SWEEPSTER

VRS Series

Vacuum Ready Sweeper

BRADCO
FFC
HARLEY
MAJOR
McMILLEN
SWEEPSTER

PALADIN LIGHT CONSTRUCTION

Sweepster Serial Number_____

Manual Number: 51-4019
Release Date: March 2006

800-456-7100 www.paladinbrands.com Sweepster 2800 N. Zeeb Rd:, Dexter, MI. 48130 United States of America

Notes

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INTRODUCTION

Purpose of Sweeper

This sweeper is designed solely for the use in construction cleanup, road maintenance and similar operations. Use in any other way is considered contrary to the intended use. Compliance with and strict adherence to operation, service and repair conditions, as specified by the manufacturer, are also essential elements of the intended use.

Contacting Sweepster

If you have any questions about information in this manual or need to order parts, please call, write, fax or e-mail SWEEPSTER.

Sweepster
2800 North Zeeb Road
Dexter, Michigan 48130
Phone: (734)-996-9116 - (800)-456-7100
Fax: (734) 996-9014
e-mail: sweepster@paladinbrands.com

For help with installation, operation or maintenance procedures, contact our Technical Service Department. Direct product questions and parts orders to our Sales Department.

When ordering parts or accessories, be prepared to give the following information:

- Sweeper model, serial number and date of purchase
- Prime mover, make and model
- Part number, description and quantity

Terms Used In Manual

Right-hand, left-hand, front and *rear* are determined from the operator's perspective (either the operator's seat or standing behind a walk-behind unit), facing forward in the normal operating position.

Warranty

To validate the warranty for this unit, fill out the warranty card or warranty pages located in the back of this manual. Then send this information to SWEEPSTER.

SAFETY STATEMENTS

DANGER 

THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH WILL RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

WARNING 

THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

CAUTION 

THIS STATEMENT IS USED WHERE MINOR INJURY COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

NOTICE

THIS STATEMENT IS USED WHERE EQUIPMENT OR PROPERTY DAMAGE COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

THIS SYMBOL BY ITSELF OR USED WITH A SAFETY SIGNAL WORD THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.

GENERAL SAFETY PRECAUTIONS

WARNING

READ MANUAL PRIOR TO INSTALL

Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual as well as all manuals related to this equipment and the prime mover thoroughly before beginning installation, operation, or maintenance. **FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND THE PRIME MOVERS MANUAL.**

WARNING

READ AND UNDERSTAND ALL SAFETY STATEMENTS

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all OSHA regulations, local laws and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing or operating this equipment.

KNOW YOUR EQUIPMENT

Know your equipment's capabilities, dimensions and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to assure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they become worn and hard to read.

GENERAL SAFETY PRECAUTIONS

WARNING

PROTECT AGAINST FLYING DEBRIS

Always wear proper safety glasses, goggles or a face shield when driving pins in or out or when operation causes dust, flying debris, or any other hazardous material.

WARNING

LOWER OR SUPPORT RAISED EQUIPMENT

Do not work under raised booms without supporting them. Do not use support material made of concrete blocks, logs, buckets, barrels or any other material that could suddenly collapse or shift positions. Make sure support material is solid, not decayed, warped, twisted, or tapered. Lower booms to ground level or onto blocks. Lower booms and attachments to the ground before leaving the cab or operator's station.

WARNING

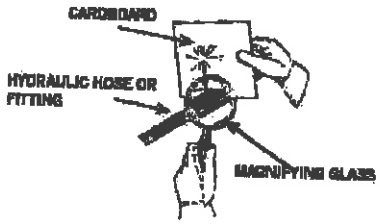
USE CARE WITH HYDRAULIC FLUID PRESSURE

Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible. Before connecting or disconnecting hydraulic hoses, read your prime movers operator's manual for detailed instructions on connecting and disconnecting hydraulic hoses or fittings.

- Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.
- If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research immediately to determine proper treatment.

GENERAL SAFETY PRECAUTIONS CONTINUED

- Wear safety glasses, protective clothing, and use a sound piece of cardboard or wood when searching for hydraulic leaks. **DO NOT USE YOUR HANDS! SEE ILLUSTRATION.**



WARNING **DO NOT MODIFY MACHINE OR ATTACHMENTS**

Modifications may weaken the integrity of the attachment and may impair the function, safety, life and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. Never modify any ROPS (Roll Over Protection System) equipment or device. Any modifications must be authorized in writing by the manufacturer.

WARNING - SAFELY MAINTAIN AND REPAIR EQUIPMENT

- Do not wear loose clothing, or any accessories that can catch in moving parts. If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use properly grounded electrical outlets and tools.
- Use the correct tool for the job at hand. Make sure they are in good condition for the task required.

GENERAL SAFETY PRECAUTIONS CONTINUED

- Wear the protective clothing equipment specified by the tool manufacturer.

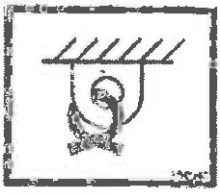
WARNING - SAFELY OPERATE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements. See your prime movers manual for these instructions.

- Keep all step plates, grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating.
- Do not allow riders on the attachment or the prime mover.
- Do not operate the equipment from anywhere other than the correct operators position.
- Never leave equipment unattended with the engine running or with this attachment in a raise position.
- Do not alter or remove any safety feature from the prime mover or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.

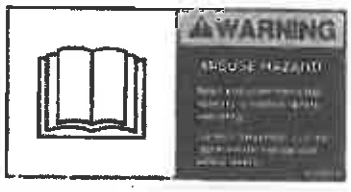
SAFETY SIGNS & LABELS

50-0634



50-0643

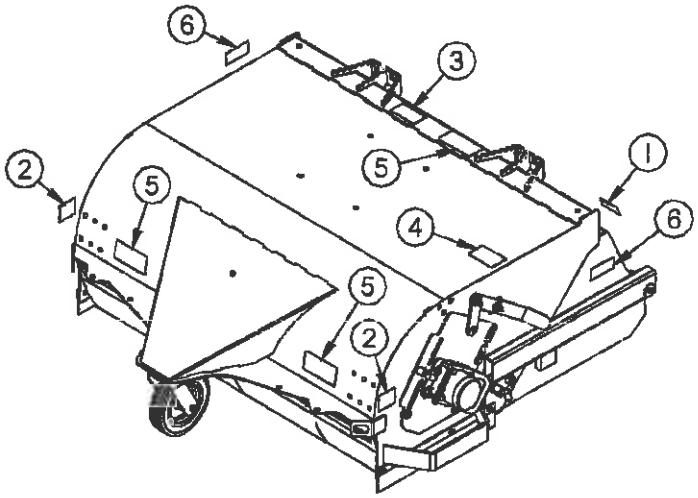
50-0724



50-0723

50-0727

50-0737



Item	Part	Qty	Description
1.	50-0634	1	Label, Serial Number
2.	50-0643	2	Label, Tie Down Point
3.	50-0723	1	Label, Warning, Misuse Hazard
4.	50-0724	1	Label, Warning, High Pressure Fluid
5.	50-0727	3	Label, Warning, Flying Objects
6.	50-0737	2	Label, Warning, Pinch Point Hazard

SAFETY SIGNS & LABELS

There are several specific signs on this sweeper. The exact location of the hazards and description of the hazards are reviewed.

Placement or replacement of Safety Signs

1. Clean the area of application with nonflammable solvent, and then wash the same area with soap and water.
2. Allow the surface to fully dry.
3. Remove the backing from the safety sign, exposing the adhesive surface.
4. Apply the safety sign to the position shown in the diagram above and smooth out any bubbles.

Instructions

1. Keep all safety signs clean and legible.
2. Replace all missing, illegible, or damaged safety signs.
3. Replacement parts, for parts with safety signs attached, must also have safety signs attached.
4. Safety signs are available, free of charge, from your dealer or from SWEEPSTER.

SERVICE & REPAIR - SAFETY

CAUTION -  **DO NOT MODIFY THE SWEEPER IN ANY WAY.** Personal injury could result. If you have questions, contact your dealer or SWEEPSTER.

Repair or adjust the sweeper in a safe area, away from traffic and other hazards.

Before adjusting or servicing the sweeper, lower the sweeper to the ground, stop the prime mover engine, set the brakes and remove the key from the ignition.

When working on or around the sweeper, lower it to the ground or secure it with transport chains or cylinder-stop locks.

Stop the prime mover engine and cycle control levers to release hydraulic pressure before servicing or adjusting sweeper hydraulic systems.

WARNING -  **ESCAPING HYDRAULIC FLUID** can have enough pressure to penetrate the skin, causing serious personal injury.

Do not bend high pressure lines. Do not strike high pressure lines. Do not install bent lines, bent tubes, or kinked hoses. Do not install damaged lines, tubes, or hoses.

Repair damaged or loose lines, tubes and hoses. Leaks can cause fires. See your SWEEPSTER dealer for repair or replacement parts.

Replace the parts if any of the following conditions are present:

- The end fittings are damaged or leaking.
- The outer covering is chafed or cut.
- The reinforcing wire layer is exposed.
- The outer covering is ballooning locally.
- The hose is kinked or crushed.
- The hose has been pulled or stretched.

Make sure that all clamps, guards, and shields are installed correctly.

OPERATION

CAUTION -  **A SWEEPER IS A DEMANDING MACHINE.** Only fully trained operators or trainee operators under supervision of a fully trained person should use this machine.

Before operating sweeper:

- Learn sweeper and prime mover controls in an off-road location.
- Be sure that you are in a safe area, away from traffic or other hazards.
- Check all hardware holding the sweeper to the host machine, making sure it is tight.
- Replace any damaged or fatigued hardware with properly rated fasteners.
- Make sure all hydraulic hardware and hydraulic fittings are tight.
- Replace any damaged or fatigued fittings or hoses.
- Check all tire pressures before sweeping.
- Check tire ratings to be sure they match the prime mover load. Weigh the sweeper end of the prime mover, if necessary, to insure proper tire rating.
- Remove from the sweeping area all property that could be damaged by flying debris.
- Be sure all persons not operating the sweeper are clear of the sweeper discharge area.
- Always wear proper apparel such as a long sleeved shirt buttoned at the cuffs; safety glasses, goggles or a face shield; ear protection; and a dust mask.

While operating sweeper:

- When operating sweeper, adhere to all government rules, local laws and other professional guidelines for your sweeping application.

•Before leaving the operators area for any reason, lower the sweeper to the ground. Stop the prime mover engine, set the brakes and remove the key from the ignition.

•Minimize flying debris - use the slowest rotating speed that will do the job.

•Keep hands, feet, hair and other loose clothing away from all moving parts.

•Leave the brush hood (shield) and all other shields and safety equipment in place when operating the sweeper and primer mover.

•Be aware of extra weight and width a sweeper adds. Reduce travel speed accordingly.

•Leave the brush hood (shield) and all other shields and safety equipment in place when operating the sweeper.

•When sweeping on rough terrain, reduce speed to avoid "bouncing" the sweeper. Loss of steering can result.

•Never sweep toward people, buildings, vehicles or other objects that can be damaged by flying debris.

•Only operate the sweeper while you are in the seat of the prime mover. The seat belt must be fastened while you operate the prime mover. Only operate the controls while the engine is running. Protective glasses must be worn while you operate the prime mover and while you operate the sweeper.

