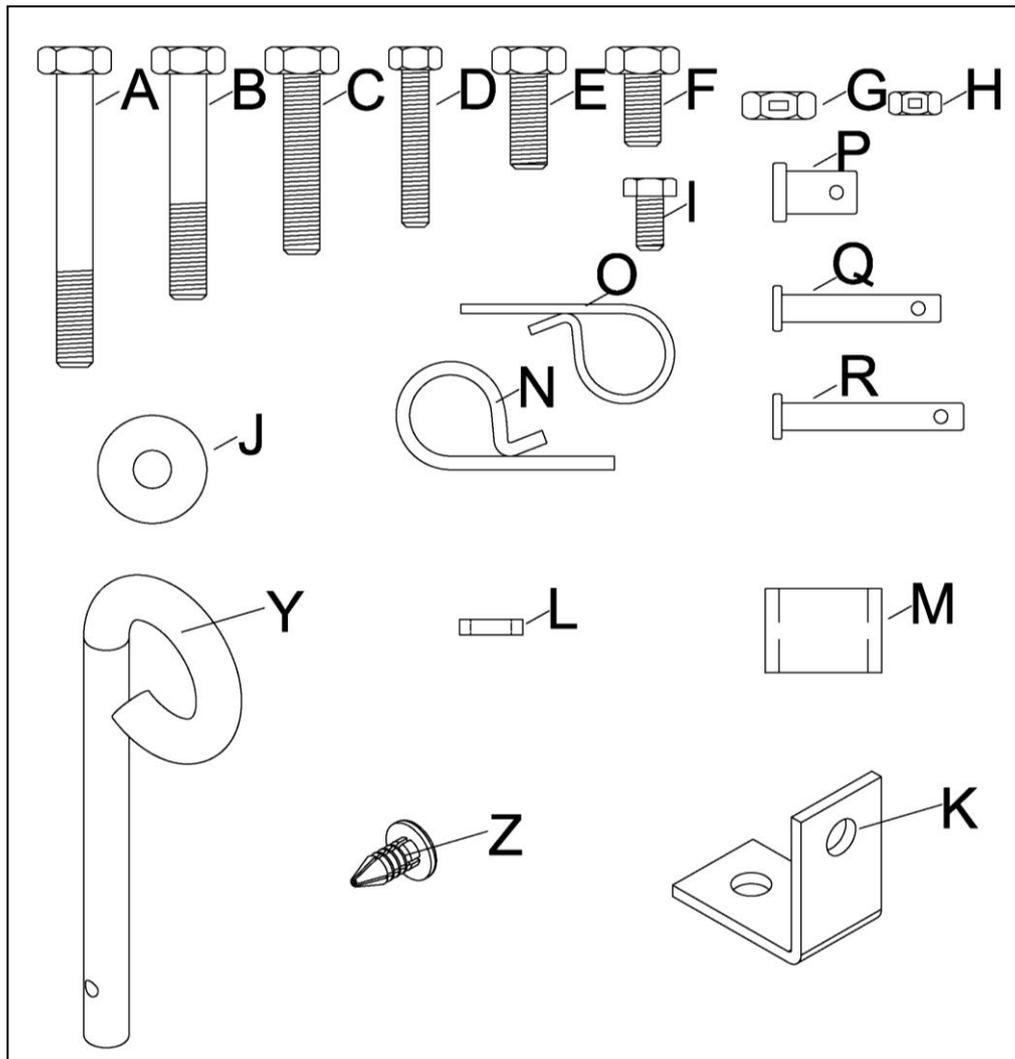


**ASSEMBLY & OPERATING INSTRUCTIONS**



### Carton Contents (lawn sweeper and fixings)

- |                               |                                |
|-------------------------------|--------------------------------|
| 1. Hitch Tube, R.H            | 9. Bag Frame Strap             |
| 2. Hitch Tube, L.H            | 10. Hopper Support Rod (2)     |
| 3. Height Adjustment Assembly | 11. Lower Hopper Side Tube (2) |
| 4. Hitch Bracket (Straight)   | 12. Hopper Bag                 |
| 5. Hitch Bracket              | 13. Upper Hopper Side Tube (2) |
| 6. Sweeper Housing Assembly   | 14. Connecting Rod             |
| 7. Front Support Rod          | 15. Rear Hopper Tube (2)       |
| 8. Bag Arm Tube (2)           | 16. Rope                       |



REF.	QTY.	DESCRIPTION	REF.	QTY.	DESCRIPTION
A	2	Hex Bolt M8x75	K	1	Angle Bracket
B	2	Hex Bolt M8x55	L	1	Adjustable Pole Spacer
C	2	Hex Bolt M8x40	M	2	Hitch Spacer
D	4	Hex Bolt M6x45	N	5	R Pin Ø3
E	1	Hex Bolt M8x20	O	4	R Pin Ø2
F	1	Hex Bolt M8x16	P	2	Clevis Pin Ø9.5x25
G	8	Nylon Lock Nut M8	Q	2	Clevis Pin Ø6x37
H	6	Nylon Lock Nut M6	R	2	Clevis Pin Ø6x42
I	2	Hex Bolt M6x12	Y	1	Hitch Pin
J	1	Big Flat Washer Ø8	Z	4	Plastic Plug

# SAFETY RULES

Remember, any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times when using power equipment.

1. Read the vehicle and sweeper owners manuals and know how to operate your vehicle and sweeper before using this sweeper attachment. Always instruct other users before they operate the sweeper.
2. Do not permit children to operate sweeper.
3. Do not permit anyone to ride on sweeper.
4. Never attach the hopper rope to any part of your body or clothing! Never hold onto the rope while towing the sweeper! Attach the rope to the towing vehicle to keep it away from wheels and rotating parts.
5. Operate the sweeper at reduced speed on rough terrain, near ditches and on hillsides to prevent loss of control.
6. Vehicle braking and stability may be affected with the attachment of this sweeper. Do not fill sweeper to maximum capacity without checking the capability of the towing vehicle to safely pull and stop with the sweeper attached. **Stay off of steep slopes.**
7. Stop and inspect vehicle and sweeper for damage after striking an object. Repair any damage before continuing operation.
8. Keep sweeper away from fire.
9. Before storing the sweeper, always empty the hopper bag to avoid spontaneous combustion.
10. Follow maintenance and lubrication instructions as outlined in the maintenance section of this manual.



