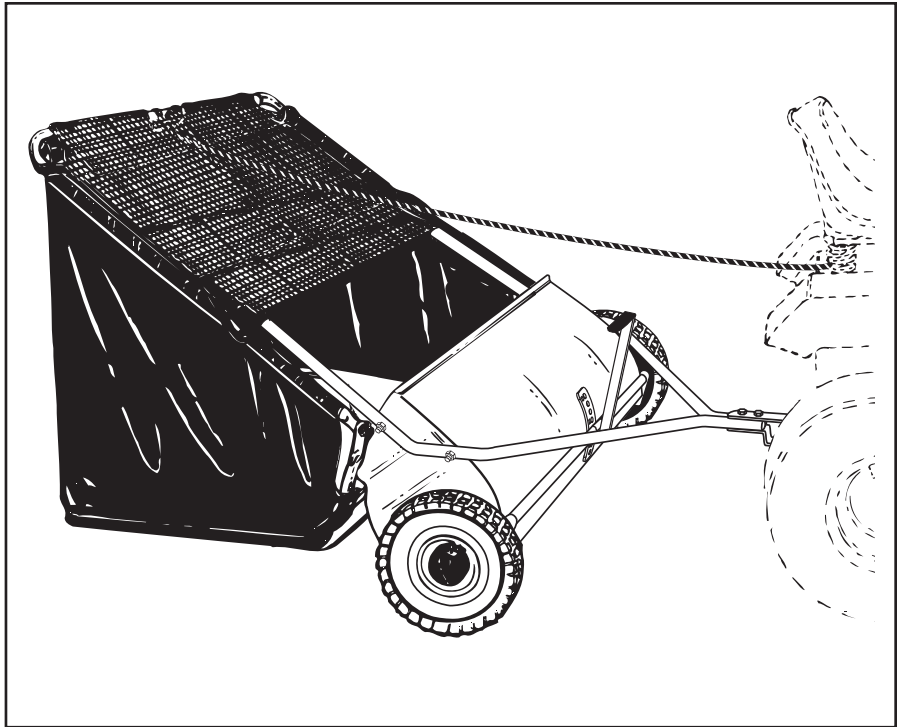




OWNERS MANUAL

Model No.
45-03523



42" PROFESSIONAL LAWNSWEEPER

CAUTION:
Read Rules for
Safe Operation
and Instructions
Carefully

- Safety
- Assembly
- Operation
- Maintenance
- Parts

Call 1-800-448-9282 for missing parts or assembly help.

SpeedEPart *the fastest way to purchase parts* www.speedepart.com

SAFETY RULES

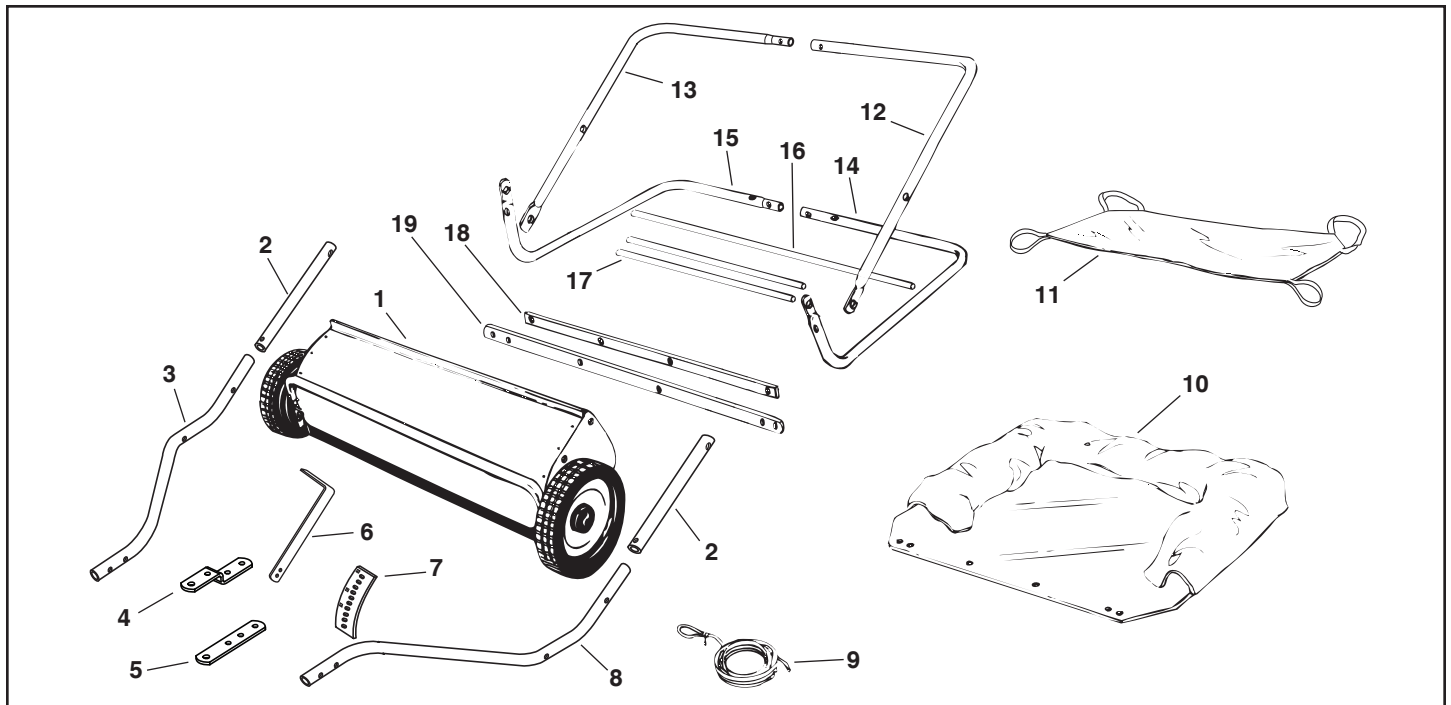
Any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times when using power equipment.

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.
7. 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.**
8. Stop and inspect vehicle and sweeper for damage after striking an object. Repair any damage before continuing operation.
9. Keep sweeper away from fire. Excessive heat can damage the brushes and hopper bag and could cause the bag and its contents to burn.
10. Before storing the sweeper, always empty the hopper bag to avoid spontaneous combustion.
11. Follow maintenance and lubrication instructions as outlined in the maintenance section of this manual.



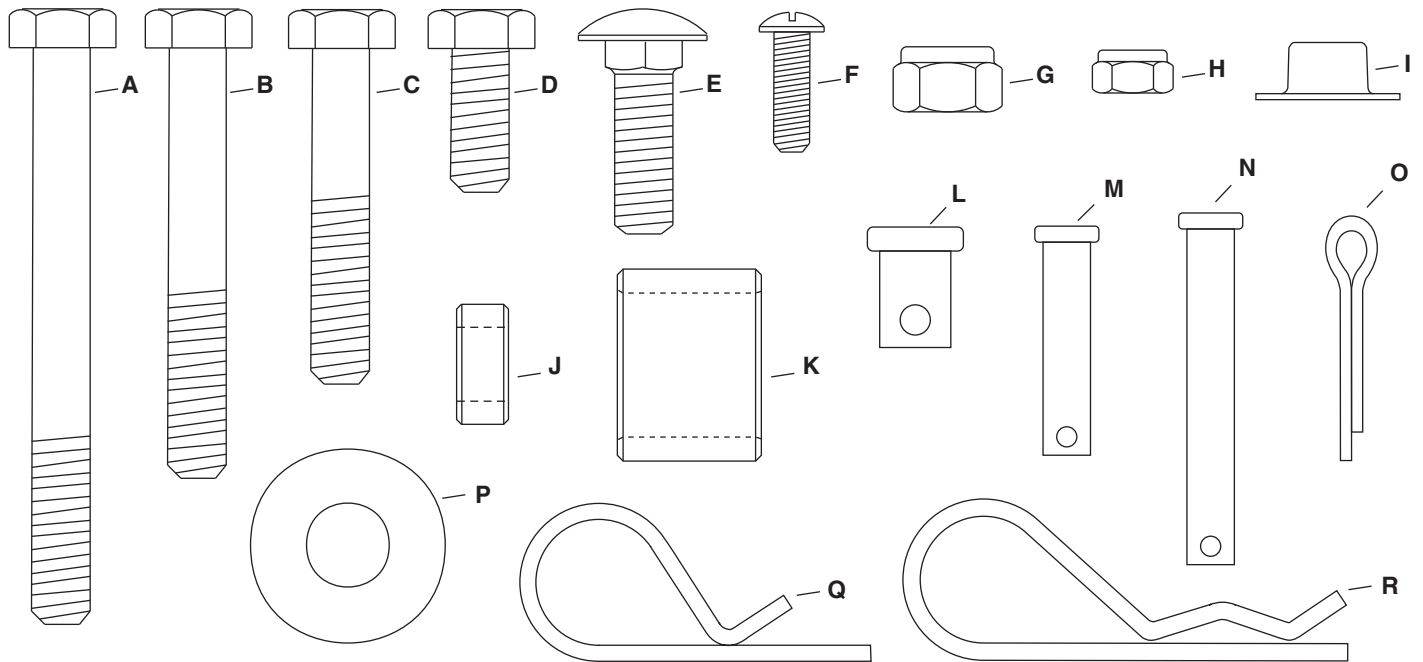
Look for this symbol to point out important safety precautions. It means — **Attention!! Become alert!!** Your safety is involved.

