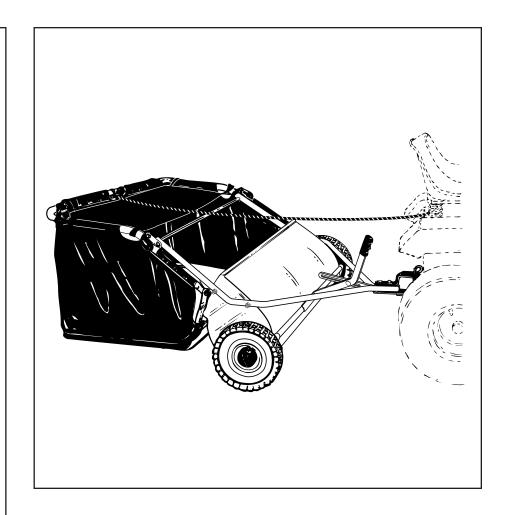
OWNERS MANUAL

Model No. 45-0260 190-163-100 190-163-190



42" Heavy Duty LAWNSWEEPER

CAUTION:

Read Rules for Safe Operation and Instructions Carefully

- Safety
- Assembly
- Operation
- Maintenance
- Parts

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A

SAFETY



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.

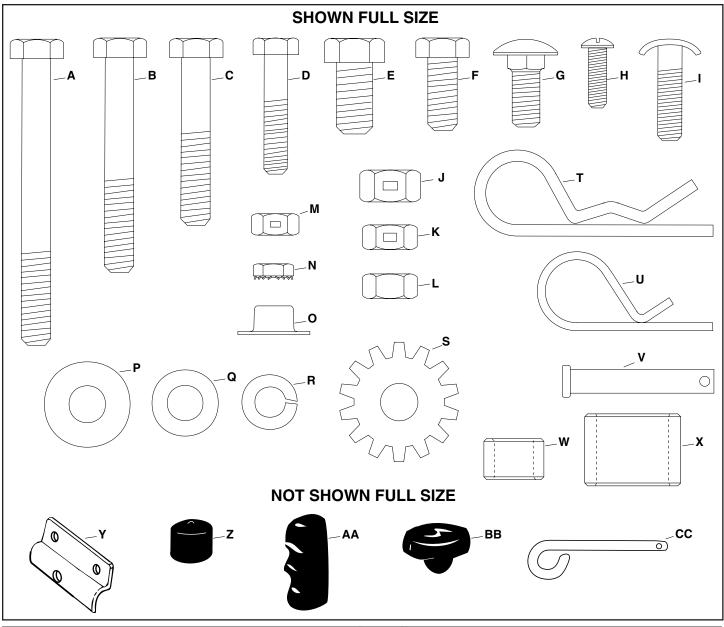
- Read the vehicle and sweeper owners manuals and know how to operate your vehicle and sweeper before using this sweeper attachment. Always instruct other users before they operate the sweeper.
- 2. Do not permit children to operate sweeper.
- 3. Do not permit anyone to ride on sweeper.
- 4. Never attach 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.
- Operate the sweeper at reduced speed on rough terrain, near ditches and on hillsides to prevent loss of control.

- 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.
- Stop and inspect vehicle and sweeper for damage after striking an object. Repair any damage before continuing operation.
- Keep sweeper away from fire. Excessive heat can damage the brushes and hopper bag and could cause the bag and its contents to burn.
- 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.

