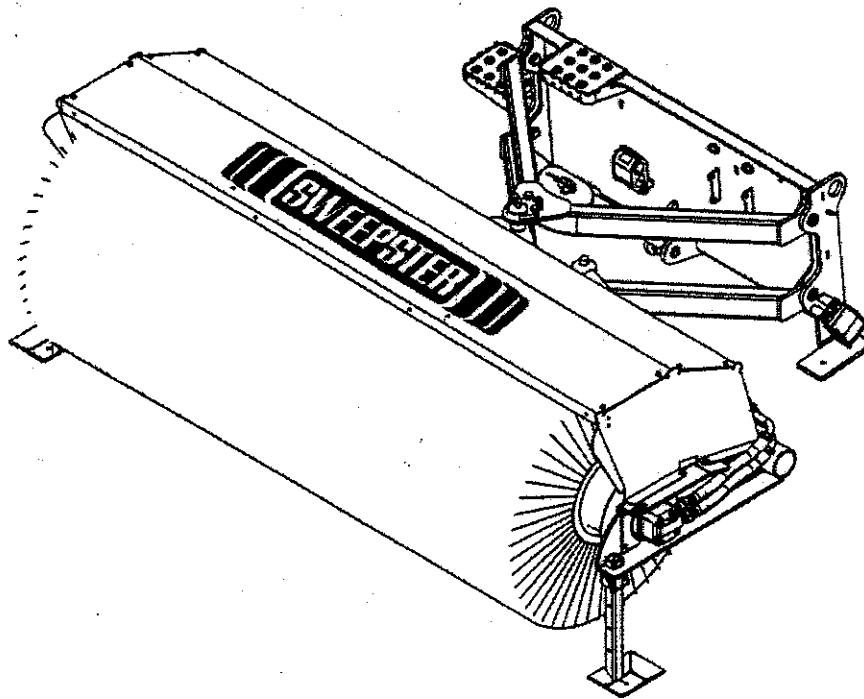


**SWEEPSTER**

**BIG  
DAWG**  
Series

**Windrow Sweeper  
for Skid Steer Loaders**



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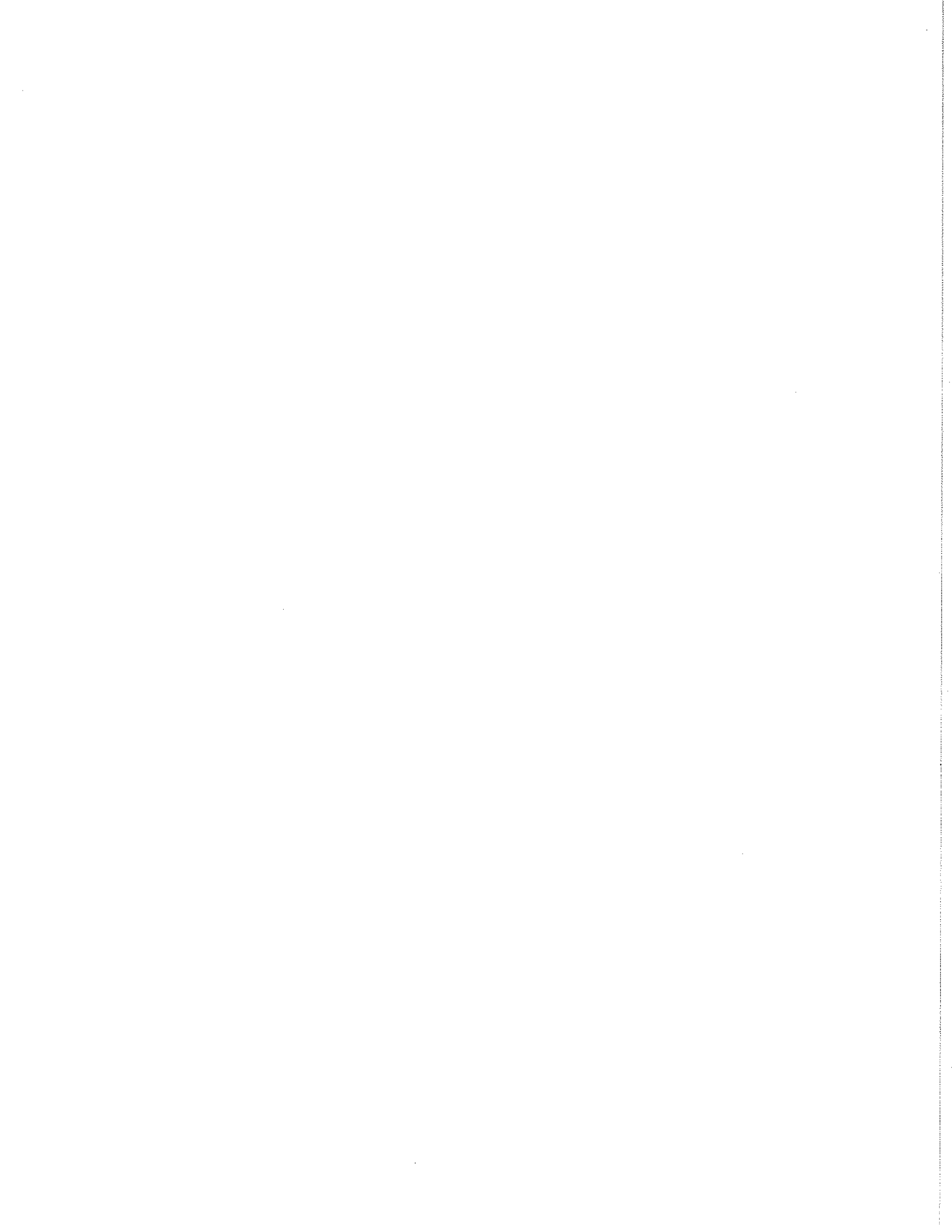
# Table of Contents

**Section 1 ... Operation and Maintenance**

**Section 2 ... Service Manual**

**Section 3 ... Parts Manual**

**Section 4 ... Appendix**



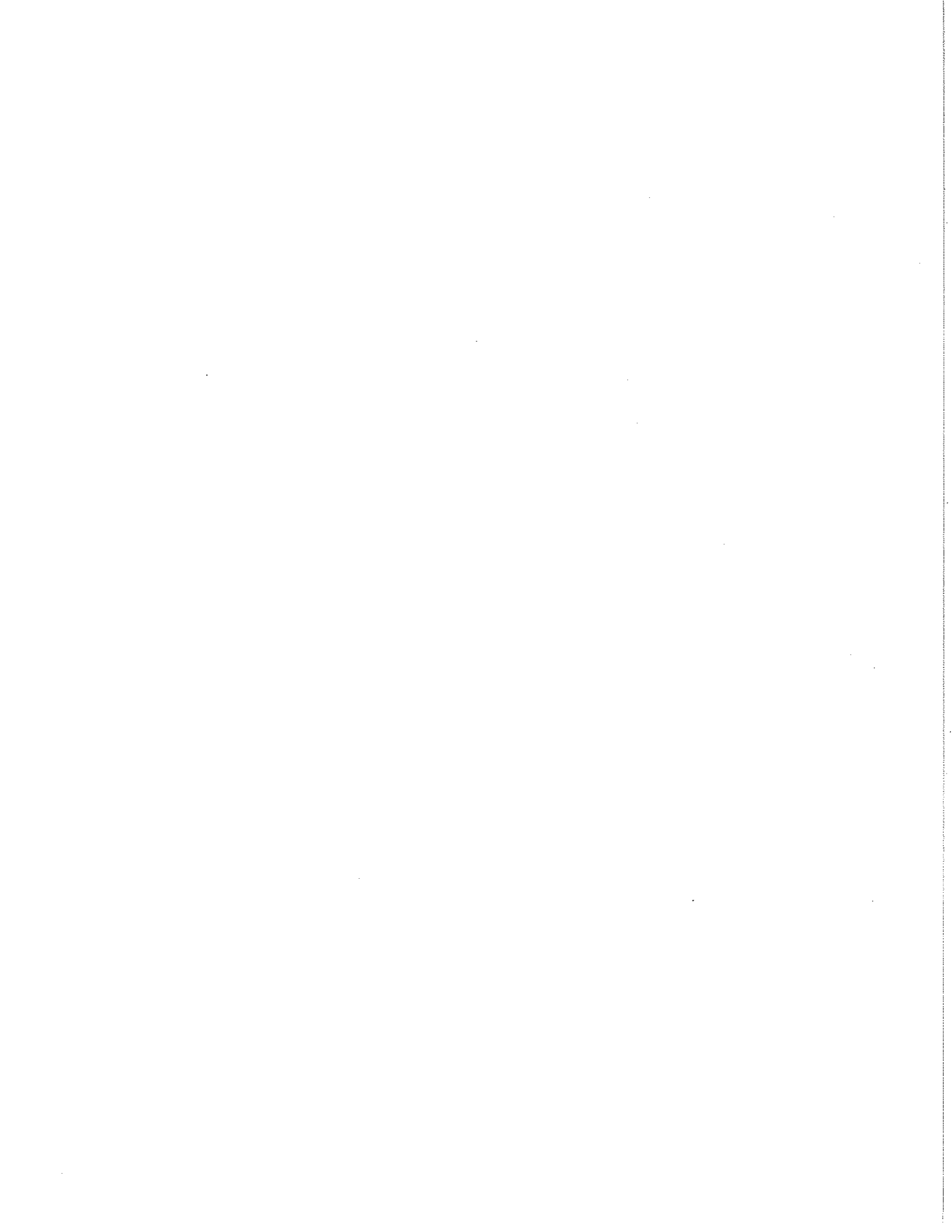
# Operation and Maintenance Manual

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## Angle Brooms

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Big Dawg Series



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# Introduction

## Importance of this Manual



Read this manual before attempting to operate the equipment.

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 inform 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.

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## Optional Equipment

Installation instructions for optional equipment, if applicable, appear in the Service Manual Section.

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## Specifications & Features

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

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## 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 Information


## 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 or serious 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 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.
- Make sure all hydraulic hardware and hydraulic fittings are tight.
- Replace any damaged or fatigued hardware with properly rated fasteners.
- Replace any damaged or fatigued fittings or hoses.

- 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 proper tire 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 a long-sleeve shirt buttoned at the cuffs; safety glasses, goggles or a face shield; ear protection; and a dust mask.

While Sweeping:

When sweeping, adhere to all government rules, local laws and other professional guidelines for your sweeping 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. See Operation Section: Operating Tips.

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. See Product Information Section.

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.

SAFETY SECTION  
GENERAL SAFETY INFORMATION

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### Operation (continued)

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 needed repairs during operation of the sweeper. Report any needed repairs.

### Service & Repair – General

 **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.

### Service & Repair – Hydraulic Safety

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.

### Hydraulic Safety (continued)

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, damaged tubes, or damaged hoses.

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

Check lines, tubes and hoses carefully. Do not use your bare hand to check for leaks. Use a board or cardboard to check for leaks. Tighten all connections to the recommended torque.

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

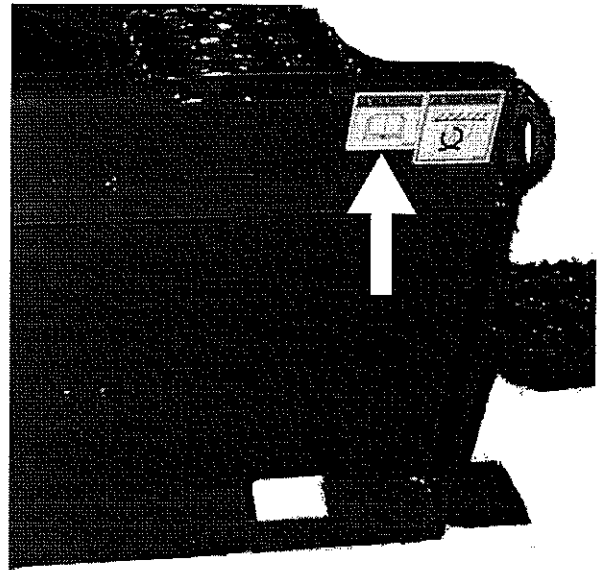
- The end fittings are damaged or leaking.
- The outer covering is chafed or cut.
- The reinforcing wire layer is exposed.
- The outer covering is ballooning locally.
- The hose is kinked or crushed.
- The armoring embedded in the outer cover.
- The hoses have been pulled or stretched.

Make sure that all clamps, guards, and shields are installed correctly. This will help to prevent oil from spraying onto the operator and onto hot engine parts. This will also help to prevent the rubbing of other parts, vibration, and damage while you are operating the sweeper.