CARTON CONTENTS

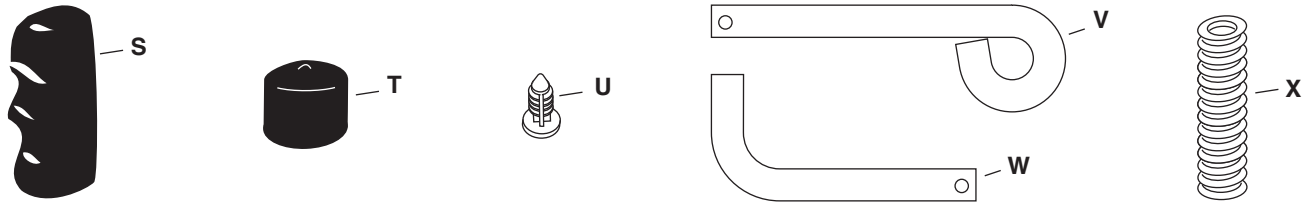


REF.	PART NO.	QTY	DESCRIPTION	REF.	PART NO.	QTY	DESCRIPTION
1	68164	1	Housing Assembly	11	46739	1	Wind Screen
2	46781	2	Tube, Bag Arm	12	46735	1	Upper Hopper Tube, L.H.
3	46776	1	Hitch Tube, R.H.	13	46734	1	Upper Hopper Tube, R.H.
4	23687	1	Hitch Bracket, Bent	14	46733	1	Lower Hopper Tube, L.H.
5	24192	1	Bracket, Hitch (Straight)	15	46732	1	Lower Hopper Tube, R.H.
6	25537	1	Height Adjustment Handle	16	46823	1	Rod, Hopper Bag Pivot
7	25531	1	Height Adjustment Plate	17	43938	2	Rod, Hopper Support 34"
8	46777	1	Hitch Tube, L.H.	18	24190	1	Retainer, Bag
9	43737	1	Hopper Rope	19	25430	1	Bag Frame Strap
10	46738	1	Hopper Bag				

SHOWN FULL SIZE



NOT SHOWN FULL SIZE



REF	PART NO.	QTY	DESCRIPTION	REF	PART NO.	QTY	DESCRIPTION
A	46782	2	Hex Bolt, 5/16-18 x 3" Lg.	M	48365	2	Clevis Pin, 1/4" x 1-1/8"
B	43224	2	Hex Bolt, 5/16-18 x 2-1/4" Lg.	N	46867	2	Clevis Pin, 1/4" x 1-3/4"
C	43084	4	Hex Bolt, 5/16-18 x 1-3/4" Lg.	O	142	1	Cotter Pin, 1/8" x 3/4"
D	43182	2	Hex Bolt, 5/16" x 3/4"	P	43070	1	Washer, 3/8"
E	44326	3	Carriage Bolt, 5/16-18 x 1"	Q	43055	6	Hair Cotter Pin, Small
F	43346	6	Screw, #10-32 x 5/8"	R	43343	1	Hair Cotter Pin, Large
G	47810	13	Nylock Nut, 5/16"	S	43943	1	Grip
H	47171	6	Nylock Nut, #10-32	T	44481	2	Vinyl Cap
I	44917	2	Palnut	U	48402	2	Plastic Plug
J	23625	3	Small Spacer	V	23353	1	Hitch Pin
K	23368	2	Large Spacer	W	49608	1	Height Adjustment Pin
L	48366	2	Clevis Pin, 3/8" x 1/2"	X	HA2394	1	Spring

ASSEMBLY OF SWEEPER

TOOLS REQUIRED FOR ASSEMBLY

- (1) Knife or Scissors
- (1) Screwdriver
- (1) Hammer
- (1) 3/8" Open End or Box End Wrench
- (2) 1/2" Open End or Box End Wrench

STEP 1 - REMOVE PARTS FROM CARTON

- Remove the sweeper housing, loose parts and hardware package from the carton. Lay out the parts and hardware as shown on pages 2 and 3.

STEP 2 - INSTALL HITCH TUBES

- The hitch tubes are stamped with a "77L" for the left tube and a "76R" for the right tube. The sweeper housing is marked with an "L" on the left side and an "R" on the right side. See figure 1.
- Hold the left hitch tube against the left side of the sweeper so that the "77L" on the tube faces away from the sweeper. Attach the hitch tube using two 5/16" x 1-3/4" hex bolts and 5/16" nylock nuts. Repeat for the right hitch tube, but with the "76R" facing in toward the right side of the sweeper. **Do not tighten yet.** See figure 1.

STEP 3 - REMOVE PLASTIC TIE

- Remove the plastic tie that fastens the height adjustment tube to the front of the sweeper housing. See figure 1.

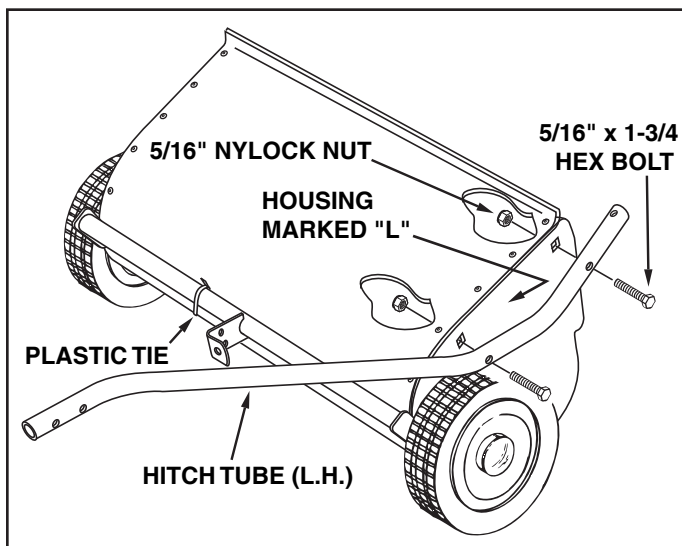


FIGURE 1

STEP 4 - CONNECT HITCH TUBES

- Fasten the hitch tubes together using two 5/16" x 3" hex bolts and 5/16" nylock nuts. **Do not tighten yet.** See figure 2.

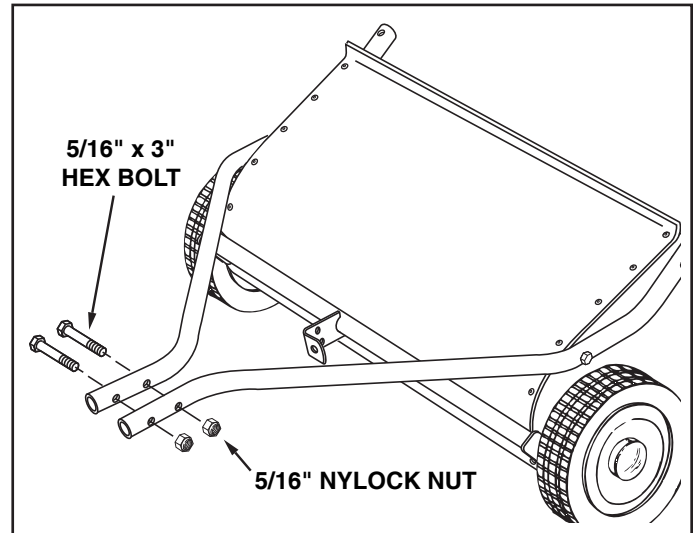


FIGURE 2

STEP 5 - MEASURE TRACTOR HITCH

- Use the mark along the side of this page to measure the height of the tractor hitch. The mark is 10" from the bottom of the page. If the tractor hitch is less than 10" above the ground, go to **STEP 6a**. If the tractor hitch is 10" or more above the ground, go to **STEP 6b**.