HARDWARE PACKAGE CONTENTS



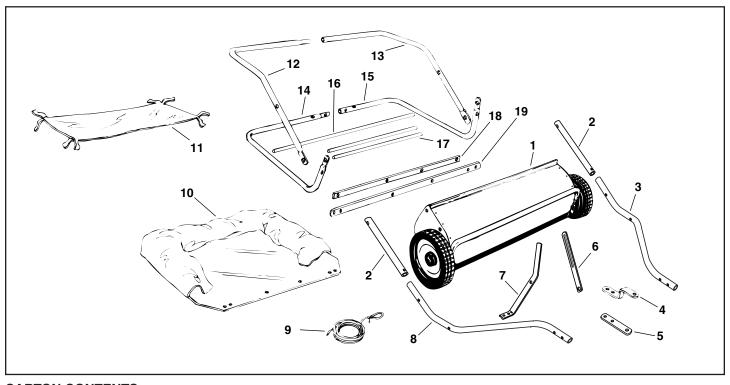
REF. QTY.		DESCRIPTION	REF.	QTY.	DESCRIPTION
A 2 B 2 C 4 D 2 E 2 F 4 G 1 H 6 I 2 J 2 K 8 L 4 M 4		Hex Bolt, 5/16-18 x 3" Lg. Hex Bolt, 5/16-18 x 2-1/4" Lg. Hex Bolt, 5/16-18 x 1-3/4" Lg. Hex Bolt, 1/4-20 x 1-1/4" Lg. Hex Bolt, 3/8-16 x 3/4" Lg. Hex Bolt, 5/16-18 x 3/4" Lg. Carriage Bolt, 5/16-18 x 3/4" Lg. Slotted Screw, #10-32 x 5/8" Lg. Curved Head Bolt, 1/4-20 x 1" Lg. Hex Lock Nut, 3/8" Hex Lock Nut, 5/16" Hex Nut (Plain), 5/16" Hex Lock Nut, 1/4" Hex Lock Nut, #10-32 Palnut, 3/8"	P Q R S T U V W X Y Z AA BB CC	1 2 6 1 1 2 2 1 2 4 2 1	Flat Washer, 5/16" Std. Wrt. Flat Washer, 5/16" (Small) Lock Washer, 5/16" Lock Washer (Tooth), 5/16" Hairpin Cotter, 1/8" Hairpin Cotter, 3/32" Clevis Pin, 1/4" x 1-1/2" Spacer Bushing, Hitch Spacer, 3/4" Hopper Mount Clamp Vinyl Cap Grip Knob, Plastic Hitch Pin

ASSEMBLY

CARTON CONTENTS (Loose Parts in Carton)

- 1. Sweeper Housing Assembly
- 2. Bag Arm Tube (2)
- 3. Hitch Tube, L.H.
- 4. Hitch Bracket
- 5. Hitch Bracket (Straight)
- 6. Height Adjustment Strap
- 7. Height Adjustment Handle
- 8. Hitch Tube, R.H.
- 9. Rope

- 10. Hopper Bag
- 11. Windscreen
- 12. Upper Hopper Tube, R.H.
- 13. Upper Hopper Tube, L.H.
- 14. Lower Hopper Tube, R.H.
- 15. Lower Hopper Tube, L.H.
- 16. Hopper Bag Pivot Rod
- 17. Hopper Support Rod (2)
- 18. Bag Retaining Strap
- 19. Bag Frame Strap



CARTON CONTENTS

REMOVAL OF PARTS FROM CARTON

Remove the sweeper, the loose parts and the hardware package from the carton. Lay out the parts and hardware as shown on pages 3 and 4.

ASSEMBLY OF SWEEPER

TOOLS REQUIRED FOR ASSEMBLY

- (1) Pliers
- (1) Screwdriver
- (1) Hammer
- (1) Adjustable Wrench
- (1) 9/16" Open End or Box End Wrench
- (1) 7/16" Open End or Box End Wrench
- (1) 1/2" Open End or Box End Wrench
- (1) 3/8" Open End or Box End Wrench

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

- 1. Cut off the plastic tie holding the height adjustment tube in place. See figure 1.
- Assemble the R.H. and L.H. hitch tubes to the sweeper housing using four 5/16" x 1-3/4" hex bolts, 5/16" lock washers and 5/16" hex nuts. Do not tighten yet. See figure 1.

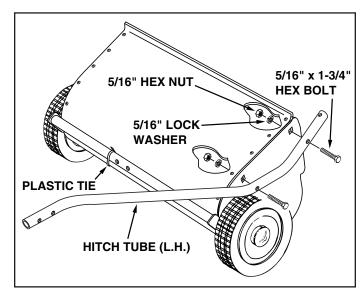


FIGURE 1

3. Place the spacer bushing into the hole in the height adjustment strap. Place the strap with the bushing between the hitch tubes, aligned with the rear hole. Fasten the hitch tubes together, with the strap and bushing between them, using two 5/16" x 3" hex bolts, 5/16" flat washers (smaller), 5/16" lock washers and 5/16" hex lock nuts. **Do not tighten yet.** See figure 2.