•While you operate the sweeper slowly in an open area, check for proper operation of all controls and all protective devices. Note any repairs needed during operation of the sweeper. Report any needed repairs.

Before Each Use

Perform daily maintenance as indicated in Maintenance Schedule.

Run the prime mover and sweeper at a low idle. Check for hydraulic leaks or other problems and make corrections, if necessary, before using the sweeper.

WARNING -  **AVOID SERIOUS INJURY.** Check for large objects that could harm the operator or others if thrown by the sweeper. Remove these items before operating.

During Use

Carry the sweeper low to the ground so that the operator has good visibility and stability. Avoid any sudden movements from one side to the other side when you carry a sweeper.

Avoid excessive downward pressure on the brush sections to prevent excessive wear. A two to six inch wide pattern is sufficient for most applications. Ensure that the motor and bearing plates are equally adjusted in order to prevent an uneven wear pattern.

Directing Debris

Observe wind direction. Sweeping with the wind makes sweeping more effective and helps keep debris off the operator.

The terms *swing* and *angle* are used interchangeably.

NOTICE - AVOID SWEEPER DAMAGE. Reduce travel speed to avoid hitting immovable objects.

Brush, Engine & Travel Speeds

/ary brush, engine and travel speeds to match sweeping conditions.

Large Areas

When sweeping a large area, such as a parking lot, make a path down the middle and sweep to both sides. This reduces the amount of debris that the sweeper must sweep to one side.

Snow

Fast brush speeds and slow travel speeds are needed to sweep effectively. Start at 3/4 throttle and the lowest gear of the prime mover. For wet and/or deep snow, increase to almost full throttle. This helps keep snow from packing up inside the brush hood.

In deep snow you may need to make multiple passes to get down to a clean surface.

To keep snow from blowing back onto a swept area, always sweep so the wind is at your back.

Dirt & Gravel

To keep dust at a minimum, plan sweeping for days when it is overcast and humid or after it has rained. Also, sweep so the wind blows at your back.

Low brush speeds and moderate travel speeds work best for cleaning debris from hard surfaces. Brush speeds that are too fast tend to raise dust because of the aggressive sweeper action.

To sweep gravel, use just enough brush speed to "roll" the gravel, not throw it.

Heavy Debris

Travel slowly - 1-2 mph.

Sweep a path less than the full width of the sweeper.

'ncrease engine speed if debris becomes very neavy.

STORAGE

NOTICE

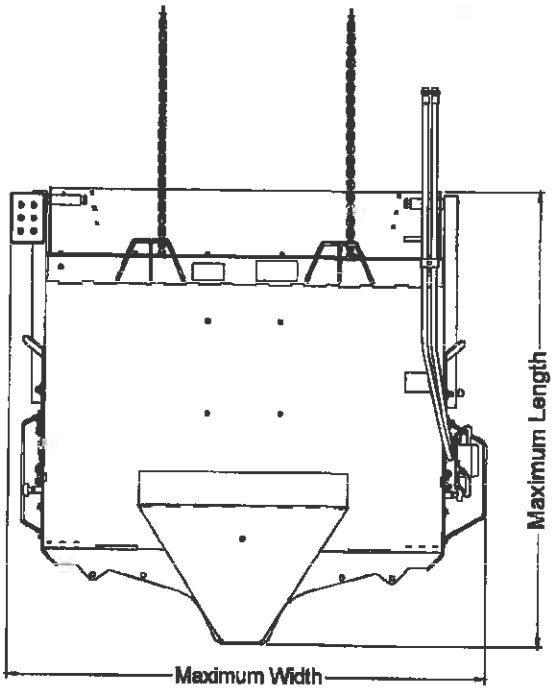
Do not store the sweeper with weight on the brush. Weight will deform the bristles, destroying the sweeping effectiveness.

Do not store polypropylene brushes in direct sunlight. The material can deteriorate and crumble before the bristles are worn out.

Keep polypropylene brush material away from intense heat or flame.

PRODUCT INFORMATION

Specifications and Model Views

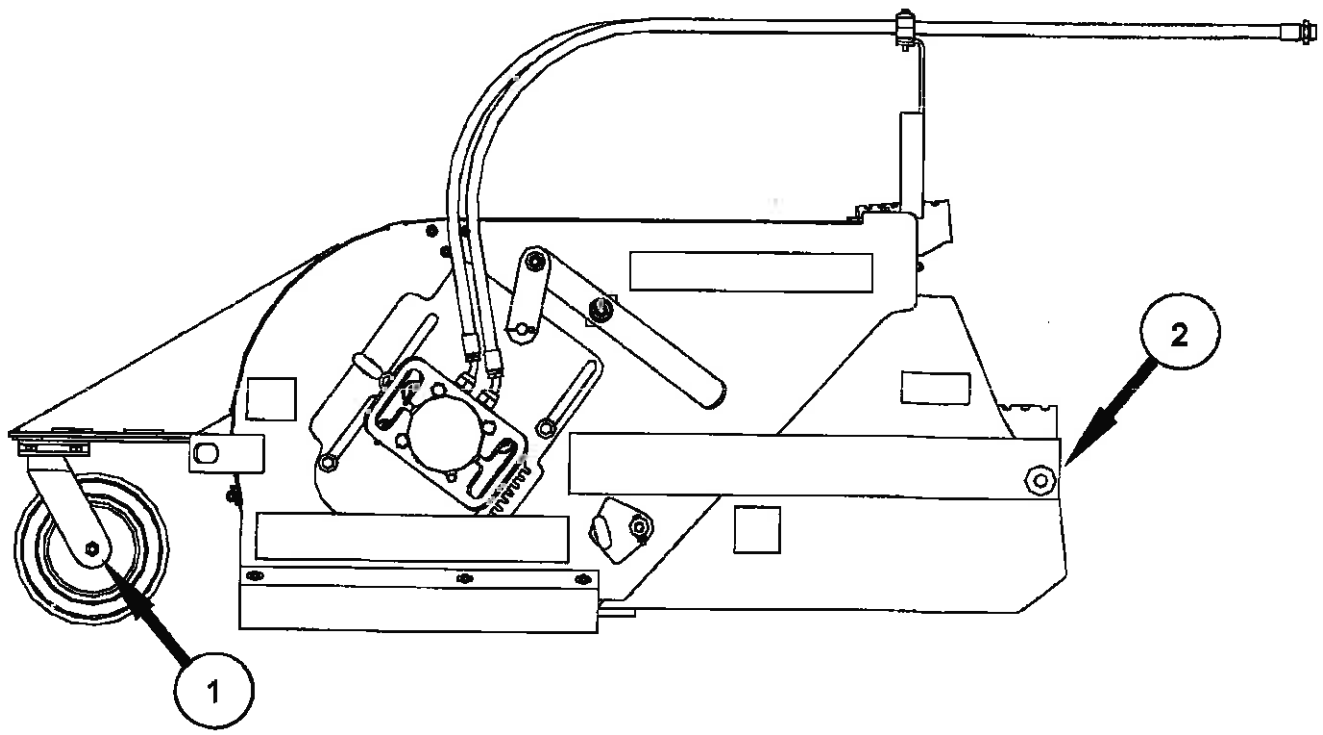


Maximum Weight with Bucket	1201 lbs (VRS 60) 1294 lbs (VRS 72) 1385 lbs (VRS 84)
Actual Sweeping Width	60 inches (VRS 60) 72 inches (VRS 72) 84 inches (VRS 84)
Maximum Length	69 inches (all models)
Maximum Width	72 inches (VRS 60) 85 inches (VRS 72) 97 inches (VRS 84)
Maximum Hydraulic Oil Flow	25 gpm
Maximum Hydraulic Oil Pressure	3000 psi

LUBRICATION POINTS

The following grease fittings should be greased before each use. See figure for locations.

1. Caster (2 fittings)
2. Bucket Pivot (1 Fitting each)



MAINTENANCE

Brush Pattern

A properly adjusted brush offers the best sweeper performance. To check the brush pattern:

1. Move the sweeper to a dusty, flat surface.
2. Set the prime movers parking brake and leave the engine running.
3. Start the sweeper at a slow speed; then, lower it so the boom arms bottom out. Run the sweeper in a stationary position for 10 seconds.
4. Raise the sweeper and back away; switch off the engine and remove the key from the prime mover. The brush pattern left in the dust should be 2-6 inches wide, running the length of the brush. (figure 1)
5. Adjust the brush pattern as necessary according to the following instructions.
    a. If the brush pattern is too wide, pull the "T" handle quick pin and move it up one notch. Repeat on the opposite side.
    b. If the brush pattern is too narrow, pull the "T" handle quick pin and move it down one notch. Repeat on the opposite side.
    c. Use the sight indicator to be sure sweeper brush is level at all times.
6. Repeat steps # 1 through #5 until the brush pattern is 2-6 inches wide.

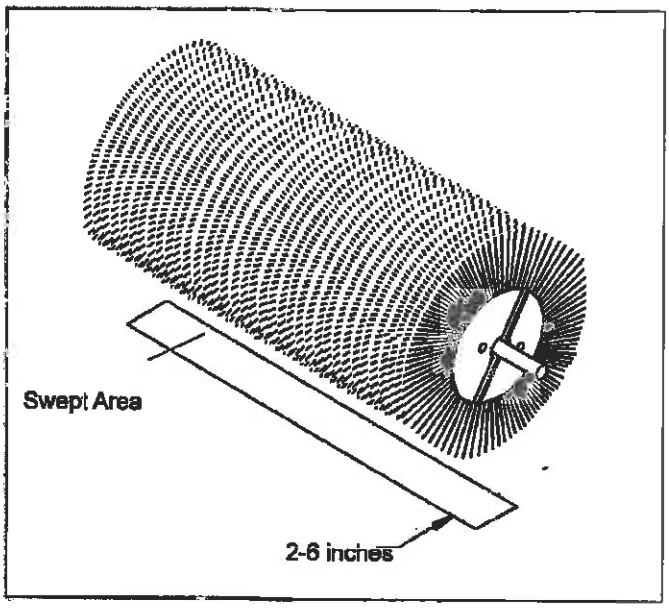
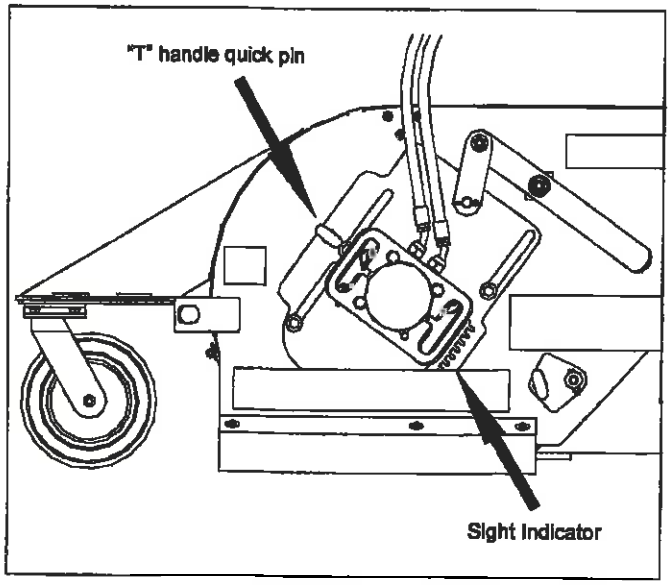


figure 1



REPLACING BRUSH SECTIONS

1. Remove four motor mount screws. Retain hardware for reinstallation. Remove motor mount.
2. Detach four bearing mount screws from side plate. Retain hardware for reinstallation.
3. Lift sweeper body leaving core on ground.
4. Remove the core hat plate. Retain hardware for reinstallation.
5. Remove old sections.
6. Install new sections by doing the following:
   a. Number the tubes on the core as 1,2 and 3 (figure 1).
   b. Slide the first section onto the core with the drive pins on either side of tube 1. Make sure that the drive pins angle up (figure 1).
   c. Place the second section on the core with the drive pins on either side of tube 2. Be sure the drive pins angle down (figure 2).
   d. Put the third section on with the drive pins around tube 3. Be sure the drive pins angle up.
   e. Slide sections on until the core is full, making sure to alternate the tubes used and the direction of the drive pins.
7. Re-attach the core hat plate.
8. Lay core on ground. Lower body over core.
9. Re-attach the bearing plate with previously removed hardware.
10. Attach motor mount with hardware removed in step one.