STEP 6a - ASSEMBLE HITCH BRACKETS

- FOR TRACTOR HITCHES LOWER THAN 10". Place the bent hitch bracket underneath the hitch tubes and the straight hitch bracket on top of the hitch tubes. Insert two 5/16" x 2-1/4" hex bolts through the brackets, with the rear hex bolt between the cross bolts in the hitch tubes. Secure the hex bolts with two 5/16" nylock nuts. See figure 3. **Do not tighten yet.**
- Assemble hitch pin, the two large spacers and the hairpin cotter to the hitch brackets. See figure 3.

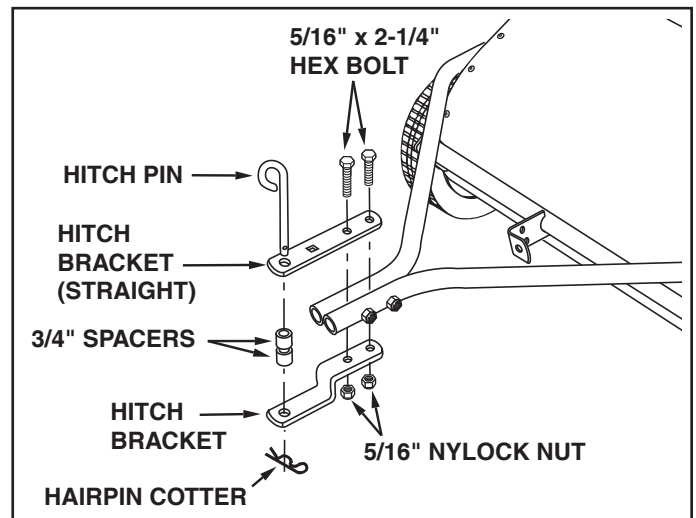


FIGURE 3

STEP 6b - ASSEMBLE HITCH BRACKETS

- FOR TRACTOR HITCHES HIGHER THAN 10". Place the bent hitch bracket on top of the hitch tubes and the straight hitch bracket underneath the hitch tubes. Insert two 5/16" x 2-1/4" hex bolts through the brackets, with the rear hex bolt between the cross bolts in the hitch tubes. Secure the hex bolts with two 5/16" nylock nuts. See figure 4. **Do not tighten yet.**
- Assemble hitch pin, the two large spacers and the hairpin cotter to the hitch brackets. See figure 4.

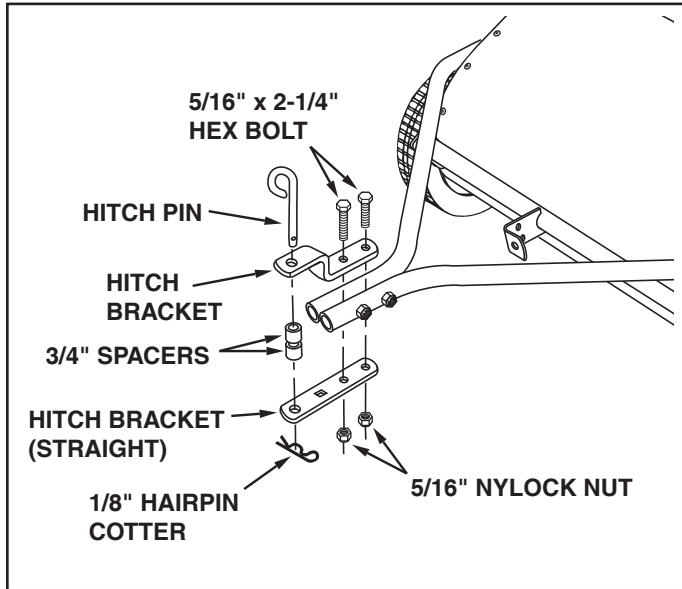


FIGURE 4

STEP 7 - TIGHTEN BOLTS

- Tighten** the four bolts in figure 1 that fasten the hitch tubes to the sweeper housing. Next, **tighten** the two bolts in figure 2 that fasten the ends of the hitch tubes together. Finally, **tighten** the two bolts in figure 3 or 4 that fasten the hitch brackets to the hitch tubes.

STEP 8 - ATTACH HEIGHT ADJUSTMENT PLATE

- Attach the height adjustment plate to the sweeper housing using three 5/16" x 1" carriage bolts, spacers (placed between plate and housing) and 5/16" nylock nuts. See figure 5.

Hint: Push the height adjustment tube down out of the way to allow easier access to holes in sweeper housing.

Hint: Attach the bolts, spacers and nuts to one hole at a time starting with the top hole to ease assembly.

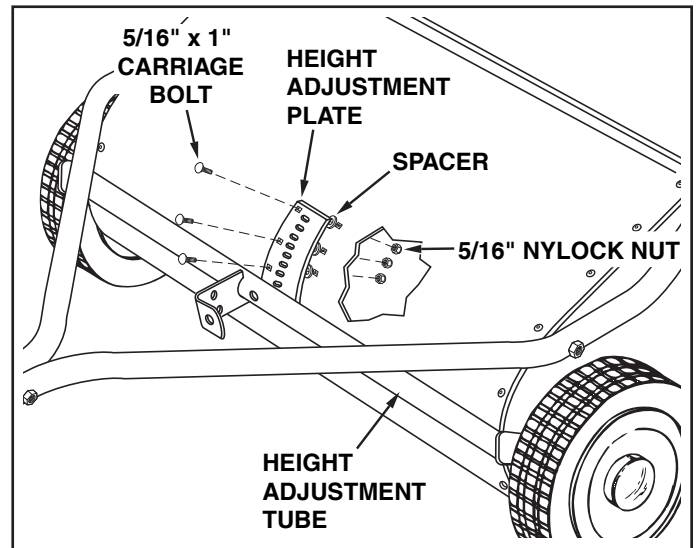


FIGURE 5

STEP 9 - ATTACH HANDLE

- Assemble the height adjustment handle to the height adjust bracket at the front of the sweeper housing. Use two 5/16" x 3/4" hex bolts and 5/16" nylock nuts. See figure 6.
- Assemble the grip onto the end of the height adjustment handle as shown in figure 6.

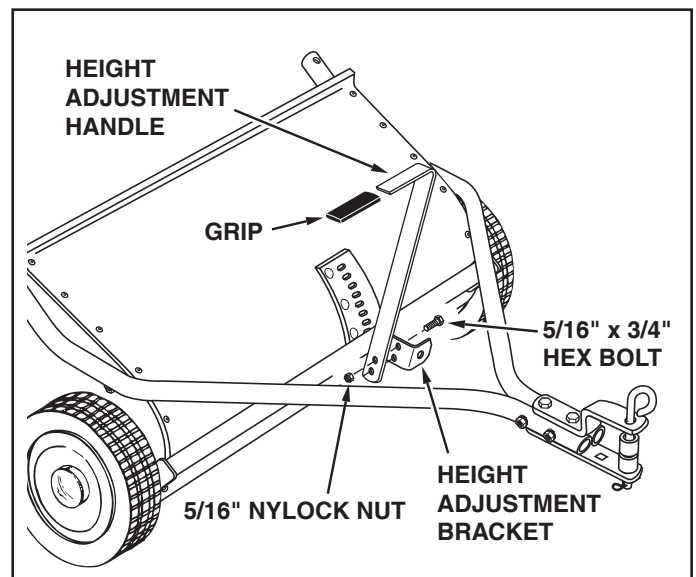


FIGURE 6

STEP 10 - ASSEMBLE HEIGHT ADJUSTMENT PIN

- Place the height adjustment pin into the height adjust bracket. Assemble coil spring and 3/8" washer onto the height adjustment pin and then secure them using a 1/8" x 3/4" cotter pin. See figure 7.