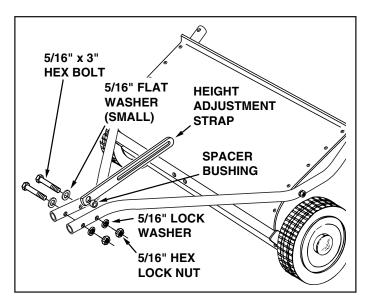


FIGURE 2

If your tractor hitch has 10" to 13" ground clearance use the instructions below to assemble the sweeper hitch brackets. If your tractor hitch has less than 10" ground clearance, go to page 6.

- 4. Assemble the bent hitch bracket on top and the straight hitch bracket to the bottom of the hitch tubes. Fasten with two 5/16" x 2-1/4" hex bolts and 5/16" hex lock nuts as shown in figure 3. The bolts should straddle the front hitch tube bolt. **Do not tighten yet.**
- At this time tighten the four bolts fastening the hitch tubes to the sweeper housing. Next, tighten the two bolts fastening the hitch tubes together. Finally, tighten the two bolts fastening the hitch brackets to the hitch tubes.
- 6. Assemble the hitch pin, two 3/4" spacers and the hairpin cotter to the hitch brackets. See figure 3.

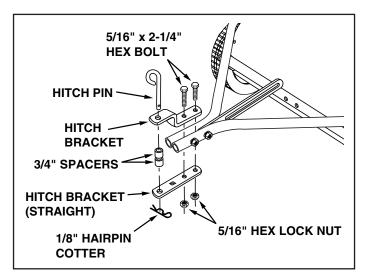


FIGURE 3

If your tractor hitch has 8" to 10" ground clearance, use the instructions below to assemble the sweeper hitch brackets. If your tractor hitch has more than 10" ground clearance, refer back to page 5.

- 7. Assemble the bent hitch bracket to the bottom and the straight hitch bracket on top of the hitch tubes. Fasten with two 5/16" x 2-1/4" hex bolts and two 5/16" hex lock nuts as shown in figure 4. The bolts should straddle the front hitch tube bolt. Do not tighten yet.
- At this time tighten the four bolts fastening the hitch tubes to the sweeper housing. Next, tighten the two bolts fastening the hitch tubes together. Finally, tighten the two bolts fastening the hitch brackets to the hitch tubes.
- 9. Assemble the hitch pin, two 3/4" spacers and the 1/8" hairpin cotter to the hitch brackets. See figure 4.

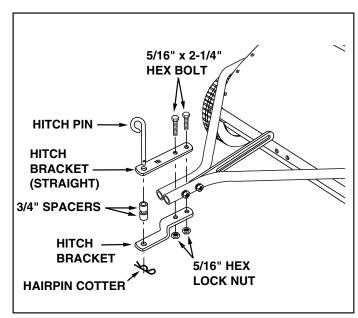


FIGURE 4

- 10. Assemble the height adjustment handle to the height adjustment tube using the curved bolts, washers and nuts which come pre-assembled to the tube. Tighten the height adjustment handle so that the height adjustment strap is aligned with the outside of the handle. See figure 5.
- 11. Assemble the grip onto the end of the height adjustment handle as shown in figure 5.

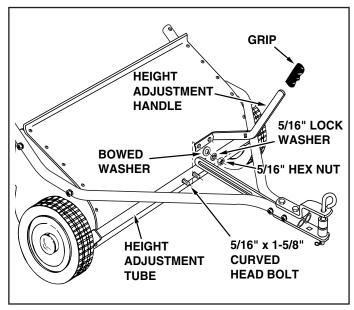


FIGURE 5

12. Place the 5/16" tooth-lock washer between the height adjustment handle and the height adjustment strap. Insert the 5/16" x 3/4" carriage bolt through the handle, the tooth-lock washer and the strap. Assemble the 5/16" Std. Wrt. washer and the plastic knob onto the end of the bolt and tighten. See figure 6.

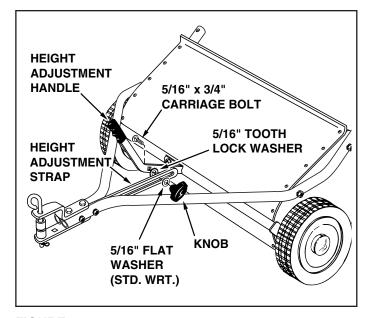


FIGURE 6

ASSEMBLY OF HOPPER BAG

 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 7, 8 and 9. Repeat for the right hand upper hopper tube.

