

M₂₆ SERIES

Mechanical Windrow Sweeper For Simplicity Legacy

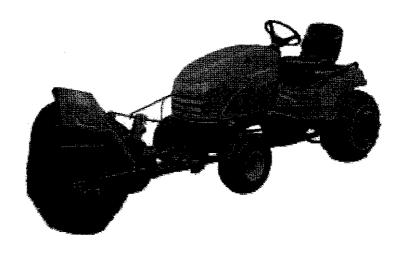
Operator's Manual & Parts List

SWEEPSTER, Inc 2800 N. Zeeb Road • Dexter, Michigan 48130 (734) 996-9116 • FAX (734) 996-9014 I-800-456-71 00 www.sweepster.com

SWEEPSTER®

M26 SERIES

Mechanical Windrow Sweeper For Simplicity Legacy



SWEEPSTER, Inc.
2800 N. Zeeb Road • Dexter, MI 48130
(734) 996-9116 . FAX (734) 996-9014
1-800-456-7100

		4*

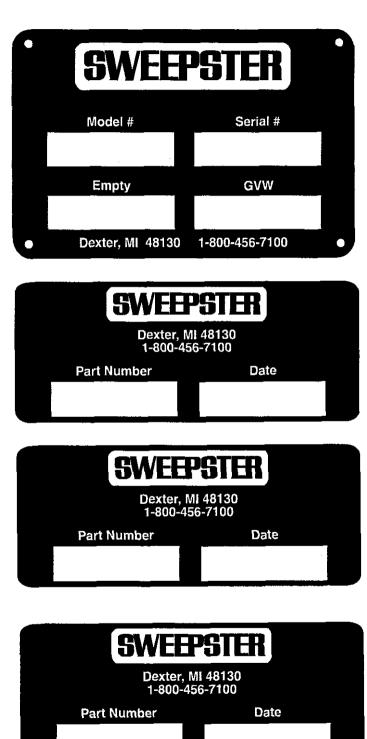
Later Leader	4.5
Introduction	4-5
Serial & Part Numbers	4
Importance of this Manual	5
Purpose of Sweeper	5
Safety Alert Symbol	5
Contacting SWEEPSTER	5
Terms Used in Manual	5
Optional Equipment	5
Specifications & Features	5
Warranty	5
Safety Information	6-7
Read this Manual	6
Hazard Definitions	6
Operation	6
Service & Repair	7
Safety Signs & Labels	8-10
Care of Safety Signs	6
Locations	8
Representations of Labels	9-10
Installation	11-13
Ladder Hitch & Hitch Pivot Assembly	
Attach Lift Arm	11
Angling Rod Support Arm	11
Brush Head & Hitch Pivot Assembly	12
Drive Shaft on Gearbox	12
Sweeper on Tractor	12
Angling Rod	13
Adjustments	13
Aujustificitis	13
Before Operation	14
Operational Check	14
Operating Instructions	15-I 6
Operating Sweeper	15
Sweeper Control	15
Snow Removal	15
Lawn Thatching	16
Leaf Raking	16
General Sweeping	16

Maintenance	17-21
Lubrication	
Gearbox	
Drive Shaft	
Bearings Drive Chain	17 17
Fractor Air Filter	
Daily Maintenance Checks	
Brush Replacement	
Adjusting Drive Chain Idler	
Adjusting Brush Contact Area	
Replacing Shear Bolt	
Safety Labels	21
	20.00
Removal/Storage/Reinstallation	
Removing Sweeper Storage	
Reinstalling Sweeper	
Constanting Cwooper	= 0
Troubleshooting	24
If Material Piles in Front of Sweeper	24
If Brush Wears Unevenly	
f Driveline Wears Quickly	24
Brush Head	26.20
DIUSII neau	20-29
Sections (1/2 Poly-1/2 Wire Option)	36
Angling Rod	31
	00
Torque Values	33
Warranty Information	34-36
Appendix A-Ladder Sub-Frame Hitch	36-39
Appendix B - Hitch & Angling Rod	40-41

Introduction

Serial & Part Numbers

On your unit you will find a serial number plate and/or part number plate(s). The numbers on these plates are very important if you wish to order parts or accessories. For your convenience, record numbers in the appropriate spaces below.



Introduction

Importance of this Manual

This operator's manual should be regarded as part of the sweeper. Suppliers of both new and secondhand sweepers are advised to keep documentation indicating that this manual was provided with the sweeper.

The manual contains information regarding installation, operation and maintenance required for this sweeper model and optional equipment. It also includes detailed parts lists.

Purpose of Sweeper

This sweeper is designed solely for use in construction cleanup, road maintenance, grounds maintenance, snow removal 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.

This sweeper should be operated, serviced and repaired only by persons who are familiar with its characteristics and acquainted with relevant safety procedures.

Accident prevention regulations, all other generally recognized safety regulations and all road traffic regulations must be observed at all times.

Any modifications made to this sweeper may relieve the manufacturer of liability for any resulting damage or injury.

Safety Alert Symbol

This safety alert symbol indicates important safety messages in this manual. When you see this symbol, be alert to the possibility of injury. Carefully read the message that follows and infon other operators.

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, Inc.
2800 North Zeeb Road
Dexter, Michigan 48130
Phone: (734) 996-9116 • (800) 456-7100
FAX: (734) 996-9014
e-mail: sweep@sweepster.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.

Prime mover refers to the tractor, truck, loader or tow vehicle that a sweeper is mounted on or towed by.

Optional Equipment

Installation instructions for optional equipment, if applicable, appear with parts lists in the back of the manual.

Specifications & Features

Due to continuous product improvement, specifications and features may change without notice.

Warranty

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

Safety

Read this Manual

Read all safety information in this manual. All operators must read and understand the entire contents of this manual before sweeping. General safety practices are listed on Safety Information pages and specific safety information is located throughout this manual.

Hazard Definitions

Four hazard classifications are used in this manual. They are

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

WARNING - Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury

DANGER -

Indicates an imminently hazardous situation which, if not avoided, will result in death orserious injury.

IMPORTANT- Used for instructions when machine damage may be involved.

Operation

CAUTION - A sweeper is a demanding machine. Only fully trained operators or trainee operators under the close supervision of a fully trained person should use this machine.

Before sweeping:

- Learn sweeperand prime movercontrols in an off-road location.
- Se sure that you are in a safe area, away from traffic or other hazards.
- · Check all hardware holding the sweeperto the prime mover, making sure it is tight.
- . Make sure all hydraulic fittings and hardware are tight.
- 9 Replace any damaged or fatigued hardware with properly rated fasteners.

- . Check prime mover tire pressure 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 propertire rating.
- · Remove from the sweeping area all property that could be damaged by debris flying from the sweeper.
- * Be sure all persons not operating the sweeper are clear of the sweeper discharge area.
- Always wear proper apparel such as alongsleeve shirt buttoned at the cuffs; safety glasses, goggles or a face shield; ear protection; and a dust mask.

When sweeping, adhere to all government rules, local laws and other professional guidelines for your sweep ing application.



WARNING- Never raise the sweeper more than a few feet off the ground. The sweeper can tip back or the prime mover can tip over causing death or serious injury.

Before leaving the operator's 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 brush speed that will do the job.

Keep hands, feet, hair and 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 prime mover.

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

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.

6 51-3252, 3/98

Safety Information

Service & Repair

A 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 road 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.