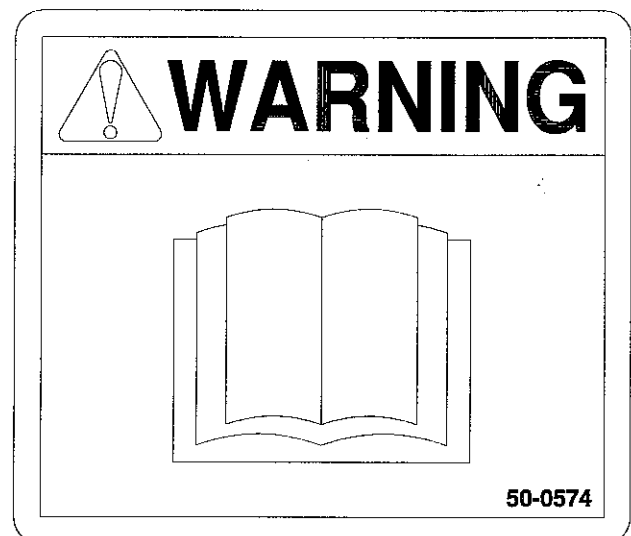
## Safety Signs and Labels

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

Make sure that all the safety signs are legible. Clean the safety signs or replace the safety signs if you cannot read the words. Replace the illustrations if the illustrations are not legible. When you clean the safety signs, use a cloth, water and soap. Do not use solvent, gasoline, or other harsh chemicals to clean the safety signs. Solvents, gasoline, or other harsh chemicals will loosen the adhesive that secures the safety sign. Loose adhesive will cause the safety sign to fall. Replace any safety sign that is damaged or missing. If a safety sign is attached to a part that is replaced, install a safety sign on the replacement part. Contact your SWEEPSTER dealer for replacement safety signs.

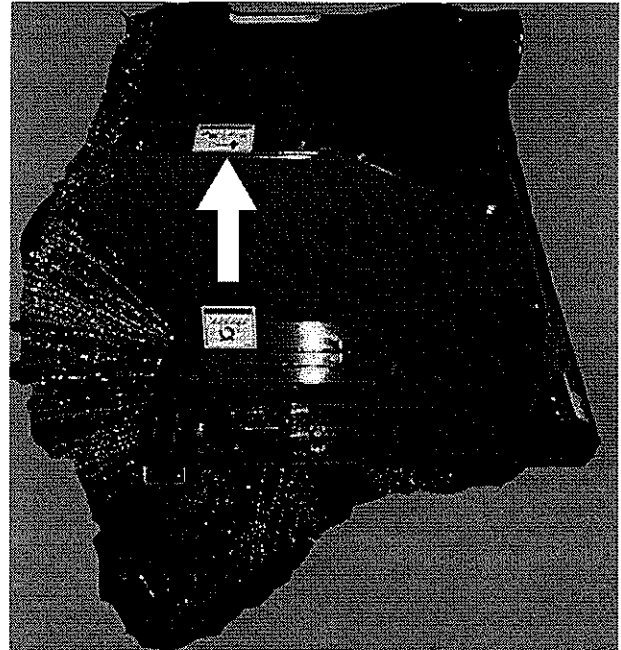


This warning label is located on the back right, of the mounting bracket.



- ! WARNING** – Do not operate or work on this machine or sweeper unless you have read and understand the instructions and warnings in the Operation and Maintenance Manuals and Owner's Manuals. Failure to follow the instructions or heed the warnings could result in injury or death. Contact your SWEEPSTER dealer for replacement manuals. Proper care is your responsibility.

# Safety Signs and Labels

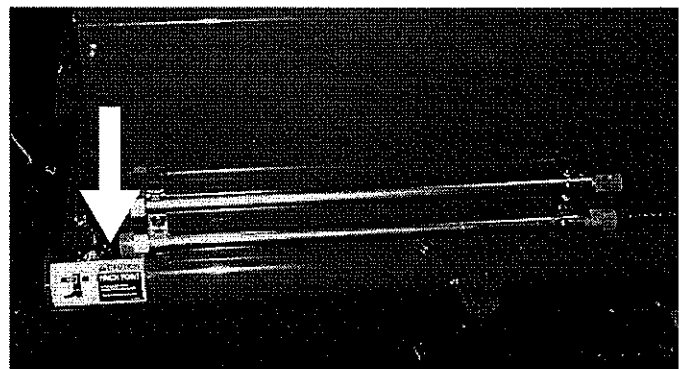
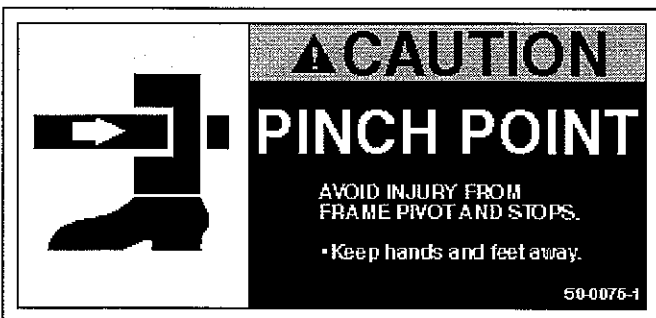



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This warning label is located on the right and left hand side of the brush head hood.

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**WARNING** – Running sweeper is an extreme entanglement danger, keep clear. Flying debris can cause bodily harm never sweep towards people. Stay a safe distance from the machine.




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This warning label is located on the right and left hand side at the rear of the brush head frame.

---

**CAUTION** – Keep clear angling sweeper can cause bodily harm.

## Mounting and Dismounting

- Get on the prime mover only at locations that are equipped with steps and/or handholds. Get off the prime mover only at the locations that are equipped with steps and/or handholds. Utilize the steps that are provided on the sweeper when you get on the prime mover and when you get off the prime mover.
- Before you get on the prime mover, clean the steps and the handholds. Inspect the steps and the handholds. Make all necessary repairs.
- Face the prime mover whenever you get on the prime mover and whenever you get off the prime mover.
- Maintain a three-point contact with the steps and the handholds.

**Note:** Three-point contact can be two feet and one hand. Three-point contact can also be one foot and two hands.

- Do not get on a moving prime mover or on an operating sweeper. Do not get off a moving prime mover.
- Never jump off the prime mover or off the sweeper.
- Do not use any controls as handholds when you enter the operator's compartment or when you exit the operator's compartment.


## Operating Tips

### Before Each Use

Perform daily maintenance as indicated in the Maintenance Schedule.

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

### During Use

 **WARNING** – Avoid serious injury. Check for objects that could harm the operator or others if thrown by the sweeper. Remove these items before sweeping.

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

Avoid excessive downward pressure on the broom in order to prevent excessive wear. A two to six inch wide pattern is sufficient for most applications. Ensure that the top of the broom hood is parallel to the ground in order to prevent an uneven wear pattern. To adjust brush pattern see Maintenance Section.

### Directing Debris

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

Direct debris by angling the brush head in that direction.

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

If necessary, use the dust suppression kit to suppress the dust.

### Manual Angle Kit

1. Remove the lock pin from links.
2. Position the brush head at the desired angle, aligning holes in the inner and outer link.
3. Insert and close the lock pin.

### Hydraulic Angle Kit

1. Start the prime mover.
2. Position the brush head at the desired angle by using the valve control for swing function.

## Operating Tips

**IMPORTANT** – Avoid sweeper damage. Do not ram into piles. Use a dozer blade for this type of job.

### Brush, Engine & Travel Speeds

Vary 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 in the next pass.

### Snow

Fast brush speeds and slow travel speeds are needed to sweep snow 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 or so it follows the brush angle.

### 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 or in the direction the brush head is angled.

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

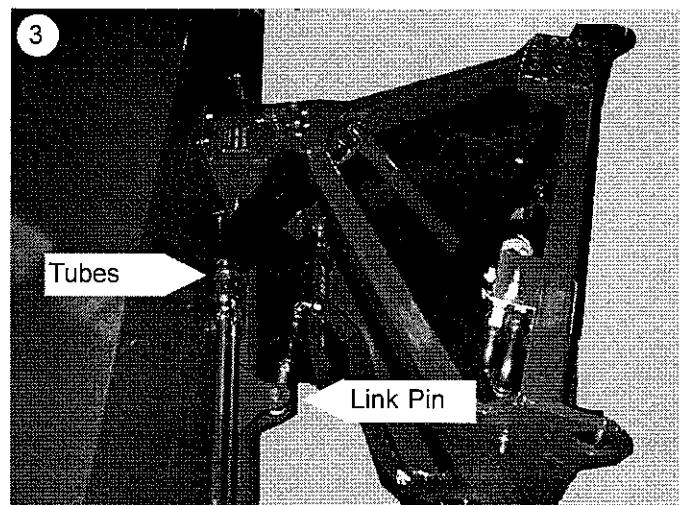
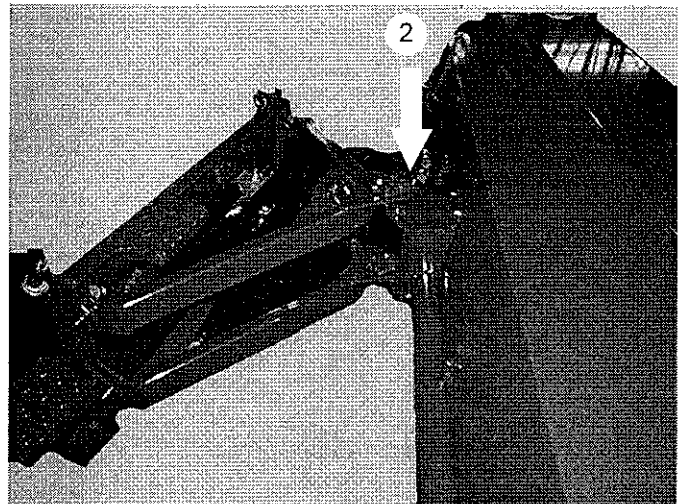
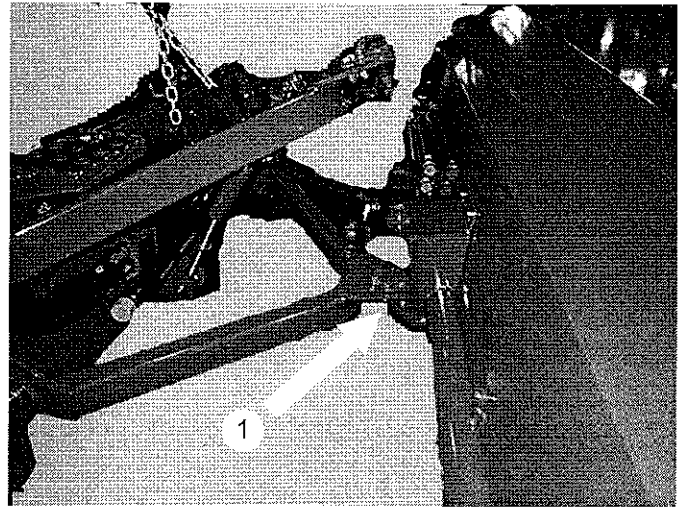
Travel slowly – less than 5 mph (8 kph).

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

Increase engine speed if debris becomes very heavy.


## Sweeper Assembly (Mounting To Brush Head)

1. Attach ball joint on bottom swing arm to bottom swing plate on brush head. Secure with castellated nut and pin(1).
2. Attach ball joint on top swing arm to top swing plate on brush head. Secure with castellated nut and pin(2).
3. Attach top hose(tank port from manifold) to top tube on brush head frame(3).
4. Attach bottom hose(run port from manifold) to bottom tube(3).
5. Insert manual link or hydraulic cylinder between slots located on back of brush frame. Secure with one cotter pin and one clevis pin(3).



## Sweeper Assembly (Broom to Prime Mover)

### Sweeper Installation

 **WARNING** – Improper attachment of sweeper could result in injury or death. Do not operate this machine until you have positive indication that the coupler pins are fully engaged.

To check for engagement:

1. Keep the sweeper close to the ground.
2. While the lift arms are fully lowered, visually inspect the quick coupler to ensure that the coupler pins are fully extended through the corresponding holes of the sweeper mounting bracket.

## Installing the Sweeper

1. Position the angle broom on a level surface.
2. Ensure that the coupler pins are in the disengaged position.
3. Enter the machine.
4. Fasten the seat belt.
5. Start the engine.
6. Disengage the parking brake.
7. Tilt the quick coupler assembly forward.
8. Align the quick coupler assembly between the outer plates of the mounting bracket. Move the quick coupler assembly under the angled plate of the mounting bracket. Rack back the angle broom.
9. Tilt the angle broom back until the front stands are slightly off the ground.
10. Engage the parking brake.
11. Stop the engine.
12. Cycle controls to relieve any pressure within the auxiliary hydraulic lines.
13. Exit the machine.
14. Move the coupler pins to the engaged position.
15. Raise front stands and secure.
16. Ensure that the quick disconnect couplings are clean. Connect auxiliary hydraulic lines for the angle broom to the prime mover. Twist the collar of the quick disconnect for one quarter of a turn in order to secure the hydraulic connections.
17. If the angle broom is equipped with hydraulic angling, connect wire harness to the host machine.
18. While the loader arms are lowered, visually inspect the quick coupler in order to ensure that the coupler pins are fully extended through the corresponding holes of the sweeper mounting bracket.



## Removing the Sweeper

**WARNING** – Disengaging the coupler pins will release the sweeper from control of the operator. Serious injury or death may result from disengaging the sweeper when the sweeper is in an unstable position or carrying a load. Place the sweeper in a stable position before disengaging the coupler pins.

**IMPORTANT** – Auxiliary hoses for sweepers must be removed before the quick coupler is disengaged. Pulling the sweeper with the auxiliary hoses could result in damage to the prime mover or the sweeper.