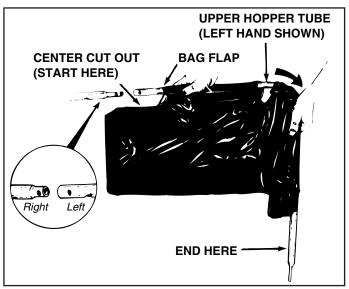


FIGURE 7

2. Slide the two upper hopper tubes together and line up the center holes as shown in figure 8.

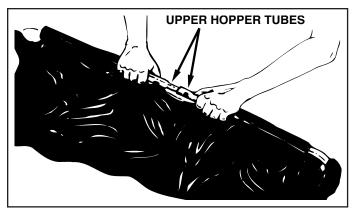


FIGURE 8

 Fasten the upper hopper tubes together using a 1/4" x 1" curved head bolt and a 1/4" hex lock nut. See figure 9.

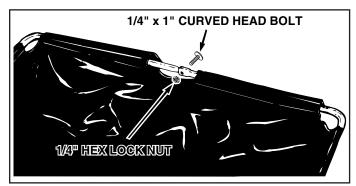


FIGURE 9

4. Assemble the two lower hopper tubes together using a 1/4" x 1" curved head bolt and a 1/4" hex lock nut. See figure 10.

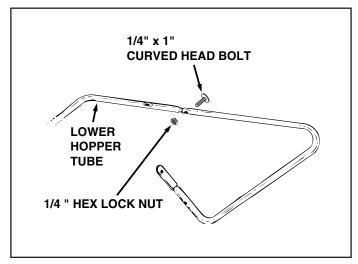


FIGURE 10

- 5. Place the assembled lower hopper tubes into the bottom of the hopper bag as shown in figure 11.
- 6. Assemble the ends of the upper and lower hopper tubes together using two 3/8" x 3/4" hex bolts (on the inside) and two 3/8" hex lock nuts (on the outside). **Tighten to allow bag to pivot freely.** See figure 11.

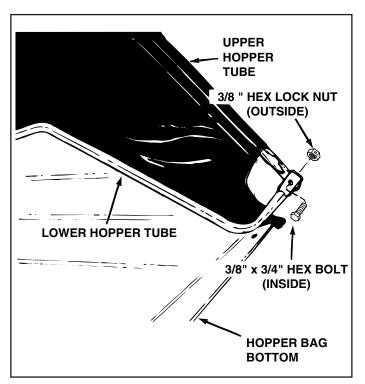


FIGURE 11

7. 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 retainer and strap together using six #10 x 5/8" slotted screws and #10-32 hex lock nuts. See figure 12.

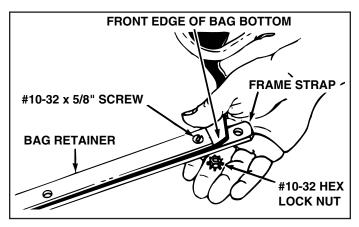


FIGURE 12

8. Assemble the frame strap to the lower hopper tube using two 1/4" x 1-1/4" hex bolts and 1/4" hex lock nuts. See figure 13.

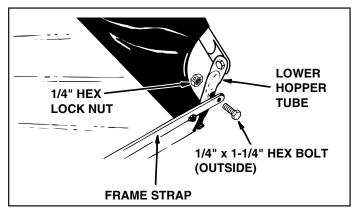


FIGURE 13

9. Secure the bag corners over the lower hopper tube by snapping the flap to the bag bottom on both sides. See figure 14.

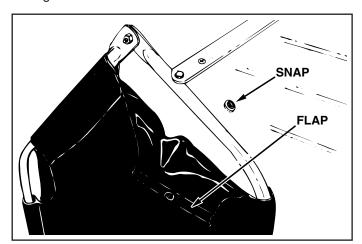


FIGURE 14

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

10. Assemble the two hopper support rods as shown in figure 15. Place end of rod into hole in upper hopper tube and bend rod just enough to fit bottom end of rod into hole in bottom hopper tube.

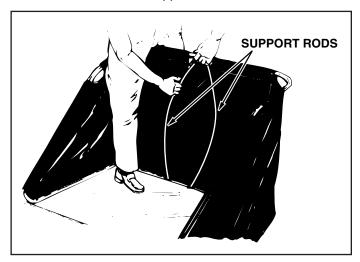


FIGURE 15

 Locate (by touch) the hole in each upper hopper tube.
 Pierce holes through the stitched bag flaps, aligned with the located holes in both hopper tubes. See figure 16.