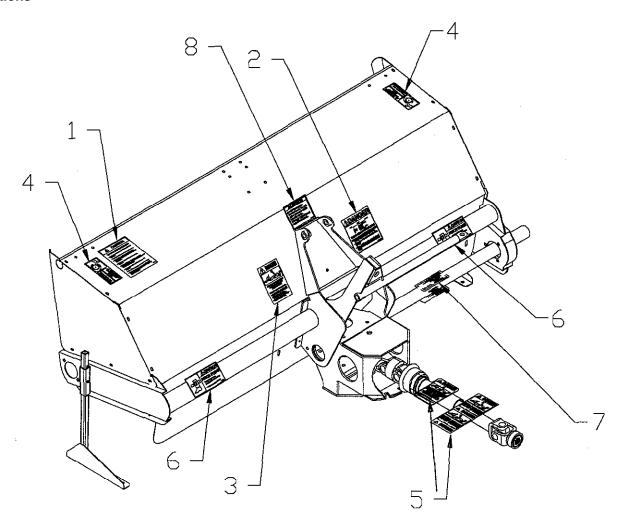
WARNING -Escaping hydraulic fluid can have enough pressure to penetrate the skin, causing serious personal injury.

Safety Signs & Labels

Care of Safety Signs

- 1. Keep safety signs clean and free from obstructing material.
- 2. Clean safety signs with soap and water; dry with a soft cloth.
- 3. Replace damaged or missing safety signs with new signs from SWEEPSTER.
- 4. If a component with safety sign(s) affixed is replaced with a new part, make sure the new safety sign(s) is (are) attached in the same location(s) as the replaced components.
- Install new safety signs on clean surfaces only, Spray a weak solution of soap and water on the surface before applying the safety sign. This will allow repositioning of the label. Squeegee any bubbles to the outside edge.

Locations

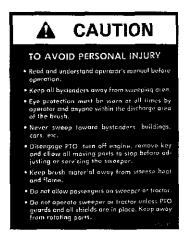


item	Part	Description
1.	50-0103	Label, Caution, To Avoid Injury
2.	50-0104	Label, Danger, Lock-Collar, Unlock-Collar
3.	50-0115	Label, Danger, Rotating Drive
4.	50-0145	Label, Warning, Rotating Broom
5.	50-0148	Kit, Labels, CV/Drive Shaft
6.	50-0076-I	Label, Caution, Pinch Point
7.	50-0213	Label, Warning, Rotating Driveline
8.	50-0440	Label, Caution, Avoid Damage to Tractor Hood

Safety Signs & Labels

Representations of Labels

Locations shown on page 8.



1. 50-0103



2. 50-0104



3. 50-0115



4. 50-0145

Safety Signs & Labels

Representations of Labels (Continued)

Locations shown on page 8.



5. 50-0148 *



5. 50-0148 *

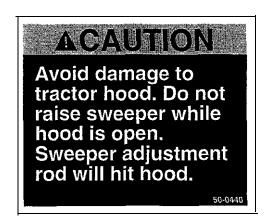
· Labels 50-0148 are packaged as a kit.



6. 50-0076-I



7. 50-0213



8. 50-0440

10 51-3252, 3/98

Installation

Ladder Sub-Frame Hitch Assembly

If you have not already done so, install the ladder subframe hitch assembly. Refer to instructions on pages 35-37 in Appendix A - Ladder Sub-Frame Hitch.

Attach Lift Arm

See figure 1. Assemble the lift arm (B) to the hitch (A) using two 1/2-13x 1-3/4 in. cap screws, lock washers and nuts. (Insert the cap screws from the left to right in the holes as shown.)

Angling Rod Support Arm

- See figure 2. Attach the right front hitch mounting bracket (A) and angling rod support arm (C) to the frame (B) using 5/16-18 x 1-1/4 in. bolts, lock washers, and nuts.
- 2. Install the support arm eye bolt (A, figure 3) and secure with a nut.

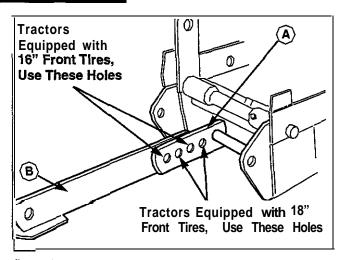


figure 1 A. hitch

B. lift arm

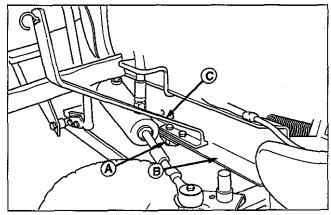


figure 2

A. hitch bracket

B. frame

C. support arm

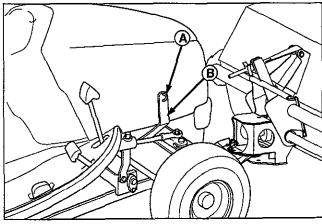


figure 3

A. support arm eye bolt

B. support arm

Brush Head & Hitch Pivot Assembly

NOTE -Once assembled, the brush head and hitch pivot assembly need not be separated.

- 1. See figure 4. Slide the brush head assembly (A) and hitch pivot assembly(B) together as shown.
- 2. Install the clevis pin (C) and secure with a hairpin clip.

Drive Shaft on Gearbox

- 1. Place the drive shaft on the gearbox input shaft.
- 2. Secure with a shear bolt.

NOTE -The shear bolt limits the amount of torque applied to the gearbox.

A

DANGER - To avoid injury from the driveline, do not operate without the driveline securely attached at both ends.

Sweeper on Tractor

- Install the lift arm extension on the tractor if not already done (see install Attachment Lifl Extension on page 36 for instructions).
- 2. Position the tractor behind the brush head assembly.
- 3. Fully lower the attachment lift.
- See figure 5. Attach the sweeper to the tractor by resting the sweeper pins (A) on the front attachment hooks (C).
- 5. See figure 5. Install two clevis pins (B) on both sides and secure with safety clips.
- 6. See figure 6. Attach the sweeper lift arm (A) to the hitch lift arm (B) using a clevis pin and safety clip.
- Attach the quick release end of the drive shaft to the tractor PTO.

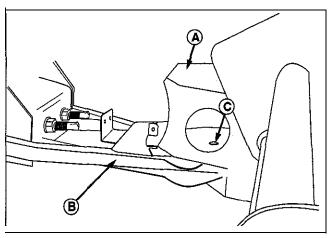


figure 4

- A. brush head assembly C. clevis pin
- B. hitch pivot assembly

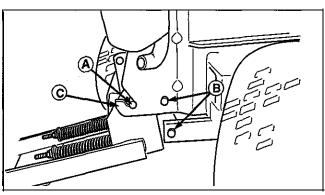


figure 5

- A. sweeper pins
- B. clevis pins
- C. attachment hooks

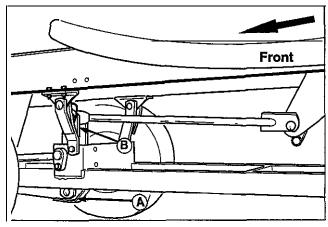


figure 6

- A. sweeper lift arm
- B. hitch lift arm

12 51-3252, 3/98

Angling Rod

- 1. Separate the upper angling rod and lower angling rod. The upper angling rod will be used with the sweeper angling rod.
- 2. See figure 7. Insert the sweeper angling rod (C) through the support arm eye bolt (B).
- 3. See figure 8. Assemble the upper angling rod (A) and sweeper angling rod (B). Insert a hairpin clip (C) through the rod to secure. Be sure to route the cable (D) through the hairpin as shown.
- 4. See figure 7. Attach the angling rod to the back of the sweeper using a 1/2 in. flat washer and hairpin clip (D).
- 5. See figure 9. Attach the cable (D) to the sweeper using hairpin clips (A) as shown.
- 6. See figure 9. Attach the end of the angling cable to the locking tab (B) using a clevis pin and hairpin clip (C).

Adjustments

- 1. See figure 9. Adjust height screws (E) to make the hitch pivot assembly parallel to the ground.
- 2. Adjust the brush by following directions in Adjusting Brush Contact Area (page 21).