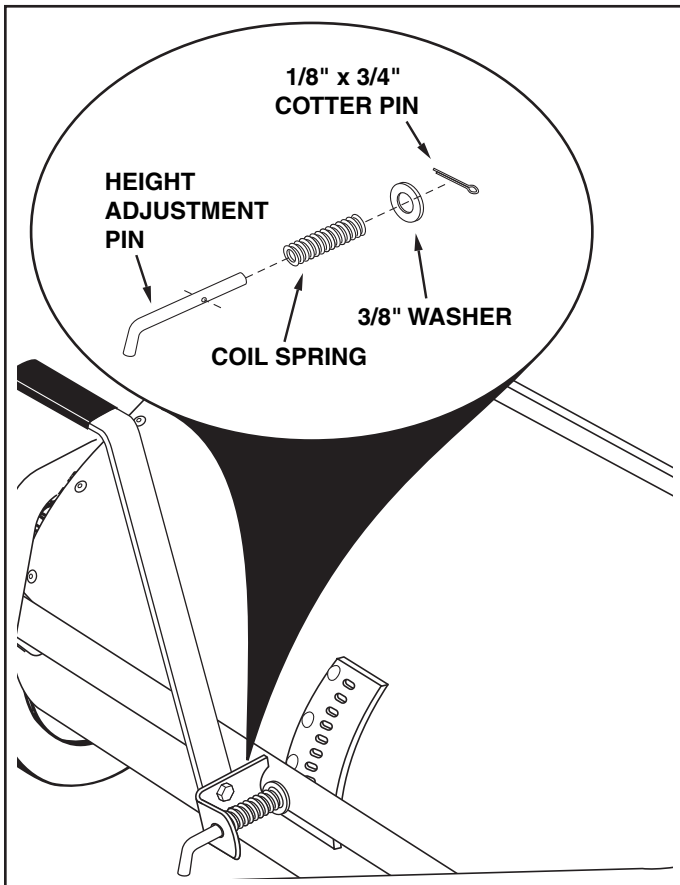


FIGURE 7

ASSEMBLY OF HOPPER BAG

STEP 11 - ASSEMBLE UPPER TUBES

- Insert the left hand upper hopper tube through the stitched flaps of the hopper bag, **starting at the center cut out** in the top of the bag. See figures 8, 9 and 10. Repeat for the right hand upper hopper tube.

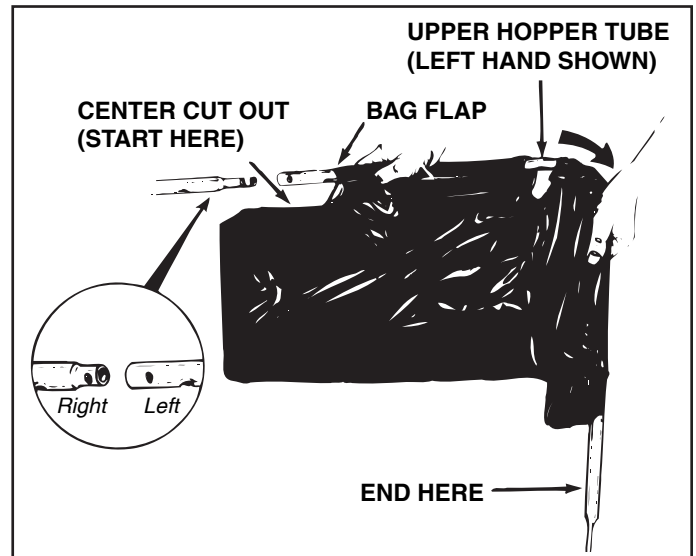


FIGURE 8

- Slide the two upper hopper tubes together and line up the center holes as shown in figure 9.

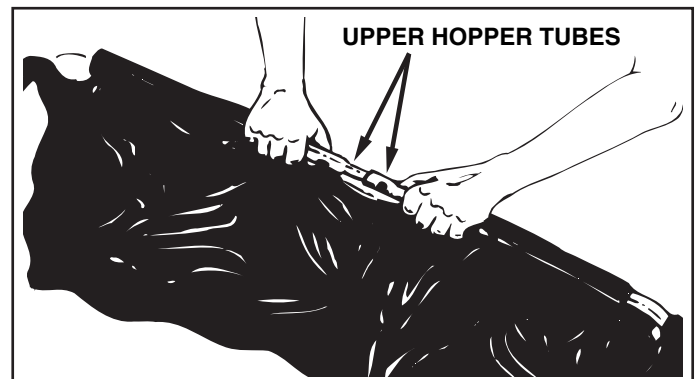


FIGURE 9

- Fasten the upper hopper tubes together using a plastic plug. See figure 10.

NOTE: Plastic plug may break in later steps. It is only used to hold tubes in place a short time and does not need to be replaced.

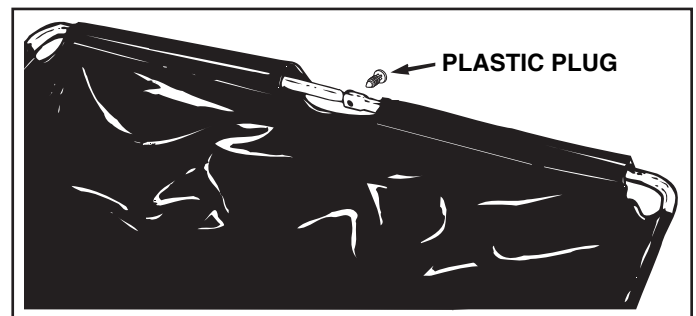


FIGURE 10

STEP 12 - ASSEMBLE LOWER TUBES

- Assemble the two lower hopper tube together using a plastic plug. See figure 11.

NOTE: Plastic plug may break in later steps. It is only used to hold tubes in place a short time and does not need to be replaced.

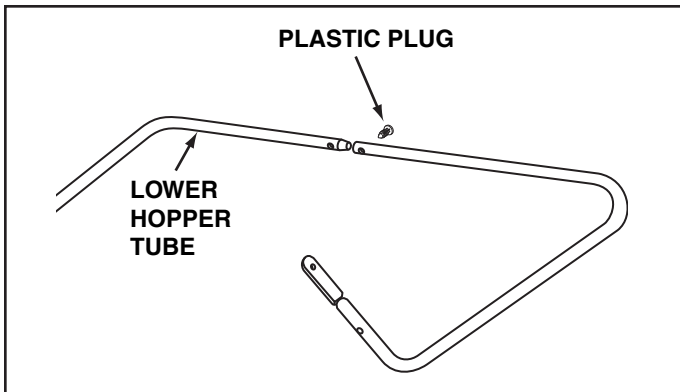


FIGURE 11

STEP 13 - ATTACH BAG BOTTOM

- Assemble the bag retainer and the bag frame strap to the front edge of the bag bottom. Place the bag retainer on top and the bag frame strap underneath the bag bottom. Fasten together using six #10 x 5/8" screws and #10-32 nylock nuts. See figure 13.

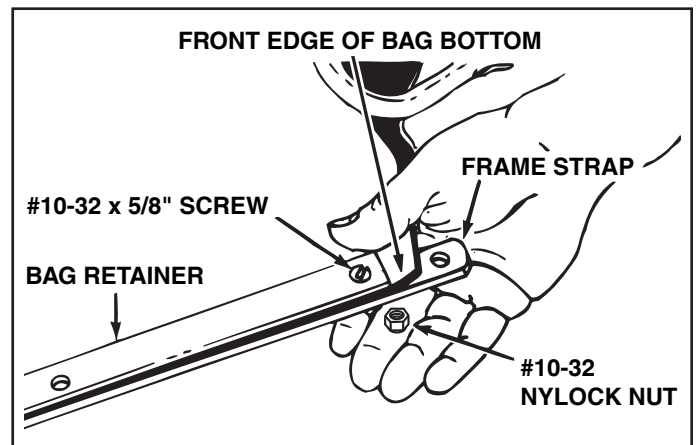


FIGURE 13

- Place the assembled lower hopper tubes into the bottom of the hopper bag and then slide the tubes to the back of the bag. See figure 12.
- Attach the ends of the lower hopper tubes to the **inside** of the upper hopper tubes using two 3/8" x 1/2" clevis pins inserted from the inside, and two small hair cotter pins. See figure 12.

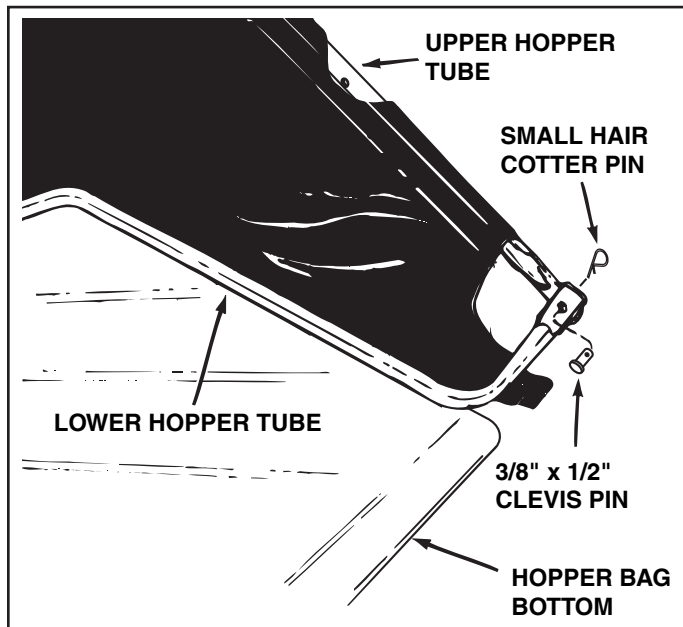


FIGURE 12

- Assemble the bag frame strap to the holes in the lower hopper tubes using two 1/4" x 1-1/8" clevis pins and small hair cotter pins. See figure 14.