1. Lower front storage stands and secure in the STORAGE position (top hole).
2. Lower the angle broom until the stands are slightly off the ground.
3. Place the direction control in NEUTRAL. Engage the parking brake.
4. Stop the engine.
5. Cycle controls to relieve any pressure within the auxiliary hydraulic lines.
6. Exit the machine.
7. Disconnect the auxiliary hydraulic lines from the prime mover.
8. Disconnect the wiring harness (if equipped) from the prime mover.
9. Move the coupler pins to the DISENGAGED position.
10. Enter the machine.
11. Fasten the seatbelt.
12. Start the engine.
13. Disengage the parking brake.
14. Slowly, lower the angle broom onto the stands.
15. As you slowly back away from the mounting bracket, tilt quick coupler assembly forward until the top of quick coupler assembly clears the angled plate.
16. Back away from the angle broom.

## Storage

Never rest the broom on the bristles. Resting the broom on the bristles could cause the bristles to become deformed and unbalanced. Use the stands in order to support the broom when the broom is not operating.

**IMPORTANT** – Do not store the sweeper with weight on the brush. Weight will deform the bristles, destroying the sweeping effectiveness. To avoid this problem, place the sweeper on blocks or use stands.

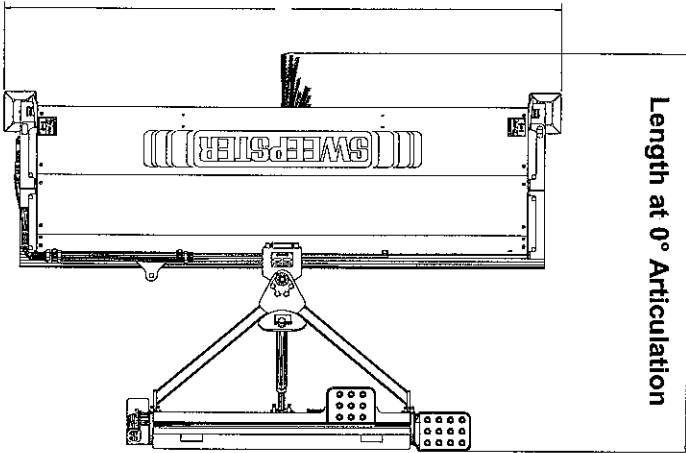
Do not store polypropylene brushes in direct sunlight. The material can deteriorate and crumble before the bristles are worn out.

Keep polypropylene brush material away from intense heat or flame.

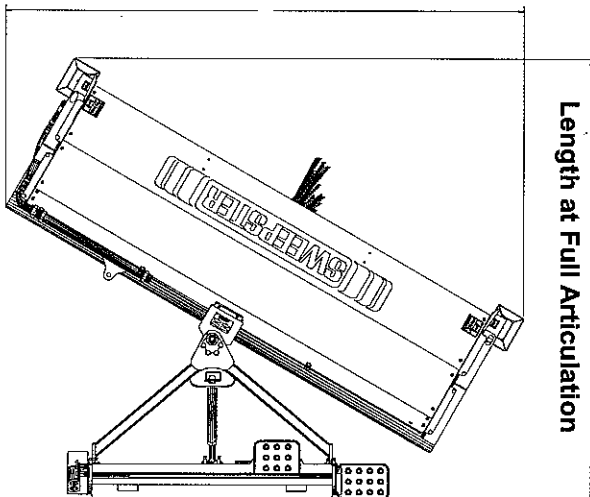
# Product Information Section

## Specifications and Model Views

Width at 0° Articulation



Width at Full Articulation



S32L Angle Broom	
Approximate Weight	960 lbs (S325L) 990 lbs (S326L) 1050 lbs (S327L) 1080 lbs (S328L)
Maximum Length at 0° Articulation	69 inches (all)
Maximum Width at 0° Articulation	73 inches (S325L) 85 inches (S326L) 97 inches (S327L) 109 inches (S328L)
Maximum Length at Full Articulation	76 inches (S325L) 79 inches (S326L) 82 inches (S327L) 85 inches (S328L)
Maximum Width at Full Articulation	76 inches (S325L) 86 inches (S326L) 96 inches (S327L) 106 inches (S328L)
Range of Hydraulic Oil Flow	8-25 gpm
Range of Hydraulic Oil Pressure	1200-3000 psi

## Serial Number Plate Location

For quick reference, record the serial number in the space that is provided below the illustration. The serial number plate is located on top of brush head swing box.



Angle Broom Serial Number \_\_\_\_\_

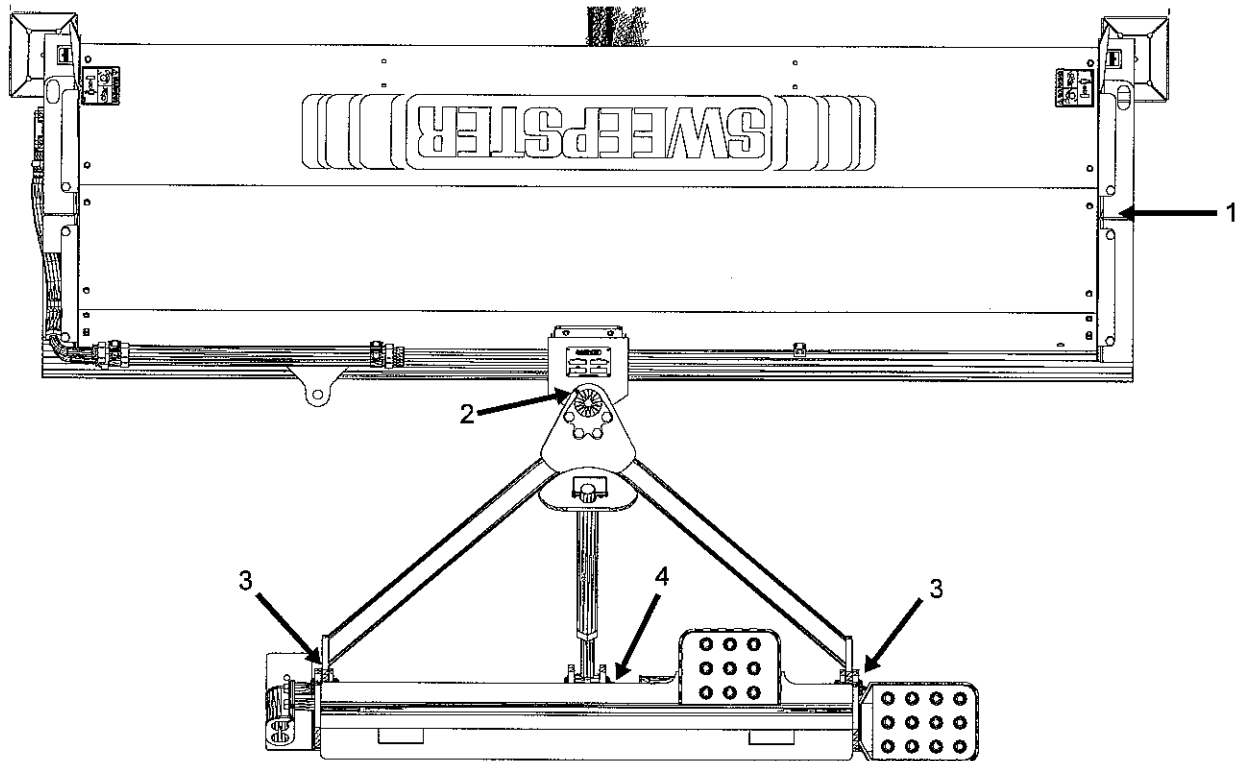
MAINTENANCE SECTION  
LUBRICATION POINTS

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## Lubricating Zerk Fittings

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

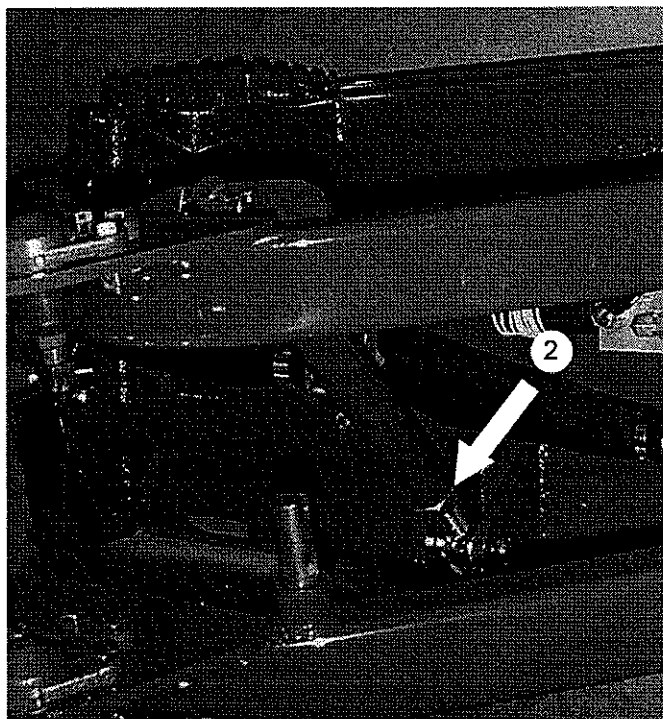
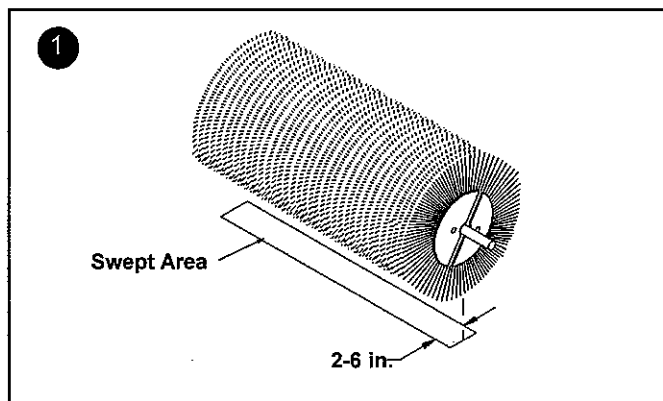
1. Core bearing (1 fitting)
2. Ball Joints (1 fitting each)
3. Swing Arm pivot pins (2 per arm)
4. Lift Rod pivot pin (1 fitting)



## 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 mover's parking brake and leave the engine running.
3. Start the sweeper at a slow speed; then, lower the boom arms until they bottom out.
4. Rotate quick attach until top of hood is level.
5. Run the sweeper in a stationary position for 10 seconds.
6. Raise the sweeper and back away; switch off the engine and remove the key. The brush pattern left in the dust should be 2-6 in. wide, running the length of the brush(1).
7. Adjust the brush pattern as necessary according to the following instructions.



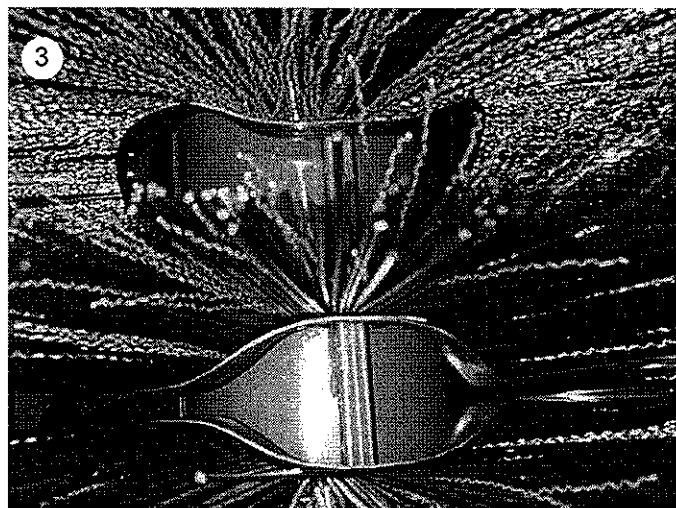
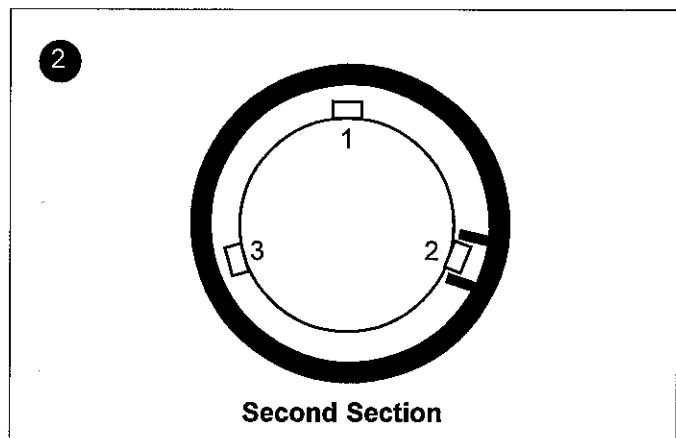
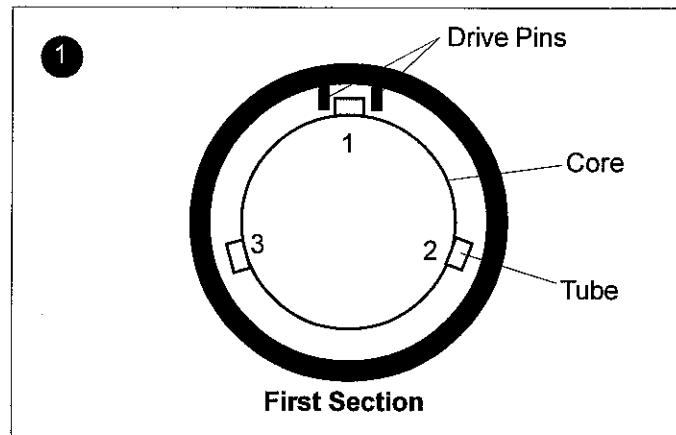
## Adjusting Brush Pattern

The lift rod assembly keeps the sweeper level. However, as the brush wears, adjustments may be necessary. To adjust brush pattern turn nut on lift rod assembly(2). Raising the nut up will lessen brush pressure and decrease the width of the brush pattern. Turning the nut down will increase pressure on brush and widen brush pattern. To relieve pressure from nut when adjusting, rotate quick attach forward until tube raises from nut.