Look for this symbol to point out important safety precautions. It means—**Attention!!**

**Become alert!!** Your safety is involved.

# ASSEMBLY

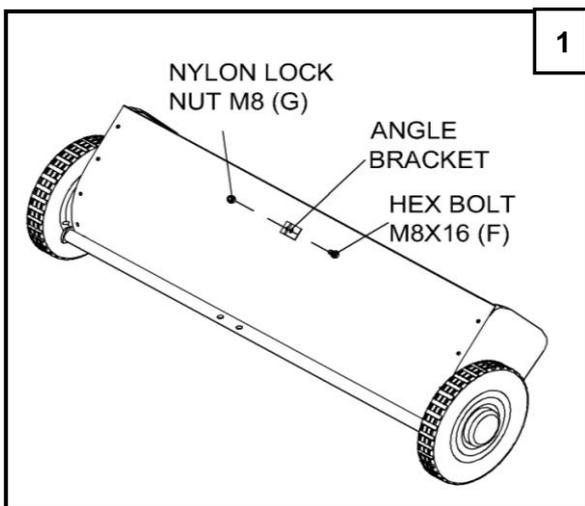
All loose parts are shown on page 2. Fasteners in the parts bag are shown on page 3.

Remove the hardware pack and all loose parts from the carton and verify that all the parts and fasteners shown on pages 2 and 3 are included.

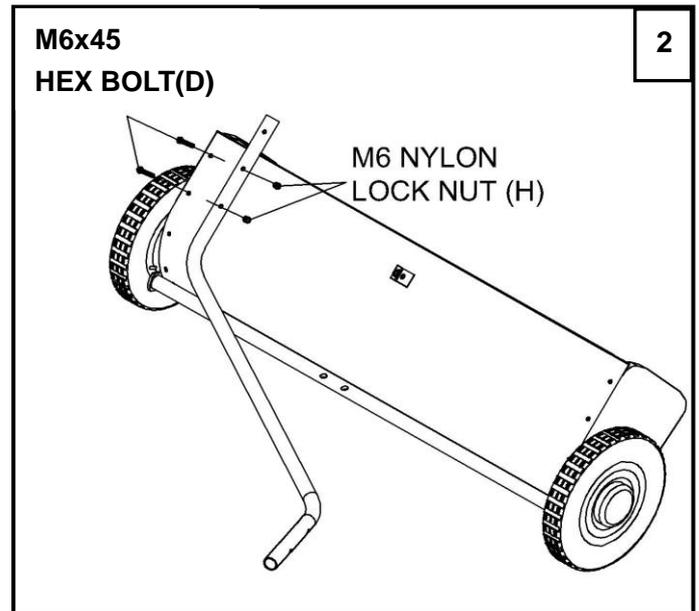
## ASSEMBLY OF SWEEPER

Note: Right hand (R.H.) and left hand (L.H.) are determined from the operator's position while seated on the tractor.

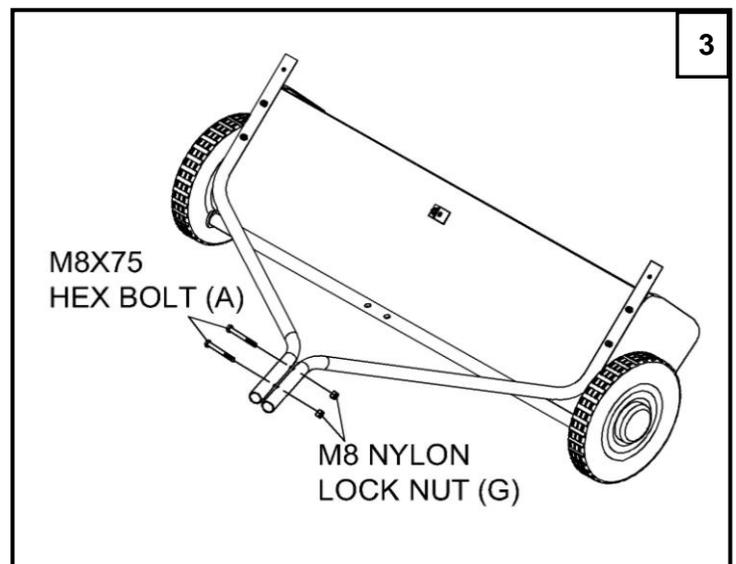
1. **(Figure 1)** Assemble the angle bracket to the sweeper housing using a M8x16 hex bolt (F) and a Nylon Lock Nut M8 (G). Make sure the bracket is turned as shown and aligned straight with the housing and then **tighten**.



2. **(Figure 2)** Assemble the R.H. hitch tube to the sweeper housing using two M6 x 45 hex bolts (D), M6 nylon lock nuts (H). **Do not tighten yet.** Repeat for the L.H. hitch tube.



3. **(Figure 3)** Fasten the hitch tubes together using two M8 x 75 hex bolts (A), and M8 nylon lock nuts (G). **Do not tighten yet.**

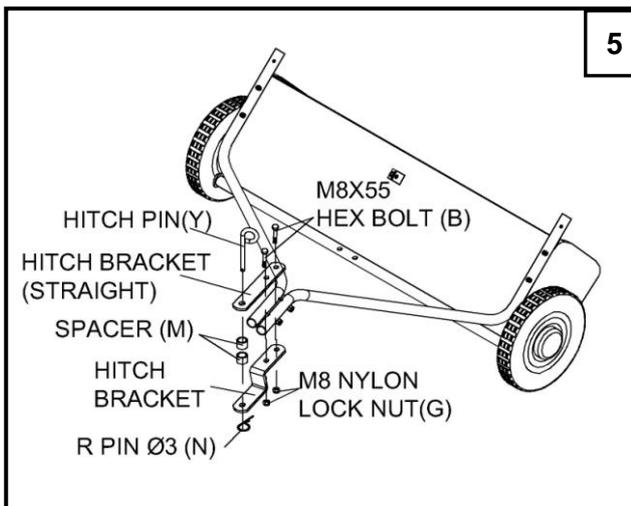
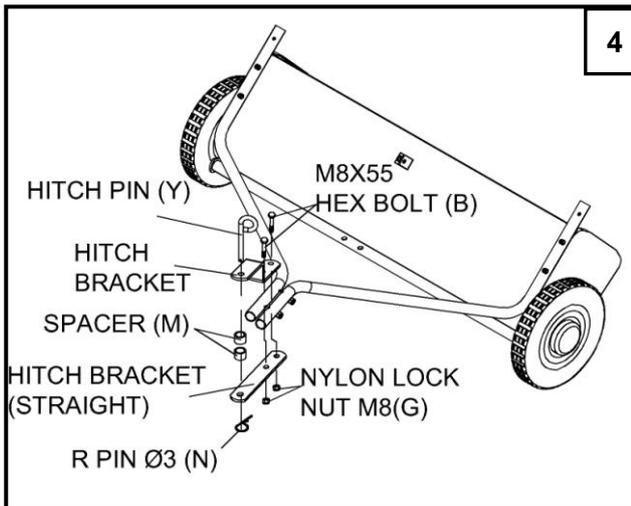


If your tractor hitch has 10" to 13" ground clearance refer to figure 4. If your tractor hitch has 8" to 10" ground clearance refer to figure 5.

