

OPERATION



CAUTION: AVOID INJURY!

Before attaching or removing the sweeper, make sure the hamper is empty of all material.

ATTACHING

1. Park towing vehicle on a hard, level surface and set the parking brake.
2. Align Clevis (68) with towing vehicle hitch plate.
3. Install Hitch Pin (23) through Clevis Assembly (68) and towing vehicle hitch plate & secure with Hairpin Cotter (30).

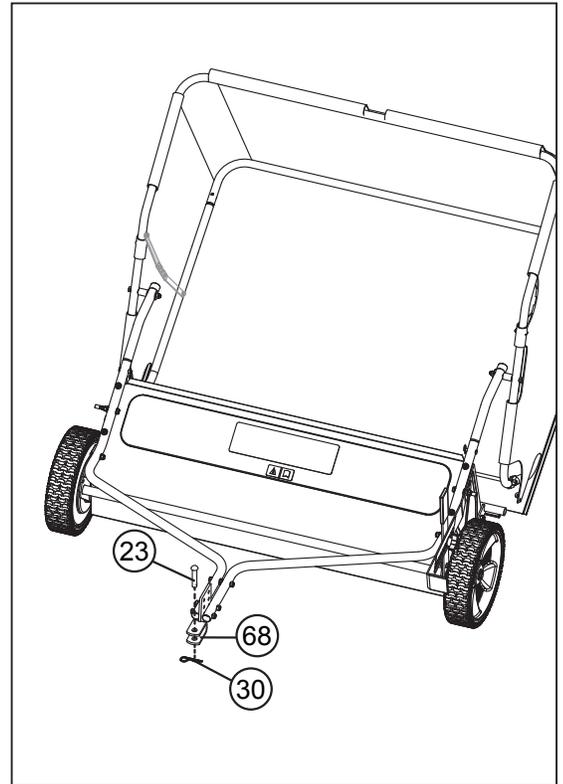
REMOVING

1. Confirm Hamper is empty
2. Park towing vehicle on a hard, level surface and set parking brake.



Sweeper and Tow Bar will shift after removal of Hitch Pin. Use caution when removing Hitch Pin & moving sweeper.

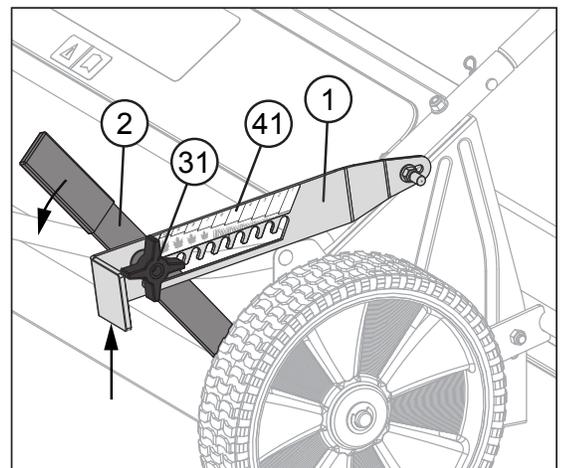
3. Remove Hairpin Cotter (30) and Hitch Pin (23).
4. Push sweeper away from towing vehicle.
5. Install Hitch Pin (23) through Clevis Assembly (68) and secure with Hairpin Cotter (30) for storage.



ADJUSTING TO TRANSPORT POSITION

1. Park towing vehicle on a hard, level surface and set parking brake.
2. Loosen (but do not remove) Knob (31) and adjust the Lock Arm (1) to the 10th position (As indicated on the Adjustment Label (41)).

For adjustment instructions, see the "Adjusting the Brush Height" section.



OPERATION

DETERMINING MAXIMUM TOWED WEIGHT



CAUTION: Avoid injury! Excessive towed load can cause loss of traction and loss of control on slopes. Stopping distance increases with speed and weight of towed load. Total towed weight must not exceed combined weight of towing vehicle, ballast and operator.

STS-427LXH

Weighs 75 lbs (Empty)

Maximum Capacity = 195 lbs with wet grass

**The maximum loaded weight is the average weight of the sweeper plus the weight loaded in the hamper.*



If additional weight is required when towing, add weight at or forward of the rear wheels. Adding weight behind the rear wheels can affect vehicle steering. Refer to your towing vehicle manual for information regarding addition of weight.

Towing capacity will vary with the weight of the towing vehicle and operator. Add the weight of your machine to operator weight to find the maximum capacity for towing.

Example: **If towing vehicle weighs: 400 lbs**
 Add operator weight: 200 lbs
 Combined weight equals: 600 lbs

To maintain stability in this example, you cannot safely tow more than 600 lbs without first adding ballast (additional weight) to the towing vehicle.