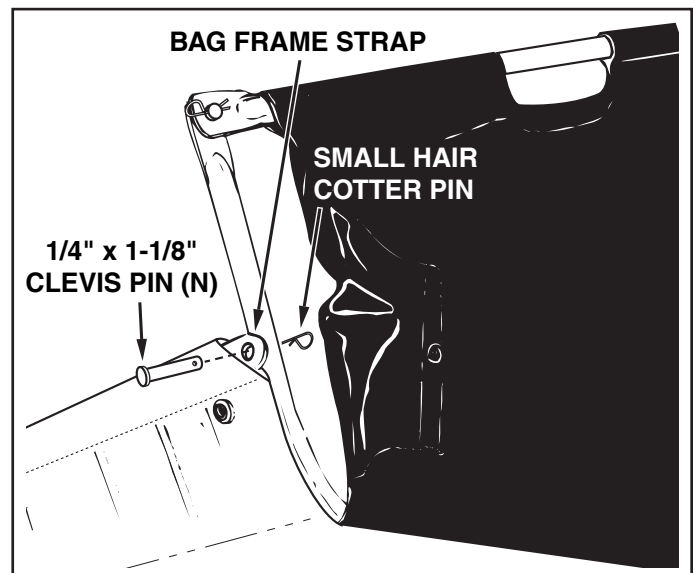


FIGURE 14

STEP 14 - ATTACH BAG SIDES

- Fold the bag flaps around the lower hopper tubes and attach to the bag bottom using the snaps. See figure 15.

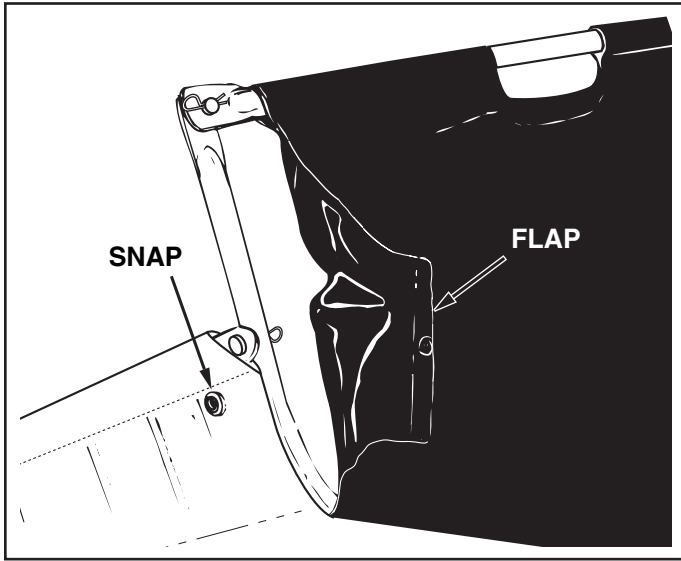


FIGURE 15

STEP 16 - ASSEMBLE HOPPER ROD AND BAG ARM TUBES

- If the hole in the side of the upper hopper tubes is covered over by the bag, locate the hole by touch. It is approximately midway along the side of the bag. Pierce holes through the stitched bag flaps where the holes in both hopper tubes are located. See figure 17.

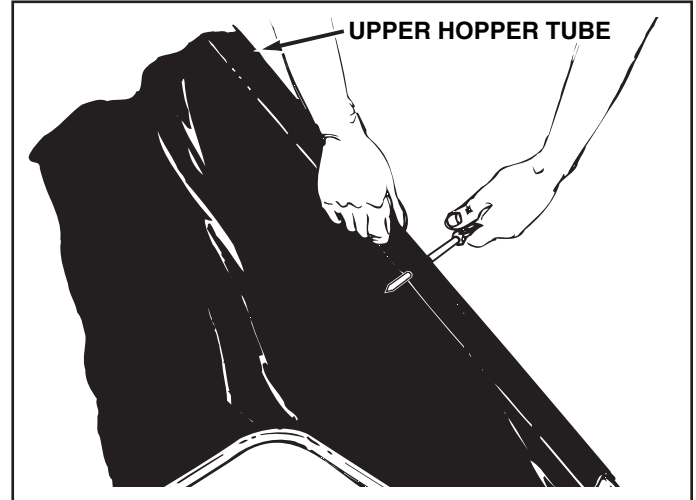


FIGURE 17

STEP 15 - ASSEMBLE SUPPORT RODS

IMPORTANT: Do not over bend the support rods during the following step. Over bending will decrease the supporting tension of the rods.

- Assemble the two hopper support rods as shown in figure 16. Place the ends of the rods into the holes in the upper and lower hopper tubes, flexing the rod just enough to fit into the holes in the tubes.



FIGURE 16

- Slide the hopper bag pivot rod through the hole in an upper hopper tube. Assemble two bag arm tubes and onto the rod as shown in figure 18. Push the rod on through the upper hopper tube on the opposite side of the bag.

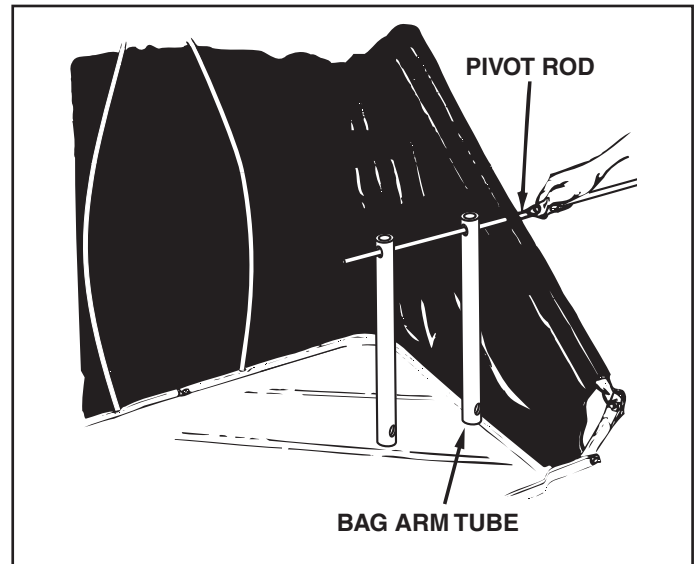


FIGURE 18

STEP 17 - ASSEMBLE PALNUTS AND CAPS

- Assemble two palnuts onto the ends of the pivot rod by lightly tapping them with a hammer. See figure 19.
- Place a vinyl cap onto each bag arm tube. See figure 19.

HINT: To ease assembly of the palnuts, place the bag on its side on a hard surface. With the bottom end of the pivot rod against the surface, tap a palnut onto the top end of the rod. Repeat for other end of rod.

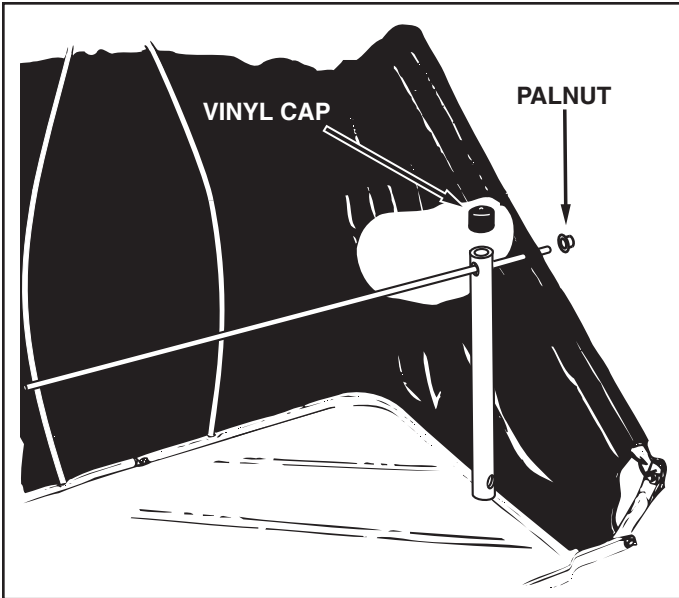


FIGURE 19

STEP 18 - ATTACH ROPE

- Secure the rope to the center of the upper rear hopper tube as shown in figure 20.