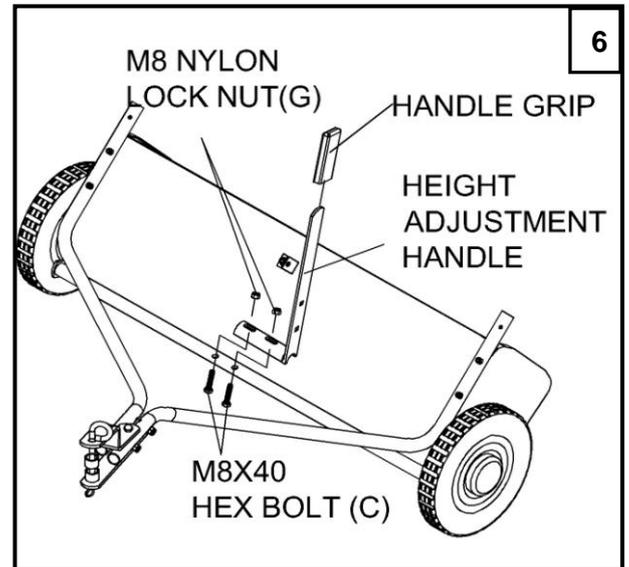
4. **(Figure 4 or 5)** Assemble the hitch brackets to the hitch tubes using two M8 x 55 hex bolts (B) and M8 nylon lock nuts (G). The bolts should straddle the front hitch tube bolt. **Do not tighten yet.**

5. At this time **tighten** the four bolts fastening the hitch tubes to the sweeper housing. Next, **tighten** the two bolts fastening the ends of the hitch tubes together. Finally, **tighten** the two bolts fastening the hitch brackets to the hitch tubes.

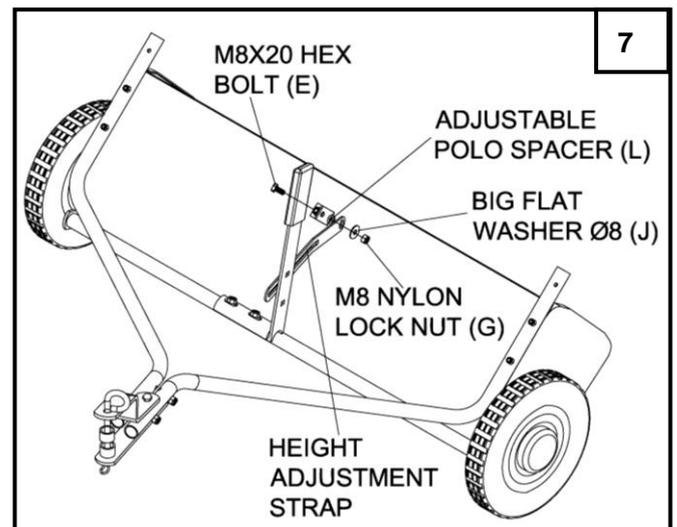
6. **(Figure 4 or 5)** Assemble the hitch pin (Y), two spacers (M) and the Ø3 R pin (N) to the hitch brackets.



7. **(Figure 6)** Assemble the height adjustment handle to the height adjustment tube as shown in figure 6. Use two M8x40 hex bolts (C) and M8 Nylon Lock nut (G). **Do not tighten yet.**

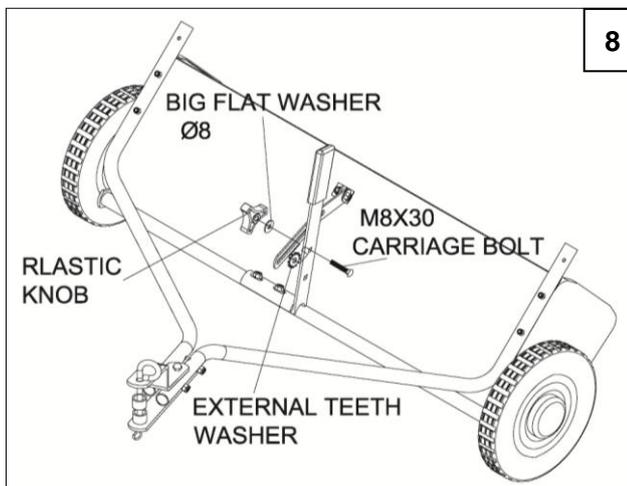


8. **(Figure 7)** Insert a M8x20 hex bolt (E) through the angle bracket. Assemble onto the bolt (in order) the adjustable polo spacer (L), the height adjustment strap, a big flat washer Ø8 (J) and a M8 nylon lock nut (G). **Tighten.**

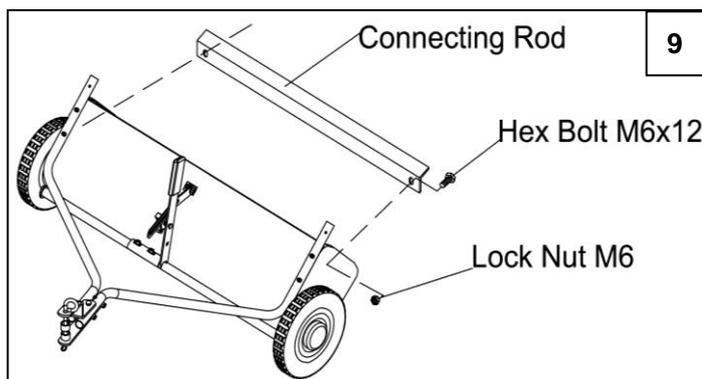


9. (Figure 8) Position the height adjustment handle side to side so that the wear washer and big flat washer can fit between the handle and the height adjustment strap. Tighten the nuts securing the height adjustment handle.

10. (Figure 8) Insert the carriage bolt M8x30 through the height adjustment handle. Assemble onto the bolt, in order, the bolt, the height adjustment handle, the external teeth washer, the height adjustment strap, the external teeth washer, the big flat washer, and the plastic knob.

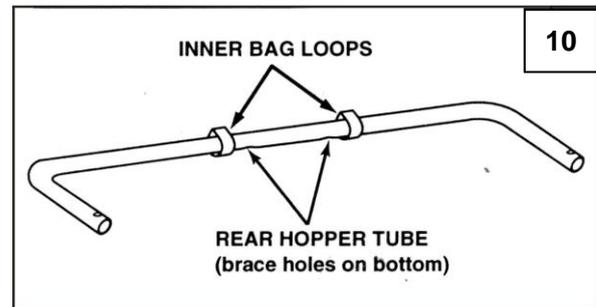


11. (Figure 9) Assemble the connecting rod to the sweeper horsing by using two sets of hex bolt M6x12 and lock nut M6.