OPERATION

ADJUSTING THE BRUSH HEIGHT

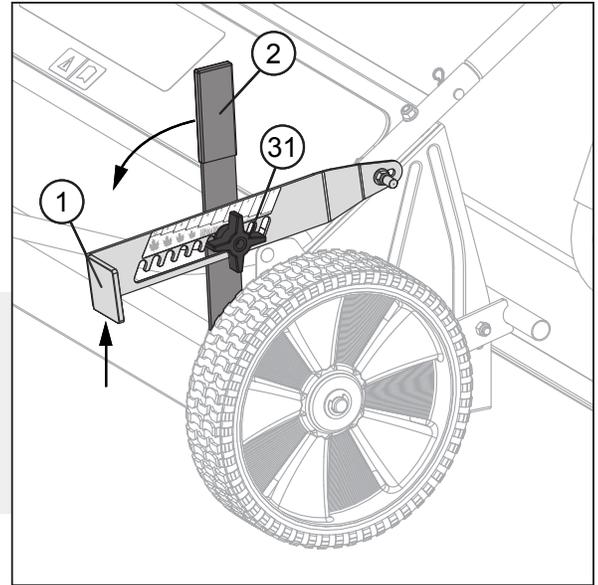
IMPORTANT: Setting the brush height too low for sweeping conditions causes excessive wheel skipping and slipping. For best performance, adjust brush height as high as possible for the material and conditions.

Normal lawn sweeping is accomplished when the brushes sweep at the same height as the mower cutting height.

TO ADJUST BRUSH HEIGHT:

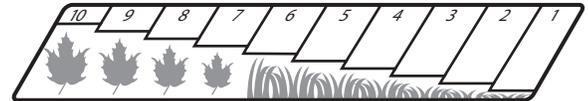
1. Park towing vehicle on a level, hard surface and set the parking brake.
2. Turn towing vehicle off.
3. Measure the height of the of the mower blade.
4. Attach sweeper to the towing vehicle hitch plate as previously described.
5. Adjust Lock Arm (1) into a slot that allows the brushes to sweep at the same height as the mower blade:

- a) Loosen (do not remove) Knob (31).
- b) Apply light downward pressure to the Height Adjustment Handle (2) while lifting up on the Lock Arm (1).
- c) Move Height Adjustment Handle (2) to the desired position and lower Lock Arm (1).
- d) Tighten Knob (31) firmly.



6. Check to be sure that the Hamper is not dragging on the ground & adjust as necessary (see 'Leveling the Hamper' section).

Higher numbers on the Lock Arm (1) decal indicate higher brush heights.



(41) 1009046 (Not to scale)

For best performance, brush height should be set to the highest possible number while still adequately sweeping the lawn.

It is recommended to set the brush height at a higher number than is anticipated to be needed and perform a short sweeping test on the lawn. Reduce brush height one setting at a time until the desired sweeping performance is achieved.

Lock Arm #	Approx. Brush Height	Sweeping Conditions
1 to 3*	1/4" to 1" (6.5mm to 25mm)	Extremely low-cut grass and light material.
3 to 6	1" to 2" (25mm to 50mm)	Mowed lawns under normal conditions or light leaves
6 to 10	2" to 3-1/4" (50mm to 82mm)	High grass, heavy leaves or heavy grass clippings

*Settings 1 to 3 should be used only on very short grass heights and light material.

OPERATION

LEVELING THE HAMPER

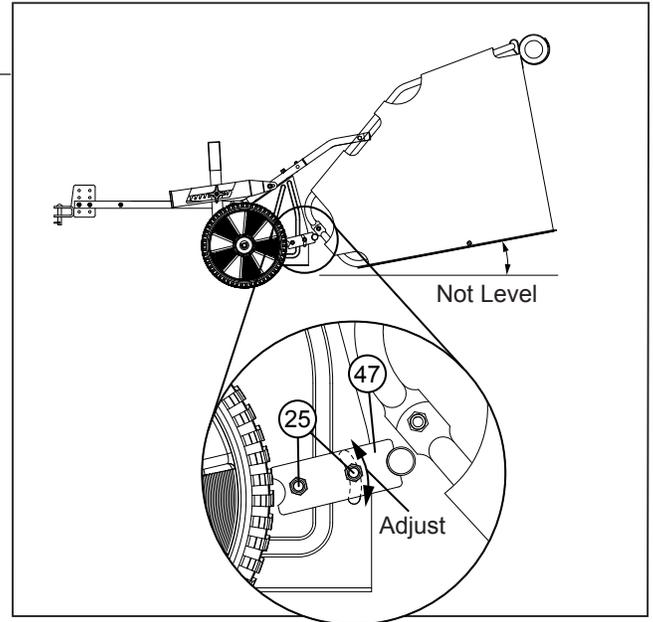
After correct brush height is determined, it may be necessary to adjust the Hamper Stop (47) so that the Hamper assembly remains clear of the ground.

TO ADJUST THE HAMPER STOP (47):

1. Loosen (but do not remove) the two Nuts (25) securing each side of the Hamper Stop (47).
The rear mounting holes are slotted, allowing the Hamper Stop (47) to be pivoted up or down for adjustment.
2. Move the Hamper Stop (47) up or down to adjust the resting position of the Hamper assembly so that it is approximately level.
3. Tighten Nuts (25) on each side to secure the Hamper Stop (47) in position.

If correct Hamper assembly adjustment is not possible, the Clevis Assembly (68) may need to be readjusted so that the Hamper assembly has adequate clearance to the ground.

The sweeper Tow Tubes should be parallel with the ground (or angled slightly forward) when the sweeper is connected to the towing vehicle. If the Tow Tubes are angled rearward, adjust the Tow Tube mounting holes on the Clevis Assembly (68) lower. This will angle the Tow Tubes forward and raise the Hamper assembly.