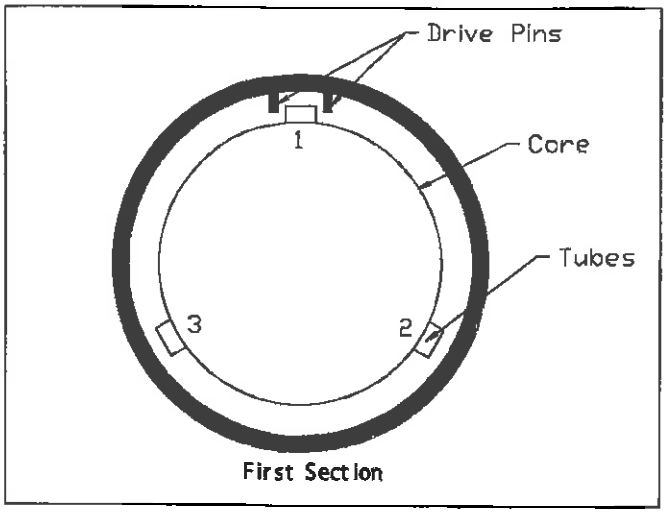


figure 1

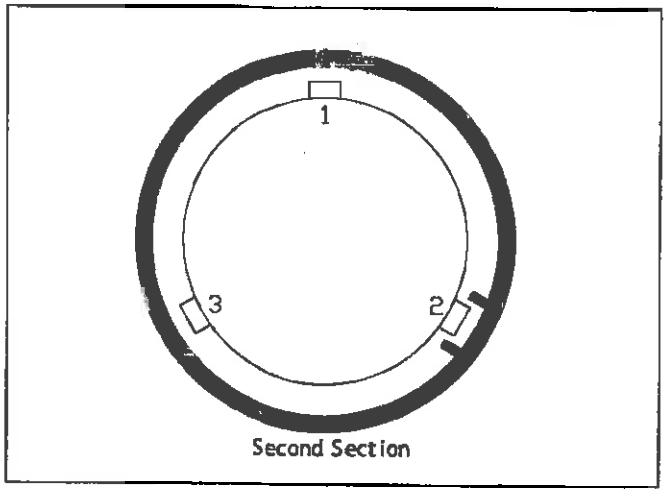
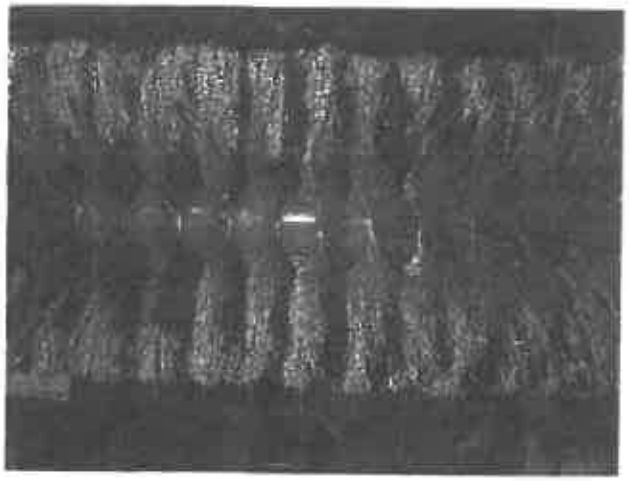


figure 2



ATTACHING CHAINS

1. Install the sweeper to the prime movers quick attach mounting.

2. Attach chains to SSL grab bars using one 5/16 quick link.

3. Attach chains to sweeper using one 5/16 wide jaw quick clip per side. (figure 1) Leave the chains loose with equal slack in both sides. **Do not entangle hydraulic hoses.**

4. Connect hydraulic hoses to prime mover remote hydraulics.

CAUTION - **AVOID EQUIPMENT DAMAGE AND PERSONAL INJURY.** Chains must be of equal length and long enough to keep the sweeper level during dumping. (figure 2) Short chains may cause the sweeper body to tip back and damage the sweeper body.

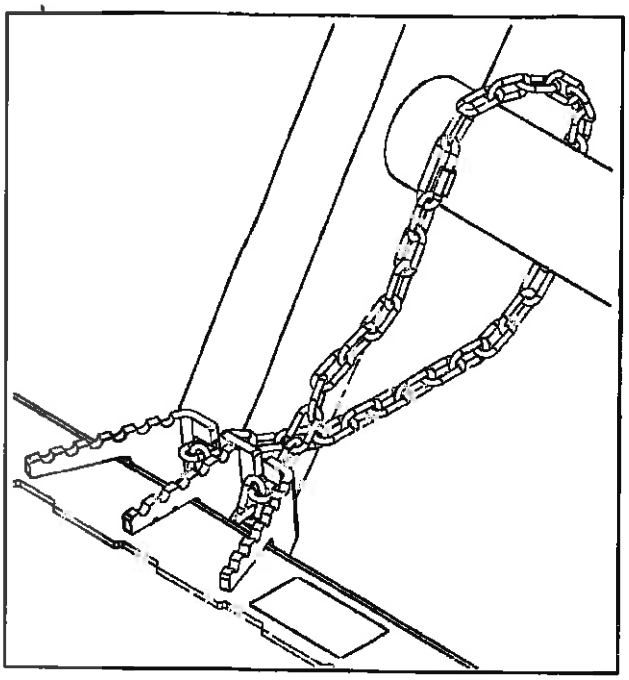


figure 1

ADJUSTING CHAINS

1. Make sure chains are quite loose

2. Raise the sweeper and then dump the bucket slowly. The sweeper will dump correctly if chains have the proper tension. (figure 1) If the sweeper tips down when test dumping, go to step 3.

3. Tighten both chains by the same amount but no more than two links each.

4. Repeat steps 2 and 3 until the sweeper dumps correctly.

MAINTENANCE SCHEDULE

Procedure	Before Each Use	After Each Use	100 Hours	500 Hours	See Prime Mover Manual
Brush pattern - Check (See Brush Pattern)	✓				
Fittings/hoses, hydraulic - Tighten - Check for damage	✓				
Fittings, zerk - Grease (See Lubrication Points)	✓				
Oil, hydraulic (Prime Mover)- Check Level - Check Cleanliness	✓				✓
Hardware -Tighten	✓				

Oil Cleanliness Requirements

NOTICE - All hydraulic fluid shall be filtered before use in any SWEEPSTER product to obtain the ISO cleanliness standard of 17-14 or better, unless explicitly specified otherwise.

MAINTENANCE RECORD

Date	Maintenance Procedure Performed	Performed by	Comments

TROUBLESHOOTING

ush Head Assembly

Problem	Possible Cause
Motor for pick-up broom will not operate	Auxilliary hydraulics control on prime mover is activated in the wrong position
	Hoses improperly connected to prime mover
	Hoses on prime mover are obstructed
	Hoses on broom are obstructed
	The motor has failed
Sluggish broom operation	Insufficient oil flow from the prime mover
	One or more seals have failed in the motor
	Hydraulic filter on prime mover is dirty
The motor runs but the broom does not run	Motor shaft has a sheared key
Oil leaks from the motor	One or more seals have failed in the motor
	Seals on the fittings are damaged
	Fittings are loose or damaged
	Hydraulic hoses are loose or damaged
Brush rotates in wrong directions	Hoses installed incorrectly
Brush slows or stops when sweeping	Brush pattern too wide
	Travel speed too fast
	Trying to sweep too much material at once.
	Hydraulic motor is failing
Brush wears very quickly	Brush pattern is too wide

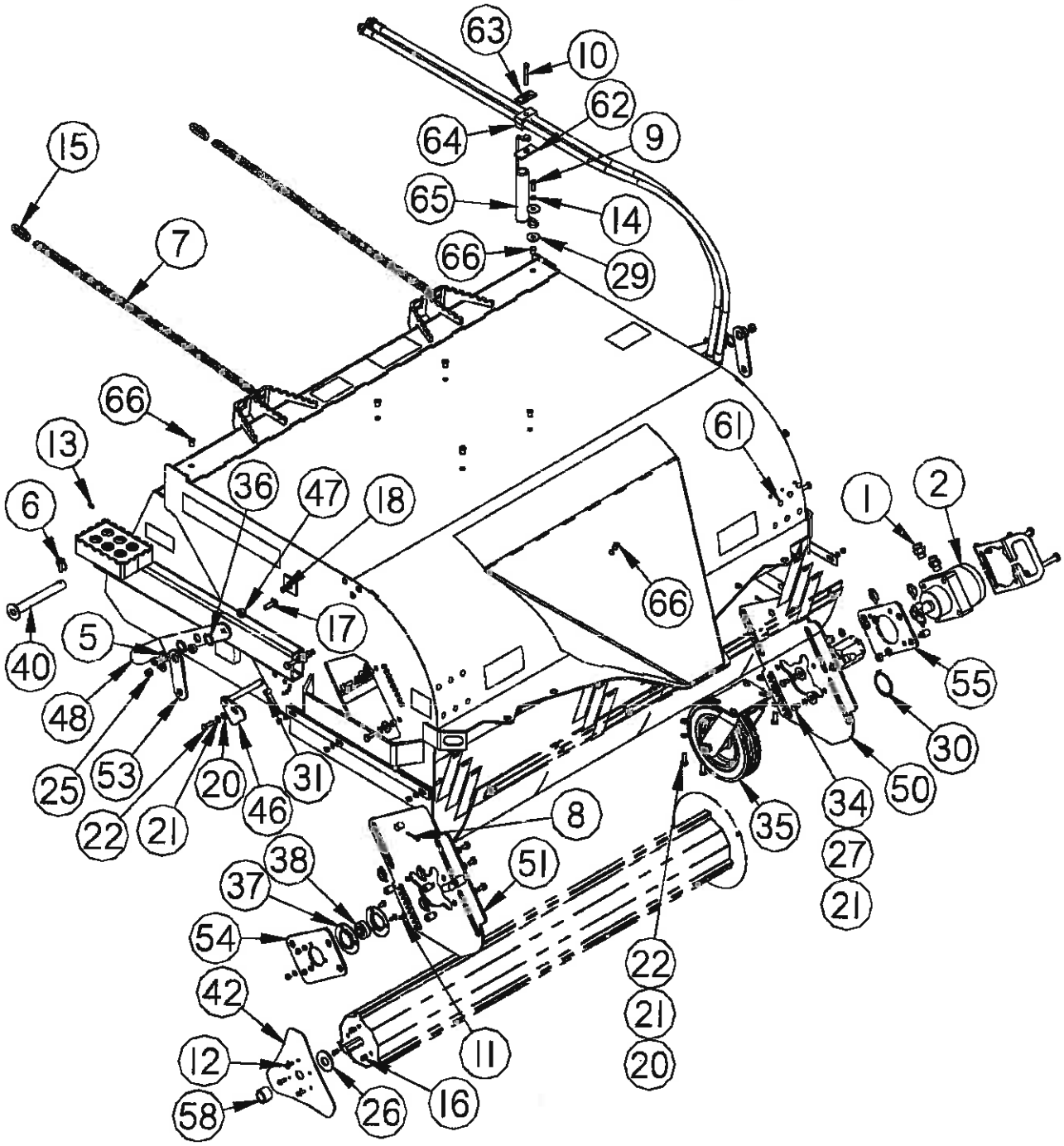
TROUBLESHOOTING

/draulic Assembly

Problem	Possible Cause
Excessive hydraulic oil temperature	Low hydraulic oil level on the prime mover
	Hydraulic hoses are obstructed
	Hydraulic oil is dirty
	Quick couplers are loose
Hydraulic quick coupler leaks	Quick coupler poppet is unseated