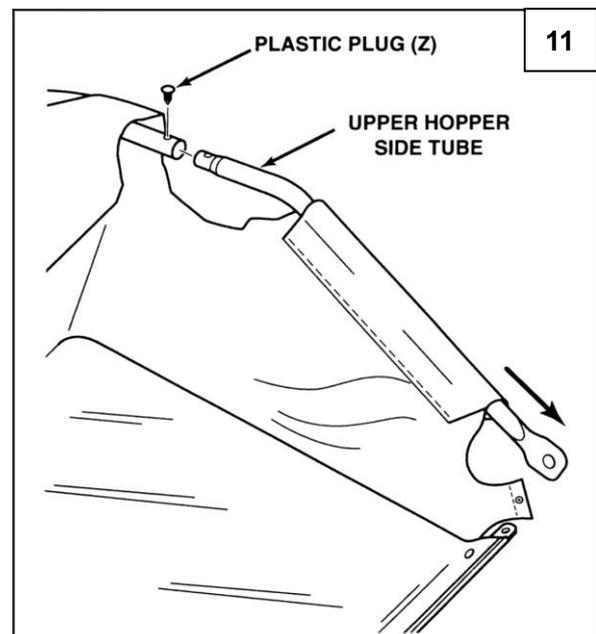
## ASSEMBLY OF HOPPER BAG

1. (Figure 10) Turn a rear hopper tube so that the brace holes in the middle of the tube **face down**. Slide the tube through the two loops sewn to the top rear seam inside the hopper bag.

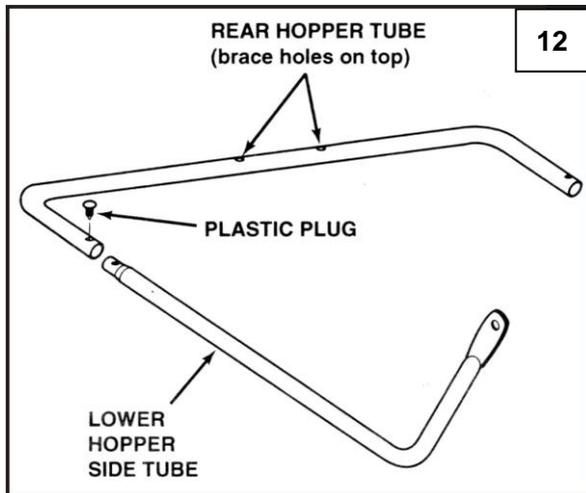


2. (Figure 11) Insert the two upper hopper side tubes through the stitched flaps on each side of the hopper bag.

3. (Figure 11) Assemble the ends of the rear hopper tube onto the ends of the upper hopper side tubes. Fasten together using plastic plugs (Z).

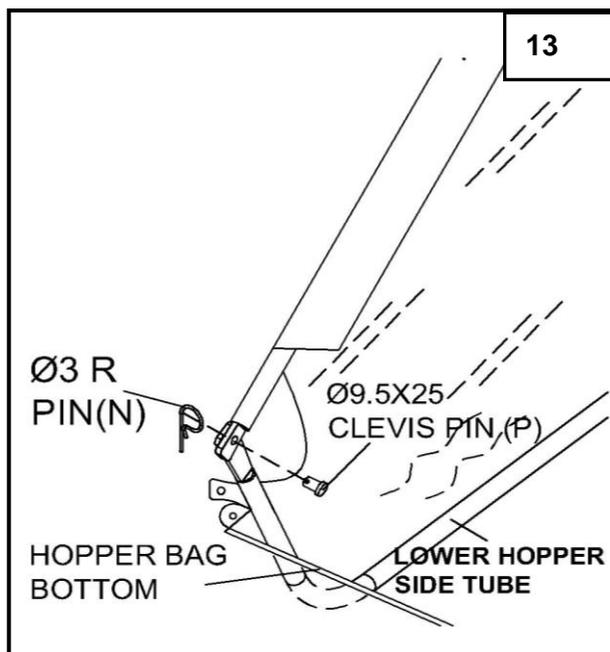


4. **(Figure 12)** Turn the second rear hopper tube so that the brace holes in the middle of the tube **face up**. Assemble the ends of the rear hopper tube onto the ends of the lower hopper side tubes. Fasten together using plastic plugs.



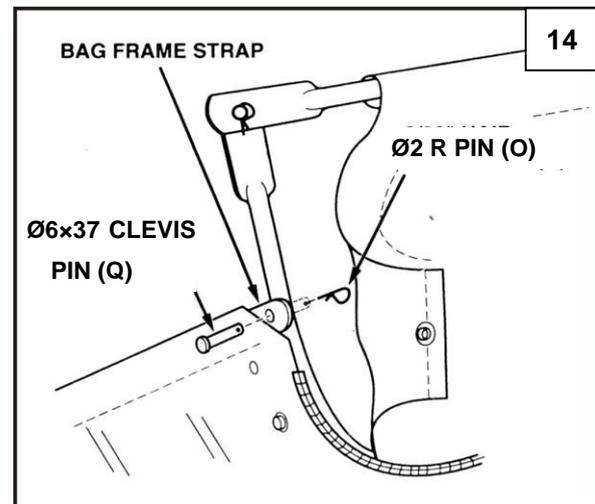
5. **(Figure 13)** Place the assembled lower hopper tubes into the bottom of the hopper bag

6. **(Figure 13)** Attach the ends of the lower hopper side tubes to the **inside** of the upper hopper side tubes using two  $\text{\O}9.5 \times 25$  clevis pins (P) inserted from the inside, and two  $\text{\O}3$  R pins (N).

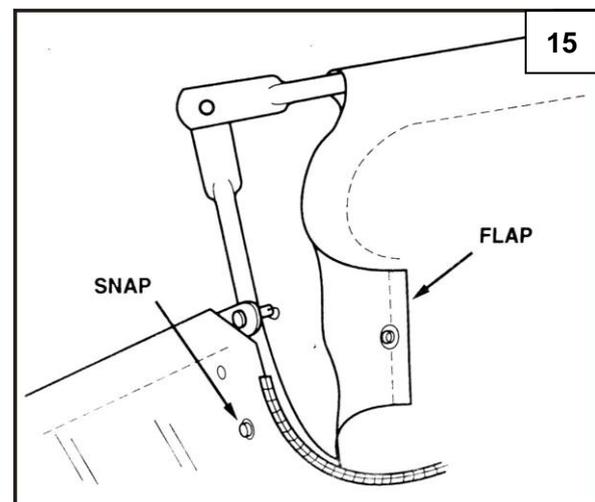


7. **(Figure 14)** Insert the bag frame strap into the stitched sleeve along the front edge of the bag bottom.

8. **(Figure 14)** Assemble the bag frame strap to the lower hopper side tubes using two  $\text{\O}6 \times 37$  clevis pins (Q) and  $\text{\O}2$  R pins (O).