OPERATING SPEED

The operating ground speed of the sweeper has a direct effect on how material is thrown into the hamper. Material will be thrown farther toward the back of the hamper as ground speed increases.

Operation speed will depend on the condition of the lawn and material being swept. Operate the sweeper at a ground speed that will throw material to the back of the hamper. Under normal conditions 3 mph (approximately the speed of a brisk walk or 40 feet in 9 seconds) works best.

Maximum operating speed is 5 mph.

OPERATION

EMPTYING THE HAMPER

Before dumping material from the Hamper: Park towing vehicle and set parking brake (see owners manual).

TO EMPTY HAMPER:

1. Tow the sweeper to a location the material should be dumped.
2. Stop towing vehicle and set parking brake.
3. Pull Handle (35) and Rope (37) to tilt hamper forward/upward, allowing material to exit the opening at the front of the Hamper.
4. Replace Pull Handle (35) to Hook and Loop (36) fixed to the towing vehicle.



CAUTION: AVOID INJURY!

Make sure area is clear of bystanders, especially children, before backing up.

IMPORTANT: Avoid overfilling the Hamper, especially when sweeping freshly mowed grass or other moist material. Heavy loads will be more difficult to dump.

IMPORTANT: After dump operation is complete, confirm Pull Handle (35) is fully secured to the back of the towing vehicle. Pull Rope and Handle can get tangled in the sweeper brushes if they fall on the ground in front of the sweeper during operation.



TO PREVENT ANY POTENTIAL INJURY OR DIGITAL AMPUTATION, PLEASE BE AWARE OF THE FOLLOWING:



- **DO NOT** wrap the pull rope around your wrists, fingers or ANY body parts.
- **DO NOT** use the pull rope while the towing vehicle is moving.
- Attach the pull rope as directed on pages 14-15 of this manual.
- Avoid overfilling the hamper. Heavy loads are more difficult to dump.
- Park towing vehicle and set the parking brake before dumping material.
- Use the handle that has been provided.
- **After dumping the hamper:** Always make sure to fully secure the Pull Handle to the back of the towing vehicle using the Hook and Loop tape.

USING THE WIND SCREEN

The Hamper Wind Screen can be configured in two positions based on conditions & preference.

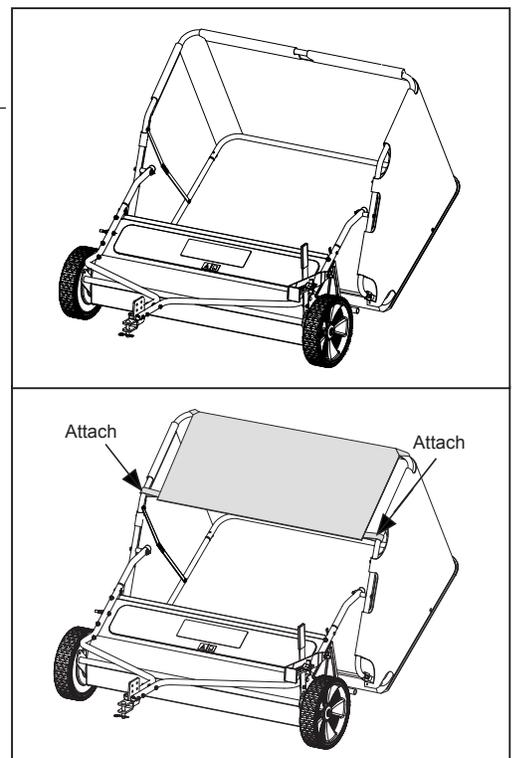
POSITION 1: Wind Screen Fully Open

Allow the Wind Screen to hang off the back of the Hamper. This condition can be used when there is little to no wind; Operating speed should be slower to ensure material is not thrown over the Hamper.

POSITION 2: Wind Screen Half Closed

Attach the Wind Screen to the Hamper Upper Side Tubes using the elastic straps on the ends of the Wind Screen.

Can be used in a medium wind to prevent material from blowing out of Hamper; Operating speed should be slower to ensure material is not thrown over the Hamper or Wind Screen.

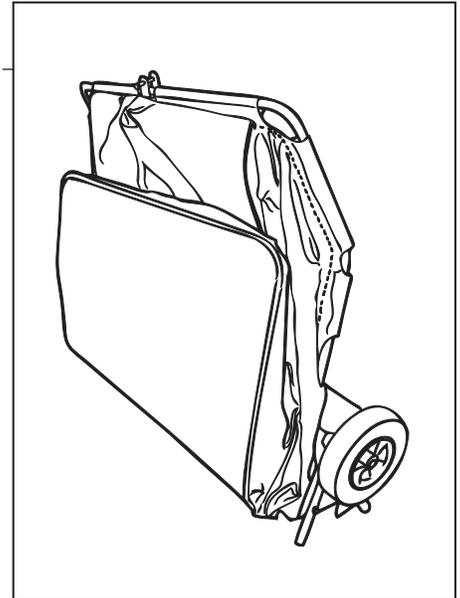


OPERATION

STORAGE

The sweeper can be tipped upright & stored against a wall using a minimum of space.