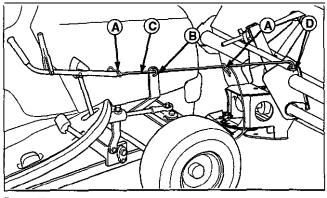
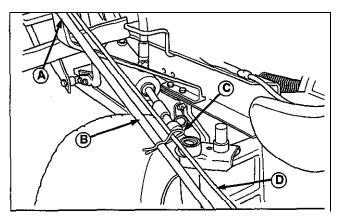
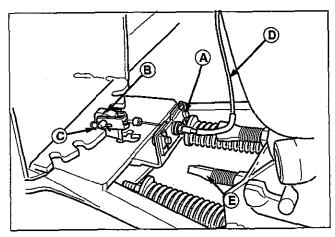


figure 7

- A. hairpin clip
- B. support arm eye bolt
- C. angling rod
- D. hairpin clip & flat washer



- figure 8
- A. upper rod
- B. sweeper angling rod
- C. hairpin clip
- D. angling cable



- figure 9
- A. hairpin clips
- B. locking tab
- C. clevis pin & hairpin clip
- D. angling cable
- E. height screw

Before Operation

Operational Check

- **CAUTION** Contact with the sweeper, moving joints or material discharged by the brush can cause serious injury. Operate this implement from the operators seat only. Make sure bystanders are well clear of the sweeper and sweeper discharge area before angling or engaging the sweeper.
- 1. Lubricate all U-joints and driveline components on the sweeper with high-quality, multi-purpose grease.
- 2. Start the tractor according to instructions in the tractor operator's manual.
- 3. Slowly raise the sweeper to the fully lifted position with the implement lift.
- 4. Stop the tractor and remove the key.

CAUTION - Do not get under the sweeper at any time while sweeper is in the raised position.

- 5. Carefully examine the sweeper clearance under the tractor undercarriage.
- 6. If sweeper shields or other parts contact the undercarriage of the tractor in any way, remove the sweeper from the tractor and follow the tractor operator's manual to adjust the implement lift height adjustment linkages, limiting the maximum lift height.
- 7. Reinstall the sweeper.
- 8. Start the tractor according to instructions in the tractor operator% manual.
- 9. Engage the tractor PTO with the engine at 1,000 rpm. Note any excessive noise, vibration or other problems.
- 10. Disengage the PTO, shut off the engine and remove the key.
- 11. Correct any driveline problems before the unit is put into service.

51-3252, 3/98 14

Operating Instructions

Operating Sweeper

CAUTION - Operate this implement from the operator's seat only. Do not allow other riders on the machine at any

CAUTION - Operate this implement at a speed that matches working conditions. Be extremely careful when working on banks or uneven terrain.

CAUTION - Operators must wear eye protection (goggles, etc.) during operation.

For the most efficient operation, sweep with the tips of the bristles like a broom - not with the sides of the bristles like a mop. Adjust the brush contact according to instructions in Adust Brush Contact Area (page 21).

For heavy material, reducing ground speed and angling the brush fully right or left to gives the best sweeping results. This allows the sweeper to discharge material out of brush path area and prevents the "resweeping" of material.

For specific tips, see Snow Removal, Lawn Thatching, Leaf Raking and General Sweeping- in this manual section.

Brush stands must be placed in the raised position before sweeping.

Sweeper Control

WARNING -Contact with the tractor, sweeper or debris discharged by sweeper can cause serious injury. Be sure bystanders are completely clear of the tractor, sweeper and sweeper discharge area before operation.

CAUTION - Always wear eye protection when operating any sweeper.

Use the tractor PTO to start and stop the sweeper brush.

- Start the engine and put the throttle lever at 1/3
- 2. Engage the PTO.
- 3. To stop, disengage the PTO.

Use the tractor lift lever to raise and lower the sweeper.

Change the brush head right-to-left angle by following these instructions.

- 1. Raise the brush.
- Squeeze the swing handle.
- 3. Push the rod to swing left or pull it to swing right.
- 4. Release the swing handle to latch the brush head in position.

Control brush speed with the throttle. If the brush stalls frequently, increase the engine speed slightly. Find the right brush and travel speeds so you don't have to increase the brush speed suddenly to overcome a stall. Under most conditions, too fast of brush speeds result in debris coming over the hood onto the operator.

Snow Removal

CAUTION - Foreign objects in snow may be thrown farther than the snow itself. Use the slowest brush speed that will perform the job and always remain aware of the sweeper

discharge direction.

CAUTION - Snow or ice build-up on the sweeper hood can cause a loss of tractor steering control. Regularly remove any snow or ice from the sweeper hood to prevent the excess weight from affecting steering.

Vary the brush speed and sweeper angle so the sweeper throws material out of the sweeper path whenever possible.

Faster brush speeds perform better on wet, heavy snow or slush.

This sweeper works best on snow depths of 6 in. (152 mm) or less, but almost any amount of snow can be moved if ground speed is reduced. If snow carries over to the rear of the brush, reduce speed and make a second pass to produce a clean surface.

15 51-3252, 3/98

Operating Instructions

Lawn Thatching

NOTE -Your sweeper is provided with a polypropylene brush. Brushes with 1/2 poly1/2 wire or full wire sections may damage lawns by pulling out the live grass. Brushes made with wire are not recommended for lawn thatching.

Carry the sweeper with the implement lift slightly raised to limit ground contact. Brush bristles should barely touch the ground while sweeping under load.

Slower brush speeds and slower ground speeds are mare suitable for lawn thatching. This gives the brush time to pull out the dead grass and minimizes the bouncing of the brush head, which can cause lawn damage due to excessive ground contact.

Minimize dust by sweeping when moisture is high (but not wet).

Leaf Raking

Carry the sweeper with implement lift slightly raised to limit contact with the grass.

Use slower brush speeds and slow-to-medium travel speeds when raking leaves.

For best results, rake leaves on days when leaf moisture is high.

General Sweeping

Minimize dust by reducing brush speeds and by sweeping on days with high moisture. Try to keep wind at your side or back. (Refer to figure 10.)

For light material, angle the sweeper 30" left or right.

Prevent damage to the sweeper by removing large foreign objects.

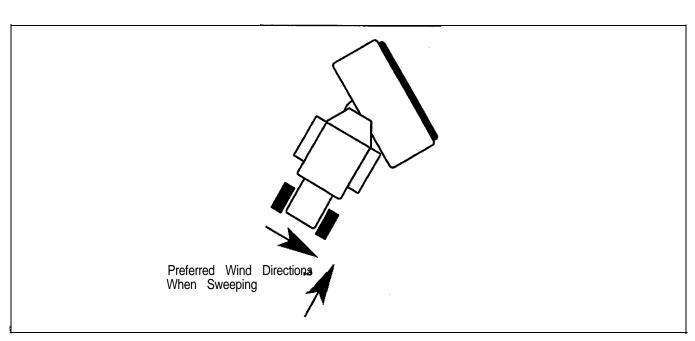


figure 10



CAUTION - Allow only trained personnel to operate or service this implement. Know and understand all precautions before assembly, service or operation. Also read and understand all safety precautions in the tractor operator's manual.

Lubrication

Gearbox

Check gearbox lubricant every 25 hours.

- 1. When oil is cold, remove the top plug (figure 11). Make sure oil is level with the plug hole.
- If needed, add gear oil meeting SPI GL5 80W-90 classification. Do not exceed a 50/50 mix with synthetic oil.
- 3. Reinstall the plug.

NOTE -You do not have to change gearbox oil.

Drive Shaft

After every 8 operating hours, lubricate 3 grease points (figure 12) on the drive shaft with multi-purpose grease. Do not overgrease universal joints.

Searinas

All bearings on the sweeper are permanently lubricated for long life and require no lubrication.

Drive Chain

Lubricate with oil when changing brush sections.