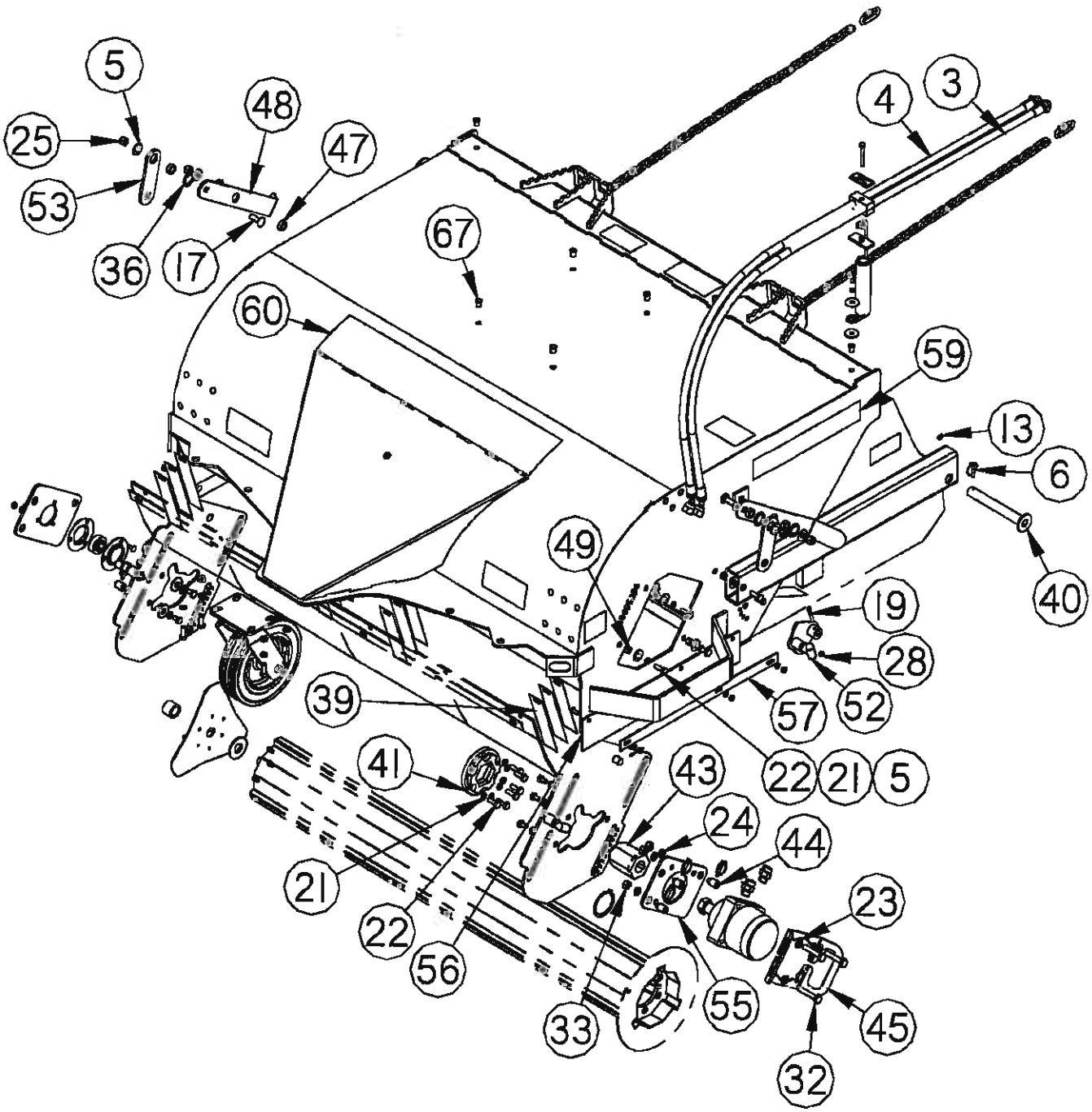
Item	Part	Qty	Description
1.	03-1939	2	Fitting, Adapter, HP, 7/8MOR, 5/8MFS
2.	03-5087	1	Motor, Hydraulic, White, 28.3 CI
3.	03-5224	1	Hose, 1/2 x 96, 10MOR, 10FFS45
4.	03-5224	1	Hose, 1/2 x 96, 10MOR, 10FFS45
5.	07-0156	12	Washer, Flat, Gr8, 1/2
6.	07-0244	8	Pin, Linch, 1/4
7.	07-0290	2	Chain, 1/4, 39 Links
8.	07-1044	2	Pin, Cotter, Gr2, 5/32 x 1 1/2
9.	07-1714	1	Screw, HHC, Gr8, 5/16-18 x 1
10.	07-1784	1	Screw, HHC, Gr8, 5/16-18 x 2 1/2
11.	07-2950	3	Bolt, Carriage, CL8.8, M8-1.25 x 20mm
12.	07-2952	3	Screw, HFH, CL10.9, M6-1 x 20
13.	07-3112	2	Fitting, Zerk, 1/4-28, Self Tap
14.	07-3273	1	Washer, Lock, Split, Medium, 5/16
15.	07-3311	2	Link, Quick, 5/16
16.	07-3617	3	Nut, Insert, Hex, M6 x 1
17.	07-3708	2	Bolt, Carriage, Gr5, 1/2-13 x 1 1/2
18.	07-3709	2	Bolt, Carriage, Gr5, 1/2-13 x 1 3/4
19.	07-3734	1	Screw, HHC, CL10.9, M6-1 x 45mm
20.	07-3745	5	Washer, Flat, CL8.8, M10
21.	07-3747	25	Washer, Lock, Split, Medium, M10
22.	07-3749	19	Screw, HHC, CL10.9, M10-1.5 x 30mm
23.	07-3754	3	Washer, Flat, CL8.8, M12
24.	07-3756	3	Washer, Lock, Split, Medium, M12
25.	07-4037	4	Nut, Hex, Nylock, Gr8, 1/2-13
26.	07-4040	1	Washer, Flat, Gr8, 1
27.	07-4228	6	Washer, Flat, CL8.8, M14
28.	07-4604	1	Nut, Hex, Lock, ST, CL10.9, M8-1.25
29.	07-4942	2	Washer, Fender, 1 1/2 x 5/16
30.	07-6196	1	Ring, Retaining, 2.75
31.	07-6682	1	Nut, Insert, M10-1.5
32.	07-6683	3	Screw, HHC, Cl10.9, M12-1.75 x 65mm
33.	07-6766	3	Nut, Hex, CL10.9, M12-1.75
34.	07-6769	6	Screw, HHC, CL10.9, M10-1.5 x 16mm
35.	07-6798	1	Caster, Assembly, 10 x 2.75
36.	07-7024	4	Washer, Belleville, 1.063 x 1.496
37.	08-0008	2	Bearing, Flange, 3 Bolt
38.	08-0037	1	Bearing, 7/8 Hex, without Hub
39.	13-10060	12	Finger, Apron
40.	13-11734	2	Weld, Pin, 1 x 8
41.	13-12750	1	Weld, Hex, Plate, with Doubler
42.	13-13453	1	Plate, Core, Hat
43.	13-14058	1	Hub, Hex, 2 1/2 x 1 1/4 Tapered Bore x 3.56
44.	13-14083	6	Stud, Mounting, Motor
45.	13-14086	1	Plate, Handle, Motor
46.	13-14187	1	Weld, Mounting, Volumizer
47.	13-15223	4	Tube, Round, 1 x .562 x .375
48.	13-15246	2	Plate, Handle, Adjustment
49.	13-15247	8	Tube, Round, 5/8 x 11ga x .312
50.	13-15248	1	Weld, Mounting, Motor, Core, Left
51.	13-15249	1	Weld, Mounting, Motor, Core, Right
52.	13-15260	1	Weld, Handle, Volumizer
53.	13-15262	2	Plate, Link, Adjustment, Motor
54.	13-15263	1	Plate, Mounting, Core
55.	13-15264	1	Plate, Mounting, Motor
56.	13-15265	2	Flap, Side
57.	13-15267	2	Plate, 1/8 x 1 1/4 x 23.5, with Slots
58.	13-15398	1	Tube, Round, 1 1/2 x 7/32 x 1.1
59.	50-0185	2	Label, Logo, Sweepster, Medium
60.	50-0252	1	Label, Logo, Sweepster, Large
61.	LAF9853	12	Plug, .375, Black Plastic
62.	RHW9613	1	Weld, Plate
63.	RHW8614	1	Cover, Plate
64.	RHW9616	1	Hose, Cradle
65.	RHW8618	1	Hose, Spring
66.	RHW8642	9	Nut, Rivet, 5/16-18, .15-.312 Grip
67.	RHW8645	4	Nut, Rivet, 5/16-18, .027-.15 Grip