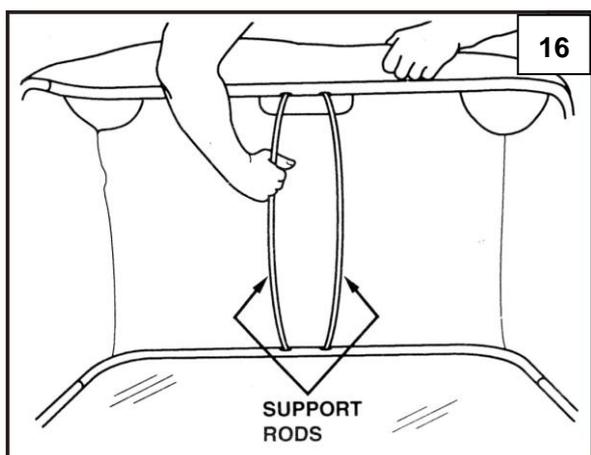


9. **(Figure 15)** Secure the bag corners around the lower hopper side tubes by snapping the bag flaps to the bag bottom on both sides.

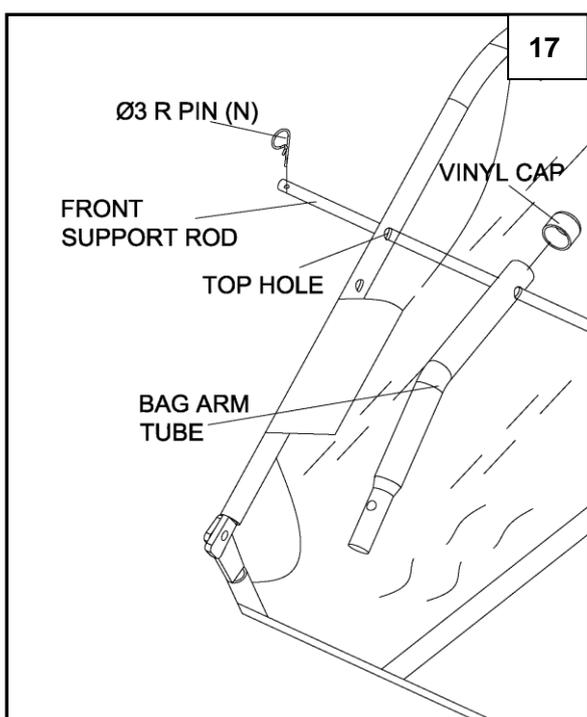


**IMPORTANT: Do not** over bend the support rods during the following step. Over bending will cause the steel rods to loose supporting tension.

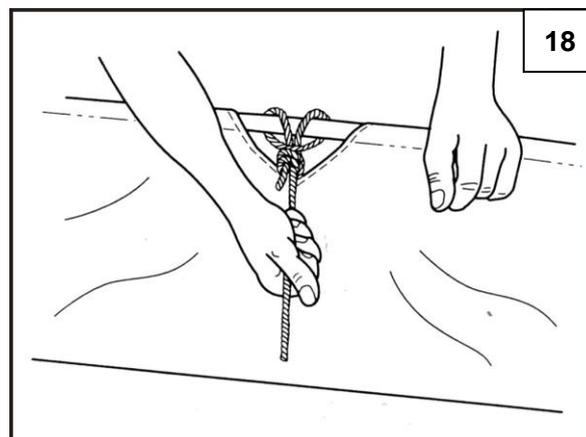
10. **(Figure 16)** Tip the hopper onto its back to assemble the two hopper support rods. Place the ends of each rod into the upper and lower rear hopper tubes, bending the rod just enough to fit into the holes in the tubes.



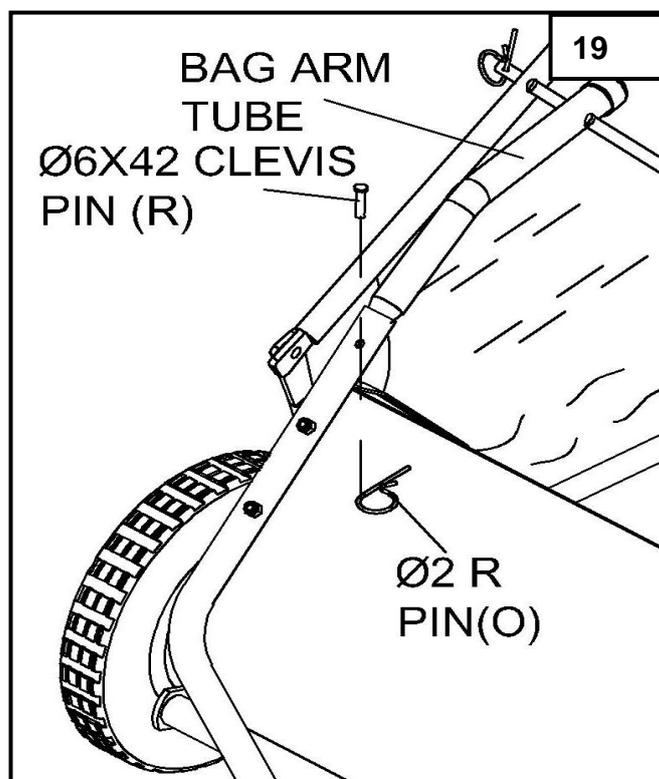
11. **(Figure 17)** Insert the Front Support Rod through the **top** hole in each upper hopper side tube and assemble the bag arm tube and secure it with a  $\varnothing 3$  R pin (N).



12. **(Figure 18)** Secure the rope to the top centre of the hopper bag frame.



13. **(Figure 19)** To assemble the hopper bag to the sweeper, slide the ends of the bag arm tubes into the ends of the sweeper's hitch tubes and secure with two  $\varnothing 6 \times 42$  clevis pins (R) and  $\varnothing 2$  R pins (O).