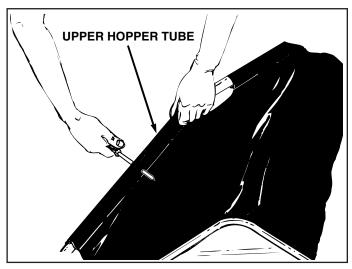


FIGURE 16

12. Assemble a vinyl cap onto each bag arm tube as shown in figure 17.

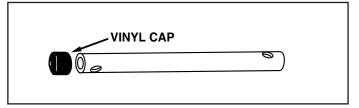


FIGURE 17

13. Slide the hopper bag pivot rod through the side of an upper hopper tube where the hole was pierced. Assemble onto the rod a mounting clamp, two bag arm tubes and another mounting clamp as shown in figure 18. Push the rod on through the upper hopper tube on the opposite side of the bag.

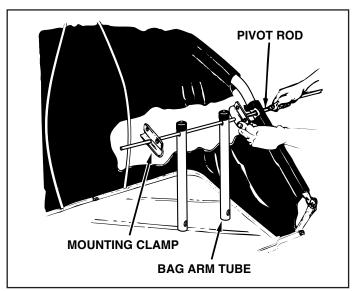


FIGURE 18

- 14. Assemble the two remaining hopper mount clamps onto the pivot rod on the outside of the bag. Fasten them to the inside clamps using four 5/16" x 3/4" hex bolts and 5/16" hex lock nuts. Tighten securely. See figure 19.
- 15. Assemble two palnuts by lightly tapping them onto the ends of the pivot rod with a hammer. 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.

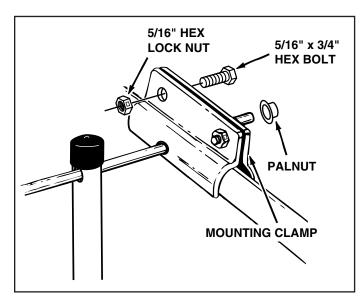


FIGURE 19

16. Secure the rope to the top center of the hopper bag frame as shown in figure 20.



FIGURE 20

17. Assemble the wind screen to the hopper bag frame by snapping the screen's four corners loops around the frame's upper hopper tubes. See figure 21.

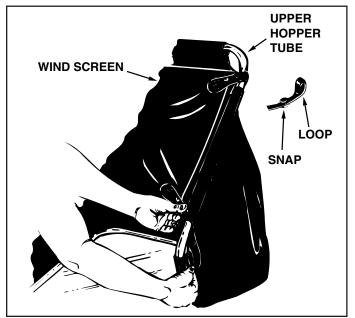


FIGURE 21

18. To assemble 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 1-1/2" clevis pins and 3/32" hairpin cotters. See figure 22.

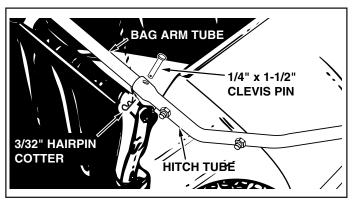


FIGURE 22

ATTACHING SWEEPER HITCH TO TRACTOR

- 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 to the tractor hitch, arranging the 3/4" spacers into one of the six possible combinations 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 23.

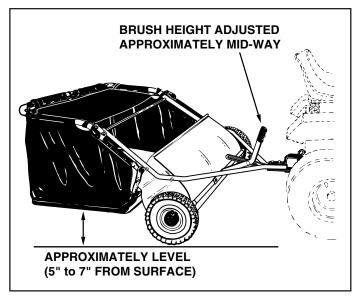
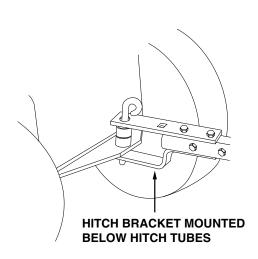
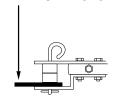


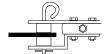
FIGURE 23

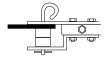
GROUP "A" - For vehicles with hitches having 8" to 10" ground clearance.



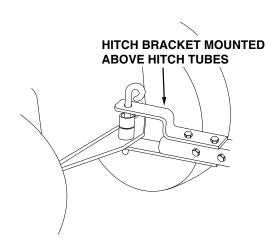
BLACK LINE IS TRACTOR HITCH



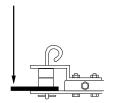


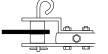


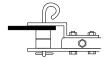
GROUP "B" - For vehicles with hitches having 10" to 13" ground clearance.