RIGHT ASSEMBLY COMMON PARTS

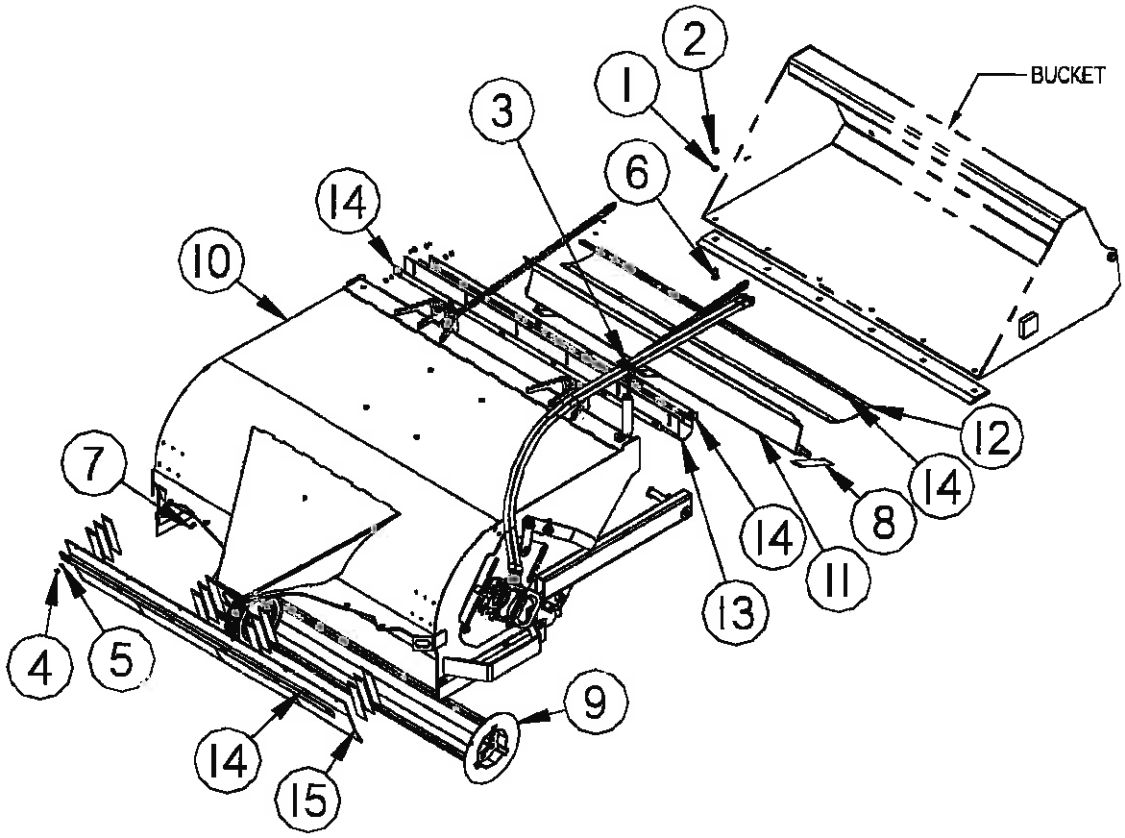


Item	Part	Qty	Description
1.	03-1939	2	Fitting, Adapter, HP, 7/8MOR, 5/8MFS
2.	03-5087	1	Motor, Hydraulic, White, 28.3 CI
3.	03-5224	1	Hose, 1/2 x 96, 10MOR, 10FFS45
4.	03-5224	1	Hose, 1/2 x 96, 10MOR, 10FFS45
5.	07-0156	12	Washer, Flat, Gr8, 1/2
6.	07-0244	8	Pin, Linch, 1/4
7.	07-0290	2	Chain, 1/4, 39 Links
8.	07-1044	2	Pin, Cotter, Gr2, 5/32 x 1 1/2
9.	07-1714	1	Screw, HHC, Gr8, 5/16-18 x 1
10.	07-1784	1	Screw, HHC, Gr8, 5/16-18 x 2 1/2
11.	07-2950	3	Bolt, Carriage, CL8.8, M8-1.25 x 20mm
12.	07-2952	3	Screw, HFH, CL10.9, M6-1 x 20
13.	07-3112	2	Fitting, Zerk, 1/4-28, Self Tap
14.	07-3273	1	Washer, Lock, Split, Medium, 5/16
15.	07-3311	2	Link, Quick, 5/16
16.	07-3617	3	Nut, Insert, Hex, M6 x 1
17.	07-3708	2	Bolt, Carriage, Gr5, 1/2-13 x 1 1/2
18.	07-3709	2	Bolt, Carriage, Gr5, 1/2-13 x 1 3/4
19.	07-3734	1	Screw, HHC, CL10.9, M6-1 x 45mm
20.	07-3745	5	Washer, Flat, CL8.8, M10
21.	07-3747	25	Washer, Lock, Split, Medium, M10
22.	07-3749	19	Screw, HHC, CL10.9, M10-1.5 x 30mm
23.	07-3754	3	Washer, Flat, CL8.8, M12
24.	07-3756	3	Washer, Lock, Split, Medium, M12
25.	07-4037	4	Nut, Hex, Nylock, Gr8, 1/2-13
26.	07-4040	1	Washer, Flat, Gr8, 1
27.	07-4228	6	Washer, Flat, CL8.8, M14
28.	07-4604	1	Nut, Hex, Lock, ST, CL10.9, M8-1.25
29.	07-4942	2	Washer, Fender, 1 1/2 x 5/16
30.	07-6196	1	Ring, Retaining, 2.75
31.	07-6682	1	Nut, Insert, M10-1.5
32.	07-6683	3	Screw, HHC, Cl10.9, M12-1.75 x 65mm
33.	07-6766	3	Nut, Hex, CL10.9, M12-1.75
34.	07-6769	6	Screw, HHC, CL10.9, M10-1.5 x 16mm
35.	07-6798	1	Caster, Assembly, 10 x 2.75
36.	07-7024	4	Washer, Belleville, 1.063 x 1.496
37.	08-0008	2	Bearing, Flange, 3 Bolt
38.	08-0037	1	Bearing, 7/8 Hex, without Hub
39.	13-10060	12	Finger, Apron
40.	13-11734	2	Weld, Pin, 1 x 8
41.	13-12750	1	Weld, Hex, Plate, with Doubler
42.	13-13453	1	Plate, Core, Hat
43.	13-14058	1	Hub, Hex, 2 1/2 x 1 1/4 Tapered Bore x 3.56
44.	13-14083	6	Stud, Mounting, Motor
45.	13-14086	1	Plate, Handle, Motor
46.	13-14187	1	Weld, Mounting, Volumizer
47.	13-15223	4	Tube, Round, 1 x .562 x .375
48.	13-15246	2	Plate, Handle, Adjustment
49.	13-15247	8	Tube, Round, 5/8 x 11ga x .312
50.	13-15248	1	Weld, Mounting, Motor, Core, Left
51.	13-15249	1	Weld, Mounting, Motor, Core, Right
52.	13-15260	1	Weld, Handle, Volumizer
53.	13-15262	2	Plate, Link, Adjustment, Motor
54.	13-15263	1	Plate, Mounting, Core
55.	13-15264	1	Plate, Mounting, Motor
56.	13-15265	2	Flap, Side
57.	13-15267	2	Plate, 1/8 x 1 1/4 x 23.5, with Slots
58.	13-15398	1	Tube, Round, 1 1/2 x 7/32 x 1.1
59.	50-0185	2	Label, Logo, Sweepster, Medium
60.	50-0252	1	Label, Logo, Sweepster, Large
61.	LAF9853	12	Plug, .375, Black Plastic
62.	RHW9613	1	Weld, Plate
63.	RHW8614	1	Cover, Plate
64.	RHW9616	1	Hose, Cradle
65.	RHW8618	1	Hose, Spring
66.	RHW8642	9	Nut, Rivet, 5/16-18, .15-.312 Grip
67.	RHW8645	4	Nut, Rivet, 5/16-18, .027-.15 Grip