FIGURE 20

STEP 19 - ATTACH HOPPER BAG

- To attach the hopper bag to the sweeper, slide the ends of the bag arm tubes into the ends of the hitch tubes and secure with two 1/4" x 1-3/4" clevis pins and small hairpin cotters. See figure 21.

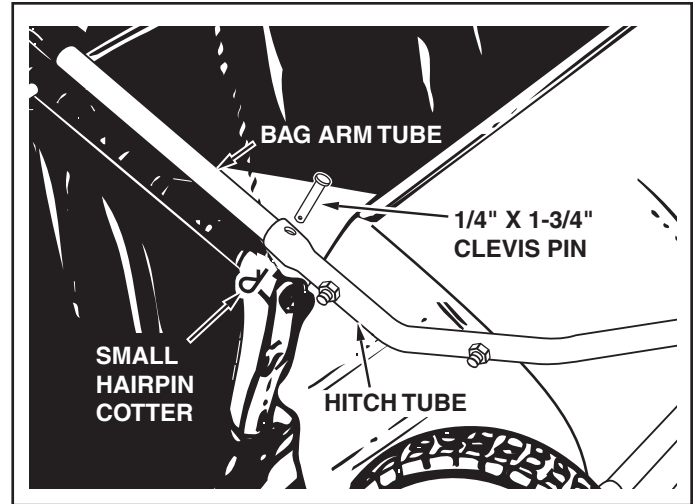


FIGURE 21

STEP 20 - ATTACH SWEEPER TO TRACTOR

- Place the tractor and sweeper on a flat level surface.
- Set the sweeper height adjustment handle to about the middle of its adjustment range.
- Attach the sweeper hitch to the tractor hitch, arranging the hitch spacers in one of six possible combinations as shown in GROUP A and GROUP B diagrams below.

IMPORTANT: To obtain the best performance from your sweeper, arrange the spacers so that the sweeper bag is approximately level with the ground and approximately 5" to 7" off the ground as shown in figure 22.

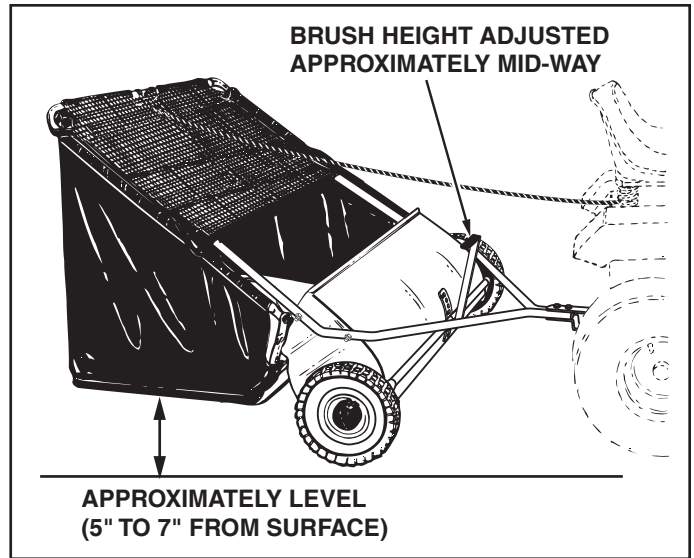
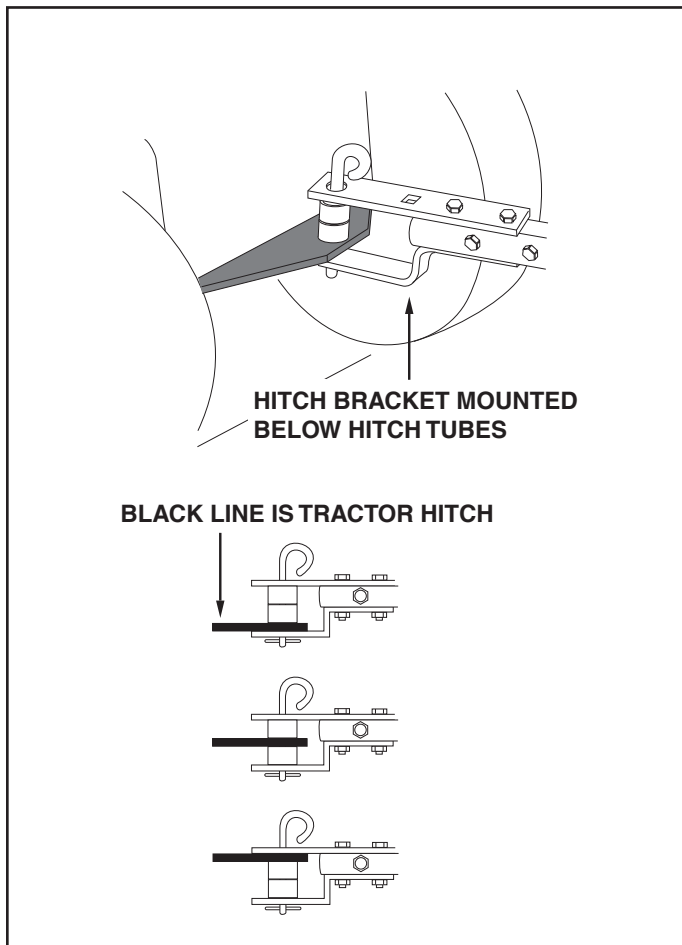
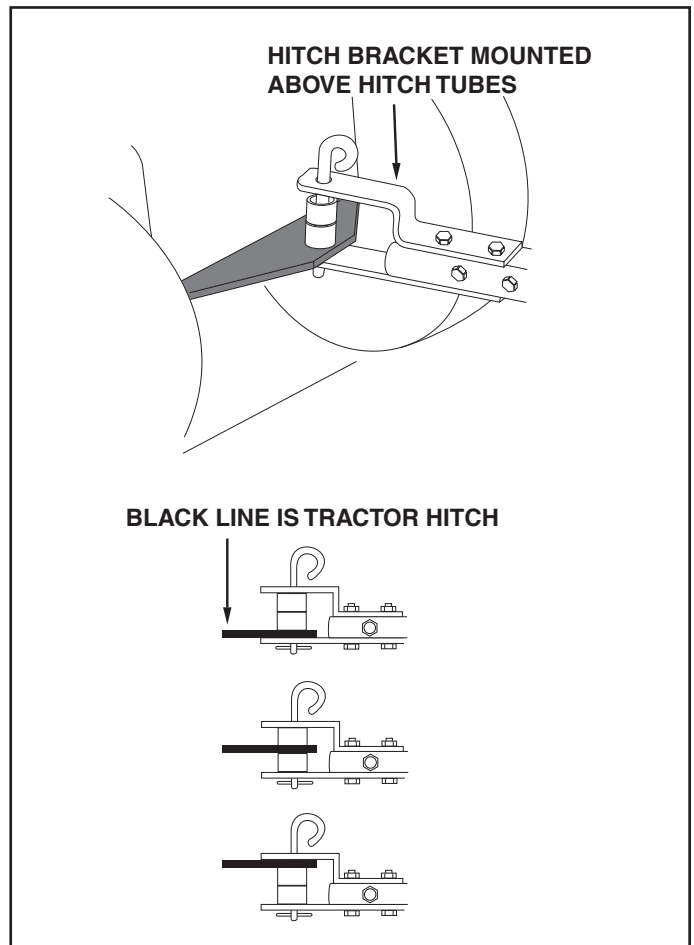


FIGURE 22

GROUP "A" - For vehicles with hitches having 8" to 10" ground clearance.