BLACK LINE IS TRACTOR HITCH

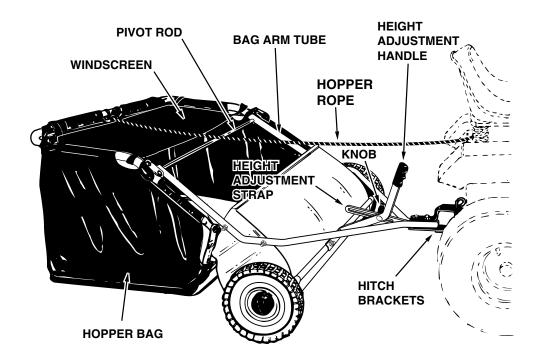






OPERATION

KNOW YOUR SWEEPER



Collects grass clippings, leaves and debris. Hopper Bag Hopper Rope

Permits dumping of hopper bag from the drivers seat.

Helps prevent collected material from being blown out of hopper bag.

Connects the hopper bag to the sweeper housing. Allows hopper bag to tilt forward to dump material.

Adjusts the operating height of the sweeper.

Holds the height adjustment handle in position when locked.

Locks the height adjustment handle to the height adjustment strap.

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, loosen the adjustment knob and push down on the height adjustment lever to raise the brush. See figure 23. 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

Windscreen

Pivot Rod

Knob

Bag Arm Tubes

Hitch Bracket

Height Adjustment Handle

Height Adjustment Strap

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

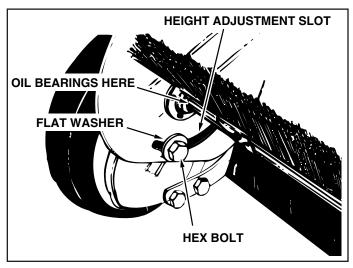
CUSTOMER RESPONSIBILITIES

Read and follow the maintenance schedule and the procedures listed in the maintenance section.

MAINTENANCE SCHEDULE Fill in dates as you complete regular service.	/8	a lote of	ach u	in USE	yery 6	elote si	orage yes	its/		Serv	rice Da	tes		
Check for loose fasteners	X													
Check for worn or damaged parts	Х			Х										
Lubricate brush shaft bearings			X											
Lubricate wheel bearings				Х										
Clean Sweeper		Х			Х									
Clean/Lubricate gears						Х								

SCHEDULED MAINTENANCE

- Clean the sweeper after each use.
 Inspect for worn or damaged parts, such as brushes and wheels
- 2. Lubricate the brush shaft bearing twice a year with a few drops of light weight oil. See figure 24.



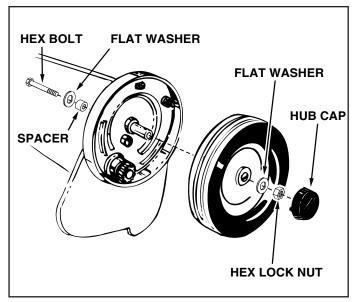


FIGURE 25

FIGURE 24

 Every two years, remove the wheels and clean the gears found inside the wheel housing. After cleaning, lubricate with an even coat of light grease. To remove the wheel, pop off the hub cap using a screwdriver and remove the lock nut and flat washer. See figure 25.

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

CLEANING

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.
- 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. See figure 26.
- 3. Slide the brush out of the retainers, noting on which side of the brush the bristles overlap. See figure 26.
- 4. Install new brush, making sure the bristles overlap on the same side of the brush as before. See figure 26.

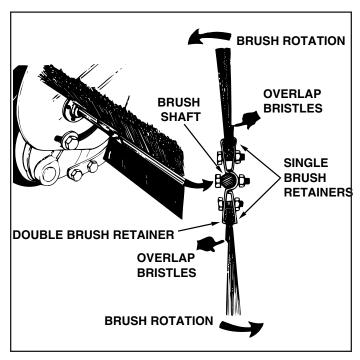


FIGURE 26

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 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 pawl, which may fall out of the brush shaft when the ratchet gear is removed.) See figure 27.
- 4. To reassemble, insert the pawl through the rectangular hole in the brush shaft. Make sure the pawl is turned so that the flat side of the pawl will press against the flat side of the internal teeth in the ratchet gear.
- 5. Lightly grease the shaft and fill the ratchet gear with grease. Assemble the ratchet gear back onto the shaft.
- Lightly grease the axle and the wheel's gear teeth 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 pawl is assembled incorrectly and must