LEFT ASSEMBLY COMMON PARTS

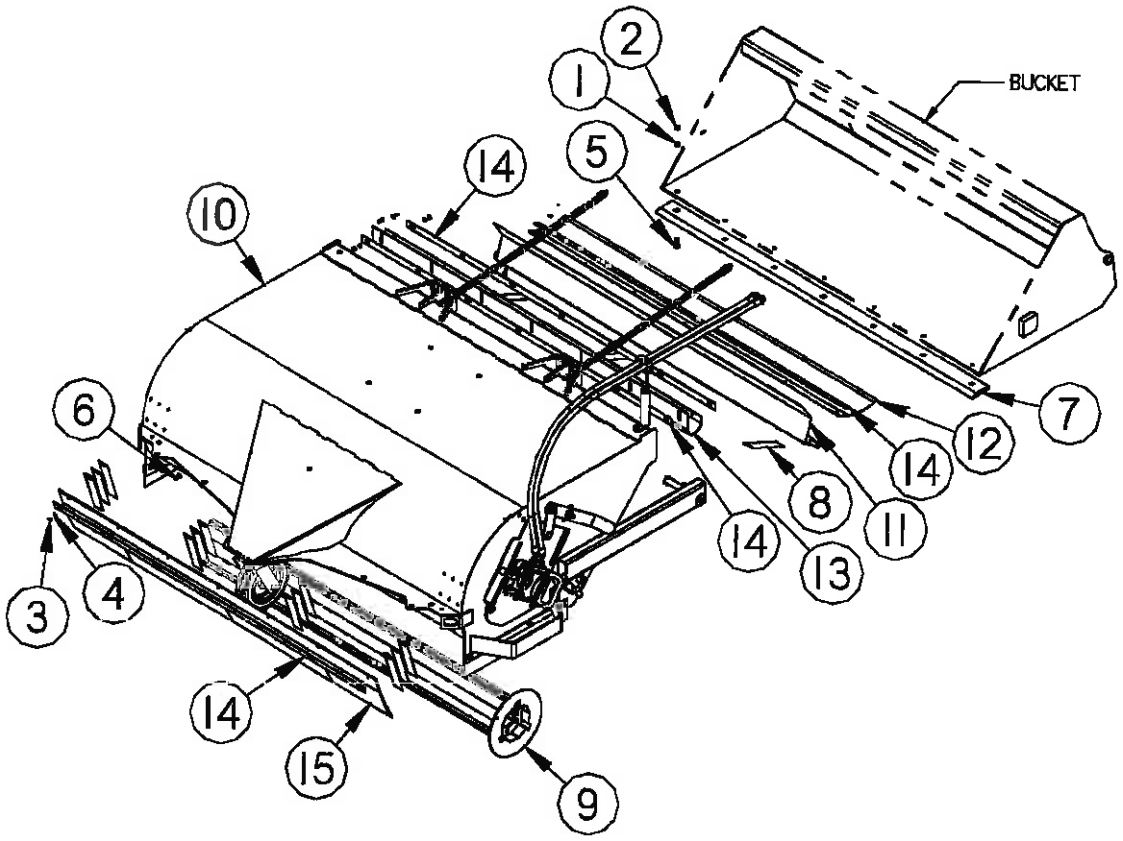


BODY ASSEMBLY 5 FT



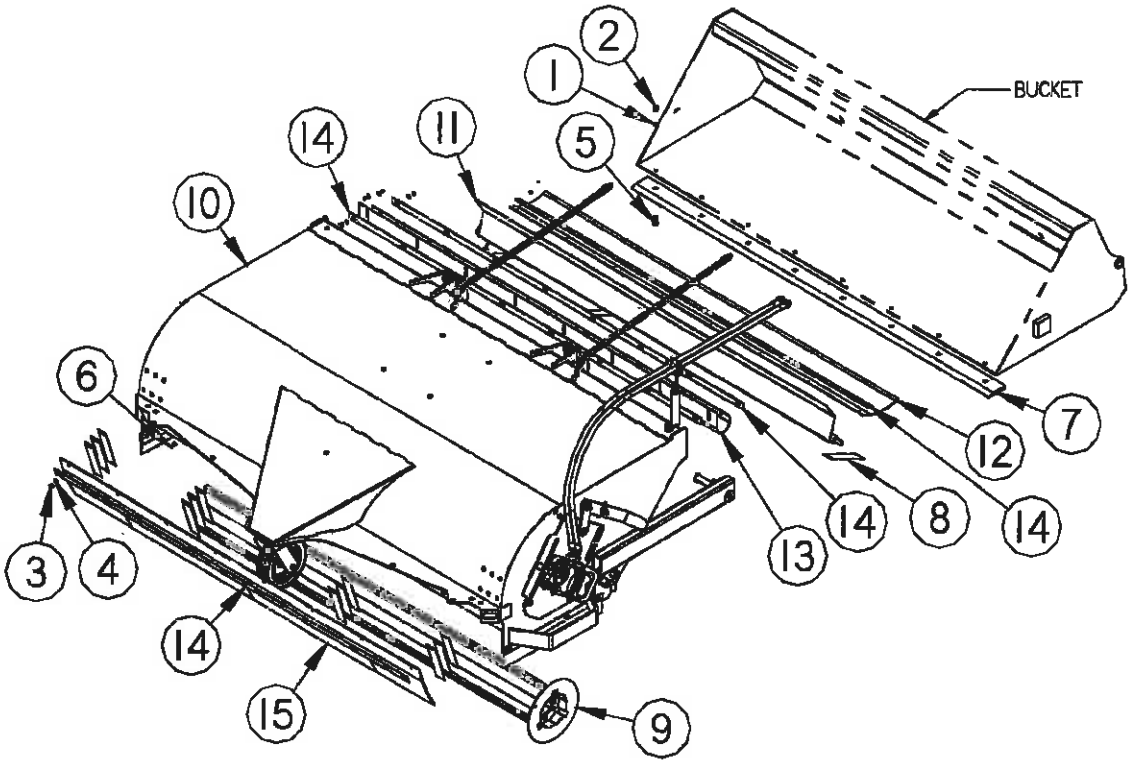
Item	Part	Qty	Description
1.	07-1762	6	Washer, Lock, Split, Medium, 1/2
2.	07-1764	6	Nut, Hex, Gr8, 1/2-13
3.	07-1784	1	Screw, HHC, Gr8, 5/16-18 x 2 1/2
4.	07-3737	33	Nut, Hex, CL10, M8-1.25
5.	07-3738	33	Washer, Lock, Split, Medium, M8
6.	07-4454	6	Bolt, Plow, Gr8, 1/2 x 1 1/2
7.	07-5933	30	Bolt, Carriage, CL8.8, M8-1.25 x 25mm
8.	13-10060	3	Finger, Apron
9.	13-14535-5	1	Weld, Core, 8, Hex Drive/Shaft
10.	13-15218-5S	1	Weld, Body, PS, 26, Standard
11.	13-15256-5	1	Weld, Volumizer, PS, 26
12.	13-15270	1	Flap, 1/8 x 9 x 59, with 6 Holes
13.	13-15273	1	Flap, 1/8 x 9 x 60.5, with 12 Holes
14.	13-15276	4	Plate, 1/8 x 1 1/4 x 59, with 6 Slots
15.	13-15279	1	Flap, 3/16 x 10 x 60.5, with 6 Holes

BODY ASSEMBLY 6 FT



Item	Part	Qty	Description
1.	07-1762	7	Washer, Lock, Split, Medium, 1/2
2.	07-1764	7	Nut, Hex, Gr8, 1/2-13
3.	07-3737	37	Nut, Hex, CL10, M8-1.25
4.	07-3738	37	Washer, Lock, Split, Medium, M8
5.	07-4454	7	Bolt, Plow, Gr8, 1/2 x 1 1/2
6.	07-5933	34	Bolt, Carriage, CL8.8, M8-1.25 x 25mm
7.	07-6975	1	Edge, Cut, Bolt-on, 1/2 x 4 x 72.56
8.	13-10060	3	Finger, Apron
9.	13-14535-6	1	Weld, Core, 8, Hex Drive/Shaft
10.	13-15218-6S	1	Weld, Body, PS, 26, Standard
11.	13-15256-6	1	Weld, Volumizer, PS, 26
12.	13-15271	1	Flap, 1/8 x 9 x 72, with 7 Holes
13.	13-15274	1	Flap, 1/8 x 9 x 73.5, with 14 Holes
14.	13-15277	4	Plate, 1/8 x 1 1/4 x 72, with 7 Slots
15.	13-15280	1	Flap, 3/16 x 10 x 73.5, with 7 Holes

BODY ASSEMBLY 7 FT



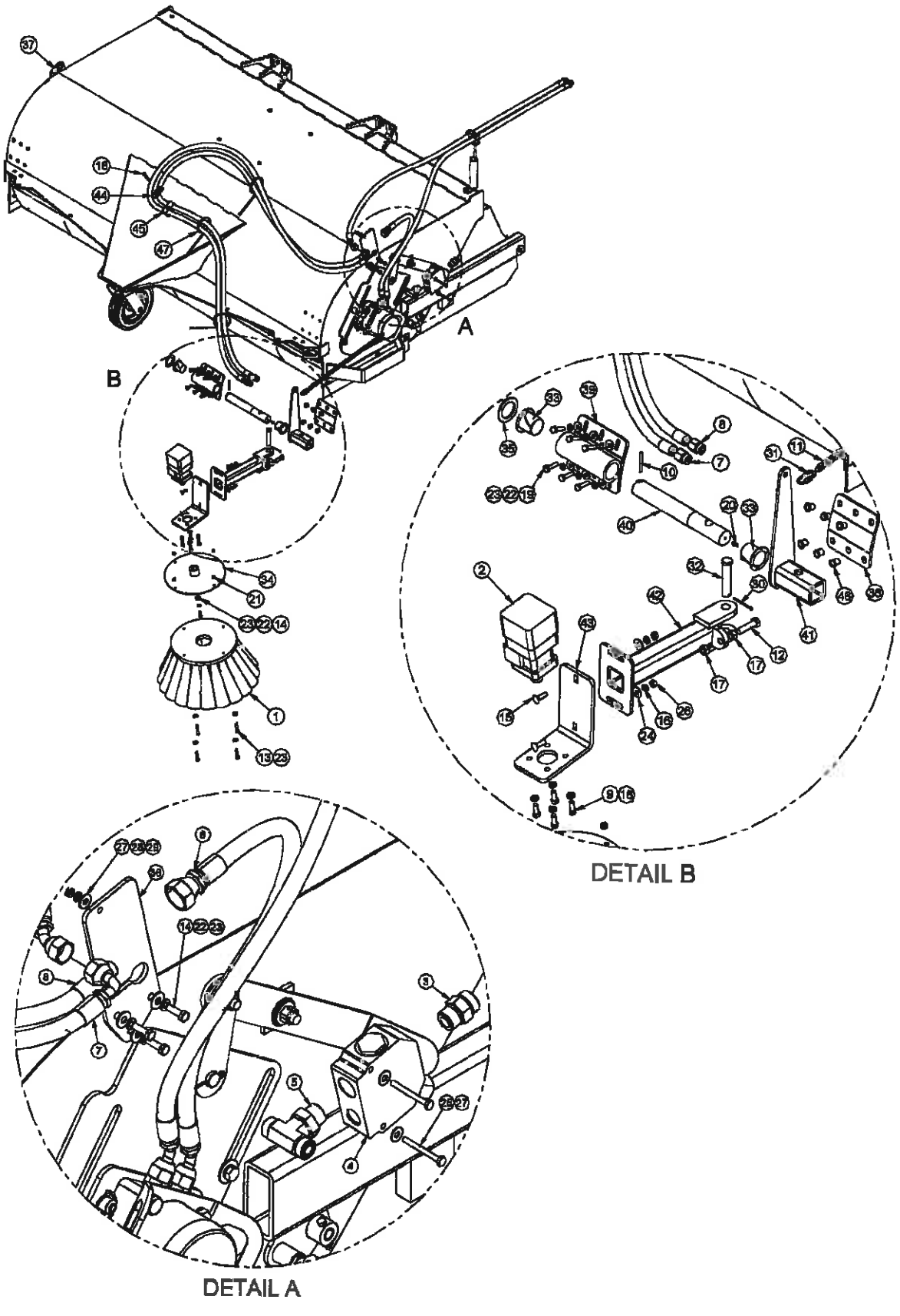
Item	Part	Qty	Description
1.	07-1762	8	Washer, Lock, Split, Medium, 1/2
2.	07-1764	8	Nut, Hex, Gr8, 1/2-13
3.	07-3737	41	Nut, Hex, CL10, M8-1.25
4.	07-3738	41	Washer, Lock, Split, Medium, M8
5.	07-4454	8	Bolt, Plow, Gr8, 1/2 x 1 1/2
6.	07-5933	38	Bolt, Carriage, CL8.8, M8-1.25 x 25mm
7.	07-6976	1	Edge, Cut, Bolt-on, 1/2 x 4 x 85.56
8.	13-10060	3	Finger, Apron
9.	13-14535-7	1	Weld, Core, 8, Hex Drive/Shaft
10.	13-15218-7S	1	Weld, Body, PS, 26, Standard
11.	13-15256-7	1	Weld, Volumizer, PS, 26
12.	13-15272	1	Flap, 1/8 x 9 x 85, with 8 Holes
13.	13-15275	1	Flap, 1/8 x 9 x 86.5, with 16 Holes
14.	13-15278	4	Plate, 1/8 x 1 1/4 x 85, with 8 Slots
15.	13-15281	1	Flap, 3/16 x 10 x 86.5, with 8 Holes

NOTES

SINGLE GUTTERBROOM OPTION

Item	Part	Qty	Description
1.	01-0704	1	Gutterbroom, Ecolo, 13 Woodback, Poly
2.	03-1158	1	Motor, Hydraulic, White, 17.9 Cu in, 20gpm
3.	03-1945	1	Fitting, Adapter, HP, 1 1/16MOR, 3/4MFS
4.	03-3607	1	Valve, Flow, Divider, 12gpm
5.	03-5240	1	Fitting, Tee, HP, MB, 10MFS, 10MFS, 12MOR
6.	03-5253	1	Hose, 1/2 x 21, 100R2, 10FFS45, 12FFS
7.	03-5254	1	Hose, 1/2 x 128, 100R2, 10MOR, 10FFS90
8.	03-5255	1	Hose, 1/2 x 128, 100R2, 10MORS, 8MORS
9.	07-0018	4	Screw, HHC, Gr8, 3/8-16 x 1
10.	07-0204	1	Pin, Roll, Gr2, 1/4 x 2
11.	07-0387	1	Chain, 3/16, 26 Links
12.	07-1125	1	Screw, HHC, Tap, Gr5, 1/2-13 x 2
13.	07-1698	4	Screw, HHC, Gr8, 5/16-18 x 2
14.	07-1714	7	Screw, HHC, Gr8, 5/16-18 x 1
15.	07-1717	2	Bolt, Carriage, Gr5, 3/8-16 x 1 1/4
16.	07-1718	6	Washer, Lock, Split, Medium, 3/8
17.	07-1764	2	Nut, Hex, Gr8, 1/2-13
18.	07-1784	1	Screw, HHC, Gr8, 5/16-18 x 2 1/2
19.	07-1973	6	Screw, HHC, Gr8, 5/16-18 x 1 1/4
20.	07-3112	1	Fitting, Zerk, 1/4-28, Self Tap
21.	07-3270	4	Nut, Hex, Nylock, Gr8, 5/16-18
22.	07-3273	13	Washer, Lock, Split, Medium, 5/16
23.	07-3275	17	Washer, Flat, Gr8, 5/16
24.	07-3279	2	Washer, Flat, Gr8, 3/8
25.	07-3642	2	Screw, HHC, Gr8, 1/4-20 x 2 1/2
26.	07-3654	2	Nut, Hex, Gr8, 3/8-16
27.	07-4032	4	Washer, Flat, Gr8, 1/4
28.	07-4038	2	Washer, Lock, Split, Medium, 1/4
29.	07-4039	2	Nut, Hex, Gr8, 1/4-20
30.	07-4961	1	Pin, Cotter, Gr2, 1/8 x 2
31.	07-5054	1	Link, Quick, 3/16
32.	07-6358	1	Pin, Clevis, 3/4 x 3 1/2, 3 17/64 Grip Length
33.	09-0156	2	Flange, Bearing, Nylon
34.	13-0374	1	Weld, Plate, Gutterbroom
35.	13-12291	1	Washer, Flat, 2.375 x 1.625 x .134
36.	13-15537	1	Plate, Mounting, Flow Divider
37.	13-50075	1	Plate, Adjustment, Gutterbroom
38.	13-50076	1	Plate, Attachment, Gutterbroom
39.	13-50088	1	Weld, Mounting, Gutterbroom
40.	13-50093	1	Rod, Pivot, Pin
41.	13-50096	1	Weld, Pivot, Arm
42.	LAF2849	1	Weld, Arm
43.	LAF2885	1	Plate, Mounting, Motor
44.	RHW8614	1	Cover, Plate
45.	RHW8616	1	Hose, Cradle
46.	RHW8642	6	Nut, Rivet, 5/16-18, .15-.312 Grip Range
47.	RMR5002	3	Tie, Plastic, 11 1/2, Black