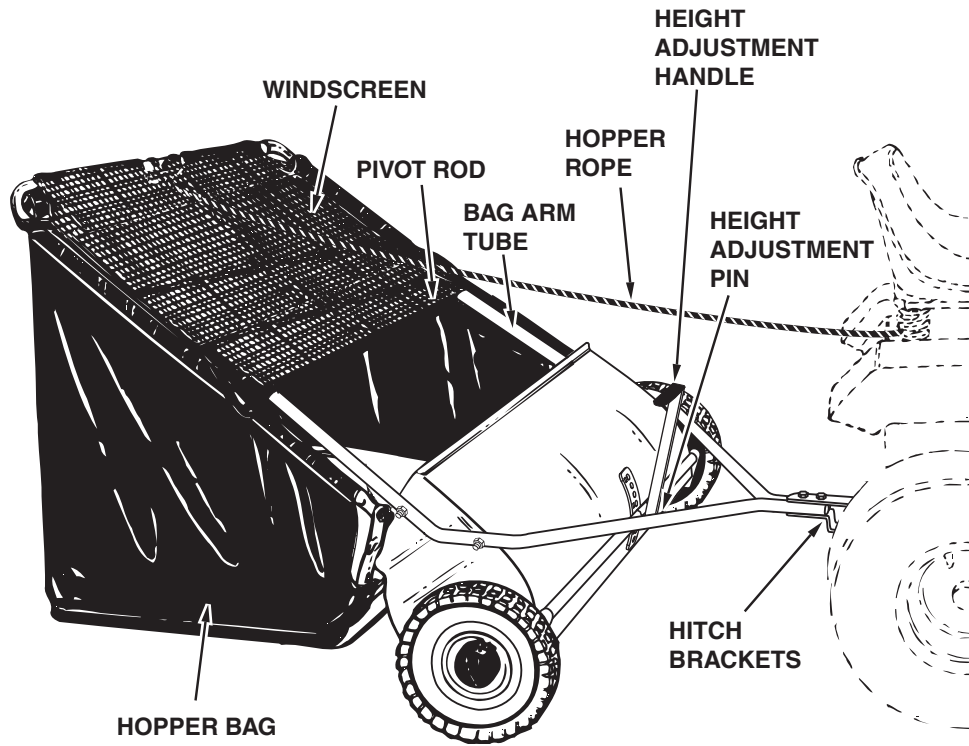


GROUP "B" - For vehicles with hitches having 10" to 13" ground clearance.



OPERATION

KNOW YOUR SWEEPER



Hopper Bag	Collects grass clippings, leaves and debris.
Hopper Rope	Permits dumping of hopper bag from driver's seat.
Windscreen	Helps prevent collected material from being blown out of hopper bag.
Bag Arm Tubes	Connects the hopper bag to the sweeper housing.
Pivot Rod	Allows hopper bag to tilt forward to dump material.
Height Adjustment Handle	Adjusts the operating height of the sweeper.
Height Adjustment Pin	Holds the height adjustment handle in position when locked.
Hitch Bracket	Connects the sweeper to the towing vehicle. Adjusts for various height tractor hitches.

HOW TO USE YOUR SWEEPER

BRUSH HEIGHT ADJUSTMENT

- To adjust your sweeper brushes to the best operating height, lift up on the height adjustment handle to disengage it from the height adjustment strap. Move the handle forward or backward to raise or lower the brush. Refer to the Know Your Sweeper figure above. 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 tractor. 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

SCHEDULED MAINTENANCE

- Clean the sweeper after each use.
- Inspect for worn or damaged parts, such as brushes and wheels.
- Lubricate the brush shaft bearing twice a year with a few drops of light weight oil. See figure 23.

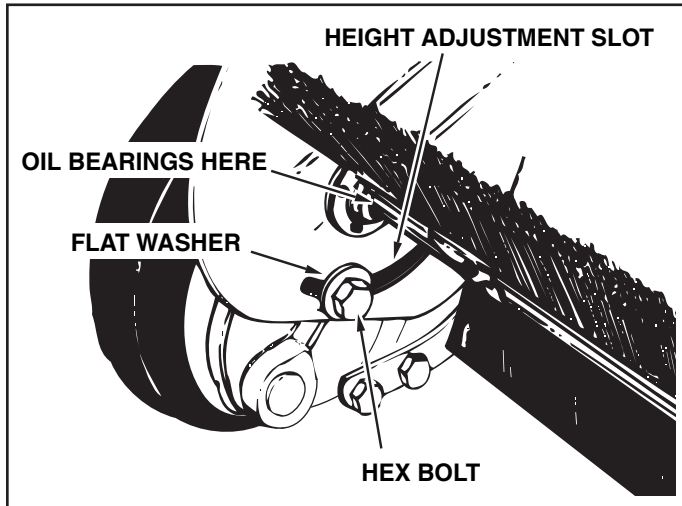


FIGURE 23

- Lubricate the wheel bearings each season. Remove the hub cap and apply a few drops of light weight oil.
- 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. See figure 24.

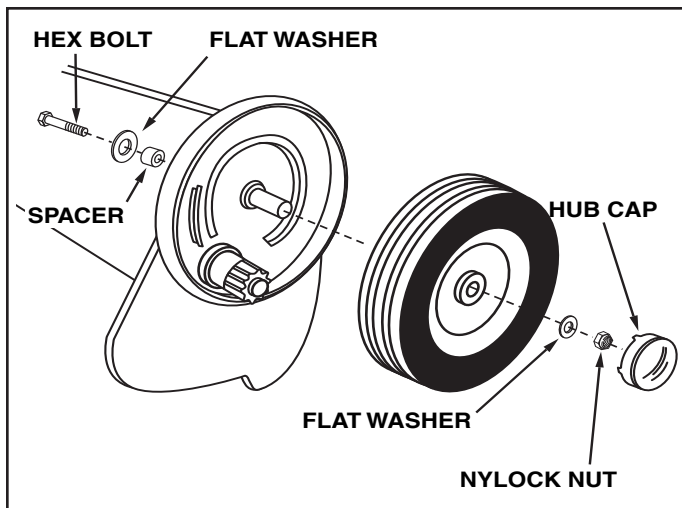


FIGURE 24

CLEANING

- Clean sweeper housing with a soft brush or cloth.
- Clean debris from hopper bag with a brush or broom.
- Remove any material which has wrapped around brushes or ends of brush shaft.

STORAGE



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

- Clean the sweeper and hopper bag thoroughly to help prevent rust and mildew.
- To collapse the hopper bag for storage, remove the two hopper support rods from the rear of the hopper.
- 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. Loosen only the two hex bolts and lock nuts which clamp one brush in a brush retainer. **Do not loosen** or remove the bolts which fasten the brush retainers to the brush shaft. See figure 25.
3. Lift the brush out of the retainers, noting on which side of the brush the bristles overlap. See figure 25.
4. Install new brush, making sure the bristles overlap on the same side of the brush as before. See figure 25.
5. Tighten the two hex bolts and lock nuts to clamp the new brush in place before removing the next brush.

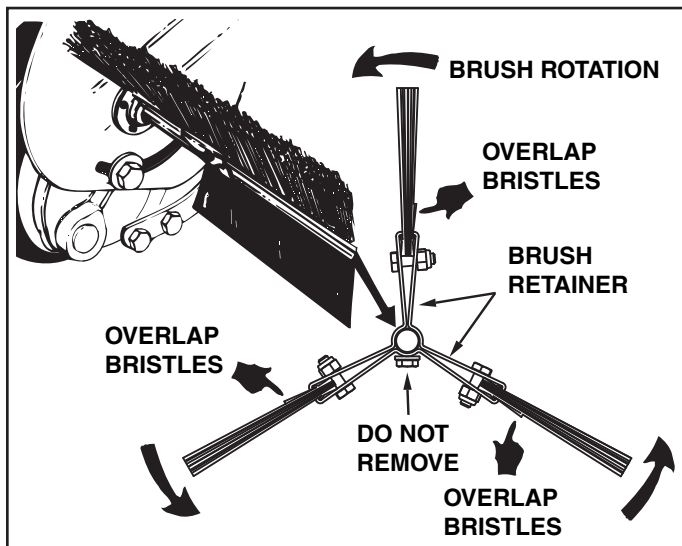


FIGURE 25

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. 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.) See figure 26.
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. See figure 26.
5. Lightly grease the shaft and fill the ratchet gear with grease. Assemble the ratchet gear back onto the shaft. See figure 26.
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. See figure 26.
7. Remove the second wheel and repeat the procedure.