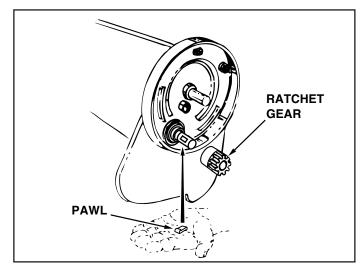
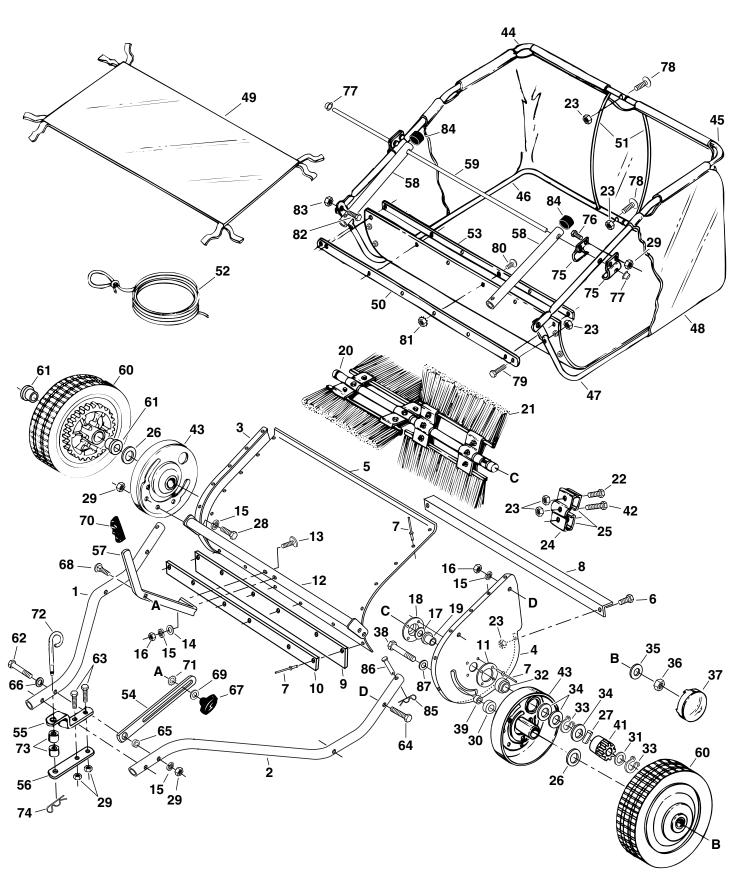


FIGURE 27

TROUBLESHOOTING

	Wheels skid when sweeping.	Brushes set too low.	1. Adjust height till brushes are 1/2"
			down into grass.
		2. Brushes are jammed	2. Stop sweeper. Remove obstruction.
		3. Wheels are jammed.	3. Remove one wheel at a time to check
			for obstruction or damage. Refer to
			Service and Adjustments section.
ı			