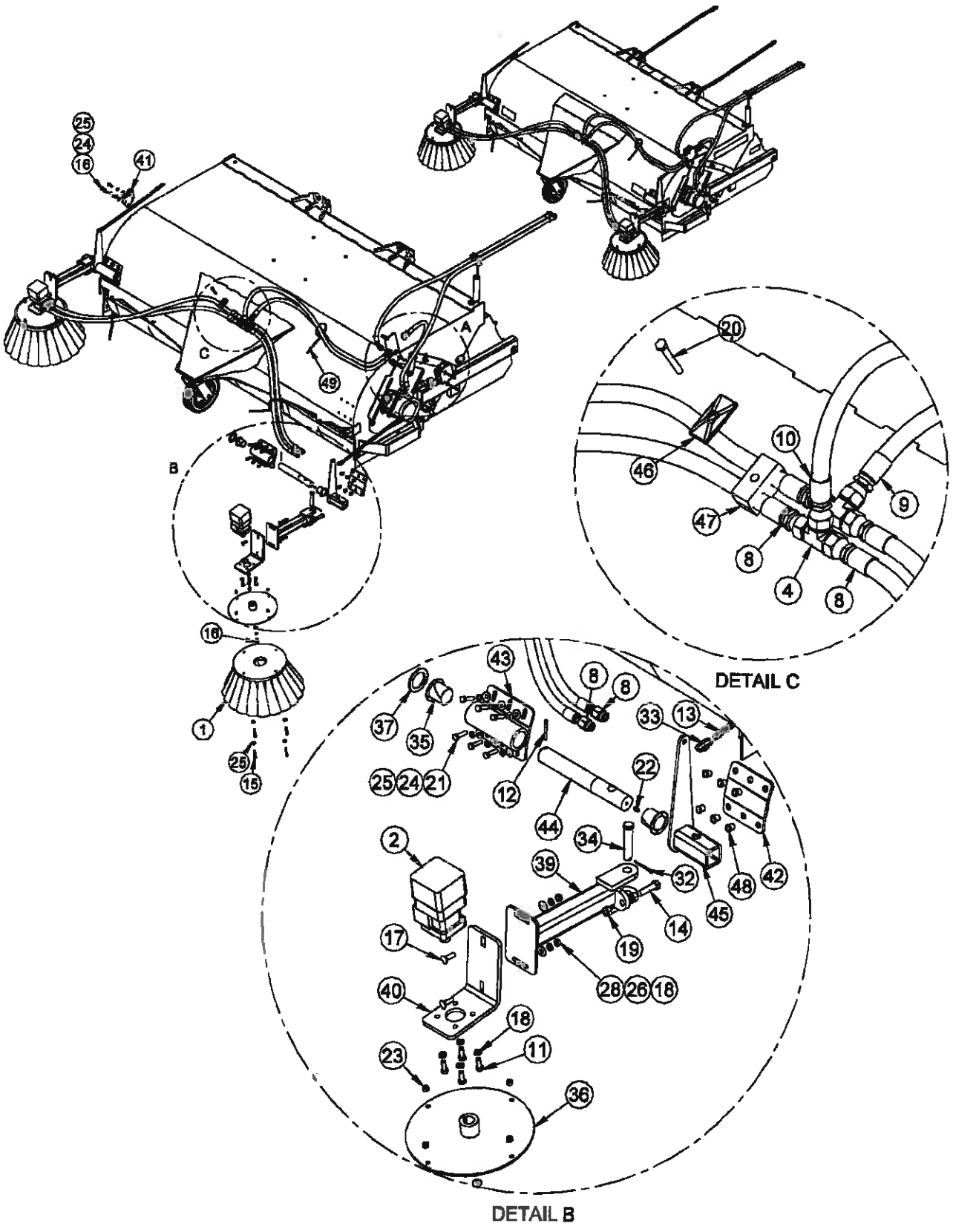
SINGLE GUTTERBROOM OPTION



DUAL GUTTERBROOM OPTION

Item	Part	Qty	Description
1.	01-0704	2	Gutterbroom, Ecolo, 13 Woodback, Poly
2.	03-1158	2	Motor, Hydraulic, White, 17.9 Cu in, 20gpm
3.	03-1945	1	Fitting, Adapter, HP, 1 1/16MOR, 3/4MFS
4.	03-3181	2	Fitting, Tee, HP, 5/8MFS
5.	03-3607	1	Valve, Flow, Divider, 12gpm
6.	03-5240	1	Fitting, Tee, HP, MB, 10MFS, 10MFS, 12MOR
7.	03-5253	1	Hose, 1/2 x 21, 100R2, 10FFS45, 12FFS
8.	03-5256	4	Hose, 1/2 x 51.25, SAE 100R2, 10MORS, 10FFS
9.	03-5257	1	Hose, 1/2 x 48, SAE 100R2, 10FFS, 8MORS
10.	03-5258	1	Hose, 1/2 x 56, SAE 100R2, 10FFS, 10FFS90
11.	07-0018	8	Screw, HHC, Gr8, 3/8-16 x 1
12.	07-0204	2	Pin, Roll, Gr2, 1/4 x 2
13.	07-0387	2	Chain, 3/16, 26 Links
14.	07-1125	1	Screw, HHC, Tap, Gr5, 1/2-13 x 2
15.	07-1698	8	Screw, HHC, Gr8, 5/16-18 x 2
16.	07-1714	8	Screw, HHC, Gr8, 5/16-18 x 1
17.	07-1717	4	Bolt, Carriage, Gr5, 3/8-16 x 1 1/4
18.	07-1718	12	Washer, Lock, Split, Medium, 3/8
19.	07-1764	2	Nut, Hex, Gr8, 1/2-13
20.	07-1784	1	Screw, HHC, Gr8, 5/16-18 x 2 1/2
21.	07-1973	12	Screw, HHC, Gr8, 5/16-18 x 1 1/4
22.	07-3112	2	Fitting, Zerk, 1/4-28, Self Tap
23.	07-3270	8	Nut, Hex, Nylock, Gr8, 5/16-18
24.	07-3273	20	Washer, Lock, Split, Medium, 5/16
25.	07-3275	24	Washer, Flat, Gr8, 5/16
26.	07-3279	4	Washer, Flat, Gr8, 3/8
27.	07-3642	2	Screw, HHC, Gr8, 1/4-20 x 2 1/2
28.	07-3654	4	Nut, Hex, Gr8, 3/8-16
29.	07-4032	4	Washer, Flat, Gr8, 1/4
30.	07-4038	2	Washer, Lock, Split, Medium, 1/4
31.	07-4039	2	Nut, Hex, Gr8, 1/4-20
32.	07-4961	2	Pin, Cotter, Gr2, 1/8 x 2
33.	07-5054	2	Link, Quick, 3/16
34.	07-6358	2	Pin, Clevis, 3/4 x 3 1/2, 3 17/64 Grip Length
35.	09-0156	4	Flange, Bearing, Nylon
36.	13-0374	2	Weld, Plate, Gutterbroom
37.	13-12291	2	Washer, Flat, 2.375 x 1.625 x .134
38.	13-15537	1	Plate, Mounting, Flow Divider
39.	13-2264	2	Weld, Arm, Gutterbroom
40.	13-2265	2	Plate, Mounting, Motor
41.	13-50075	1	Plate, Adjustment, Gutterbroom
42.	13-50076	2	Plate, Attachment, Gutterbroom
43.	13-50088	2	Weld, Mounting, Gutterbroom
44.	13-50093	2	Rod, Pivot, Pin
45.	13-50096	2	Weld, Pivot, Arm
46.	RHW8614	1	Cover, Plate
47.	RHW8616	1	Hose, Cradle
48.	RHW8642	12	Nut, Rivet, 5/16-18, .15-.312 Grip Range
49.	RMR5002	3	Tie, Plastic, 11 1/2, Black

DUAL GUTTERBROOM OPTION



BOLT TORQUE SPECIFICATIONS

Bolt Torque Specifications

Body Size Grade 5	Ft-lbs	Body Size Class 8.8	Ft-lbs
1/4 - 20	6 ± 1	M6 – 1.0	5 ± 1
- 28	7 ± 1	n/a	-
5/16 – 18	13 ± 3	n/a	-
- 24	14 ± 3	n/a	-
3/8 – 16	23 ± 5	M8 –1.25	14 ± 3
- 24	26 ± 5	–1.0	-
7/16 – 14	37 ± 8	M10 – 1.5	29 ± 6
– 20	41 ± 9	- 0.75	-
1/2 - 13	56 ± 11	M12 – 1.75	50 ± 10
- 20	63 ± 12	- 1.0	-
9/16 – 12	82 ± 14	M14 – 2.0	80 ± 14
- 18	91 ± 16	- 1.5	-
5/8 – 11	113 ± 20	M16 – 2.0	125 ± 22
- 18	127 ± 23	- 1.5	-
3/4 - 10	201 ± 26	n/a	-
- 16	223 ± 29	n/a	-
7/8 – 9	321 ± 41	M20 – 2.5	244 ± 31
- 14	355 ± 46	- 1.5	-
1 – 8	483 ± 62	M24 – 3.0	422 ± 54
- 12	528 ± 68	- 2.0	-

Body Size Grade 8	Ft-lbs	Body Size Class 10.9	Ft-lbs
1/4 - 20	9 ± 2	M6 – 1.0	8 ± 1
- 28	10 ± 2	n/a	-
5/16 – 18	18 ± 4	n/a	-
- 24	20 ± 4	n/a	-
3/8 – 16	32 ± 7	M8 –1.25	20 ± 4
– 24	37 ± 8	–1.0	-
7/16 – 14	52 ± 11	M10 – 1.5	40 ± 8
– 20	58 ± 12	- 0.75	-
1/2 - 13	80 ± 16	M12 – 1.75	69 ± 14
- 20	90 ± 18	- 1.0	-
9/16 – 12	115 ± 20	M14 – 2.0	110 ± 20
- 18	128 ± 23	- 1.5	-
5/8 – 11	159 ± 28	M16 – 2.0	173 ± 31
- 18	180 ± 32	- 1.5	-
3/4 - 10	282 ± 36	n/a	-
- 16	315 ± 41	n/a	-
7/8 – 9	454 ± 59	M20 – 2.5	337 ± 44
- 14	500 ± 65	- 1.5	-
1 – 8	681 ± 88	M24 – 3.0	583 ± 75
- 12	746 ± 97	- 2.0	-

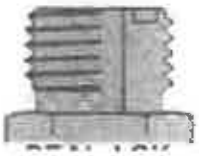
Foot-pounds may be converted to Newton Meters by multiplying by 1.35582.
Foot-pounds may be converted to Inch-pounds by multiplying by 12.
If the nut and screw are not the same grade, the lower grade will always be used.