MAINTENANCE SECTION  
REPLACING BRUSH SECTIONS

## Replacing Brush Sections

1. Remove four motor mount screws. Retain hardware for reinstallation. Remove motor mount.
2. Detach four bearing screws from brush frame. Retain hardware for reinstallation.
3. Remove core from brush head assembly.
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 (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 (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 (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. Attach the core hat plate using three M6 x 30mm cap screws and three M6 lock washers.
8. Slide core into brush frame.
9. Attach four bearing side screws with previously removed hardware.
10. Attach motor mount with hardware removed in previous step.



## Schedule

Procedure	Before Each Use	After Each Use	100 Hours	500 Hours	See Prime Mover Manual
<b>Brush pattern</b> – Check (See Pattern Adj. Section)	✓				
<b>Fittings/hoses, hydraulic</b> –Tighten –Check for damage	✓				
<b>Fittings, zerk</b> – Grease (See Lubrication Points)	✓				
<b>Oil, hydraulic (Prime Mover)</b> – Check Level – Check Cleanliness	✓	See Below for Requirements			
<b>Hardware</b> – Tighten	✓				

## Oil Cleanliness Requirements

**IMPORTANT** – All hydraulic fluid shall be filtered before use in any Sweepster product to obtain the ISO cleanliness standard of 20/18/15. Unless explicitly specified otherwise.

## Fittings/Hoses Inspection Guideline

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, damaged tubes, or damaged hoses.

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

Check lines, tubes and hoses carefully. Do not use your bare hand to check for leaks. Use a board or cardboard to check for leaks. Tighten all connections to the recommended torque.

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 armoring embedded in the outer cover.
- The hoses have been pulled or stretched.

Make sure that all clamps, guards, and shields are installed correctly. This will help to prevent oil from spraying onto the operator and onto hot engine parts. This will also help to prevent the rubbing of other parts, vibration, and damage while you are operating the sweeper.





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# **Service Manual**

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## **Angle Brooms**

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### **Big Dawg Series**

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# Assembling the Quick Attach

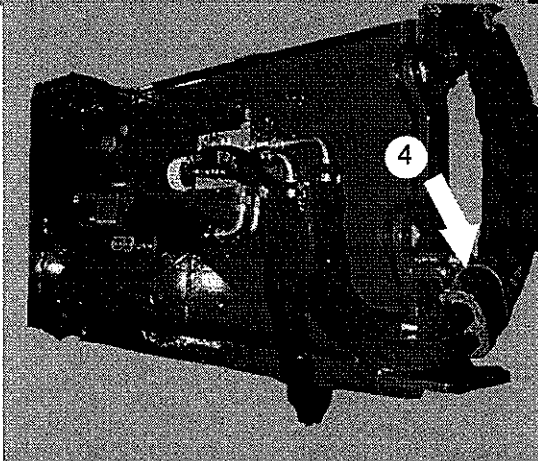
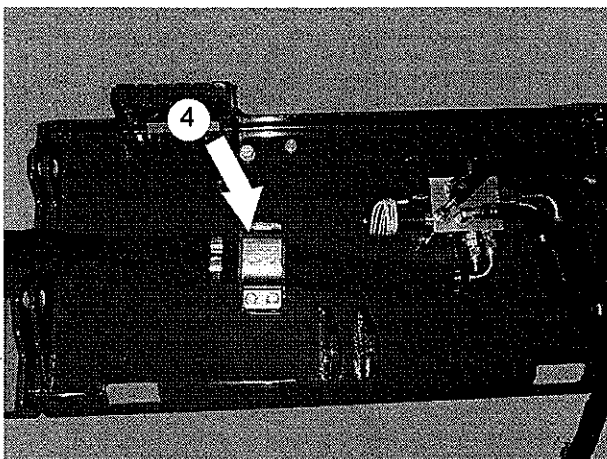
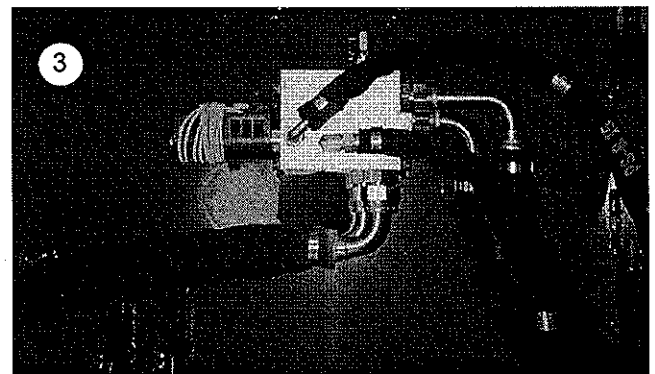
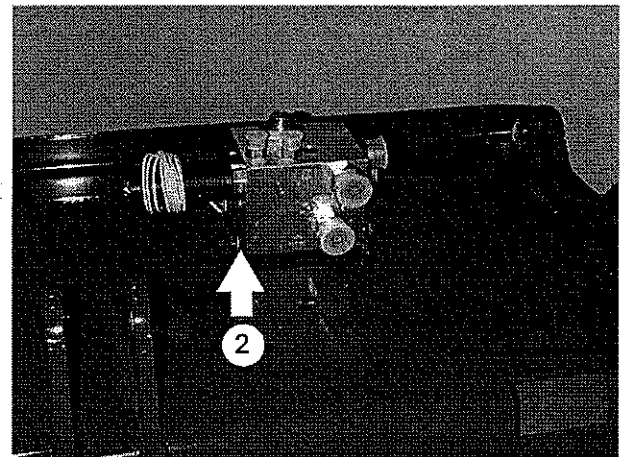
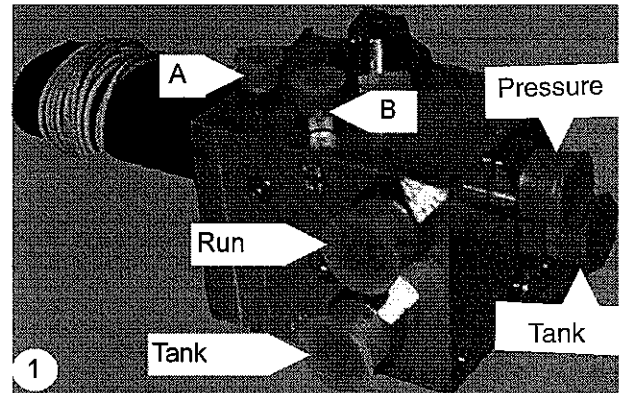
## Hydraulic Manifold

**NOTE** – Keep all hydraulic components capped, until ready for assembly, to avoid hydraulic contaminants.

**NOTE** – Refer to Parts Manual for proper descriptions and part numbers.

If the sweeper is equipped with a hydraulic angle follow these steps for assembly. See the Assembling Manual Angle page for manual angle specific instructions.

1. Oil each o-ring, attach fittings to manifold, and tighten fittings to proper torque requirements. See appendix for torque specifications(1).
2. Attach manifold to quick attach plate using four 3/8 x 1 screws and lock washers(2).
3. Remove caps from hoses and valve fittings, apply oil to O-Rings, and attach hoses to manifold. Tighten to specifications located in appendix(3).
4. Clamp hoses using two M12 x 30mm screws and two M12 washers and one clamp per side(4).

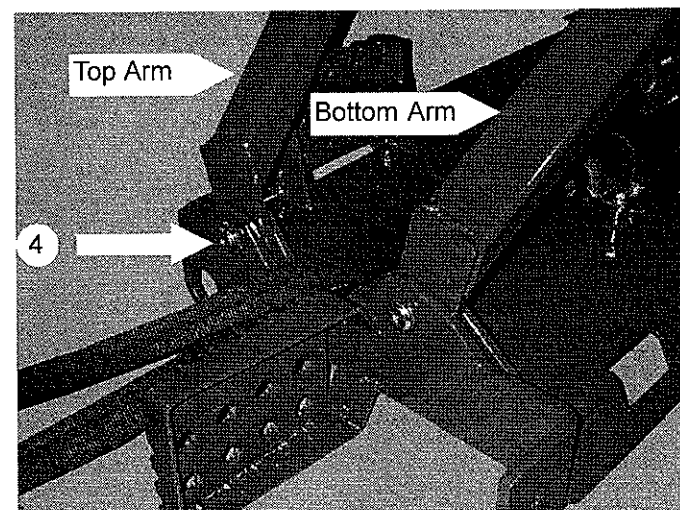
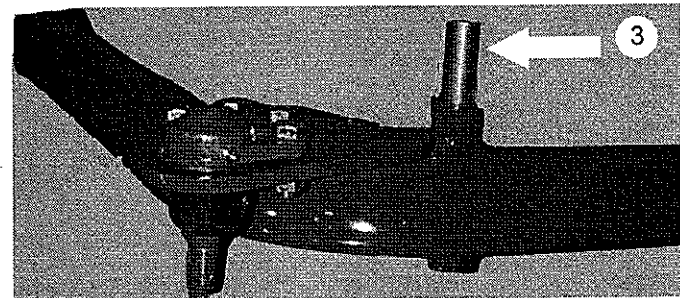
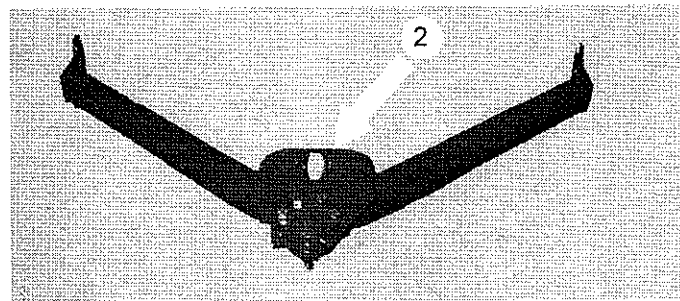
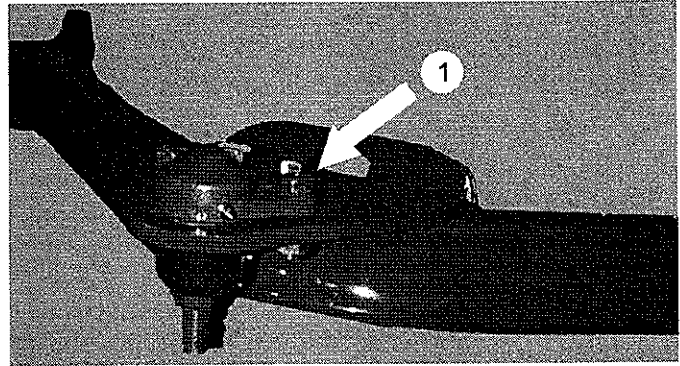


