# **Owner's Manual**



# 38" LAWNSWEEPER

# Model No. 486.24207



## CAUTION:

Before using this product, read this manual and follow all Safety Rules and Operating Instructions.

# **IMPORTANT - READ THIS FIRST!!!**

For Missing Parts or Assembly Questions Please Call 866-576-8388 Mon.-Fri. 7 am - 5 pm CST. FAX 217-728-2032 or e-mail <u>info@agri-fab.com</u> Missing parts will be sent UPS in 24 hours directly to your home.

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A. www.sears.com/craftsman

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- Safety
- Assembly
- Operation
- Maintenance
- Parts

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# WARRANTY

## LIMITED ONE YEAR WARRANTY ON CRAFTSMAN LAWNSWEEPER

For one year from the date of purchase, when this lawnsweeper is maintained and lubricated according to the operating and maintenance instructions in the owner's manual, Sears will repair any defect in material or workmanship free of charge. If this lawnsweeper is used for commercial or rental purposes, this warranty applies for only 90 days from the date of purchase.

This warranty does not cover repairs necessary because of operator negligence or abuse, including the failure to maintain the equipment according to instructions contained in the owner's manual.

WARRANTY SERVICE IS AVAILABLE BY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES.

This warranty applies only while this product is in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Sears, Roebuck and Co. D/817 WA. Hoffman Estates, Chicago, IL 60179



# SAFETY



- 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.
- Do not permit children to operate sweeper.
- Do not permit anyone to ride on sweeper.
- 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.
- Before storing the sweeper, always empty the hopper bag to avoid spontaneous combustion.
- 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 mean--Attention!! Become alert!! Your safety is involved.

The model number and serial numbers will be found on a	MODEL NUMBER:	486.24207
decal attached to the housing.	SERIAL NUMBER:	
You should record both the serial number and the date of purchase and keep in a safe place for future reference.	DATE OF PURCHASE:	

# HARDWARE PACKAGE CONTENTS



SHOWN FULL SIZE



REF.	QTY.	DESCRIPTION	REF.	QTY.	DESCRIPTION
А	2	Hex Bolt, 5/16 x 2-1/2"	0	1	Hair Cotter Pin, 1/8"
В	2	Hex Bolt, 5/16 x 2"	Р	8	Hair Cotter Pin, 3/32"
С	2	Curved Head Bolt, 5/16" x 1-5/8"	Q	2	Clevis Pin, 1/4" x 1-1/8"
D	4	Carriage Bolt, 5/16" x 1-1/2"	R	2	Clevis Pin, 1/4" x 1-3/4"
E	1	Carriage Bolt, 5/16" x 1"	S	2	Clevis Pin, 3/8" x 3"
F	4	Carriage Bolt, 5/16 x 3/4"	Т	2	Clevis Pin, 3/8" x 1/2"
G	2	Hex Bolt, 5/16" x 3/4"	U	1	Spacer Bushing,
Н	14	Hex Lock Nut, 5/16"	V	2	Hitch Spacer, 3/4"
	2	Hex Nut, 5/16"	W	2	Vinyl Cap
J	2	Palnut, 3/8"	Х	1	Grip
K	2	Flat Washer, 5/16" Std. Wrt.	Y	1	Knob, Plastic
L	8	Lock Washer, 5/16"	Z	1	Hitch Pin
М	2	Bowed Washer	AA	4	Hopper Clamp
Ν	1	Lock Washer (Tooth), 5/16"	BB	3	Plastic Plug
			CC	1	Angle Bracket

### **CARTON CONTENTS**

- 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. Upper Hopper Tube, R.H.
- 12. Upper Hopper Tube, L.H.
- 13. Lower Hopper Tube, Rear
- 14. Lower Hopper Tube, Side (2)
- 15. Hopper Bag Rod
- 16. Hopper Support Rod (2)
- 17. Bag Frame Strap



### TOOLS REQUIRED FOR ASSEMBLY

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

### **REMOVAL OF PARTS FROM CARTON**

• Remove all parts and hardware packages from the carton. Lay out all parts and hardware and identify using the illustrations on pages 4 and 5.

### **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.

• Assemble the angle bracket to the sweeper housing using a 5/16" x 3/4" hex bolt and a 5/16" hex lock nut. Make sure the bracket is turned as shown and aligned straight with the housing and then **tighten**. See figure 1.





 Assemble the R.H. hitch tube to the sweeper housing using two 5/16" x 1-1/2" carriage bolts and 5/16" hex lock nuts. **Do not tighten yet.** Repeat for the L.H. hitch tube. See figure 2.





 Fasten the hitch tubes together using two 5/16" x 2-1/2" hex bolts and 5/16" hex lock nuts. Do not tighten yet. See figure 3.



**FIGURE 3** 

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.

- Assemble the hitch brackets to the hitch tubes using two 5/16" x 2" hex bolts and 5/16" hex lock nuts. The bolts should straddle the front hitch tube bolt. Do not tighten yet. See figure 4 or 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.
- Assemble the hitch pin, two 3/4" spacers and the 1/8" hair cotter pin to the hitch brackets. See figure 4 or 5.