1. Remove any loose material from hamper, brushes, brush housing and drive assembly. The sweeper should be clean and dry before configuring for storage.
2. Remove small hairpin cotters and clevis pins that are securing the hamper assembly to the brush housing. Remove the hamper assembly. Replace the clevis pins and hairpin cotters in the hamper mount tubes for storage.
3. Collapse the hamper by unlocking the spreader bar assembly (*push forward*). Orient the collapsed hamper so that the rear hamper tubes are up. Put rope and pull handle into the pocket created between the rear hamper tubes.
4. On sweeper, adjust brush height to position 10 on the Lock Arm
5. Roll sweeper to desired storage area. Lift clevis assembly vertically so that the sweeper is standing upright on the hamper mount tubes and hamper stop bar. Move close to the wall so that the top of the brushing housing faces the wall (brushes face out).
6. Position collapsed hamper between sweeper & wall and hang on the clevis assembly, from the middle of the rear hamper tube.



TROUBLESHOOTING

If the sweeper does not pick up:	<ol style="list-style-type: none"> 1. The brush height adjustment is set too low. The sweeper is not a dethatcher and cannot pull thatch, embedded needles or embedded leaves from deep in the grass. The brush height should be adjusted to the height of the mower deck blades. 2. The brush height adjustment is set too high. Lower the brush height one notch at a time on the lock arm until the desired performance is achieved. 3. There is a problem with the brush drive system. See the 'Sweeper Wheels' section below.
Grass or material goes over the top of the hamper:	<ol style="list-style-type: none"> 1. Forward speed is too fast. Slow towing vehicle down. Best speed is 3 mph or less (3 mph = 40 feet in 9 seconds). 2. The wind screen can be used to remedy this concern. See the 'Using the Wind Screen' information in the 'OPERATION' section of this manual.
Sweeper wheels not moving, skipping or are locking up:	<ol style="list-style-type: none"> 1. The wheels are geared to turn the sweeper brushes. If the sweeper wheels are not moving, skipping or locking up; it is possible that the brush height is set too low. Measure the cut height of the mower. Adjust the brush height to sweep at the same level as the cut height. 2. The drive dowel(s) located inside the small metal drive pinion gear(s) are sticking. Remove, clean and lubricate the dowel(s), drive pinion gear(s) and brush axle as shown in the 'Preventative Maintenance' section of this manual. 3. The drive pinion gear(s) are worn and because of this it locks the drive dowel(s). Remove, inspect and replace the drive pinion gear(s) and drives dowel(s) as needed. See 'Preventative Maintenance' section of this manual. 4. The drive pinion gears, when re-installed, were installed backwards. For example: the right side gear was installed on the left side of the sweeper. See the 'Preventative Maintenance' section of this manual for proper drive pinion gear assembly.
Hamper drags on the ground:	<ol style="list-style-type: none"> 1. The tow bars are not level with the ground when attached to the towing vehicle. Remove the clevis assembly and reinstall in a different set of mounting holes. The clevis can be turned over to get additional adjustment. See assembly 'Figure 02' and 'Leveling the Hamper' sections of this manual.
Hamper orientation is too high:	<ol style="list-style-type: none"> 1. Hamper mount tubes are assembled upside down. See Assembly Step 14 (on page 14) and confirm orientation of hamper mount tubes.

MAINTENANCE



IMPORTANT: Safety glasses should be worn while performing maintenance operations on the sweeper. Solvent proof gloves (rubber or latex), should be worn when using any cleaning or lubrication products.

GENERAL PREVENTATIVE MAINTENANCE

1. Do not allow material to remain in the Hamper for extended periods of time. Clean the Hamper using a water hose and allow it to dry completely before storage.
2. Check all moving parts for wear and freedom of movement.
3. Check all fasteners for tightness and retighten as required.
4. Inspect for rust on painted surfaces. Sand lightly and touch up damaged areas with enamel paint.
5. Routine lubrication of the Dowel Pin and Drive Pinion is required. At a minimum it is recommended to do this twice per year: in the fall before storage, and again in the spring before the first use. Follow the procedure outlined below in the 'Wheel and Drive Gear' maintenance section.
6. Check the Drive Pinions and Dowel Pins for wear and replace as needed. These are considered normal wear parts. Contact the Customer Service Department to purchase replacement parts.
7. Lubricate the Wheel Axles annually following the procedure outlined in the Maintenance section.

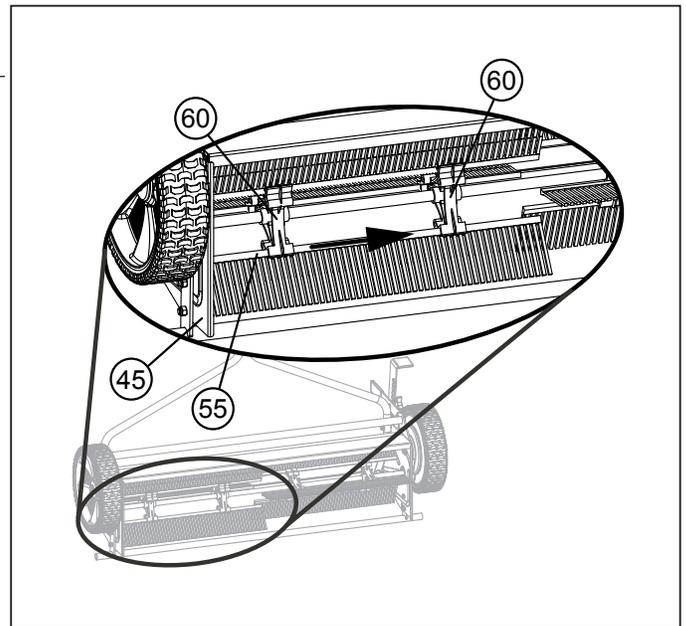
BRUSH SECTION REPLACEMENT

Note: This procedure will show an example for right side Brush Section (55) replacement. Reverse pull directions for left side Brush Section replacement.