SERVICE MANUAL  
ASSEMBLING QUICK ATTACH ARMS

## Assembling the Quick Attach

### Lift Arms

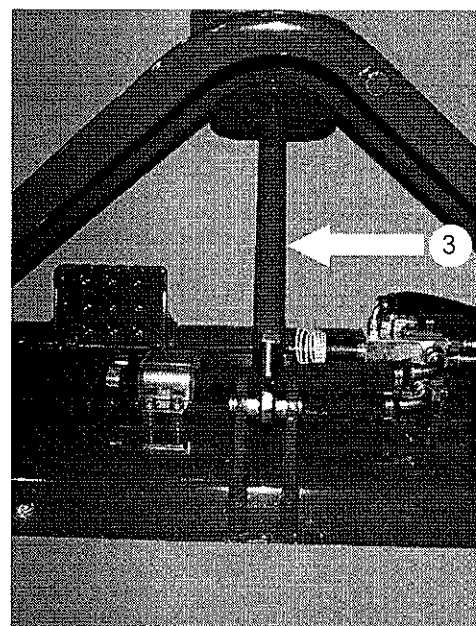
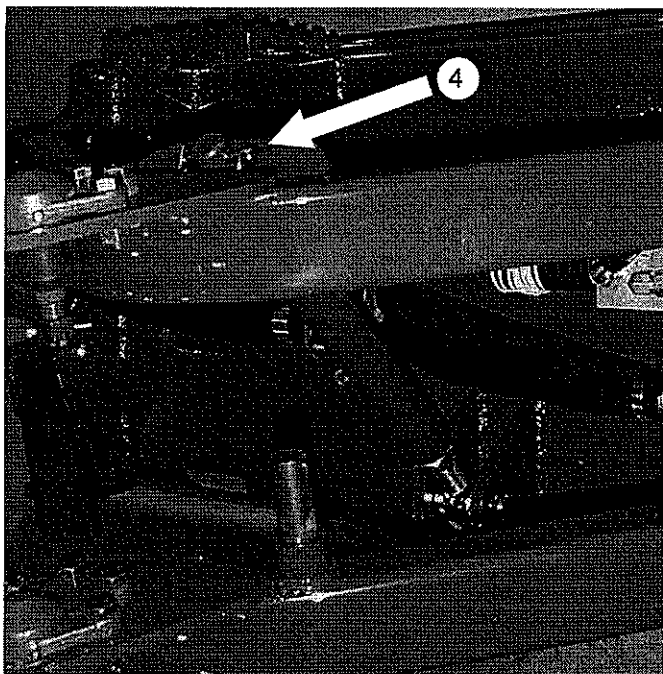
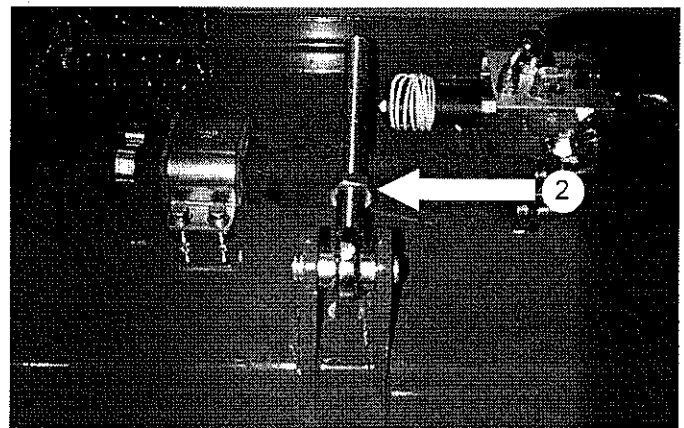
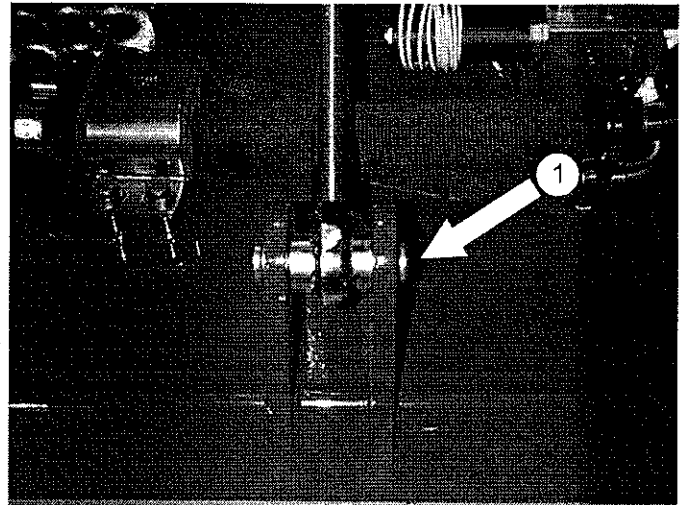
1. Attach ball joint pin down on both arms. Attach using four M12 x 40mm screws, four M12 lockwashers and four M12 nuts(1).
2. Top arm has angled plate(2).
3. Bottom arm has pin(3).
4. Ready pivot pins by inserting zerk fitting and attaching one snap ring.
5. Insert arms into slots on quick attach plate.
6. Secure arms with pivot pins from step 4. Zerk fittings should be on outside. Secure pins with second snap ring(4).



## Assembling the Quick Attach

### Lift Rod

1. Ready pivot pin by inserting zerk fitting and attaching one snap ring.
2. Attach threaded lift rod to quick attach plate using pivot pin from step 1. Secure with second snap ring(1).
3. Install nut onto threaded rod attached to quick attach plate in step 2. Nut should be approximately five inches from pin for new brush(2).
4. Slide lift sleeve onto lift rod and insert through lift plate on top arm(3).
5. Secure lift rod assembly to angled plate on top quick attach arm with lock pin(4).

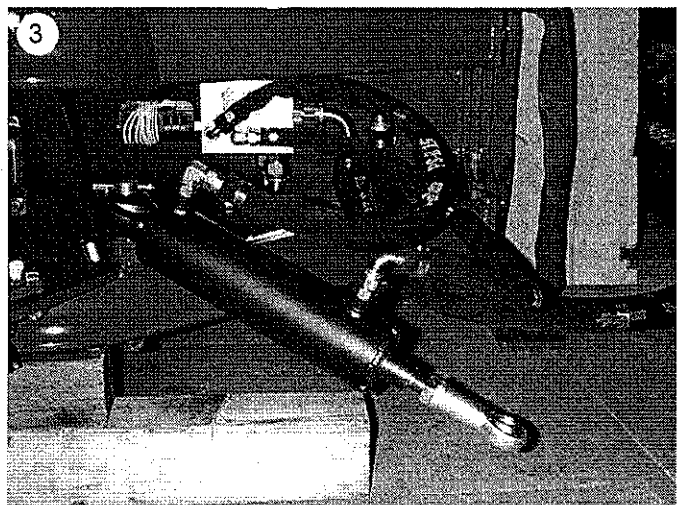
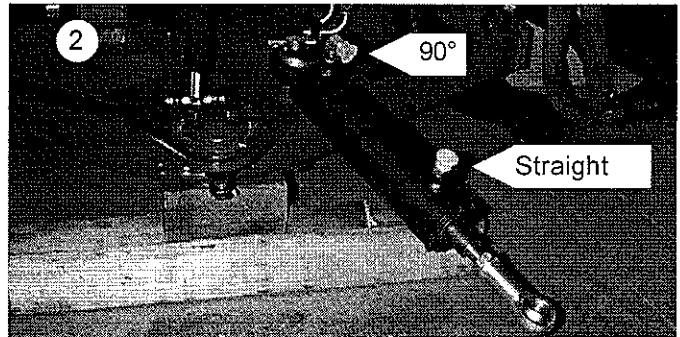
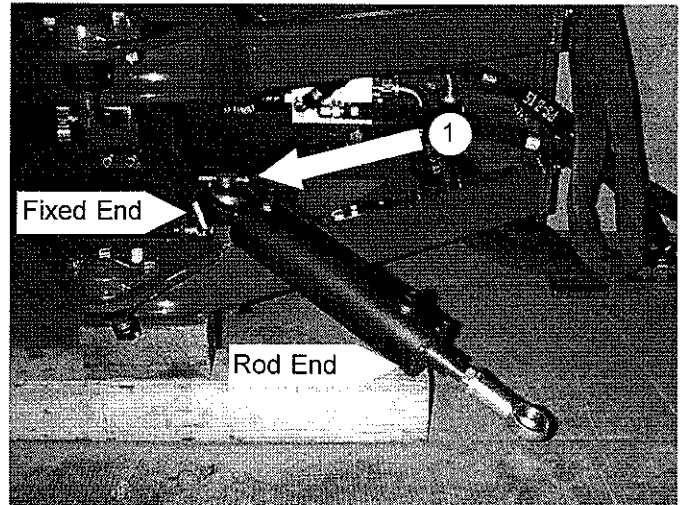


## Assembling the Quick Attach

### Hydraulic Angle Link

**NOTE** – Keep all hydraulic components capped, until ready for assembly, to avoid hydraulic contaminants.

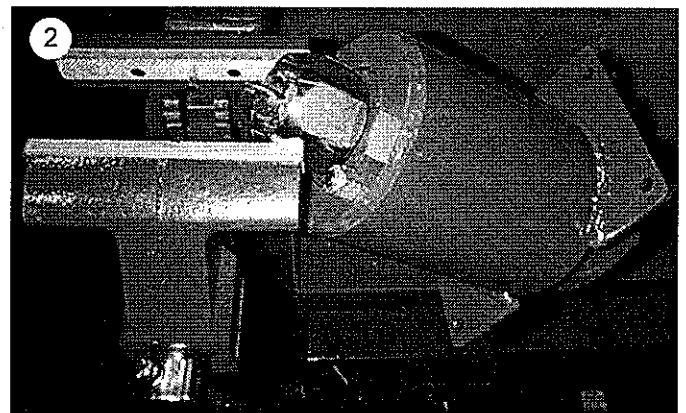
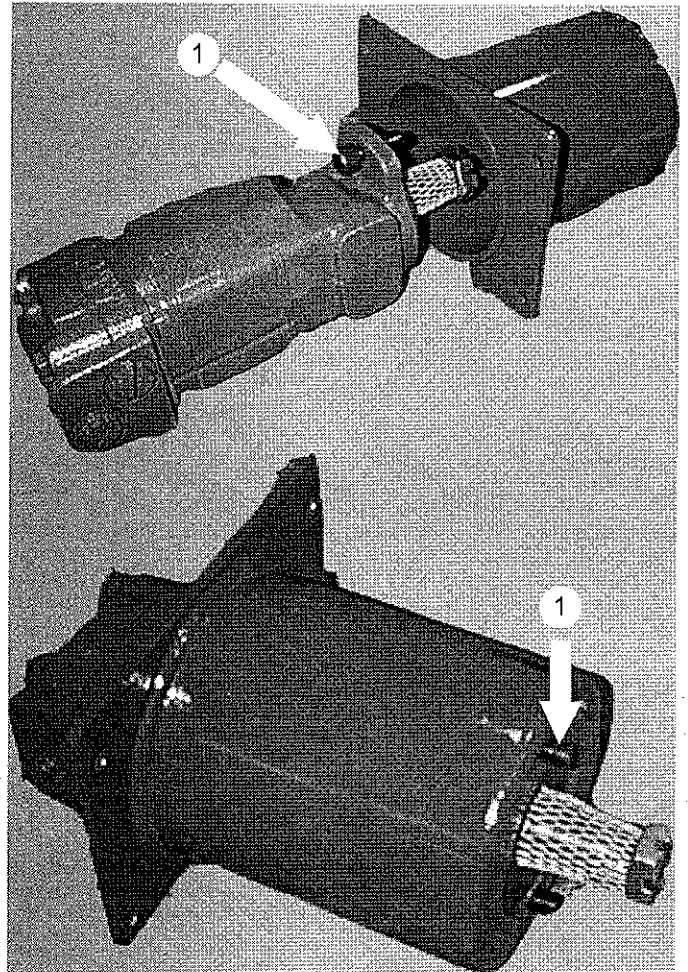
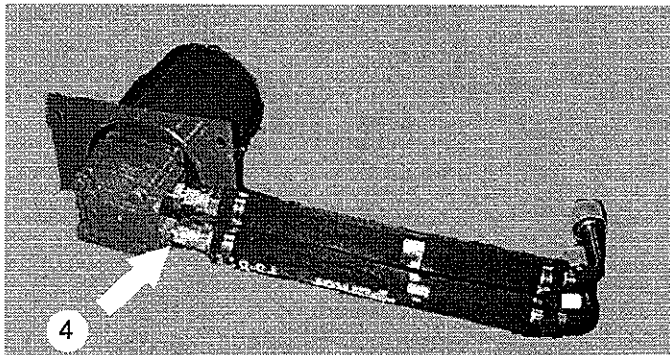
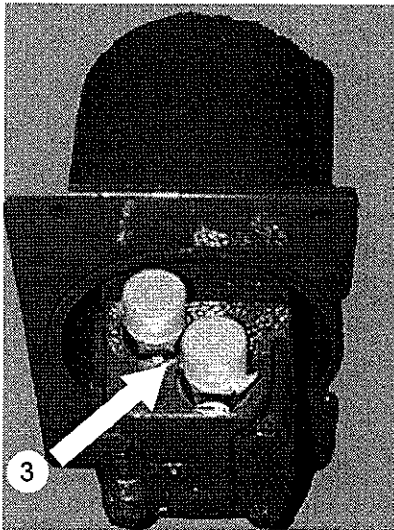
1. Attach cylinder fixed end to bottom quick attach arm and secure using one cotter pin(1).
2. Attach hydraulic fittings to cylinder as shown. 90° fitting in port nearest fixed end of cylinder. Straight fitting near rod end(2). Refer to appendix for proper torque rating.
3. Attach hose from "A" port on manifold to 90° fitting on cylinder. Attach hose from "B" port on manifold to straight fitting on cylinder(3). Refer to appendix for proper torque rating.



## Assembling the Brush Head

### Brush Head Motor Assembly

1. Attach motor to mounting bucket using two M12 x 35mm socket head screws, two M12 lock washers and two M12 hex nuts(1). Tighten to 80 ft/lbs.
2. Remove castellated nut from motor shaft, install hex hub onto motor shaft align key on motor shaft with key way on hub. Clamp hub to prevent shaft from rotating. Reattach castellated nut and tighten down. Insert hairpin clip to insure nut doesn't slip(2).
3. Attach fittings to motor ports. See Parts Manual for proper fitting size(3). See appendix for proper torque.
4. Attach hoses to fittings(4). See appendix for proper torque.