- Assemble the height adjustment handle to the height adjustment tube as shown in figure six. Use two curved head bolts, bowed washers, 5/16" lock washers and 5/16" hex nuts. **Do not tighten yet.** See figure 6.
- Assemble the grip onto the height adjustment handle. See figure 6.



**FIGURE 6** 

 Insert a 5/16" x 3/4" hex bolt through the angle bracket. Assemble onto the bolt (in sequence) the spacer bushing, the height adjustment strap, a 5/16" flat washer and a 5/16" hex lock nut. **Tighten.** See figure 7.



**FIGURE 7** 

- Position the height adjustment handle side to side so that the tooth lock washer can fit between the handle and the height adjustment strap. **Tighten** the nuts securing the height adjustment handle. See figure 8.
- Insert the 5/16" x 1" carriage bolt through the height adjustment handle. Assemble onto the bolt, in order, the 5/16" tooth-lock washer, the height adjustment strap, a 5/16" flat washer and the plastic knob. See figure 8.



FIGURE 8

## ASSEMBLY OF HOPPER BAG

 Hold the (LH) upper hopper tube so that the hole for the brace rod faces down. Insert the (LH) upper hopper tube down through the stitched flap on the left side of the hopper bag. Repeat for the right hand upper hopper tube. See figure 7.





• Slide the two upper hopper tubes together and line up the center holes as shown in figure 10.



**FIGURE 10** 

• Fasten the upper hopper tubes together by inserting a plastic plug into the center holes. See figure 11.



**FIGURE 11** 

• Turn the 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. See figure 12.



- Place the assembled lower hopper tubes into the bottom of the hopper bag as shown in figure 13.
- 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 3/32" hair cotter pins. See figure 13.



**FIGURE 13** 

- Insert the bag frame strap into the stitched sleeve along the front edge of the bag bottom. See figure 14.
- Assemble the bag frame strap to the holes in the lower hopper tubes using two 1/4" x 1-1/8" clevis pins and 3/32" hair cotter pins. See figure 14.





• Secure the bag corners around the lower hopper tubes by snapping the bag flaps to the bag bottom. See figure 15.



FIGURE 15

- Insert the hopper bag rod through the **upper hole** in the upper hopper tubes and the through the stitched sleeve at the front of the wind screen. See figure 16.
- Assemble two palnuts by lightly tapping them onto the ends of the pivot rod with a hammer. See figure 16.
- **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 16** 

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

• Assemble the two hopper support rods as shown in figure 17. Place the ends of the rods into the upper and lower hopper tubes, bending the rod just enough to fit into the holes in the tubes.



FIGURE 17

- Align two hopper mount clamps with the **lower hole** in each upper hopper tube. Insert a 3/8" x 3" clevis pin through the clamps and the upper hopper tube. Assemble a bag arm tube onto the clevis pin and secure it with a 3/32" hair cotter pin. See figure 18.
- Assemble a vinyl cap onto each bag arm tube as shown in figure 18.



FIGURE 18

• Fasten the hopper mount clamps together using four 5/16" x 3/4" carriage bolts and 5/16" hex lock nuts. Tighten securely. See figure 19.



**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 1/4" x 1-3/4" clevis pins and 3/32" hair cotter pins. See figure 20.



• Secure the rope to the top center of the hopper bag frame as shown in figure 21.



**FIGURE 21** 

### ATTACHING SWEEPER HITCH 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 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 22.



**FIGURE 22** 

# 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 clear-



**BLACK LINE IS TRACTOR HITCH** 







# **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.
Clevis Pins	Allows hopper bag to pivot forward to dump material.
Height Adjustment Handle	Adjusts the operating height of the sweeper.
Height Adjustment Strap	Holds the height adjustment handle in position when locked.
Knob	Locks the height adjustment handle to the height adjustment strap.
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, loosen the adjustment knob and push down on the height adjustment lever to raise the brush, or push up on the lever to lower the brush. See figure 21. 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.

### **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.	Be <sup>OP</sup> H <sup>E</sup> <sup>Real</sup> <sup>2</sup> <sup>Real</sup> <sup>2</sup> <sup>Real</sup> <sup>2</sup> <sup>NO</sup> <sup>Real</sup> <sup>2</sup> <sup>NO</sup> <sup>NO</sup> <sup>NO</sup> <sup>NO</sup> <sup>NO</sup> <sup>NO</sup> <sup>NO</sup> <sup>NO</sup>											
Check for loose fasteners	X											
Check for worn or damaged parts	X			Х								
Lubricate brush shaft bearings			Х				1		İ			
Lubricate wheel bearings	1			X			ĺ		İ			
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.
- Lubricate the brush shaft bearing twice a year with a few drops of light weight oil. See figure 23.



#### **FIGURE 23**

• 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 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.

### **BRUSH REPLACEMENT**

- NOTE: Brush replacement should be done one brush at a time.
- 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 25.
- Slide the brush out of the retainers, noting on which side of the brush the bristles overlap. See figure 25.
- Install new brush, making sure the bristles overlap on the same side of the brush as before. See figure 25.