Tractor Air Filter

Due to dusty conditions, check the tractor air filter often. Further instructions appear in the tractor operator's manual. Se sure to follow the recommendations for "extreme conditions" as the air filter can be affected by dust and other debris raised by the sweeper.

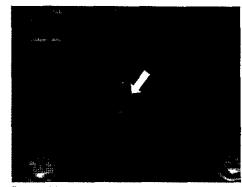


figure 11

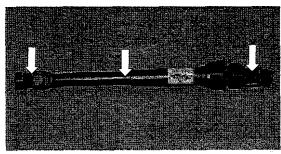


figure 12

Daily Maintenance Checks

Hardware - Check and tighten all hardware on the sweeper, including factory-installed hardware.

Brush Contact-Check brush contact. (See Adjusting Brush Contact Area, page 21.)

Brush Replacement

Replace sections when worn to 14 in. (356 mm) in diameter.

- NOTE -Replacing brush sections can be accomplished more easily with the sweeper mounted on the tractor than with it on the ground.
- 1. Remove the chain guard (figure 13) from the right-hand side of the brush head.
- 2. Disconnect the drive chain (figure 14) at the master link. Remove the chain from the large sprocket.
- 3. Loosen 2 set screws on each lock collar located at each end of the brush core (figures 15 and 16).
- 4. Remove the chain guide plate (figure 17).

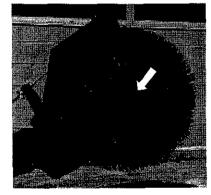


figure 13

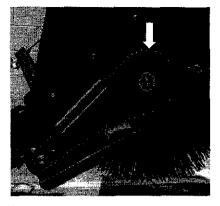


figure 14

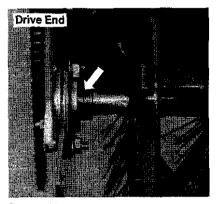


figure 15



figure 16

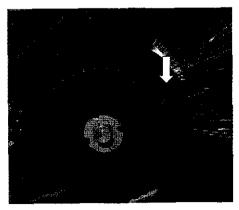


figure 17

16 51-3252, 3/98

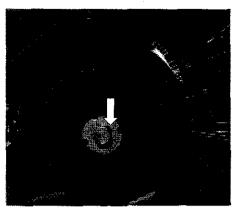


figure 18

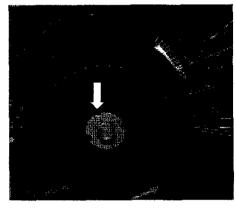


figure 19

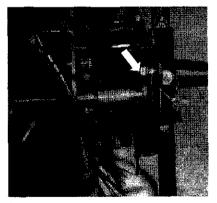


figure 20

- 5. Remove the snap ring from the large sprocket (figure 18).
- Remove the lock hub by removing all set screws and then inserting the screw indicated in figure 19.
- 7. Remove the sprocket, washer and key from the brush core.
- 8. Loosen 2 M8 hex nuts that retain the bearing on the bearing end of the core (figure 20).
- 9. Slide the core to the toward the bearing end to allow additional space on the other side.
- IO. Remove 3 M8 carriage bolts, lock washers and hex nuts that retain the drive end bearing and flanges (figure 21).
- 11. Pull the brush core from the brush frame (figure22).
- 12. Remove 3 screws to take the retainer plate off the core.
- 13. Remove old sections,

Continued on next page

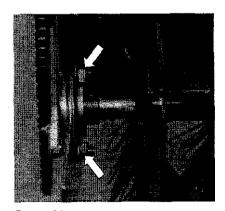


figure 21



figure 22

- 14. Install new sections by doing the following.
 - a. Number the tubes on the core as 1, 2, and 3 (figure 23).
 - Slide the first section onto the core with the drive pins (figure 24) on both sides of tube 1.
 Make sure that the drive pins face up.
- NOTE -When using 1/2 poly-112 wire sections, place a poly section first and last on the core to prevent damage to the hood, driveline and frame.
 - c. Place the second section on the core with the drive pins on both sides of tube 2. Be sure the drive pins face down.
 - d. Put the third section on with the drive pins around tube 3. Be sure the drive pins face up.
 - Slide sections on until the core is full, making sure to alternate the tubes used and the direction of the drive pins.
- 15. Put the retainer halves on the brush head and reinstall the screws.
- 16. Position the brush head in front of the brush hood.
- 17. Place the bearing end of the brush core in the bearing side of the brush head.
- 18. Place the drive end in the brush frame. The bearing and flanges go between the brush frame and brush core.
- 19. Slide the core toward the bearing end.
- 20. Install 3 M8 carriage bolts, lock washers and hex nuts in the drive end bearing and flanges.
- 21. Tighten all set screws on lock collars.

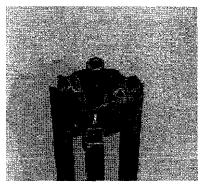


figure 23

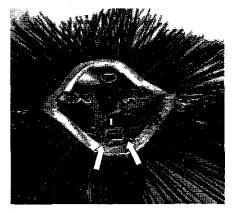


figure 24

- 22. Install the key, washer, sprocket, hub and snap ring.
- 23. Tighten the hub onto the sprocket.
- 24. Clean and lubricate the drive chain. Then, install it.
- 25. Reinstall the chain guide plate.
- 26. Reinstall the chain guard. Insert a 1/8 in. (3 mm) or smaller diameter pin punch through the hole in the chain guard and into the idler to align the components.
- 27. Adjust the idler according to Adjusting Drive Chain Idler (page 21). Adjust the brush by following directions in Adjusting Brush Contact Area (page 21).

Adjusting Drive Chain Idler

- 1. Clean debris off the idler adjustment screw (figure 25) located on the drive end of the brush head.
- Disconnect the quick release end of the sweeper drive shaft.
- 3. Raise the sweeper several inches off the ground.
- 4. Loosen the jam nut.
- 5. While rotating the brush manually, turn the idler screw by hand until it will not tighten any more.

 IMPORTANT - Avoid damage to the sweeper drive mechanism. Tighten the idler by hand only. Using a wrench or other tool can result in overtightening the idlerwhich can damage the drive chain and other parts.

6. Tighten the lock nut.

Adjusting Brush Contact Area

NOTE -Keep tires at the correct pressure.

- 1. Drive to a dirty section on a hard surface.
- 2. Set the brush on the ground and run it 30 seconds without moving the tractor.
- 3. Stop, raise the brush head assembly, back away and park the tractor.
- Measure the path cleared. If the sweeper is adjusted correctly, the path will be 2-3 in. (51-76 mm) wide.
- 5. Adjust brush contact area with the brush adjustment knob (figure 26).To make the path wider, lower the brush head assembly by turning the knob to the left (counterclockwise).To create a narrower path, raise the brush head assembly by turning the knob to the right (clockwise).

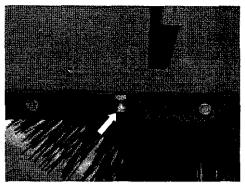


figure 25

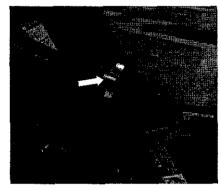


figure 26

Replacing Shear Bolt

Replace the shear bolt in the end of the drive shaft if it breaks.

- Remove any remaining parts of the broken shear bolt.
- 2. Install a new shear bolt.
- 3. Check the condition of the snap ring retaining the drive shaft. Replace if it is broken or damaged.

Safety Labels

Replace worn or damaged safety labels before the sweeper is operated. If any safety labels become damaged when parts are repaired, replace those labels before operating the sweeper.

Keep all safety labels clean so they are easy to read.

Order replacement safety labels (shown on pages 9-10 of this manual). Replacement safety labels are supplied at no charge.

See page 8 for the location of safety labels on the sweeper.