TOOLS NEEDED:

- Safety Glasses
- Work Gloves
- Rubber Mallet

1. Stand the sweeper in storage position on a clean flat surface such as garage floor or sidewalk (do not hang hamper from clevis assembly).
2. Inspect the Brush Section and notice which side has the short bristles (these will be located near the metal rail of the Brush Section). It is important that the new Brush Section is assembled in the same orientation.
3. Using the rubber mallet, tap the metal rail of the Brush Section (55) to the left. This will loosen the Brush Section from the Brush Holders (60).
4. Wearing work gloves, firmly grasp the Brush Section (55) between the Brush Holders (60) and pull to the right. Continue to pull the Brush Section (55) to the right until it is free from both Brush Holders (60). *Note: It may be necessary to have a second person hold the sweeper in place while pulling the Brush Section (55) free.*
5. Align the metal rail of the new Brush Section (55) with groove on inside Brush Holder (60). *Note: Orientation of Brush Section (55) short bristles must be as observed in Step 2.*
6. Tap Brush Section (55) into Brush Holder (60) using the rubber mallet.
7. Continue to tap Brush Section (55) into the first Brush Holder (60). Be sure to align the metal rail of the Brush Section (55) with the groove on the second Brush Holder (60).
8. Continue to tap Brush Section (55) into Brush Holders (60) until the metal rail aligns with the remaining two Brush Sections (55) or about 1/2 to 3/4 inch from Brush Housing (45) side panel.
9. Turn brush assembly and confirm there is no contact between the metal rail of the Brush Section (55) and the Brush Housing (45) side panel. If there is contact, pull the Brush Section (55) to the right until brush assembly spins freely.
10. Repeat as need for the remaining Brush Sections (55).



MAINTENANCE



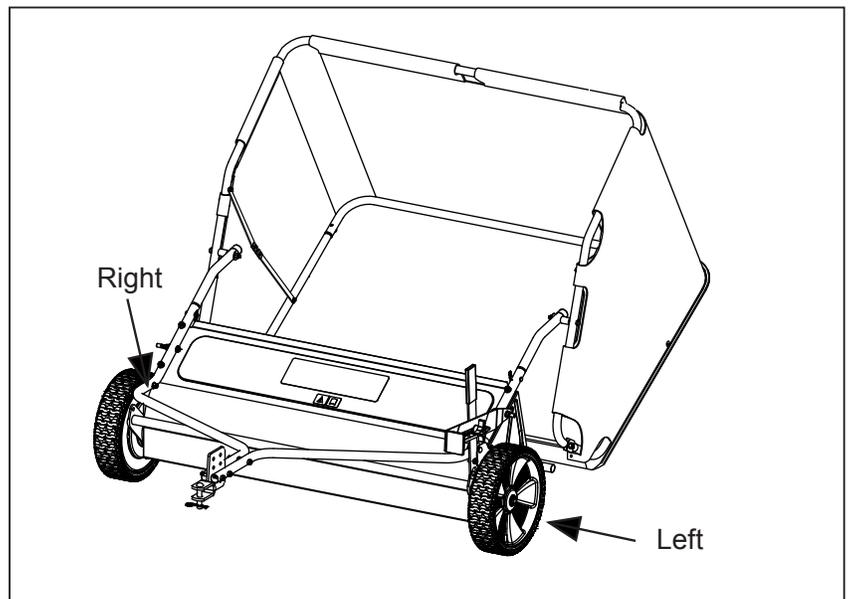
IMPORTANT: Safety glasses should be worn while performing maintenance operations on the sweeper. Solvent proof gloves (rubber or latex), should be worn when using any cleaning or lubrication products.

WHEEL & DRIVE GEAR

IMPORTANT: Drive Pinions (64 & 65) are Right and Left hand specific as indicated on the bottom surface of the part. Left hand Drive Pinion (64) is indicated with 'L' and right hand Drive Pinion is indicated with 'R'. Refer to the illustration below showing the right and left side of sweeper.