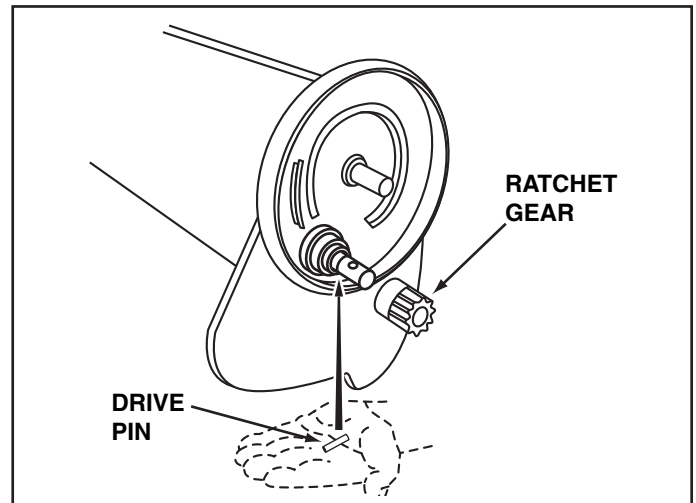
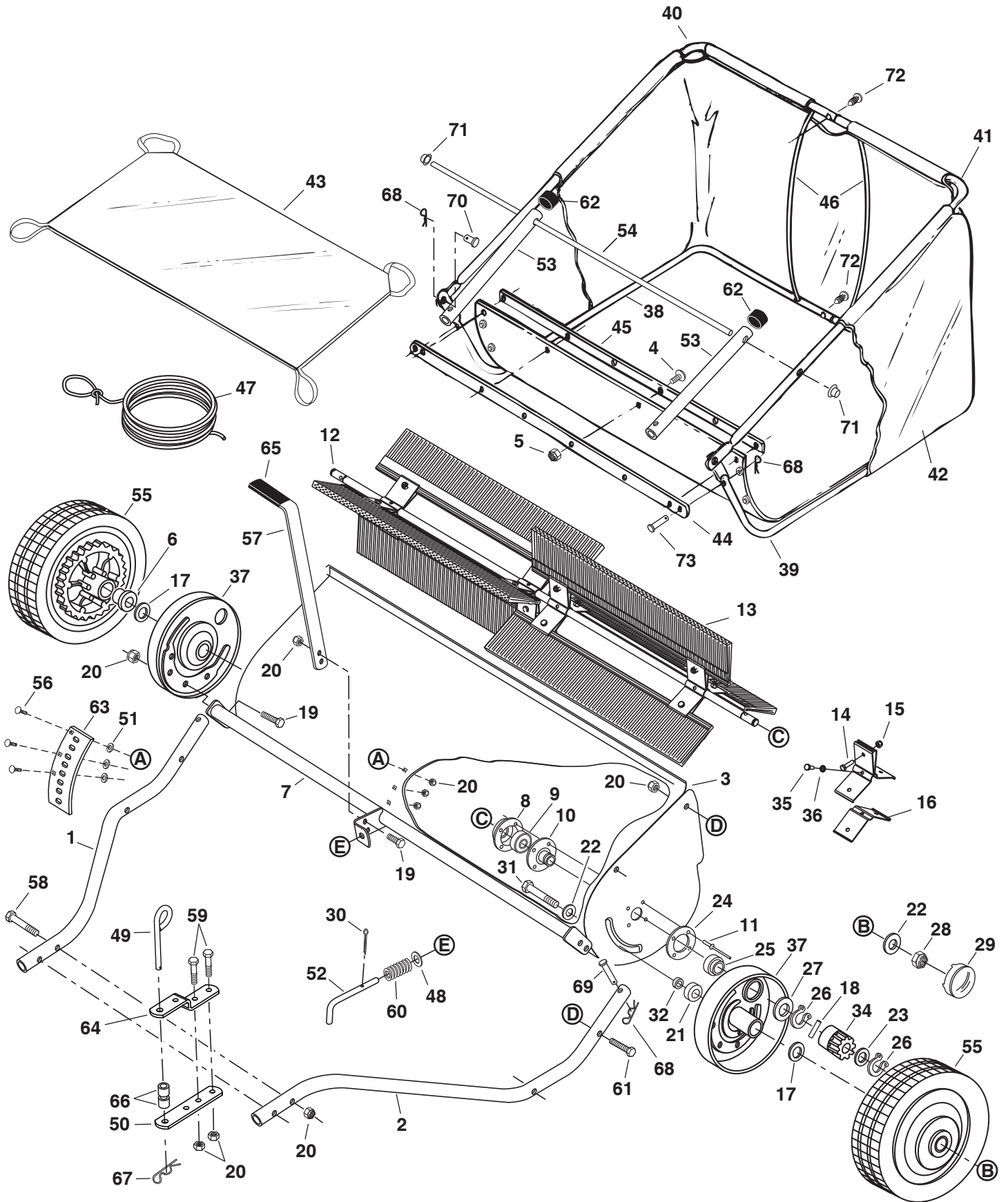


FIGURE 26

TROUBLESHOOTING

<p>Wheels skid when sweeping.</p>	<ol style="list-style-type: none"> 1. Brushes set too low. 2. Brushes are jammed 3. Wheels are jammed. 	<ol style="list-style-type: none"> 1. Adjust height till brushes are 1/2" down into grass. 2. Stop sweeper. Remove obstruction. 3. Remove one wheel at a time to check for obstruction or damage. Refer to Service and Adjustments section.
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REPAIR PARTS FOR MODEL 45-03523 - 42" PROFESSIONAL LAWSWEEPER



REPAIR PARTS FOR MODEL 45-03523 - 42" PROFESSIONAL LAWSWEEPER

REF.	PART NO.	QTY	DESCRIPTION	REF.	PART NO.	QTY	DESCRIPTION
1	46776	1	Hitch Tube, R.H.	38	46732	1	Lower Hopper Tube, R.H.
2	46777	1	Hitch Tube, L.H.	39	46733	1	Lower Hopper Tube, L.H.
3	68164	1	Housing Assembly	40	46734	1	Upper Hopper Tube, R.H.
4	43346	6	Screw, #10-32 x 5/8" Truss Head	41	46735	1	Upper Hopper Tube, L.H.
5	47171	6	Nylock Nut #10-32	42	46738	1	Hopper Bag
6	45088	4	Wheel Bearing	43	46739	1	Wind Screen
7	65923	1	Height Adjustment Tube Ass'y.	44	25430	1	Bag Frame Strap
8	1629-56	2	Retainer, Dust Cover	45	24190	1	Retainer, Bag
9	44232	2	Ball Bearing	46	43938	2	Rod, Hopper Support 34"
10	64733	2	Brush Bushing Ass'y.	47	43737	1	Hopper Rope
11	49152	8	Rivet	48	43070	1	3/8" Standard Washer
12	25138	1	Brush Shaft	49	23353	1	Hitch Pin
13	48557	6	Brush, 42"	50	24192	1	Bracket, Hitch (Straight)
14	43661	12	Bolt, Hex 1/4-20 x 1" Lg.	51	23625	3	Spacer, .38" x .62" x .27"
15	47189	12	Nut, Nylock 1/4-20 Thread	52	49608	1	Height Adjustment Pin
16	25137	12	Brush Retainer	53	46781	2	Tube, Bag Arm
17	44008	2	Washer, Flat .78" x 1.125" x .025"	54	46823	1	Rod, Hopper Bag Pivot
18	47046	2	Dowel Pin (Drive)	55	44985	2	Wheel & Tire Ass'y. (with bearings)
19	43182	6	Bolt, Hex 5/16-18 x 3/4" Lg.	56	44326	3	Carriage Bolt, 5/16-18 x 1"
20	47810	17	Nut, Nylock 5/16-18 Thread	57	25537	1	Height Adjustment Handle
21	44911	2	Spacer, .41" x 1.125" x .50"	58	46782	2	Bolt, Hex 5/16-18 x 3" Lg.
22	141	4	Washer, Flat 1-1/2" x .375" x .062"	59	43224	2	Bolt, Hex 5/16-18 x 2-1/4" Lg.
23	42093	2	Washer, .750" x .598" x .025"	60	HA2394	1	Coil Spring
24	23336	2	Washer, Special	61	43084	4	Bolt, Hex 5/16-18 x 1-3/4" Lg.
25	46219	2	Spacer, .78" x 1.25" x .50"	62	44481	2	Vinyl Cap
26	1650-21	4	Ring, Retaining .594"	63	25531	1	Height Adjustment Plate
27	44001	2	Washer, Shim 1-1/8" x .594" x .02"	64	23687	1	Hitch Bracket
28	1038	2	Nut, Nylock 3/8-24 Thread	65	43943	1	Height Adjustment Grip
29	2674-32	2	Hub Cap	66	23368	2	Spacer, Hitch
30	142	1	Pin, Cotter 1/8" x 3/4" Lg	67	43343	1	Hairpin Cotter, 1/8"
31	44961	2	Bolt, Hex 3/8-24 x 3-1/4" Lg.	68	43055	6	Hairpin Cotter, 3/32" #3
32	23400	2	Spacer, Small	69	46867	2	Clevis Pin, 1/4" x 1-3/4" Lg.
33	48652	1	Gear, Pinion R.H. (not shown)	70	48366	2	Clevis Pin, 3/8" x 1/2"
34	48651	1	Gear, Pinion L.H.	71	44917	2	Palnut, 3/8"
35	43866	4	Bolt, Hex 1/4-20 x 5/8"	72	48402	2	Plug, 1/4"
36	43177	4	Lock Washer, 1/4"	73	48365	2	Clevis Pin 1/4" x 1-1/8"
37	64559	2	Dust Cover Assembly		41957	1	Owners Manual

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