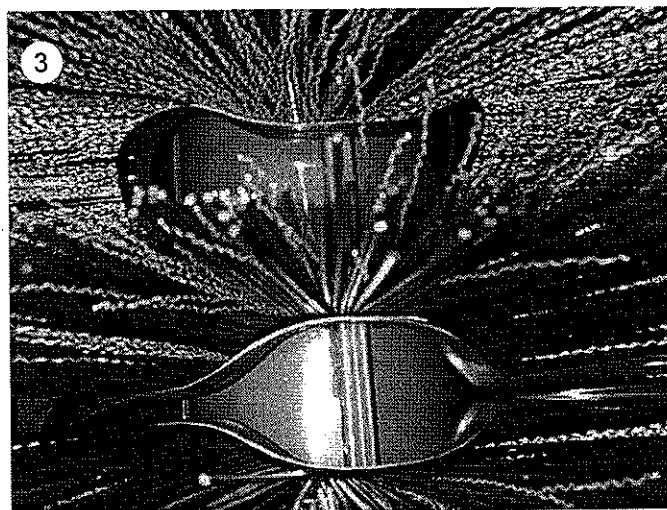
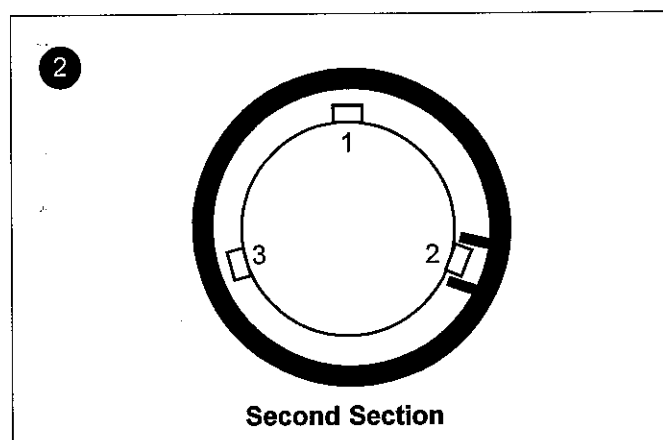
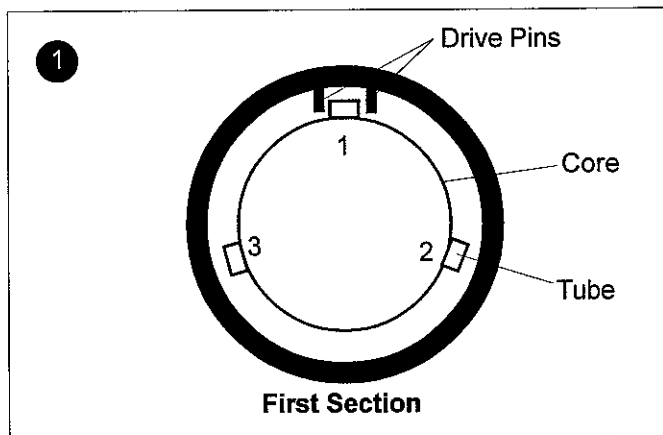




## Assembling the Brush Head

### Brush Core Assembly

1. Install new sections by doing the following:
  - a. Number the tubes on the core as 1, 2 and 3 (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 (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 (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.
2. Attach the core hat plate using three M10 x 25mm cap screws and three M10 lock washers.
3. Sections properly installed should form pockets as shown(3).

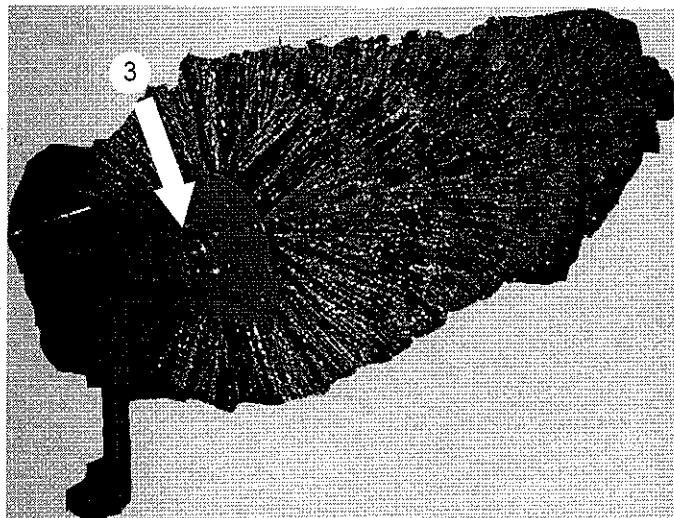
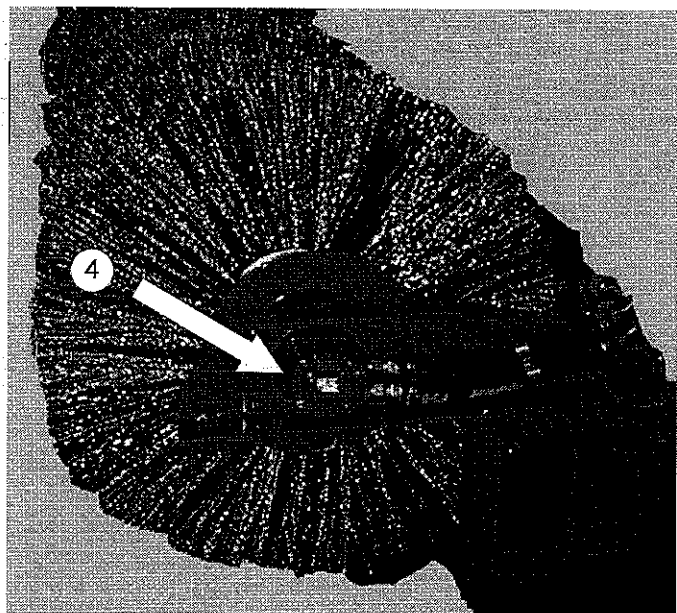
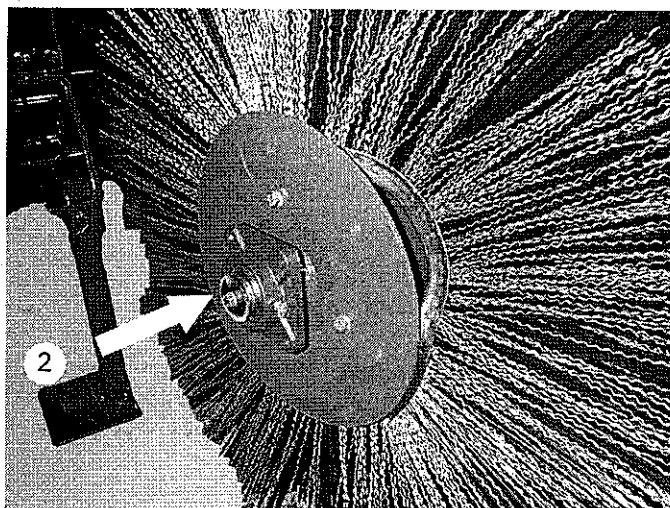
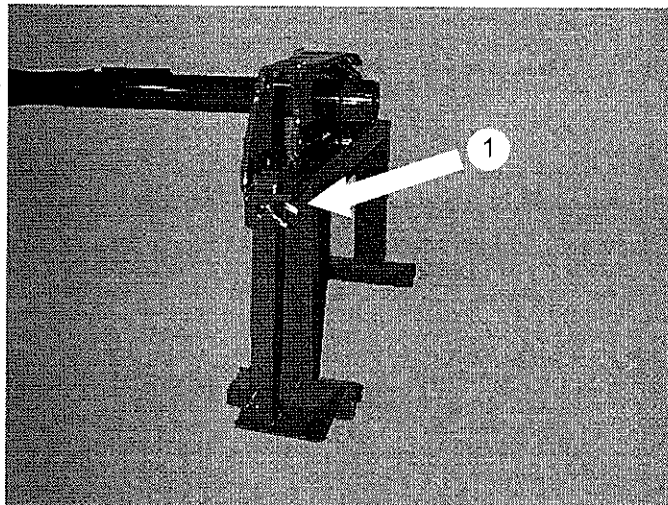




## Assembling the Brush Head

### Brush Head Assembly

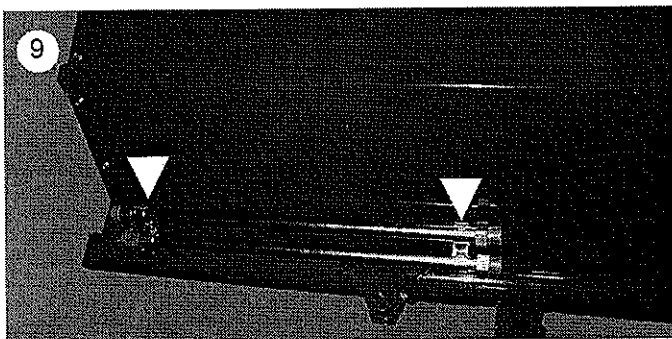
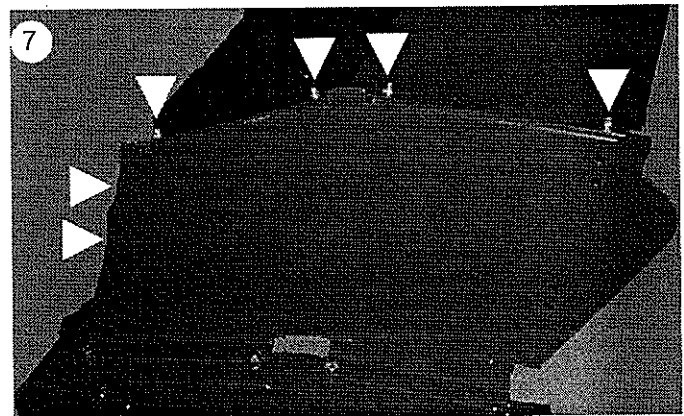
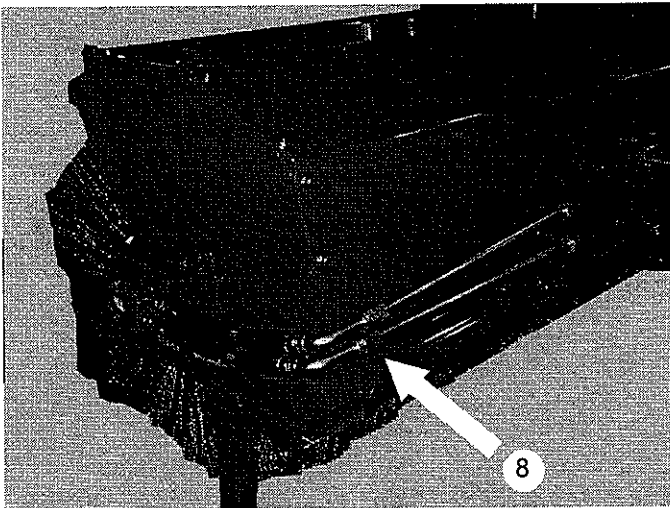
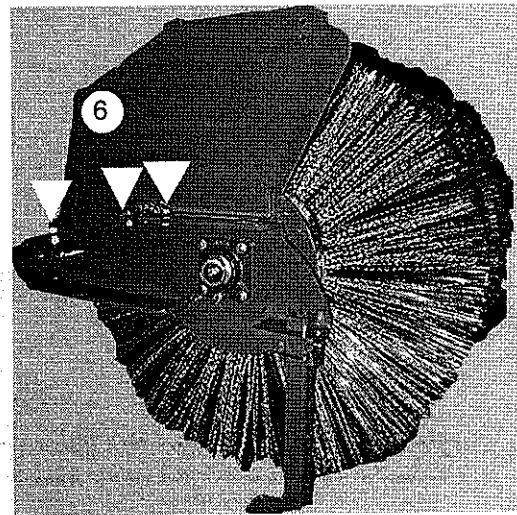
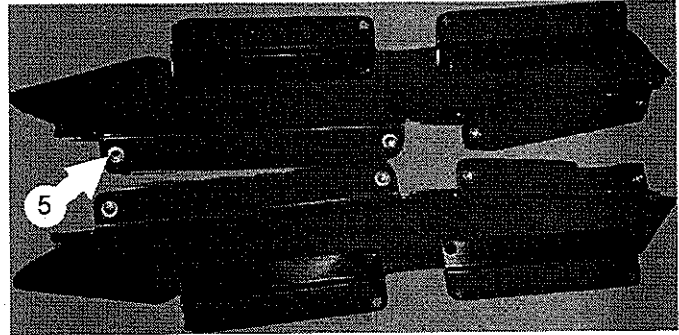
1. Use jack stands or a crane and wooden blocks to keep brush frame level.
2. Attach brush head stands to both sides of brush frame using one lock pin per side(1).
3. Attach bearing to brush head core using one M8 x 25mm, one M8 lock washer and one large O.D. washer. Do not tighten(2).
4. Lift core (with bearing attached loosely) into brush head frame. Attach bearing to frame using four 3/8 x 1 1/2 cap screws, eight 3/8 flat washers and four 3/8 lock washers. Tighten hardware from previous step(3).
5. Attach brush head motor assembly to brush head frame using four 3/8 x 1 1/4 cap screws, four 3/8 lock washers and four 3/8 flat washers(4).