51-3252, 3/98

Removal/Storage/Reinstallation

Removing Sweeper

NOTE-Whenever removed, install clevis pins, hitch pins, clips and hardware into the sweeper and hitch for storage.

- 1. Park the tractor on a hard, level surface.
- 2. Install stands in storage position and insert the lock pin.
 - a. Remove the lock pin and stand (figure 27) from each side of the brush head assembly.
 - b. Invert stands and install lock pins prior to operating the sweeper.
- 3. Lower the sweeper onto the stands.
- 4. See figure 28. Remove the hairpin clip and clevis pin (B) securing the angling cable (C)to the locking tab (A).
- 5. Remove hairpin clips (D, figure 28) attaching the adjustment plate to the sweeper and remove the plate from the sweeper.
- 6. See figure 29. Separate the angling rod (A) and remove it from the support arm (B) and sweeper.

NOTE -The support arm (B, figure 29) can remain attached to the tractor.

7. See Figure 30. Disconnect the sweeper lift arm (B) from the hitch lift arm (E).

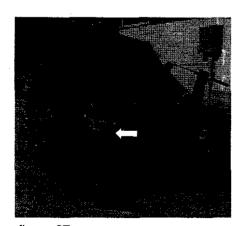


figure 27

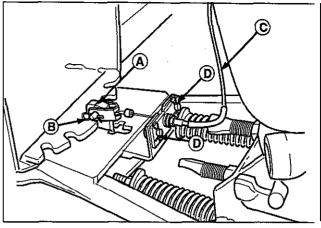


figure 28
A. locking tab
B. clevis pin &hairpin

C. angling cable D. hairpin clips

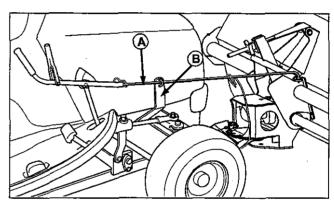


figure 29
A. angling rod
B. support arm

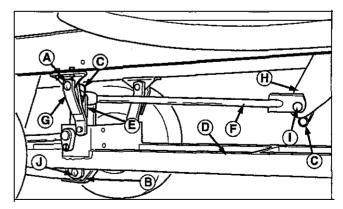


figure 30

- A. 1/2x 1-1/2in. round head clevis pin
- B. sweeper lift arm
- C. safety clip
- D. ladder hitch
- E. hitch lift arm
- F. lift rod
- G. front hitch bracket
- H. lift extension
- I. 5/8x 1-58 in. flat head clevis pin
- J. 1/2x 2 in. flat head clevis pin

U-3252, 3/98

Removal/Storage/Reinstallation

- 8. Remove the drive shaft from the tractor.
- 9. See figure 31. Remove the 4 safety clips and clevis pins (B) securing the sweeper to the tractor and lift the sweeper off the attachment hooks (C).
- 10. See figure 30. Disconnect the lift rod (F) from the lift extension (H).
- See figure 30. Remove the clevis pins (A) attaching the front and rear of the hitch to the tractor. Remove the hitch.
- 12. If the mower deck is being installed, remove the lift extension (H, figure 30).

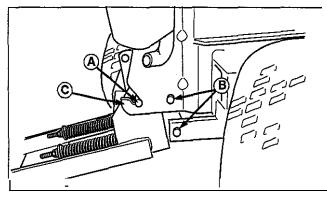


figure 31 A. sweeper pins B. clevis pin

C. attachment hooks

Storage

IMPORTANT - Avoid damage to the sweeper. Use storage stands, store the brush out of direct sunlight and do not let the brush touch the ground.

- 1. Clean the sweeper with water pressure.
- 2. Store the sweeper on a hard, level surface in a dry place.
- 3. Put stands in storage position.
- 4. Remove the sweeper from the tractor.
- 5. Repair or replace damaged parts.
- 6. Apply touch-up paint where needed.
- 7. Lubricate all grease points.
- 8. When storing the sweeper outside, put a water-proof cover on it.

Reinstalling Sweeper

Repeat original installation procedures.

51-3252 3/98 23

Troubleshooting

If Material Piles in Front of Sweeper

- * Decrease travel speed
- Increase the engine rpm
- Make more than 1 pass
- Raise the brush to decease the contact area
- . Increase the sweeper angle

If Brush Wears Unevenly

- Check for material wrapped around the brush
- · Clean underneath the hood

If Driveline Wears Quickly

- * Decrease travel speeds
- Make more than 1 pass, especially in deep, heavy materials
- . Avoid ramming piles
- · Lack of lubrication lubricate more often

Notes

51-3252, 3/98

Brush Head

item	Part	Qty	Description
1.	01-0923	1	Section, Set, 26, 8, P, Convoluted
2.	05-1266	1	Gearbox, 3:1, Hollow Output
3.	06-0433	1	Sprocket, 50B11 x 1 Bore x 1/4 Key
4.	06-0434	1	Sprocket, 50836, Taper Bore
5.	06-0435	1	Hub, Taper, 1 Sore, 1/4 Key
6.	06-0436	1	Chain, #50,38 Links, w/ Master
7.	07-0210	2	Clip, Hairpin, 14 gauge x 1-3/4
8.	07-1075	7	Rivet, Pop, 3/16x 3/4
9.	07-1090	1	Pin, Clevis, 1/2x 5
10.	07-1679	10	Plug, Cap, Plastic, for 5/16 Hole
11.	07-1718	8	Washer, Lock, Split, 3/8
	07-1810	1	Nut, Lock, Center, 5/16-18
13.	07-2105	2	Pin, Lock, 3/8, Square Bail
	07-2950	8	Bolt, Carriage, M8 x 1.25 x 20
15.	07-2952	32	Screw, M6 x 1 x 20
16.	07-2954	8	Nut, M8x1.25
	07-2956	30	Nut, Insert, M6 x 1
	07-3273	8	Washer, Lock, Split, 5/16
	07-3939	3	Ring, Snap
	07-4052	8	Screw, Cap, 3/8-1 6 x .75
	07-4089	1	Screw, Tap, 5/16-18 x 2.25
	07-4090	2	Washer, 1 id x 1-1/2 od x 14 gauge
	08-0005	2	Flange, Bearing, 2 Hole
	08-0008	4	Bearing, Flange, 3 Hole
25.	08-0148	3	Bearing, 1 Round, w/Collar & Set Screws
26.	11-6526	2	Key, 1/4x 1
27.		1	Key, 1/4x 1/4x2
28.		1	Weld, Mounting, Gearbox, Simpl, M26
29.		1	Weld, Adjustment, Brush Head
30.	13-5737	1	Weld, Brush Frame, M26
31.	13-5740	2	Plate, Retainer, Bushing, Swing, Brushi Head