TOOLS NEEDED:

- Safety Glasses
- Medium Flat Tip Screwdriver
- Retaining Ring Pliers (External)
- 7/16 inch Wrench
- 1/4 inch Wrench
- Rubber / Latex Gloves

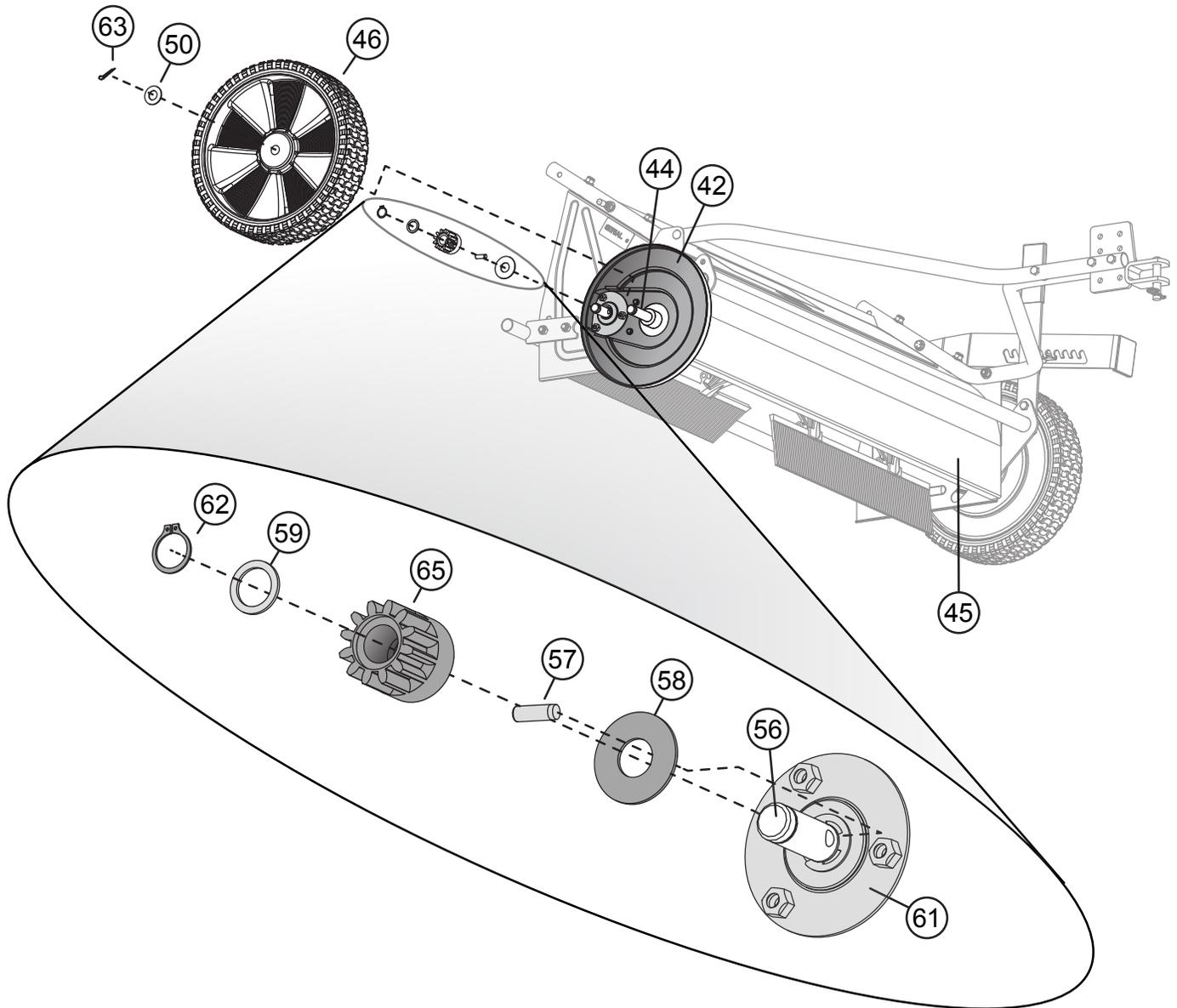


MAINTENANCE



IMPORTANT: Safety glasses should be worn while performing maintenance operations on the sweeper. Solvent proof gloves (rubber or latex), should be worn when using any cleaning or lubrication products.

WHEEL AND DRIVE GEAR



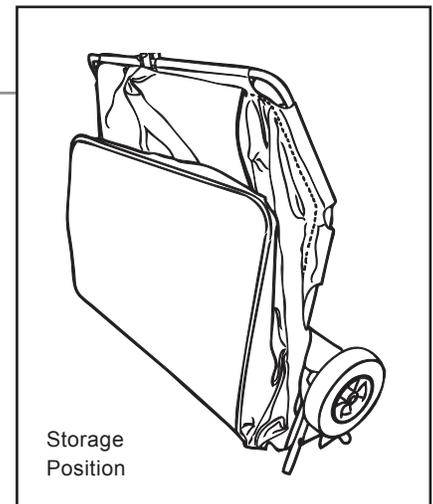
MAINTENANCE

WHEEL AND DRIVE GEAR

REF	PART NO.	DESCRIPTION	QTY	REF	PART NO.	DESCRIPTION	QTY
42	1008955	Dust Cover	2	57	R-2261	1/4" x 3/4" Dowel Pin	2
44	1018931-01	Wheel Axle	2	58	R-2262	5/8" Large Flat Washer	2
45	1008986-16SER	Brush Housing	1	59	R-2263	5/8" Flat Washer	2
46	1008987	Wheel	2	61	R-2289SER	Bearing Retainer	2
50	B-4768	5/8" Machine Bushing	4	62	R-2320	5/8" External Retaining Ring	2
53	F-577	5/8" E Ring	2	63	1008098	Pin, Cotter Small	4
54	1019245	Label, Serial No	1	65	1019233RH	RH Drive Pinion (Not Shown)	1
56	1019216-01	Brush Axle	1				