REPAIR PARTS FOR MODEL 45-0260 - 42" LAWNSWEEPER



PARTS

REPAIR PARTS LIST FOR MODEL 45-0260 - 42" LAWNSWEEPER

REF.	PART	QTY.	DESCRIPTION	REF.	PART	QTY.	DESCRIPTION
NO.	NO.			NO.	NO.		
1	46776	1	Hitch Tube, R.H.	45	46731	1	Tube, Upper Hopper Frame L.H.
2	46777	1	Hitch Tube, L.H.	46	46732	1	Tube, Lower Hopper Frame R.H.
3	24182	1	End Plate, R.H.	47	46733	1	Tube, Lower Hopper Frame L.H.
4	24183	1	End Plate, L.H.	48	46736	1	Hopper Bag
5	24184	1	Wrapper	49	46737	1	Wind Screen
6	43175	2	Bolt, Hex 1/4-20 x 1/2" Lg.	50	24189	1	Strap, Bag Frame
7	C-9M5732	26	Rivet, Pop	51	43926	2	Rod, Hopper Support
8	24185	1	Brace, Rear Support	52	43737	1	Hopper Rope
9	46778	1	Skirt, 42"	53	24190	1	Retainer, Bag
10	24186	1	Retainer, Skirt	54	24191	1	Strap, Height Adjustment
11	23336	2	Washer, Special	55	23687	1	Bracket, Hitch
12	63463	1	Height Adjustment Tube Ass'y.	56	24192	1	Bracket, Hitch (Straight)
13	44947	2	Bolt, Cvd. Hd. 5/16-18 x 1-5/8" Lg.	57	24193	1	Handle, Height Adjustment
14	44695	2	Washer, Bowed 1" x .32" x .06"	58	46781	2	Tube, Bag Arm
15	43086	12	Lock Washer, 5/16"	59	46823	1	Rod, Hopper Bag Pivot
16	43083	6	Nut, Hex 5/16-18 Thread	60	44985	2	Wheel & Tire Ass'y.(with bearings)
	R19212113		Washer, 5/8" SAE	61	45088	4	Wheel Bearing
18	1629-56	2	Retainer, Dust Cover	62	46782	2	Bolt, Hex 5/16-18 x 3" Lg.
19	44910	2	Bushing, Brush Shaft	63	43224	2	Bolt, Hex 5/16-18 x 2-1/4" Lg.
20	24188	1	Brush Shaft	64	43084	4	Bolt, Hex 5/16-18 x 1-3/4" Lg.
21	46780	4	Brush, 42"	65	46847	1	Bushing, Spacer
22	43012	8	Bolt, Hex 1/4-20 x 3/4" Lg.	66	R19111116	2	Washer,Flat (5/16)11/32" x 11/16"
23	43013	18	Nut, Hex Lock 1/4-20 Thread	67	43720	1	Knob, Wing 5/16-18 Thread
24	23580	4	Retainer, Brush (Double)	68	43080	1	Bolt, Carriage 5/16-18 x 3/4" Lg.
25	23581	8	Retainer, Brush (Single)	69	43081	1	Washer, Flat 5/16" Std. Wrt.
26	44008	2	Washer, Flat 1-1/8" x .78" x .025"	70	43943	1	Grip, Height Adjust
27	1671-1	2	Pawl	71	44732	1	Washer, Tooth Lock 5/16"
28	44692	4	Bolt, Hex 5/16-18 x 1/2" Lg.	72	23353	1	Pin, Hitch
29	43064	12	Nut, Hex Lock 5/16-18 Thread	73	23368	2	Tube, Hitch Spacer
30	44911	2	Spacer, .39 I.D". x 1-1/4" O.D. x .5"	74	43343	1	Hairpin Cotter, 1/8" #4
31	44006	2	Washer, Flat .849" x .598" x .025"	75	23331	4	Clamp, Hopper Mount
32	46219	2	Spacer,.78 I.D". x 1-1/4" O.D. x .5"	76	43182	4	Bolt, Hex 5/16-18 x 3/4" Lg.
33	1650-21	4	Ring, Retaining .594"	77	44917	2	Palnut, 3/8"
34	44007	6	Washer, Shim 1-1/8"x.594" x .025"	78	43978	2	Bolt, Cvd. Hd. 1/4-20 x 1" Lg.
35	141	2	Washer, Flat 1-1/2"x .375" x .062"	79	1509-90	2	Bolt, Hex 1/4-20 x 1-1/4" Lg.
36	1038	2	Nut, Hex Lock 3/8-24 Thread	80	43346	6	Bolt, Sl. Tr. Hd. #10-32 x 5/8" Lg.
37	2674-32	2	Hub Cap	81	43662	6	Nut, Hex Lock #10-32 SEMS
38	44961	2	Bolt, Hex 3/8-24 x 3-1/4" Lg.	82	43407	2	Bolt, Hex 3/8-16 x 3/4" Lg.
39	23400	2	Bushing, Spacer	83	43082	2	Nut, Hex Lock 3/8-16 Thread
40	2692-6	1	Gear, Pinion R.H. (not shown)	84	44481	2	Cap, Vinyl
41	2692-7	1	Gear, Pinion L.H.	85	43055	2	Hairpin Cotter, 3/32" #3
42	43661	4	Bolt, Hex 1/4-20 x 1" Lg.	86	46867	2	Pin, Clevis 1/4" x 1-1/2" Lg.
43	63027	2	Ass'y, Dust Cover	87	43070	2	Washer, 3/8" Std. Wrt.
44	46730	1	Tube, Upper Hopper Frame R.H.		46814	1	Owners Manual