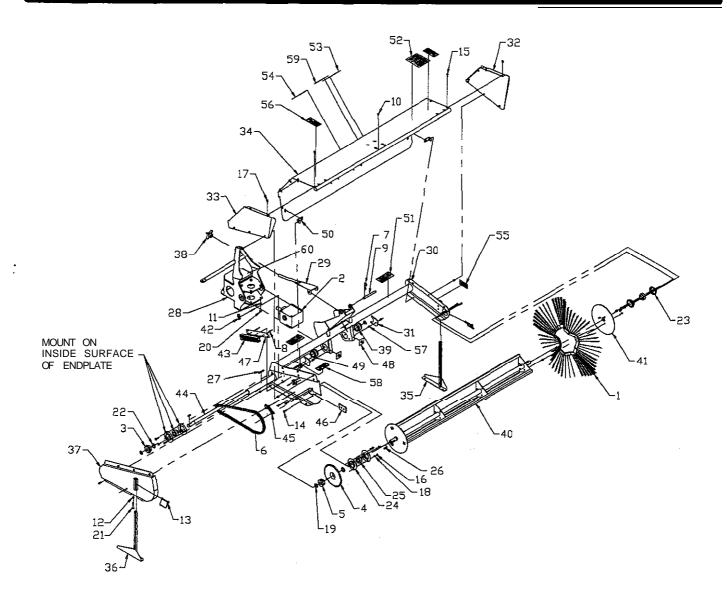
ltem	Part	City	Description
32.	13-5741	1	Sheet, Hood, Side, Left, M26
3 3	. 13-5742	1	Sheet, Hood, Side, Right, M26
3 4	. 13-5743	1	Sheet, Hood, M26
35.	13-5747	1	Weld, Stand, Brush Head, Left, M26
	13-5750	1	Weld, Stand, Brush Head, Right, M26
37.	13-5752	1	Weld, Cover, Brush Frame, Side, M26
38.	13-8384	1	Knob, Pattern, Adjustment, 5/8-8
39.	13-8390	2	Bushing, Brush Head, Swing, M26
	13-8391	1	Weld, Core, M26
	13-8396	1	Plate, Retainer, Core
	13-8413	2	Plate, Keeper, UHMW, M26
	13-8414	1	Chain, Guide, M26
	13-8416	1	Shaft, Driveline, M26
	13-8420	1	Weld, Idler, M26
	13-8451	1	Assembly, Chain Guard
	13-8452	1	Plate, Spacer, Chain Guide
	13-8472	3	Assembly, Plate, Locking
	13-8556	1	Guard, Drive Shaft, M26
	13-8557	2	Assembly, Support, Hood, M26
	50-0076-I		Label, Caution, Pinch Point
	50-0103	1	Label, Caution, Avoid Personal Injury
	50-0104	1	Label, Danger, Lock Collar, Unlock
	50-0115	1	Label, Danger, Rotating Driveline
	50-0004	1	Label, Plate, Serial Number
	50-0145	2	Label, Warning, Rotating Broom
57.	07-3922	2	Nut, Insert, M6 x 1, Grip Length, .165251
58.	50-0213	2	Label, Warning, Rotating Shaft
59.	50-0440	1	Label, Caution, Avoid Damage to Tractor
60.	07-4412	1	Pm, Clavis, 626x3.0

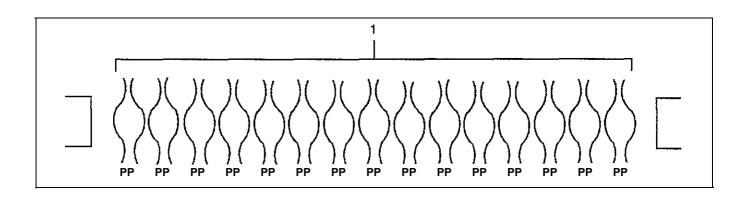
Not Shown

05-1291 1 Drive Shaft, Simplicity Legacy

26 51-3252, 3/98

Brush Head





U-3252, 3/98 **27**

Brush Head (4 F

Ret Part No. Qty Description

- 01-0847 24 Section, 26, 8, P, Convoluted
- 04-4016 36lb Wire, Bulk (Not Shown)
- 3. 05-1291 1 Shaft, Drive, Simplicity
- Gearbox, Hub City, 3:1, HLW, Outp, 50. X3-8385 1 4. 05-1330 1 Gearbox, Hub City, 3:1, HLW, Outp, 5/16, S h r p i n 1, S h r p i 4. 05-1330 1 5/16, Shrpin

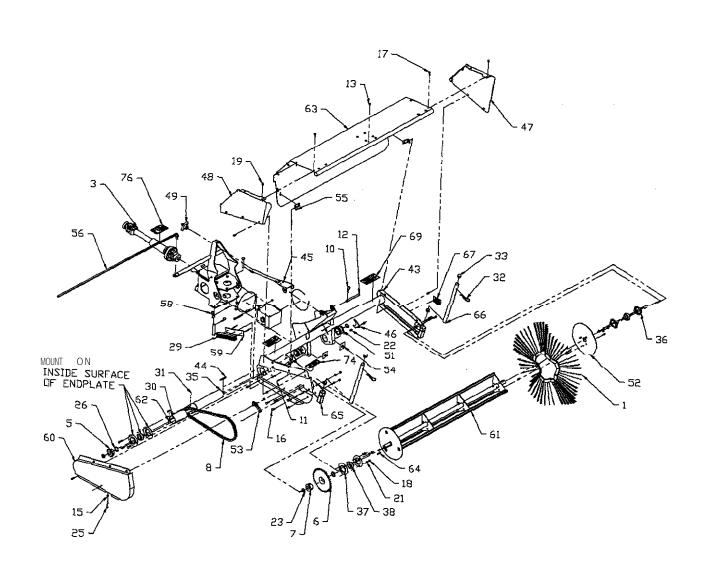
- Point
- 32. 07-4522 2 Clip, Hairpin, .162 x 3.43
- 33. 07-4523 4 Plug, Cap, 1 x .51
- Tag, Remove Before Use 34. 07-4656 1
- 35. 07-4987 1 Shield, Driveshaft, W/Hole
- 36. 08-0005 2 Flange, Bearing, 2 Holes
- 37. 08-0008 4 Bearing, Flange, 3 Hole
- 38. 08-0148 3 Bearing, 1 RDW/Collar, and Set Screw
- 40. 08-2238 2LB Powder, Gray, Sweepster (Not Shown)
- 41. 10-0218 1 Crate, 52 x 42 x 27.88
- 42. 10-0234 1 Bag, Plastic, 60 x 54 x 52
- 43. 13-10018 1 Weld, Frame, Brush, M26,4Ft
- 44. 13-1321 1 Key, 1/4x 1/4x 2
- 45. 13-5723 1 Weld, Adj, Brush Head
- 46. 155740 2 Plate, Retainer, Bushing, Swing

Ref Part No. Qty Description

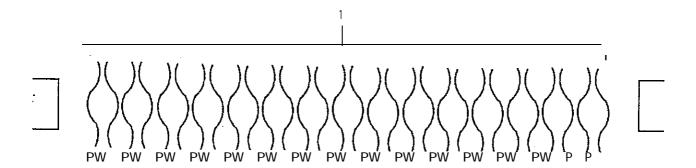
- 47. 135741 1 Sheet, Hood, Side, Left
- 48. 136742 1 Sheet, Hood, Side, Right
- 49. 13-8384 1 Knob, Pattern, Adj, 5/8-8
 - Bolt, Shear
 - 51. 13-8390 2 Bushing, Brush Head, Swing

51-3252, 3/98

Brush Head (4 Foot)



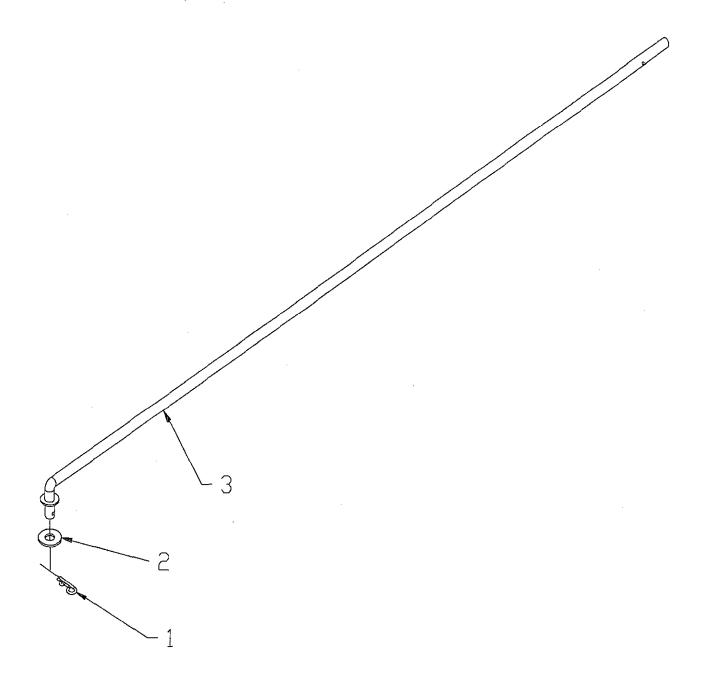
Sections (1/2 Poly-1/2 Wire Option)