DISASSEMBLY & INSPECTION:

- Stand the sweeper in storage position on a clean flat surface such as a garage floor or sidewalk (do not hang hamper from clevis assembly).
- Using pliers, remove cotter pin (63).
- Remove Machine Bushing (50) & Wheel (46).
- Inspect Wheel gear & Wheel Axle hole for damage & wear.
- Inspect Wheel Axle (44) for damage & wear.
Note: Wheel Axle (44) can be removed from the inside of the brush housing.
- Clean any dirt or debris from the inside of the Wheel (46) and Dust Cover (42)
- Remove Retaining Ring (62) from recess in drive pinion gear. This example shows the RH Drive Pinion or (65).
- Remove Flat Washer (59) and Drive Pinion (65). Note: Cup one hand under the Drive Pinion during removal as the Dowel Pin (57) may fall free.
- Inspect and clean the inside of the Drive Pinion. Note that the bottom of this gear has 'R' emboss into it, indicating the RH Drive Pinion.
- Remove the Dowel Pin (57) from the Brush Axle (56) (if it has not already fallen free).
- Inspect and clean the Dowel Pin
- Inspect and clean the Dowel Pin hole on the brush axle.
A small rag or paper towel can be used to clean the inside of the hole.
- Remove the Large Flat Washer (58). Inspect and clean the washer and the area around the Brush Axle (56).



If Bearing Retainer (61) replacement is needed, continue with Step 15.

If Bearing Retainer (61) does not need replacement, continue at 'Assembly and Lubrication' section.

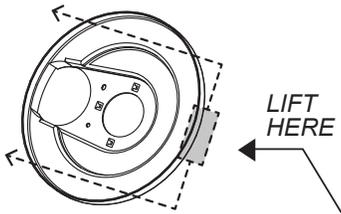
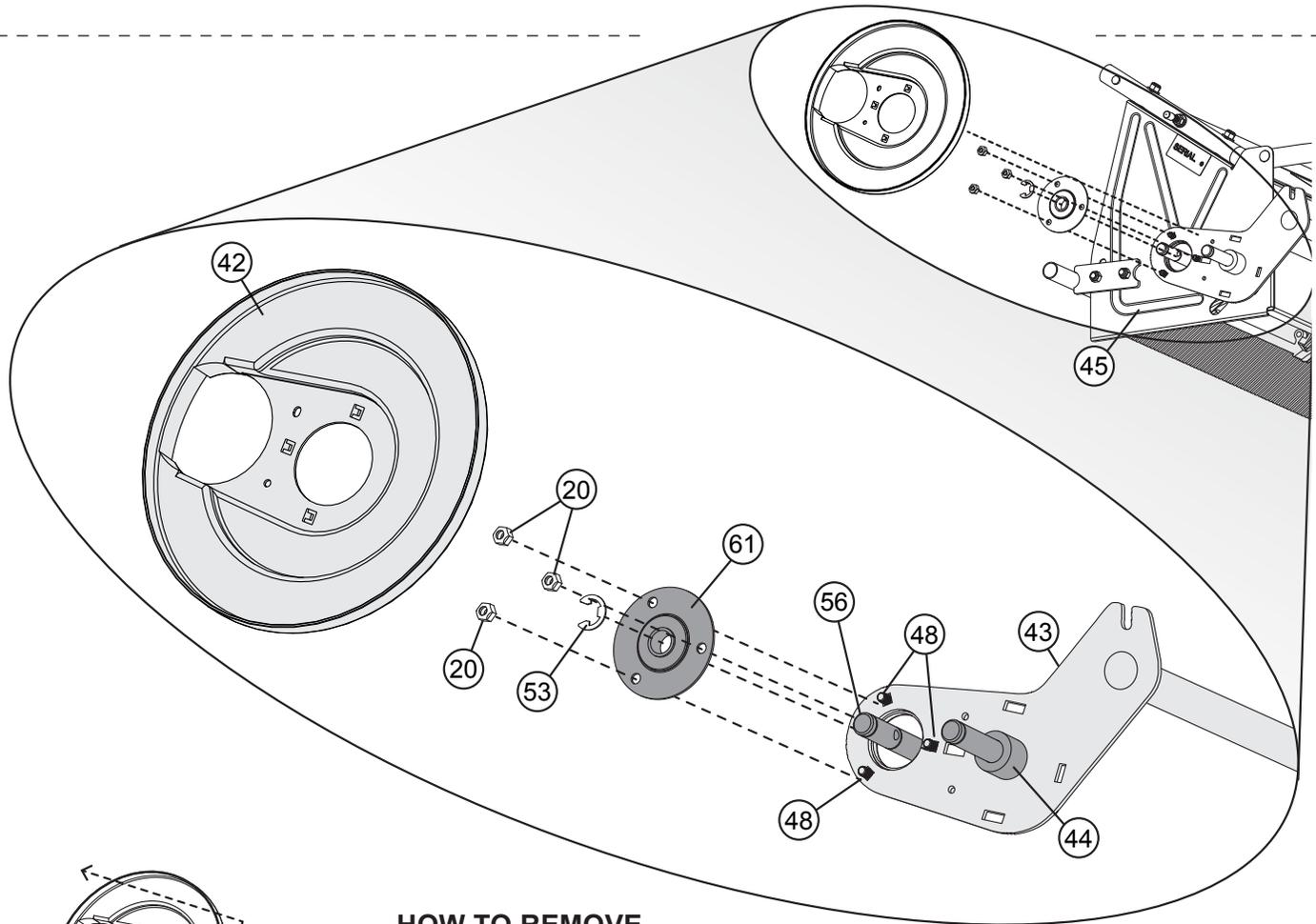
- If Bearing Retainer (61) replacement is needed, remove Dust Cover (42).
- Remove E-Ring (53) using a medium flat tip screwdriver.
- Remove the Lock Nuts (20) securing the Bearing Retainer.
Note: Do not let the Carriage Bolts (48) fall out of the Lower Pivot (43) side plate.
- Remove Bearing Retainer (61)