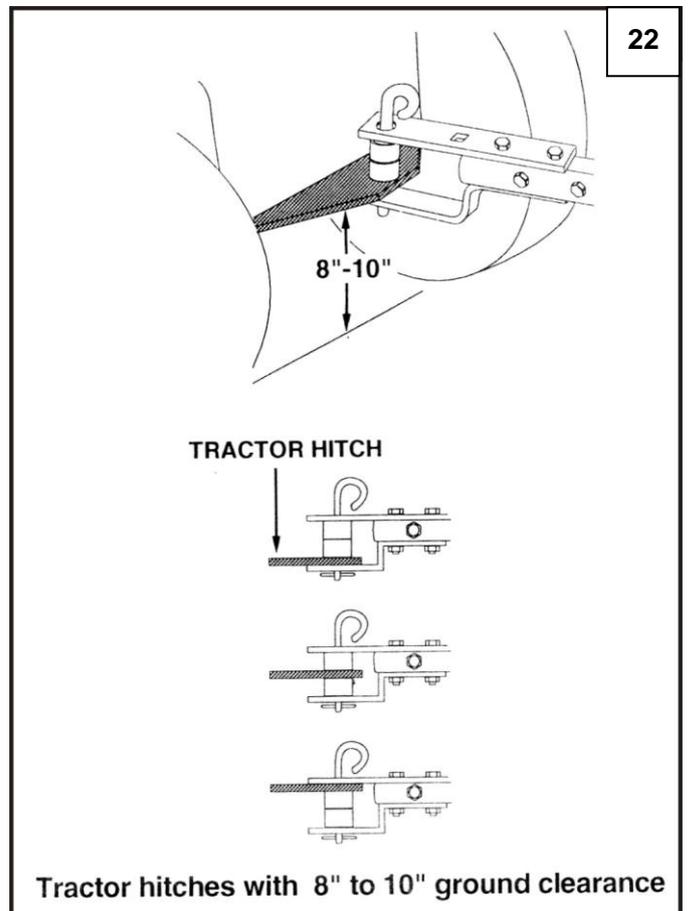
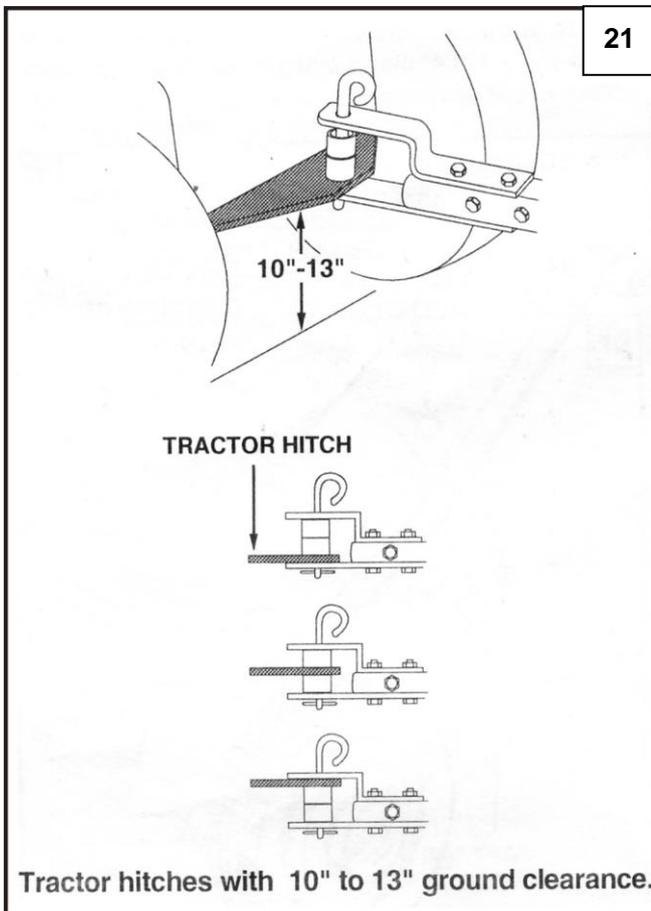
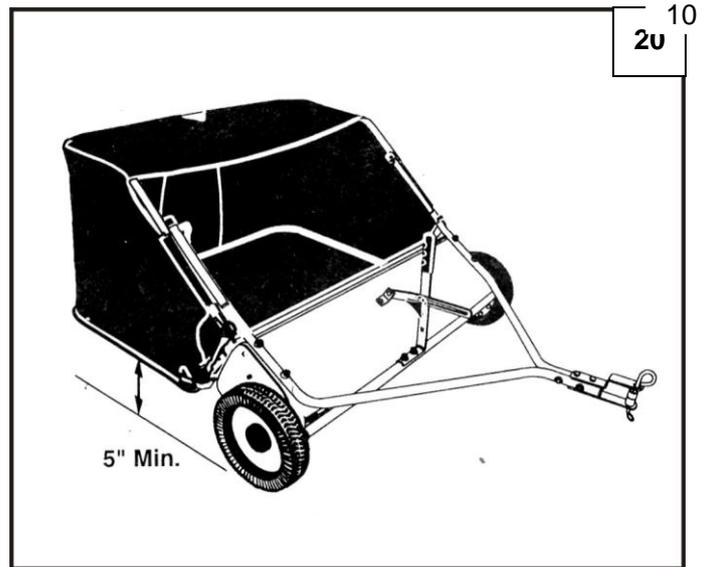


## ATTACHING SWEEPER HITCH TO TRACTOR

(Figures 20, 21, 22)

1. Place the tractor and sweeper on a flat level surface.
2. Set the sweeper height adjustment handle to about the middle of its adjustment range.
3. Attach the sweeper hitch brackets to the tractor hitch, arranging the 3/4" spacers so that the bottom of the sweeper bag is approximately level and 5" to 7" above the ground. See figure 21 for tractor hitches that are 10" to 13" above the ground. See figure 22 for tractor hitches that are 8" to 10" above the ground.

**IMPORTANT:** For best performance, the bottom of the sweeper bag should be approximately level and 5" to 7" off the ground as shown in figure 20.



## OPERATION

### HOW TO USE YOUR SWEEPER

#### BRUSH HEIGHT ADJUSTMENT

To adjust your sweeper brushes to the best operating height, loosen the adjustment knob and push down on the height adjustment lever to raise the brush. Best adjustment is when the brush setting is 1/2" down into the grass. Always mow the grass to an even height before sweeping.

#### SWEEPING SPEED

Try a starting speed of approximately 3 m.p.h. (third gear on most tractors). Depending on the conditions, it may be necessary to adjust the sweeping speed in order to achieve best results.

#### DUMPING OF SWEEPER

Your sweeper can be dumped easily without getting off of the rider or tractor. Simply pull the rope forward to dump the hopper. Always empty hopper after each use.



**CAUTION: Never attach** the hopper rope to any part of your body or clothing! **Never hold onto** the rope while towing the sweeper! **Attach the rope** to the towing vehicle to keep it away from wheels and rotating parts.

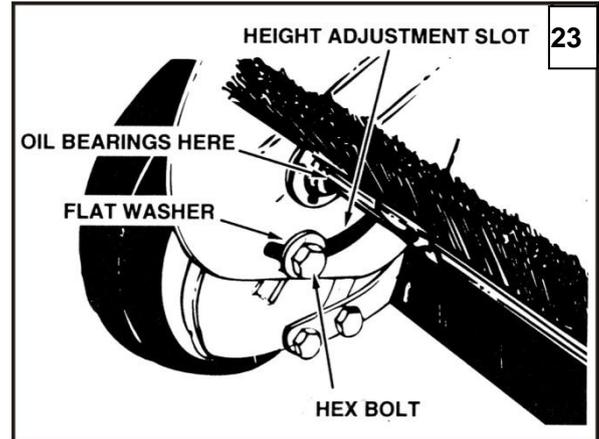


**CAUTION: Keep sweeper away from fire.** Excessive heat can damage the brushes and hopper bag and could cause the bag and its contents to burn.