Item Part Oily Description

1. 01-0924 1 Section, Set, 26, 8, Combination, Convoluted

Angling Rod



Ref	Part	Qty	Description
1.	07-0210	1	Clip, Hairpin, 14 gauge x 1-3/4
2.	07-1763	1	Washer, Flat, 1/2
3.	13-9233	1	Weld, Rod, Manual Angle, M26 Simplicity

3 2 51-3252, 3/98

Torque Value

Bolt Torque Specifications

Bolt Size	Coarse Thread*	Grade 5	Grade 8
(Inches)	(Per Inch)	(Torque in	Foot-Pounds)
1/4	20	10	14
5/16	18	19	29
3/8	16	33	47
7/1 6	14	5 4	78
1/2	13	78	119
9/1 6	12	114	169
5/8	11	154	230
3/4	10	257	380
7/8	9	382	600
1	8	587	700
1-1/8	7	794	1430
1-1/4	7	1105	1975
<i>1-3</i> 8	6	1500	2650
1-1/2	6	1775	3200
1-38	6	1500	2650

• To determine the torque for a fine-thread bolt, increase ratings b 9%.

Affect of Lubrication onTorque

(Torque Rating in Foot-Pounds)

Lubricant	5/16-18 Thread	1/2-13 Thread
No Lubricant	29	121
Plated & Cleaned	19 (34%)**	90 (26%)**
SAE 20 Oil	18 (38%)**	87 (28%)**
SAE 40 Oil	17 (41%)**	83 (31%)**
Plated & SAE 30	16 (45%)**	79 (35%)**
White Grease	16 (45%)**	79 (35%)**
Dry Moly Film	14 (52%)**	66 (45%)**
Graphite & Oil	13 (55%)'"	62 (49%)"

^{**}Use lubrication percentage to calculate the approximate decrease in torque rating for other bolt sizes.

S
ယ်
N
S
Ņ
ω
Ø
∞

SWEEPSTER WARRA	ANTY REGISTRATION	
Thank you for purchasing a Sweepster product. Warranty protection on this equipment is valid only when completed and signed by customer and dealer and mailed to SWEEPSTER. If you have any questions, please give us a call at 1-800-456-7100 or (734) 996-9116. PLEASE PRINT · PRESS HARD MULTIPLE COPIES	1. MATERIAL YOU ARE SWEEPING? Snow Dirt General Debris Thatch Other 2. MAKE AND MODEL NUMBER OF PRIME MOVER. (For attachment sweepers only.) 3. DID YOU OR YOUR CUSTOMER RECEIVE AN OPERATION/PARTS MANUAL? Yes No 4.DID THE UNIT FIT CORRECTLY TO PRIME MOVER? Yes No Comments	
Purchaser's Name		
Address City		
State Zlp Phone Model Number Serial Number	5. WHY DID YOU PURCHASE A SWEEPSTER? (check one) θ Quality Price Reputation Simplicity θ Prior Us θ Dealer Referral Operation θ Features θ Availability 0 other	
Date Delivered to Dealer Date Delivered to customer Dealer's Name	6.PLEASE RATE THE FOLLOWING (check one) Appearance:	
Address city	Technical Support:	
State Zip Phone White-Customer Yellow-Dealer Card-Return to Sweepster postage paid		

SWEEPSTER

SWEEPSTER Limited Six Month Warranty

For a period of six (6) months from date of delivery of product to the original user, Sweepstar, Inc. of Dexter, Michigan 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 specifications: improper or insufficient lubrication; improper storage. This warranty is also not a guarantee that the performance of each product will meet the expectations of the purchaser.

Sweepster, Inc. 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 of repair of defective parts: lost time or expense which may have accruedbecause of said defects. In no event shall Sweepster, Inc.'s total liability hereunder exceed the product purchase price.

Sweepster, Inc. makes no warranty with respect to trade accessories or any component or accessory of the product which was not manufactured by Sweepster, Inc. 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, Inc., 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, Inc. of Dexter, Michigan, or at a service facility designated by us, or such part or parts as inspection shall disclosed to have bean defective. We are not responsible for unauthorized repairs or replacements. Any implied or statutory warranties, including anywarranty of merchant ability or fitness for a particular purpose, are expressly limited to the duration of this written warranty. We make no other express warranty, nor is anyone authorized omake any in our behalf. This warranty cannot be extended, broadened, or changed except in writing by an authorized officer of Sweepster, Inc.

Installation Instructions

Ladder Sub-Frame Hitch

Mfg. No. 1693175

For Legacy/I 900/2900 Series Front Mounted Attachments

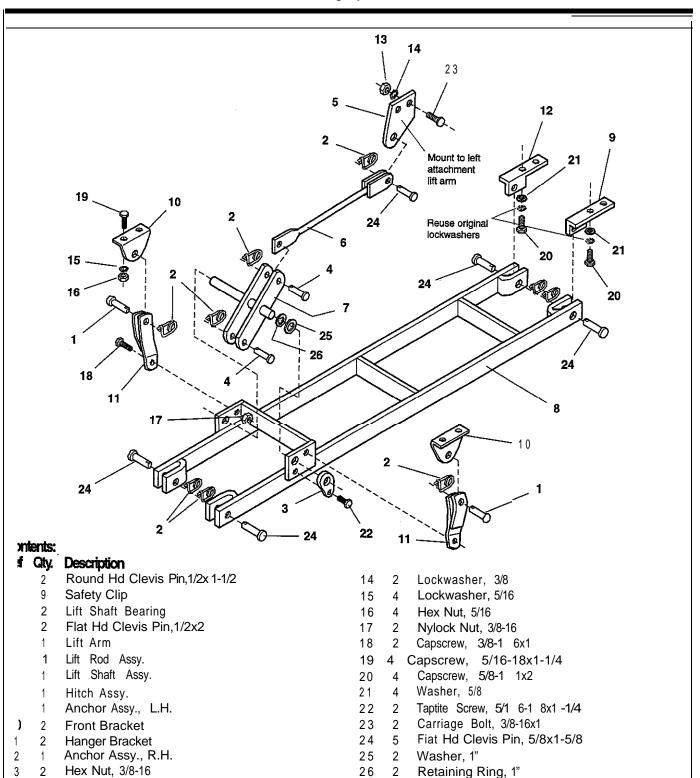


Figure 1. Contents

Appendix A - Ladder Sub-Frame Hitch

INITIAL ASSEMBLY

NOTE: Once installed, the front and rear hitch mounting brackets need not be removed.

Install Front Hitch Mounting Brackets

- 1. Locate the bracket mounting holes on both sides of the frame (see Figure 2).
- 2. Attach the front hitch mounting brackets (A, Figure 3) to the bracket mounting holes in both sides of the frame using 5/16-18 x 1-1/4 capscrews (C), lo&washers, and nuts (D).

Install Rear Hitch Mounting Brackets

- Remove the front four capscrews and lockwashers securing the drawbar to the transmission (see Figure 4).
- 2. Attach the rear hitch brackets (A, Figure 5) to the drawbar and transmission with the 5/8-1 1 x 2 capscrews (C) and washers (B) provided.

NOTE: During initial installation do not tighten the capscrews (C, Figure 5) securing the rear hitch mounting brackets until the attachment is completely installed.