MAINTENANCE



IMPORTANT: Safety glasses should be worn while performing maintenance operations on the sweeper. Solvent proof gloves (rubber or latex), should be worn when using any cleaning or lubrication products.

DUST COVER & BEARING RETAINER



HOW TO REMOVE THE DUST COVER (42):

Lift up on the edge furthest from the brush axle opening and slide the entire cover toward the brush axle (56).

REF	PART NO.	DESCRIPTION	QTY	REF	PART NO.	DESCRIPTION	QTY
20	B-1673P	1/4" Lock Nut	10	49	50M0624P	3/16" x 1-1/2" Cotter Pin	4
42	1008955	Dust Cover	2	53	F-577	5/8" E Ring	2
43	1008957-16	Lower Pivot	1	56	1019216-01	Brush Axle	1
44	1018931-01	Wheel Axle	2	61	R-2289SER	Bearing Retainer	2
45	1008986-16SER	Brush Housing	1	62	R-2320	5/8" External Retaining Ring	2
48	11M0808P	1/4" x 1/2" Carriage Bolt	6	63	1008098	Pin; Cotter, Small	4

MAINTENANCE

DUST COVER & BEARING RETAINER

ASSEMBLY & LUBRICATION:

If Bearing Retainer (61) was removed, continue with Step 1. If Bearing Retainer (61) was not removed, begin at Step 5.

1. Insert new Bearing Retainer (61) onto Brush Axle (56). The Bearing Retainer (61) should fit flush on the Lower Pivot (43) side plate with the Bearing Retainer (61) flange fitting inside the hole in the Lower Pivot (43) side plate and hole in the Brush Housing (45). *Note: Take care when assembling the new Bearing Retainer (61) so that the Carriage Bolts (48) remain in Lower Pivot (43) side plate.*
2. Assemble the 3 Lock Nuts (20) securing the Bearing Retainer (61). Tighten all three Lock Nuts (20).
3. Snap E-Ring (53) into place on the Brush Axle (56). *Note: Be sure E-Ring is fully engaged with groove on Brush Axle (56).*
4. Assemble the Dust Cover (42) to the Lower Pivot (43) side plate.
5. Apply WD40, 3 in 1 oil or other similar light lubricant directly to the inside of the Dowel Pin hole.
6. Replace the Large Flat Washer (58) onto the Brush Axle (56) until it touches the Bearing Retainer (61).
7. Turn the Brush Axle (56) so that the Dowel Pin hole is horizontal with the ground.
8. Apply WD40, 3 in 1 oil or other similar light lubricant to the Dowel Pin (57) and insert into the Dowel Pin hole on the Brush Axle (56). *Note: Center the Dowel Pin (57) so that an even amount is showing on both sides of the Brush Axle (56).*
9. Insert the Drive Pinion (65) onto Brush Axle until it touches the Large Flat Washer (58).
Note: Dowel Pin (57) will now be inside the Drive Pinion (65).
10. Insert Flat Washer (59) over the Brush Axle (56) and into the recess on the Drive Pinion (65).
11. Assemble the Retaining Ring (62) onto the Brush Axle (56). Be sure that the Retaining Ring (62) is fully engaged with the groove on the Brush Axle (56).
12. If removed, replace the Wheel Axle (44) from the inside of the Brush Housing (45).
13. Apply a light coating of general purpose axle oil/grease to the Wheel Axle (44).
14. While holding the Wheel Axle (44) on the inside of the Brush Housing (45), insert the Wheel (46) onto the Wheel Axle (44).
Note: Wheel may have to be turned slightly to engage Wheel gear with Drive Pinion gear.
15. Replace the Machine Bushing (50) and insert Cotter Pin (63) into place on Wheel Axle (44).
Repeat for left side Wheel and Drive Gear service.

SERVICE



QUALITY CONTINUES WITH QUALITY SERVICE

If you have installation questions, are missing parts or need replacement parts, don't go back to the store!

Please find your product serial number and model number, then contact our Customer Service department:



In North America and Canada call
Toll-Free: **877-728-8224**



Chat online: **www.brinly.com**



Email: **customerservice@brinly.com**

ONLINE

BRINLY.COM

Additional info and videos are available on our website. Please visit the URL above OR scan this QR code.

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