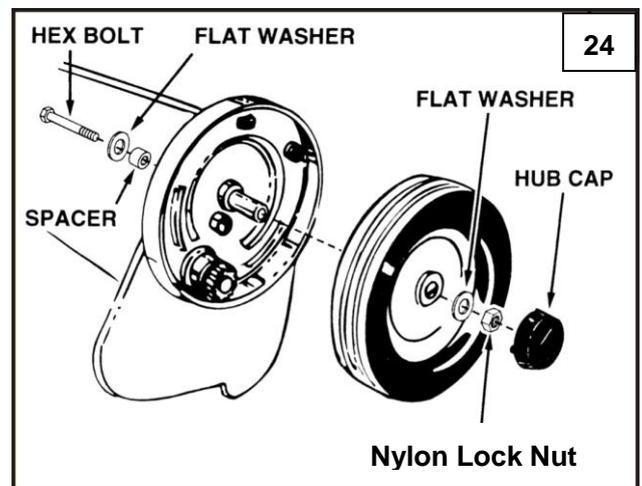
## MAINTENANCE

#### CUSTOMER RESPONSIBILITIES

1. Check for loose fasteners before each use.
2. Clean the sweeper after each use.
  - a. Clean sweeper housing with a soft brush or cloth.
  - b. Clean debris from hopper bag with a brush or broom.
  - c. Remove any material which has wrapped around brushes or ends of brush shaft.
3. Inspect for worn or damaged parts, such as brushes and wheels before each use. Replace as necessary.
4. **(Figure 23)** Lubricate the brush shaft bearing



5. Lubricate the wheel bearings each season. Remove the hub cap and apply a few drops of light weight oil.
6. **(Figure 24)** Every two years, remove the wheels and clean the gears found inside the wheel housing. After cleaning, lubricate the gears with an even coat of light grease. To remove the wheel, pop off the hub cap and remove the lock nut and flat washer.



## STORAGE



**CAUTION: Before storing** the sweeper, always empty the hopper bag to avoid spontaneous combustion.

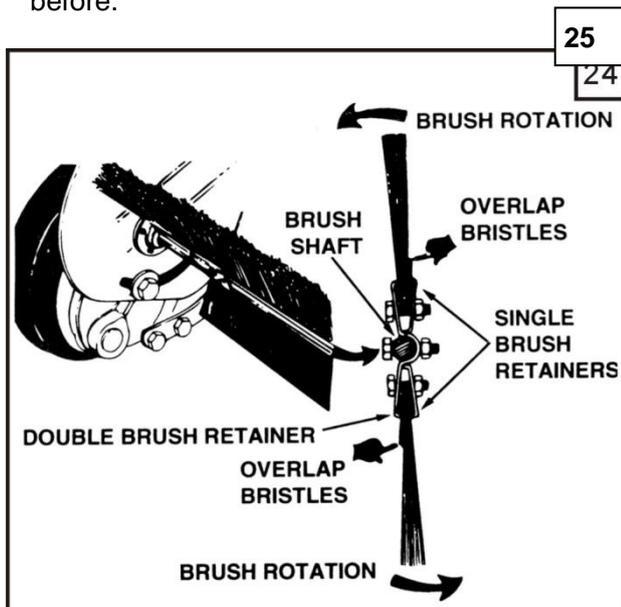
1. Clean the sweeper and hopper bag thoroughly to help prevent rust and mildew.
2. To collapse the hopper bag for storage, remove the two hopper support rods from the rear of the hopper.
3. Store in a dry area.

## SERVICE AND ADJUSTMENTS

### BRUSH REPLACEMENT

**NOTE:** Brush replacement should be done one brush at a time.

1. Remove the hopper bag from the sweeper.
2. **(Figure 25)** Loosen the hex bolts and lock nuts on two single brush retainers which clamp one brush to the double brush retainers. **Do not loosen** or remove the bolts which fasten the double brush retainers to the brush shaft.
3. **(Figure 25)** Slide the brush out of the retainers, noting on which side of the brush the bristles overlap.
4. **(Figure 25)** Install new brush, making sure the bristles overlap on the same side of the brush as before.



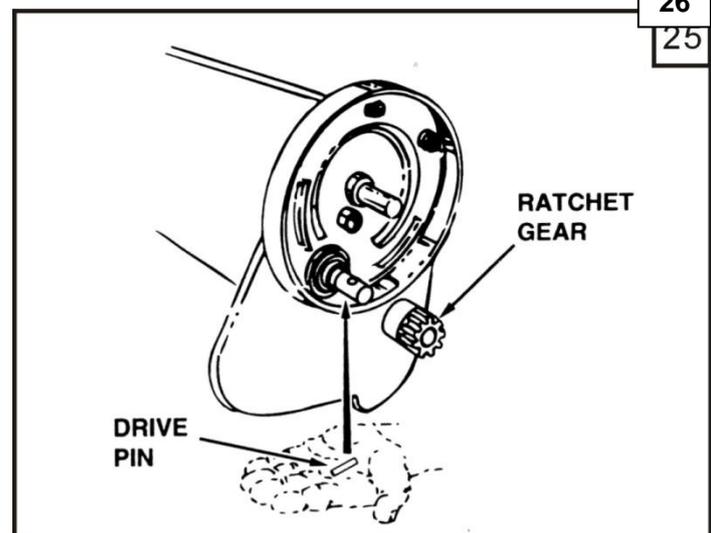
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### WHEEL GEAR AND PAWL SERVICE

**IMPORTANT:** Do not remove both wheels at the same time to avoid mixing of parts. (The R.H. and L.H. ratchet gears are not interchangeable.) Make notes on the position of washers and snap rings during disassembly.

1. Remove only one wheel from the sweeper.
2. Remove the retaining rings and washers which hold the ratchet gear onto the brush shaft.
3. **(Figure 26)** Remove the gear by sliding it off the brush shaft. (Look for the drive pin, which may fall out of the brush shaft when the ratchet gear is removed.)
4. To reassemble, insert the drive pin through the hole near the end of the brush shaft. Make sure the pin slides back and forth easily in the shaft.
5. Lightly grease the shaft and fill the ratchet gear with grease. Assemble the ratchet gear back onto the shaft.
6. Lightly grease the axle and the gear teeth on the wheel, and then reassemble the wheel. The brushes should rotate only during forward rotation of the wheel. If the brushes are driven (rotated) by both forward and reverse rotation of the wheel, the drive pin is jamming in the ratchet gear. Disassemble to clean and lubricate the drive pin and the ratchet gear.
7. Remove the second wheel and repeat the procedure.