### **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.

- Remove one wheel from the sweeper.
- Remove the retaining rings and washers which hold the ratchet gear onto the brush shaft.
- 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.
- 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.
- 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 drive pin is jamming in the ratchet gear. Disassemble to clean and lubricate the drive pin and the ratchet gear.



**FIGURE 26** 

# TROUBLESHOOTING

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

# PARTS

# **REPAIR PARTS FOR MODEL 486.24207**



# **REPAIR PARTS FOR MODEL 486.24207**

Ref.	Part	Qty.	Description	Ref.	Part	Qty.	Description
No.	No.		-	No.	No.		
1	48618	1	Hitch Tube, R.H.	42	43661	4	Bolt, Hex 1/4-20 x 1"
2	48619	1	Hitch Tube, L.H.	43	64578	2	Ass'y, Dust Cover
3	24950	1	End Plate, R.H.	44	48469	1	Tube, Hopper Frame (Rear)
4	24951	1	End Plate, L.H.	45	48783	1	Tube, Upper Hopper (LH)
5	24971	1	Wrapper	46	48784	1	Tube, Upper Hopper (RH)
6	43175	2	Bolt, Hex 1/4-20 x 1/2"	47	48727	2	Tube, Lower Hopper Side
7	C-9M5732	14	Rivet, Pop	48	48782	1	Hopper Bag
8	23854	1	Brace, Rear Support	49	48366	2	Clevis Pin, 3/8" x 1/2"
9	43182	2	Bolt, Hex 5/16-18 x 3/4"	50	23352	1	Strap, Bag Frame
10	23826	1	Bracket, Angle	51	43938	2	Rod, Hopper Support
11	23336	2	Washer, Special	52	43737	1	Hopper Rope
12	64546	1	Height Adjustment Tube Assembly	53	44481	2	Cap, Vinyl
13	44947	2	Bolt, Cvd. Hd. 5/16-18 x 1-5/8"	54	24979	1	Strap, Height Adjustment
14	44695	2	Washer, Bowed 1" x .32" x .06"	55	23687	1	Bracket, Hitch
15	43086	2	Lock Washer, 5/16"	56	24192	1	Bracket, Hitch (Straight)
16	43083	2	Nut, Hex 5/16-18	57	23850	1	Handle, Height Adjustment
17	R19212113	6	Washer, 5/8" SAE	58	48323	2	Tube, Bag Arm
18	1629-56	2	Retainer, Dust Cover	59	43513	2	Pin, Clevis 3/8" x 3"
19	44910	2	Bushing, Brush Shaft	60	44930	2	Wheel & Tire Ass'y. (with bearings)
20	24085	1	Brush Shaft	61	741-0249	4	Wheel Bearing
21	43905	4	Brush	62	44292	2	Bolt, Hex 5/16-18 x 2-1/2"
22	43012	8	Bolt, Hex 1/4-20 x 3/4"	63	44180	2	Bolt, Hex 5/16-18 x 2"
23	47189	14	Nut, Hex Lock 1/4-20 (Nylock)	64	43070	2	Washer, 3/8" Std. Wrt.
24	23580	4	Retainer, Brush (Double)	65	43681	4	Bolt, Carriage 5/16-18 x 1-1/2"
25	23581	8	Retainer, Brush (Single)	66	44326	1	Bolt, Carriage 5/16-18 x 1"
26	46867	2	Clevis Pin, 1/4" x 1-3/4"	67	43720	1	Knob, Wing 5/16-18 Thread
27	47046	2	Dowel Pin (Drive)	68	43080	4	Bolt, Carriage 5/16-18 x 3/4"
28	43182	4	Bolt, Hex 5/16-18 x 3/4"	69	43081	2	Washer, Flat 5/16" Std. Wrt.
29	47810	18	Nut, Hex Lock 5/16-18 (Nylock)	70	43943	1	Grip, Height Adjust
30	48702	2	Spacer, .39 I.D". x 1-1/4" O.D. x .6"	71	44732	1	Washer, Tooth Lock 5/16"
31	44006	2	Washer, Flat .849" x .598" x .025"	72	23353	1	Pin, Hitch
32	46219	2	Spacer, .78 I.D". x 1-1/4" O.D. x .5"	73	23368	2	Tube, Hitch Spacer
33	1650-21	4	Ring, Retaining .594"	74	43343	1	Hairpin Cotter, 1/8" #4
34	44007	4	Washer, Shim 1-1/8" x .594" x .025"	75	43055	8	Hairpin Cotter, 3/32" #3
35	141	2	Washer, Flat 1-1/2" x .375" x .062"	76	48365	2	Clevis Pin, 1/4" x 1-1/8"
36	1038	2	Nut, Nylock 3/8-24	77	44917	2	Palnut, 3/8"
37	2674-32	2	Hub Cap	78	48402	4	Plastic Plug
38	44961	2	Bolt, Hex 3/8-24 x 3-1/4"	79	23331	4	Clamp, Hopper Mount
39	23400	3	Bushing, Spacer	80	47373	1	Rod, Hopper Bag
40	43886	1	Gear, Pinion R.H. (not shown)		48785	1	Owners Manual
41	43885	1	Gear, Pinion L.H.				

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