## Assembling the Brush Head

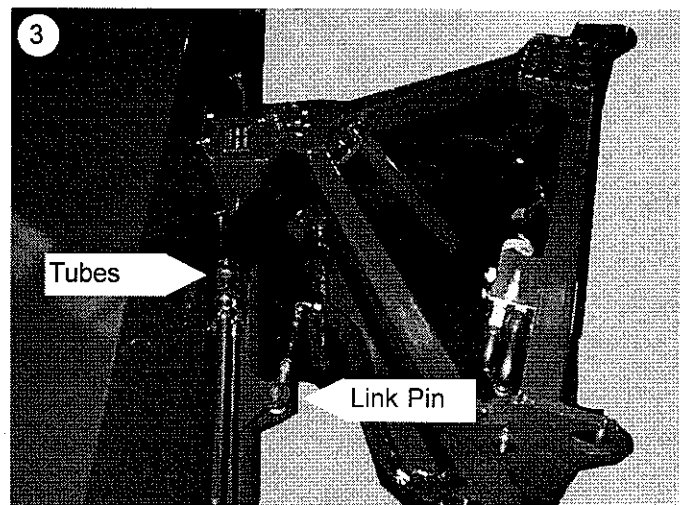
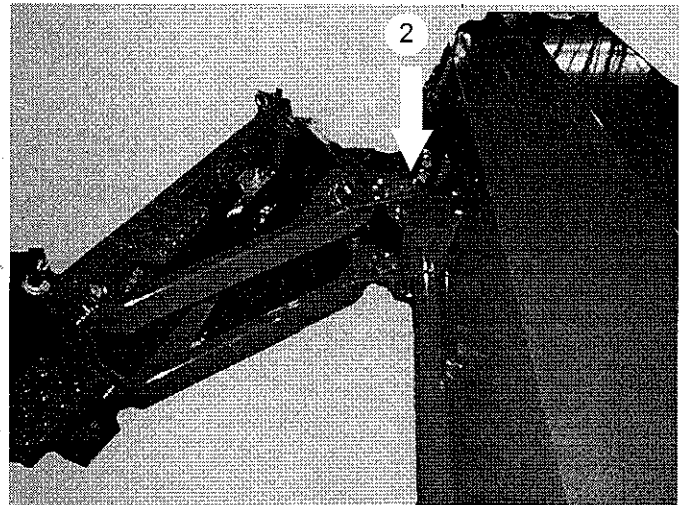
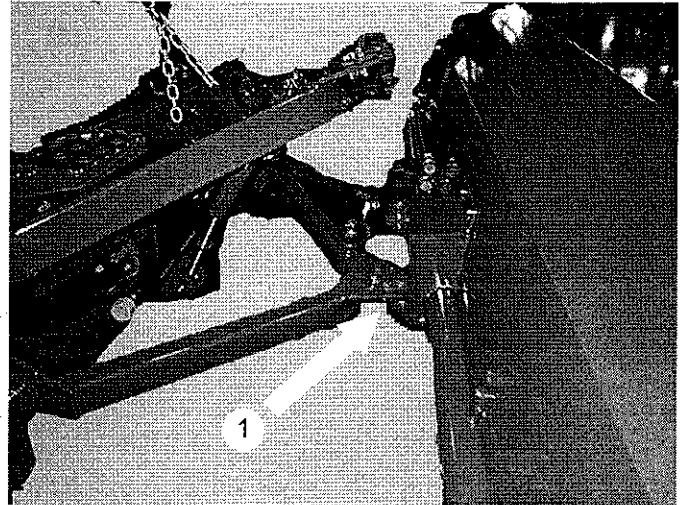
### Brush Head Assembly (continued)

6. Install nut inserts into side sheets prior to attaching to brush head frame(5).
7. Attach side sheets to brush frame using three M10 x 30mm screws, three M10 lock washers and three M10 hex nuts(6).
8. Attach hood to side sheets using six M6 x 20mm screws and previously installed nut inserts on each side(7).
9. Connect hydraulic motor hoses to hydraulic tubes(8).
6. Attach hydraulic tubes to hood using hydraulic clip hardware. See parts list(9).



## Attaching Brush Head to Mounting

1. Attach ball joint on bottom swing arm to bottom swing plate on brush head. Secure with castellated nut and pin(1).
2. Attach ball joint on top swing arm to top swing plate on brush head. Secure with castellated nut and pin(2).
3. Attach top hose(tank port from manifold) to top tube on brush head frame(3).
4. Attach bottom hose(run port from manifold) to bottom tube(3).
5. Insert manual link or hydraulic cylinder between slots located on back of brush frame. Secure with one cotter pin and one clevis pin(3).



**Brush Head Assembly**

Problem	Possible Cause
Motor for angle broom will not operate	Auxiliary 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 angle broom are obstructed
	If broom is equipped with hydraulic swing, the relief valve of the diverter valve is stuck open
	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
	If broom is equipped with hydraulic swing, the relief valve of the diverter valve is not adjusted properly
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 Head Assembly**

<b>Problem</b>	<b>Possible Cause</b>
Brush rotates in wrong direction	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
	Relief pressure set too low
	Hydraulic motor is failing
Brush wears very quickly	Brush pattern is too wide

**Hydraulic Assembly**

<b>Problem</b>	<b>Possible Cause</b>
Excessive hydraulic oil temperature	Low hydraulic oil level on the prime mover
	Hydraulic hoses are obstructed
	Hydraulic oil is dirty
	Relief valve on the prime mover is not adjusted properly
	Quick couplers loose
Angle cylinder does not function correctly or does not function at all	Valve of the diverter valve is stuck
	Connectors for the wiring harness are not connected properly to the solenoids
	Connector for the wiring harness is not connected properly to the host machine
	One or both solenoids are suspect
	Relief valve of the diverter valve is not adjusted properly
Hydraulic quick coupler leaks	Quick coupler poppet is unseated
Hydraulic cylinder neither extends nor retracts	Hydraulic oil level too low
	Hoses or fittings loose or disconnected
	Restriction in hoses
	Relief valve of the diverter valve is not adjusted properly
Hydraulic cylinder only extends or only retracts	Dirt or debris in spools
	Relief valve of the diverter valve is not adjusted properly

## Hydraulic to Manual Angle

### Sweepster Part Number 28-9133

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.

1. Unpack parts and then compare them to the parts list. If you discover any shortages, contact SWEEPSTER or your dealer.
2. Remove hydraulic manifold angle(Figure 1) from quick attach plate.
3. Retain hoses. (Items 6, 7, 8 and 9 in Figure 1)
4. Attach bulkhead mounting plate to quick attach plate.
5. Install bulkhead fittings (See parts list page 51) to bulkhead mounting plate.
6. Attach hoses to bulkhead fittings (Figure 2).
7. Install manual angle link to pin on lower quick attach arm and to brush head(Figure 2).

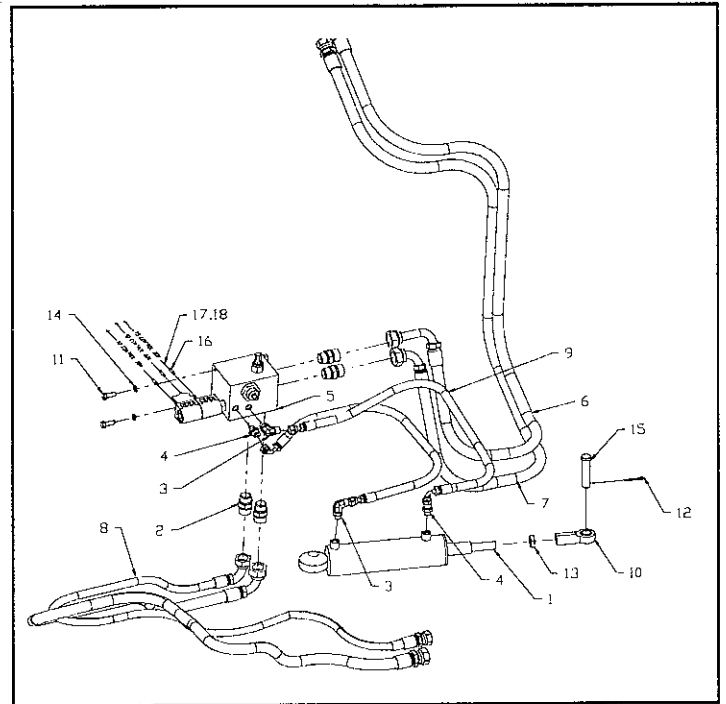


Figure 1

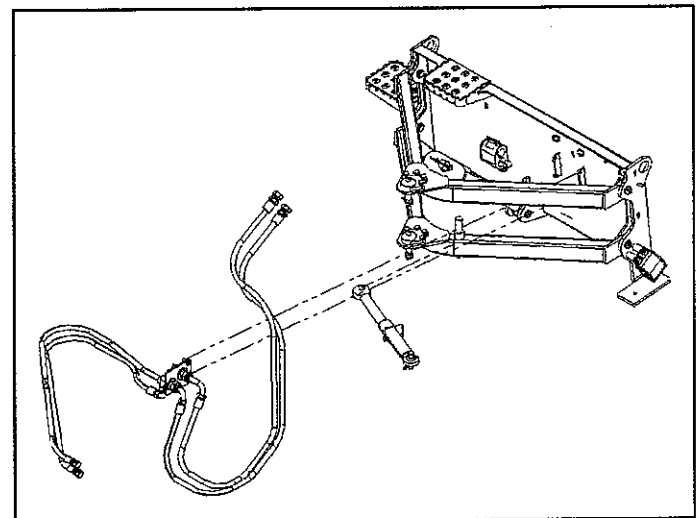


Figure 2

# Manual to Hydraulic Angle

## Sweepster Part Number 28-9141

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.

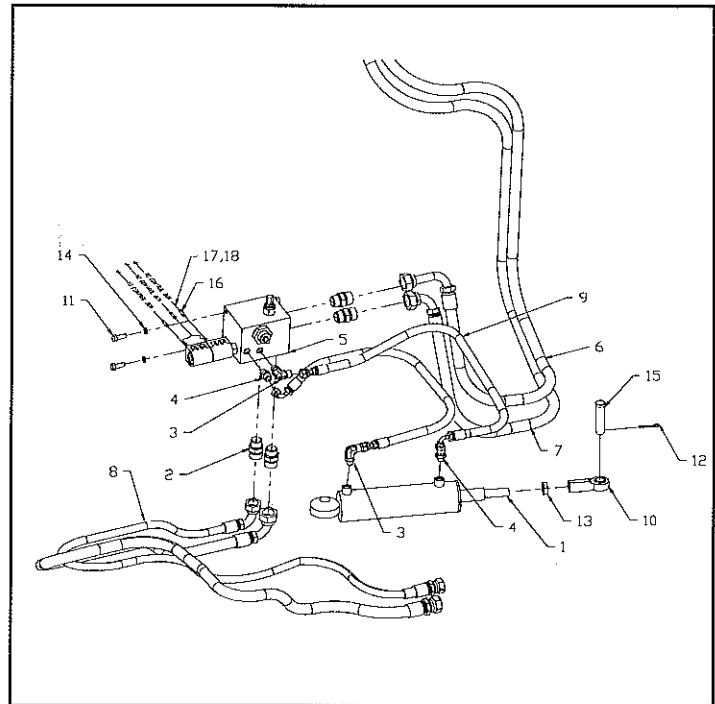


Figure 1

1. Unpack parts and then compare them to the parts list. If you discover any shortages, contact SWEEP-STER or your dealer.
2. Remove manual link and disconnect hoses from bulkhead fittings. Remove bulkhead plate.
3. Retain hoses.
4. Pre-assemble fittings to manifold according to parts diagram.
5. Install manifold to quick attach plate using (4) 3/8-16 x 1 screws and (4) 3/8 lockwashers. Solenoids should point to right hand side of sweeper.
6. Reconnect hoses from prime mover to P (pressure) and T (tank) ports.
7. Reconnect hose from brush head to manifold. Top line from brush head connects to back, bottom on manifold. See parts diagram.
8. Install cylinder in place of manual link. Secure with clevis pin and cotter pins.
9. Attach 3/8 hoses and fittings to cylinder and mate to manifold. See parts diagram.