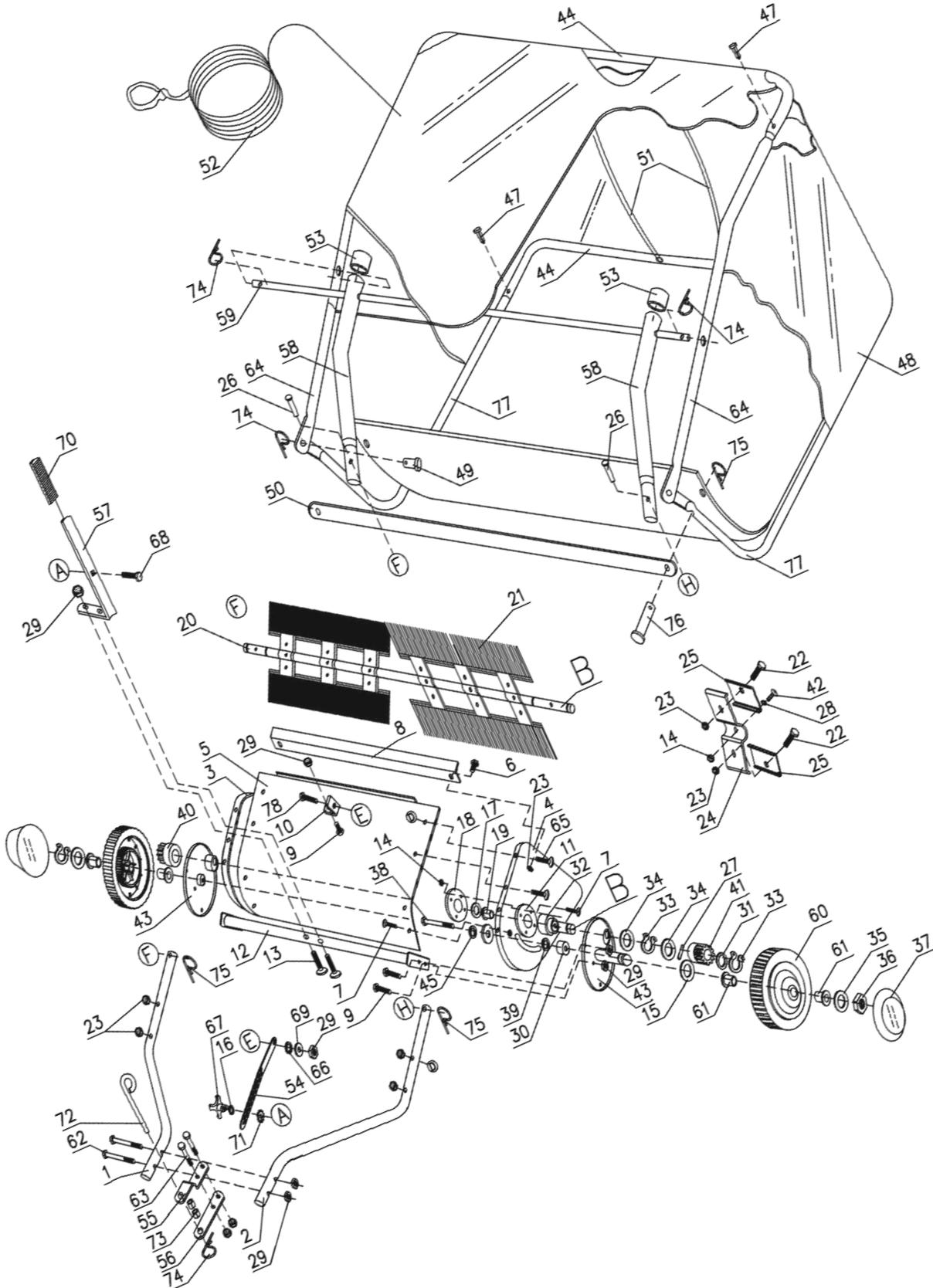
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### TROUBLESHOOTING

Wheels skid when sweeping.	<ol style="list-style-type: none"> <li>1. Brushes set too low.</li> <li>2. Brushes are jammed</li> <li>3. Wheels are jammed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust height till brushes are 1/2" down into grass.</li> <li>2. Stop sweeper. Remove obstruction.</li> <li>3. Remove one wheel at a time to check for obstruction or damage. Refer to Service and Adjustments section.</li> </ol>
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# REPAIR PARTS FOR MODEL 48" LAWN SWEEPER



## REPAIR PARTS FOR MODEL 48" LAWN SWEEPER

Ref #	Description	Qty.	Ref #	Description	Qty.
1	Hitch Tube, Right Side	1	40	Pinion Gear R.H.	1
2	Hitch Tube, Left Side	1	41	Pinion Gear L.H.	1
3	End plate, Right Side	1	42	Hex Bolt M5x25	6
4	End plate, Left Side	1	43	Dust Cover Assy	2
5	Wrapper	1	44	Hopper Frame Tube (Rear)	2
6	Hex Bolt, M6x12	2	45	Lock Washer Ø10	2
7	Hex Bolt, M5x12	14	47	Plastic Plug	4
8	Connecting Rod	1	48	Hopper Bag	1
9	Hex Bolt, M8x16	5	49	Clevis Pin C	2
10	Angle Bracket	1	50	Bag Frame Strap	1
11	Special Washer	2	51	Hopper Support Rod	2
12	Height Adjustment Tube Assy	1	52	Hopper Rope	1
13	Hex Bolt, M8x40	2	53	Vinyl Cap	2
14	Nylon Lock Nut, M5	20	54	Height Adjustment Strap	1
15	Adj. Washer C	2	55	Hitch Bracket	1
16	Big Flat Washer	1	56	Hitch Bracket(Straight)	1
17	Inside Star Washer	2	57	Height Adjustment Handle	1
18	Dust Cover Retainer	2	58	Bag Arm Tube	2
19	Brush Shaft Bushing	2	59	Front Support Rod	1
20	Brush Shaft	1	60	Wheel & Tire Assy. (with bearing)	2
21	Brush	4	61	Wheel Bushing	4
22	Hex Bolt, M6x20	12	62	Hex Bolt, M8x75	2
23	Nylon Lock Nut, M6	18	63	Hex Bolt, M8x55	2
24	Retainer, Brush (Double)	6	64	Upper Hopper Frame Tube	2
25	Retainer, Brush (Single)	12	65	Hex Bolt, M6x45	4
26	Clevis Pin E	2	66	Spacer Bushing FOR Height Adj.Strap	1
27	Dowel Pin (Drive)	2	67	Knob, Plastic	1
28	Mounting Lock Washer, Ø5	6	68	Carriage Bolt, M8x30	1
29	Nylon Lock Nut, M8	12	69	Big Flat Washer, Ø8	1
30	Spacer for Axle	2	70	Handle Grip	1
31	Adj. Washer B	2	71	External Teeth Washer	1
32	Bushing	2	72	Hitch Pin	1
33	Retaining Ring, Ø15	4	73	Open End Bearing	2
34	Adj. Washer A	4	74	R Pin Ø3	5
35	Big Flat Washer, Ø10	4	75	R Pin Ø2	4
36	Nylon Lock Nut, M10	2	76	Clevis Pin B	2
37	Hub Cap	2	77	Lower Hopper Frame Tube	2
38	Hex Bolt, M10x85	2	78	Hex Bolt M8x20	1
39	Spacer Bushing Ø16x3.5	2			