NOTE - Nylock nuts are utilized when greater resistance to vibrating loose is required, and greater operating temperatures are not a factor. In addition, like lock nuts, nylock nuts have a safety feature that if the bolt does vibrate loose, the nut will remain on the screw. Install nylock nuts to the standard torque shown above.

HYDRAULIC TORQUE SPECIFICATIONS

Face Seal: Assembly, Tube to Fitting

NOTICE - Face seal fittings have the most reliable sealing method and therefore, should be used whenever possible.



Installation

1. Make sure threads and sealing surfaces are free of burrs, nicks, scratches, or foreign materials.
2. Install proper SAE O-ring to end of fitting if not already installed. Ensure O-ring is fully seated and retained properly.
3. Lubricate O-ring with a light coating of clean hydraulic oil.
4. Position tube and nut squarely on face seal of fitting and tighten nut finger tight.
5. Using appropriate torquing device, tighten to given torque rating from the table below.

Torque Values

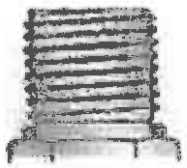
SAE Dash Size	Tube Side Thread Size	In-lbs	Ft-lbs
-4	9/16 - 18	220 ± 10	18 ± 1
-6	11/16 - 16	320 ± 25	27 ± 2
-8	13/16 - 16	480 ± 25	40 ± 2
-10	1 - 14	750 ± 35	63 ± 3
-12	1 3/16 - 12	1080 ± 45	90 ± 4
-16	1 7/16 - 12	1440 ± 90	120 ± 8
-20	1 11/16 - 12	1680 ± 90	140 ± 8
-24	2 - 12	1980 ± 100	165 ± 8

NOTE - ft-lb may be converted to NewMeters by multiplying by 1.35582.
NOTE - in-lbs may be converted to Newton Meters by multiplying by 0.11298.

HYDRAULIC TORQUE SPECIFICATIONS

Straight Thread O-ring Fitting: Assembly, Fitting to Port

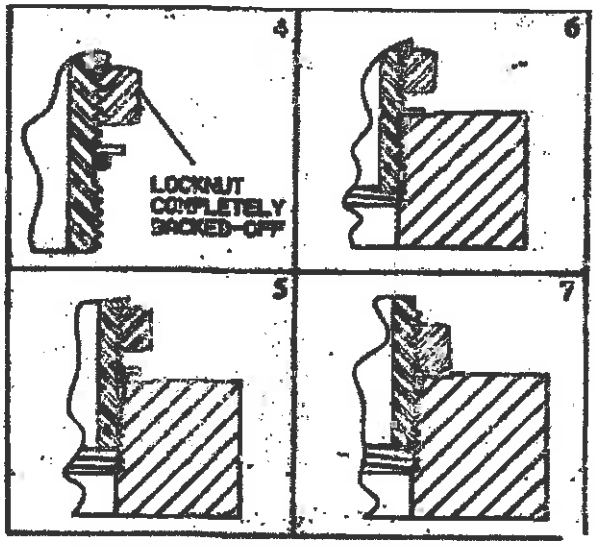
NOTE - Straight thread o-ring fittings are utilized to adapt hydraulic systems to motors, pumps, cylinders, and valves.



Installation (Adjustable Fitting)

1. Make sure threads and sealing surfaces are free of burrs, nicks, scratches, or any foreign materials.
2. Install proper SAE o-ring on port end of fitting if not already installed. Ensure o-ring is fully seated and retained properly.
3. Lubricate o-ring with a light coating of clean hydraulic oil.
4. Back off nut as far as possible and push washer up as far as possible. (figure 4 & 5)
5. Screw fitting into port. Hand tighten fitting until backup washer contacts face of port. (figure 6)
6. To position the fitting, unscrew to desired position, but not more than one full turn.
7. Hold fitting in position with wrench. Using appropriate torquing device, tighten nut to given torque rating from table. (figure 7)

Fitting Size	SAE Port Thread Size	In-lbs	Ft-lbs
-4	7/16 - 20	190 ± 10	16 ± 1
-6	9/16 - 18	420 ± 15	35 ± 1
-8	3/4 - 14	720 ± 25	60 ± 2
-10	7/8 - 14	1260 ± 50	105 ± 5
-12	1 1/16 - 12	1680 ± 75	140 ± 6
-16	1 5/16 - 12	2520 ± 100	210 ± 8
-20	1 5/8 - 12	3100 ± 150	260 ± 12
-24	1 7/8 - 12	3800 ± 150	315 ±12



NOTE - ft-lb may be converted to NewMeters by multiplying by 1.35582.
NOTE - in-lbs may be converted to Newton Meters by multiplying by 0.11298.

GLOSSARY

angle or angle assembly - portion of the sweeper that allows the brush head assembly to angle.

BP - black pipe.

brush head assembly - assembly that includes the core, hood, and brush frame.

brush pattern - area of dirt removed from sweeping surface; with a properly adjusted sweeper; the pattern is the same width for the entire length.

castellated - having battlements like a castle.

caution - indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

core - weldment that holds brush sections.

danger - indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

F - female.

FS - face seal.

front - side that is in front when facing the normal forward direction of travel of the machine.

gpm - gallons per minute.

HP - high pressure.

hood - brush shield.

hydraulic angle kit - means of swinging an assembly hydraulically

in. - inch.

kph - kilometers per hour.

lb - pounds.

left-hand - side that is on left when facing the normal forward direction of travel of the machine.

lift cylinder - means of raising the brush head assembly hydraulically.

lps - liters per second.

M - male.

mm - millimeters.

mph - miles per hour.

manual angle kit - means of swinging the brush head assembly mechanically.

mounting assembly - portion of the sweeper that attaches to the primer mover; designed specifically for each prime mover.

NPT - national pipe thread.

note - indicates supplementary information.

notice - used for instructions when machine damage may be involved.

psi - pounds per square inch.

PTO - power take off; shaft on the prime mover used to drive attachments.

prime mover - refers to the tractor, truck, loader or other vehicle to which a sweeper is attached.

qty - quantity.

quick change core - core designed in a way that allows brush sections to be changed without removing hoses from motors.

rpm - revolutions per minute.

rear - side that is in the rear when facing the normal forward direction of travel of the machine.

retainer - removable plate or set of plates that keep sections on the core.

right-hand - side that is on the right when facing the normal forward direction of travel of the machine.

GLOSSARY

ction - single brush wafer.

section set - replacement brush wafers.

sprinkler system - system that sprays water ahead of the sweeper used to reduce dust.

sprinkler tank - assembly that includes the water reservoir and mounting used in a sprinkler system.

stands - devices designed to keep the components off the ground when the sweeper is dismounted.

swing cylinder - means of angling the brush head assembly hydraulically.

warning - indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

weld - weldment.

windrow - pile of debris.

erk - grease fitting.

WARRANTY

Warranty Registration

Return form to 1-734-996-9014

SWEEPSTER

PALADIN LIGHT CONSTRUCTION

Warranty Registration Form and Delivery Inspection Report

IMPORTANT! Warranty Void if card is not returned with 15 days
All Applicable sections must be filled in.

This section to be filled out and signed by Dealer at time of delivery.

Warranty Registration

Customer's Name _____
Address _____
City _____ State ____ Zip _____
Phone _____
Loader / Tractor Model _____
Delivery Date _____
Model or Part # _____
Serial # _____

Dealer's Name _____
Address _____
City _____ State ____ Zip _____
CHECK ONE:
Construction Use _____
Agricultural Use _____
Landscape Use _____
Other: _____

Dealer Inspection (check items applicable)

_____ All Decals installed (see operator's manual)
_____ Hydraulic fittings tight and free of leaks
_____ Fasteners tight
_____ Review Operating and Safety Instructions
_____ Guards and covers in place and secure
_____ Does Product Function Properly

I have thoroughly instructed the buyer on the above described equipment. This review included The Operator's manual content, equipment care, adjustments, safe operation and applicable warranty policy.

Date _____ Dealer's Rep. signature _____

This section to be completed and signed by the customer

	1 Excellent	2 Good	3 Average	4 Unsatisfactory	5 Poor
QUALITY ASSURANCE RATING					
Question		Sweepster		Local Dealer	
Quality of Product: Appearance		_____			
Construction		_____			
Quality of Service		_____		_____	
Value (Priced fairly)		_____		_____	
Does it perform as claimed		_____			

The above described equipment and Operators Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

Date _____ Owner's signature _____

NOTE: Make one copy each for the dealer's and owner's records. Mail original to Sweepster.

Comments: _____

Sweepster, Inc
2800 N. Zeeb Rd.
Dexter, MI 48130-9499
800-456-7100
fax 734-996-9014

WARRANTY

SWEEPSTER

SWEEPSTER ATTACHMENTS LLC

Limited 12 Month Warranty

Thank you for purchasing a Sweepster Attachments, LLC. product. Warranty protection is valid only when this Warranty Registration is completed and signed by the customer and dealer, and mailed to Sweepster Attachments, LLC. I hereby acknowledge that I have received a copy of the owners Limited Warranty and I accept the terms therein.

For a period of 12 months from the date of delivery of product to the original user, Sweepster Attachments, LLC. warrants each product to be free from manufacturing defects, subject to the limitations contained in this policy.

This warranty does not apply to defect caused, in whole or in part, by unreasonable use while in the possession of the user, including, but not limited to: failure to properly set up product; failure to provide reasonable and necessary maintenance; normal wear; routine tune ups or adjustments; improper handling or accidents; operation at speed or load conditions contrary to published specification; improper or insufficient lubrication; improper storage. This warranty is also not a guarantee that performance of each product will meet the expectations of the purchaser.

Sweepster Attachments, LLC. shall not be liable for consequential damages of any kind, including, but not limited to: consequential labor costs or transportation charges in connection with the replacement or repair of defective parts; lost time or expense which may have accrued because of said defects. In no event shall Sweepster Attachments, LLC.'s total liability hereunder exceed the product purchase price.

Sweepster Attachments, LLC. makes no warranty with respect to trade accessories or any component or accessory of the product which was not manufactured by Sweepster Attachments, LLC. including any purchased components of any kind. These are subject to the warranties of their respective manufacturers. The warranty will be considered void if the product or any part of the product is modified or repaired in any way not expressly authorized by Sweepster Attachments, LLC. or if closed components are disassembled prior to return. Closed components include, but are not limited to: gearboxes, hydraulic pumps, motors, cylinders, and actuators.

Our obligation under the warranty is expressly limited, at our option, to the replacement or repair at Sweepster Attachments, LLC or at a service facility designated by us, or such part or parts as inspection shall disclose to have been defective. We are not responsible for unauthorized repairs or replacements. Any implied or statutory warranties, including any warranty of merchantability or fitness for a particular purpose, are expressly limited to the duration of this written warranty. We make no other express or implied warranty, nor is anyone authorized to make any on our behalf. This warranty cannot be extended, broadened, or changed except in writing by an authorized officer of Sweepster Attachments, LLC.