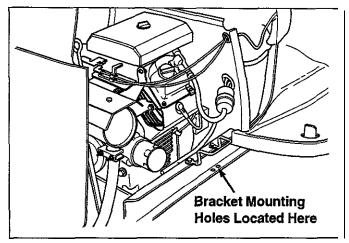


Figure 2. Front Hitch Bracket Mounting Holes

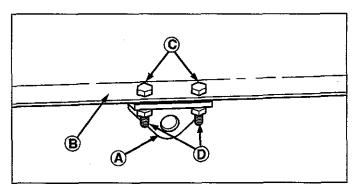


Figure 3. Front Hitch Mounting Brackets

A. Hitch Bracket

C. Capscrews, 5/16-18x 1-1/4"

B. Frame

D. Nut & Lockwasher

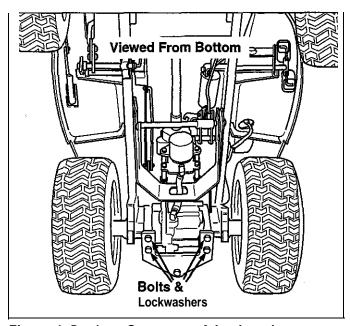


Figure 4. Drawbar Capscrews & Lockwashers

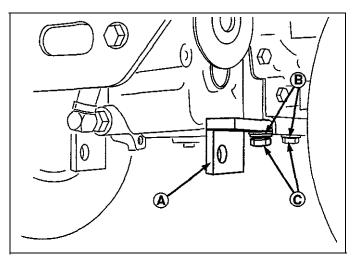


Figure 5. Rear Hitch Brackets

A. Bracket

C. Capscrews, 5/8-11 x 2"

B. Washer, 5/8

Appendix A - Ladder Sub-Frame Hitch

Install Attachment Lift Extension

NOTE: The attachment lift extension must be removed when using mower.

1. Install the attachment lift extension (B, Figure 6) on the left attachment lift arm (A) using two 3/8-16 x 1" carriage bolts (C), lockwashers, and nuts as shown in Figure 6.

Assemble Ladder Hitch

- 1. Attach the hanger brackets (A, Figure 7) to the hitch assembly (F) using 3/8-1 6 x 1" capscrews and nylock nuts (B). Do not torque the nuts. The hanger brackets (A) should be able to pivot freely.
- 2. Attach the lift rod (C, Figure 7) to the hitch lift arm (D) using one 1/2" x 2" flat head clevis pin and safety clip (E).

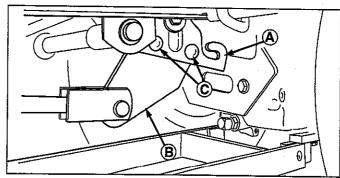


Figure 6. Attachment Lift Extension

A. Lift Arm

C. Carriage Bolt, 3/8-16 x 1"

B. Lift Extension

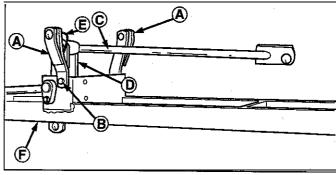


Figure 7. Assemble Hitch

A. Hanger Bracket

B. 3/8-16 x 1 Capscrew & Nylock Nut

C. Lift Rod

D. Hitch Lift Arm

E. 1/2 x 2" Fiat Head Clevis Pin & Safety Clip

F. Hitch Assembly

Appendix A - Lauder Sub-Frame Hitch

HITCH INSTALLATION

Install Hitch Onto Tractor

- 1. Slide the hitch and lift rod assembly under the tractor. Use 4x4 wood blocks to support the hitch and help align the mounting holes.
- 2. Attach the rear end of the ladder hitch (B, Figure 8) the to the rear hitch brackets (A) using two 5/8 x 1-5/8" flat head clevis pins (C) and safety clips.
- 3. Attach the front end of the ladder hitch (D, Figure 9) to the front hitch brackets using two 1/2 x 1-1/2" round head clevis pins (A) and safety clips (C).

Install Lift Rod

- 1. If not already done, attach the lift rod (F Figure 9) to the hitch lift arm (E) using a 1/2x 2" flat head clevis pin and safety clip.
- 2. Attach the lift rod (F, Figure 9) to the attachment lift extension (H) using a 5/8 x 1-5/8" flat head clevis pin (I) and safety clip (C).

NOTE: At this point during initial installation tighten the capscrews (C, Figure 5) securing the rear hitch mounting brackets. This is only necessary when installing the attachment for the first time.

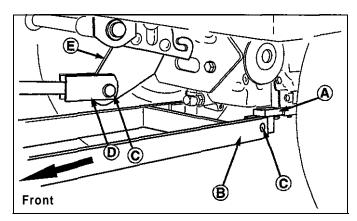


Figure 8. Rear Brackets & Lift Extension

- A. Rear Hitch Brackets
- D. Lift Rod
- B. Ladder Hitch
- E. Lift Extension
- C. 5/8 x 1-5/8" Flat Head Clevis Pin

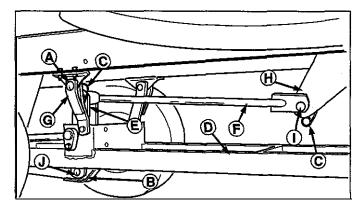


Figure 9. Lift Rod

- A. 1/2x 1-1/2" Round Head Clevis Pin
- B. Snowthrower Lift Arm H. Lift Extension
- C. Safety Clip
- D. Ladder Hitch
- E. Hitch Lift Arm
- F. Lift Rod
- G. Front Hitch Bracket
- I. 5/8 x 1-5/8" Flat Head Clevis Pin
- J. 1/2 x 2" Flat Head Clevis Pin

Appendix B - Hitch & Angling Rod

Contents: Ref Qty. Description **EYEBOLT** 2 2 **SPACER** 1 2 NUT, 1/2-13 3 4 2 LOCKWASHER, 1/2 5 1 EAR, Lift, Front 6 1 LIFT BAR ASSY 7 2 GAPSCREW. 1/2-13x 1-3/4 8 2 ANCHOR, Front 9 2 SET COLLAR 10 2 SETSCREW, 5/16-18x 1/2, Square Head, Cup Point 11 1 HITCH PIVOT ASSY. 12 5 HAIR PIN CLIP PIN, Clevis 2 13 14 1 **SPACER** 15 1 **SHAFT** SHAFT, Inner 16 1 HITCH ASSY. 17 1 18 2 SPRING, Compression 19 JAM NUT, 3/8-16 2 WASHER 20 2 21 2 NUT, 3/8-16 22 2 STUD, 3/4-10UNC-2A 23 2 HEX NUT, 3/4-10 24 2 LOCKWASHER, 3/4 25 1 HITCH ASSY. 26 1 LATCH SPRING PIN, 7/32x 1 27 2 28 1 **SPRING** 29 1 FRAME ASSY. 30 2 CAPSCREW, 112-13 x 1 31 2 **SPACER** LOCKNUT, 1/2-13 2 32 4 SPRING, Tension 33 34 **EYEBOLT** HEX NUT, 5/16-18 35 8 2 COTTER PIN, 3/16x 1-1/4 36 37 PIN, Pivot 1 38 HAIRPIN' 1 39 1 ROD40 PLATE, Control 1 41 **HAIRPIN** 42 1 PIN, 5/16 x 1-1/8 SUPPORT ARM ASSY 43 1 44 1 CONTROL CABLE ASSY 45 1 **EYEBOLT**

- 46 1 SCREW, Taptite, 1/4-20 x 1/2
- 47 1 CAPSCEW, 1/4-20 x 1-1/2
- 48 2 LOCKNUT, 1/4-20
- 49 1 ROLL PIN, 3/16
- 50 1 LEVER, Latch Control
- 51 1 GRIP
- 52 GRIP
- 53 1 HANDLE, Upper

40 51-3252, 3/98

^{*} Not used with sweeper. Refer to Angling Rod (page 29).

Appendix B – Hitch & Angling Rod