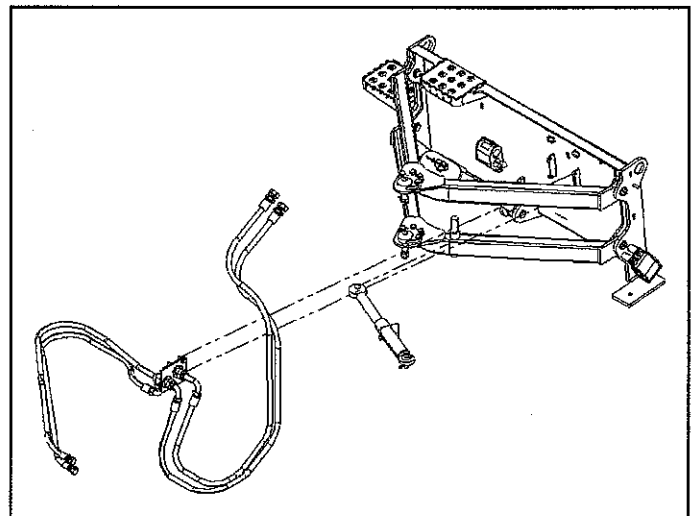


Figure 2



## Sprinkler Kit

### SWEEPSTER Part Numbers:

#### 12 Volt Systems

11-4190 (5 ft)  
11-4045 (6 ft)  
11-4171 (7 ft)  
11-4062 (8 ft)  
11-4262 (9 ft),  
11-4271 (10 ft)

#### 24 Volt Systems

11-4379 (8/9 ft)  
11-5924 (10 ft)

**NOTE** – This kit does not contain a water tank. To purchase a tank from SWEEPSTER, ask for tank 07-3150 (25 gal).

1. Fasten spraybar plates to top of hood using two 3/8 carriage bolts, two 3/8 nuts and two 3/8 lock washers each.
2. Clamp spraybar to plates using U-Bolt. Center the tube left to right and tighten hardware.
3. Secure nozzle and nozzle clamp to bar. Evenly space clamps along bar with elbows and ends as shown in parts list.
4. Attach nozzle tip and secure with tip retainer.
5. Cut pieces of the 3/8 vinyl hose to connect nozzles leaving some slack.
3. Mount the pump within 7 ft of the water tank.
4. Install electric controls (figure 1).
  - a. Find a convenient spot on the prime mover dash to place the toggle switch. Drill a hole with a 13/32 in. bit. Install the switch.

**IMPORTANT** – Avoid prime mover damage. Check behind the dash to make sure that you will not drill into wires or other parts.

- b. Attach the wire cord to wires on the pump using butt end connectors. Black goes to black and white connects to red.
- c. Route the wire cord to the toggle switch.

**IMPORTANT** – Avoid wire damage. Route wire away from hot and/or moving parts.

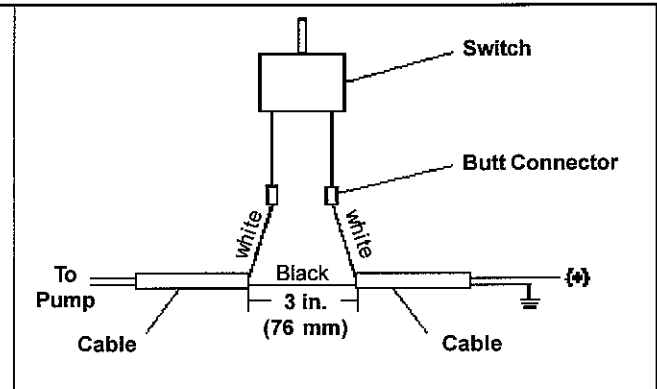


Figure 1

- d. Strip 3 in. (76 mm) of insulation off the wire cord near the switch, taking care not to damage any wires. Cut the white wire. Attach both ends to wires on the toggle switch using butt end connectors.
- e. Route the wire cord to the fuse box keeping it away from hot and/or moving parts.
- f. Connect the white wire to a 15-20 amp fuse or Accessory on the ignition.
- g. Attach the black wire to the tractor frame using the terminal ring to ground the system.
5. Connect the water system. Use thread seal tape at connections.
  - a. Attach a 3/8 in. barb fitting to the outlet on the pump.
  - b. Install 2, 1/2 in.–3/8 in. reducer bushing fittings on the strainer outlet and inlet.
  - c. Use a 3/8 in. nipple fitting to connect the strainer outlet to the pump inlet.
  - d. Attach a 5/8 in. barb fitting to the strainer inlet.
  - e. Connect the 5/8 in. hose to the barb fitting on the strainer. Secure with a 7/8 in. spring clamp.
  - f. Attach a 5/8 in. barb fitting to the water tank. Purchase extra fittings, if needed, to adapt the fitting to the tank.
  - g. Connect the 5/8 in. hose to the 5/8 in. barb fitting. Secure with a 7/8 in. spring clamp.
  - h. Attach the 3/8 in. hose to the pump outlet. Secure with a 5/8 in. spring clamp.

## **Sprinkler Kit**    (Continued)

### **SWEEPSTER Part Numbers:**

#### **12 Volt Systems**

**11-4190 (5 ft)**  
**11-4045 (6 ft)**  
**11-4171 (7 ft)**  
**11-4062 (8 ft)**  
**11-4262 (9 ft),**  
**11-4271 (10 ft)**

#### **24 Volt Systems**

**11-4379 (8/9 ft)**  
**11-5924 (10 ft)**

- i. Route the 3/8 in. hose to the spraybar. Connect the hose to the spraybar and secure with a 5/8 in. spring clamp.

**IMPORTANT** – Avoid hose damage. Route hoses away from hot and/or moving parts.

6. Fill the water tank.
7. Turn on the pump.
8. Adjust nozzles to create a fine curtain of water that falls 8-10 in. away from the brush.

**NOTE** – The sprinkler system is designed to spray a fine mist of water to keep dust at a minimum. It will not saturate the sweeping area with water.

9. Check for leaks or other problems. Make corrections if necessary.
-

## Dirt Deflector Kit

### **SWEEPSTER Part Number: 28-9138**

1. Unpack parts and then compare them to the parts list. If you discover any shortages, contact SWEEPSTER or your dealer.
2. Fasten rubber flap to hood extension using (5) M8 x 25mm screws, (5) M8 nuts, (5) M8 nuts, (5) M8 lockwashers and (5) M8 flatwashers. Do not install hardware on ends.
3. Remove front most screw on top of hood from both sides.

**NOTE** – For steps 4 through 7 it may be best to remove core.

4. Attach hood extension and flap assembly to pre-drilled holes in top of hood using (3) M8 x 25mm screws, (3) M8 lockwashers, (3) M8 flatwashers and 3 M8 nuts.

**NOTE** – Sweepers built before April 2002 may not have predrilled holes. In this case, use extension plate as a template by clamping extension plate to hood and marking hole centers. Use and 11/32" drill bit.

5. Reinstall screws removed in step 3.
6. Attach supports to extension plate using M8 x 25mm screws, M8 lockwashers, M8 flatwashers and M8 nuts. Rubber plate should be trapped between hood extension plate and support.
7. Secure supports to hood using M8 x 25mm screws, M8 lockwashers, M8 flatwashers, M8 nuts and predrilled holes.

**NOTE** – Sweepers built before April 2002 may not have predrilled holes. In this case, use support as a template by clamping support to hood and marking hole centers. Use and 11/32" drill bit. Rubber flap should be approximately 4 inches from the front of a new set of sections.

8. Reinstall core if previously removed.

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# Parts Manual

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## Angle Brooms

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**Big Dawg Series**

## Table of Contents

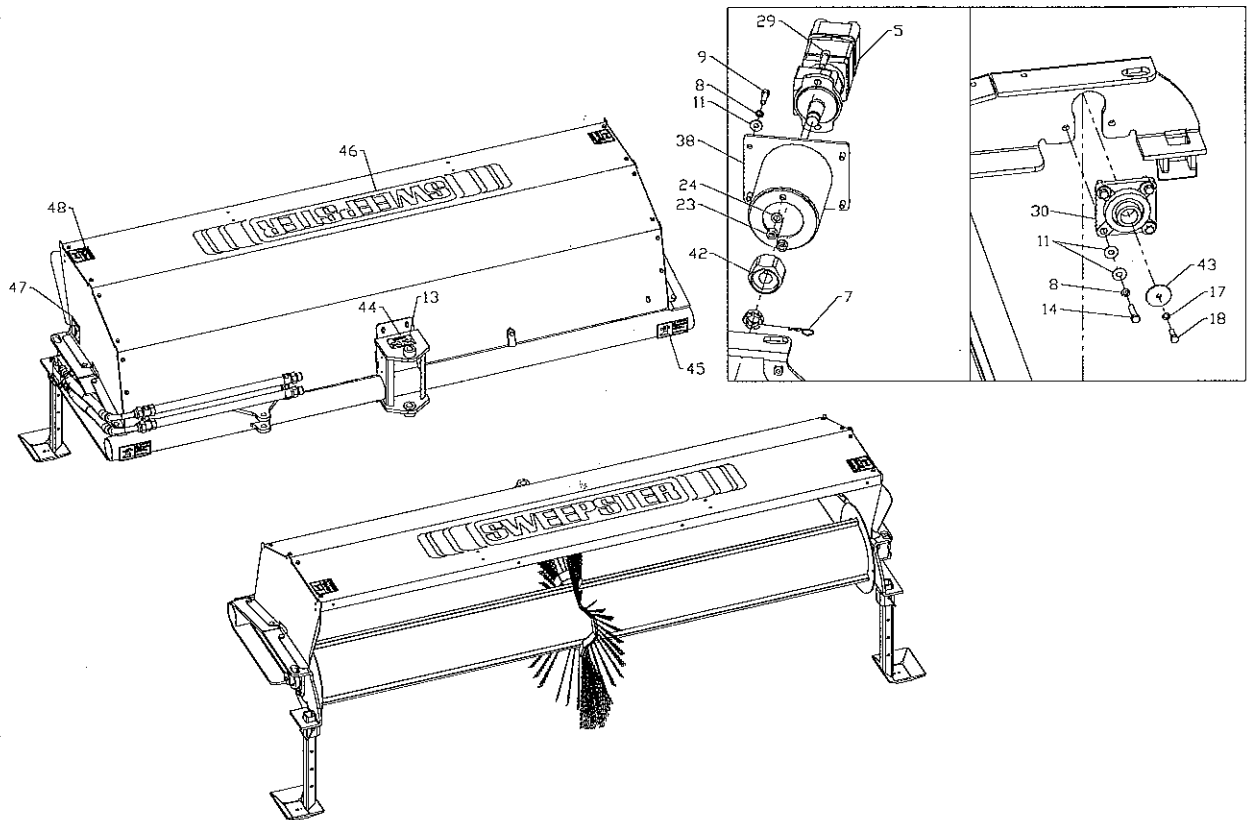
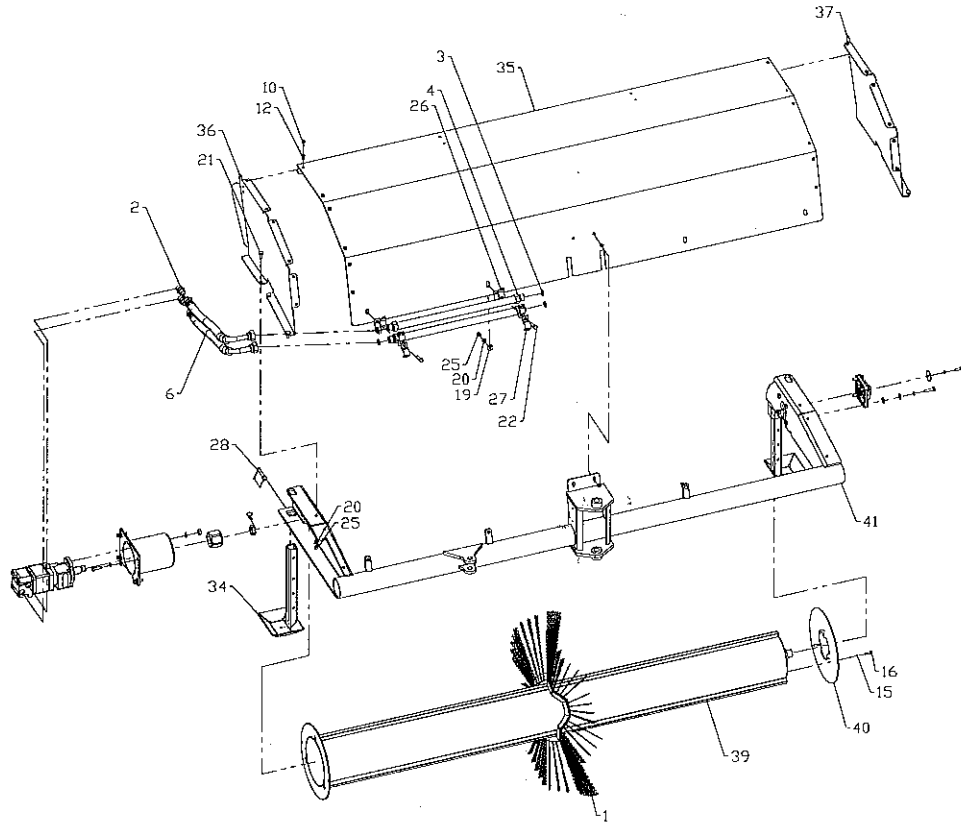
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PARTS MANUAL  
BRUSH HEAD

## Brush Head

Item	Part	Qty	Description	Item	Part	Qty	Description
1.	01-5878	31	Section, 32, Poly/Wire Combination (5 Ft)	23.	07-4610	2	Nut, Hex, M12-1.75
	01-5878	37	Section, 32, Poly/Wire Combination (6 Ft)	24.	07-3756	2	Washer, Lock, Split, M12
	01-5878	43	Section, 32, Poly/Wire Combination (7 Ft)	25.	07-4514	9	Nut, Hex, M10-1.5
	01-5878	49	Section, 32, Poly/Wire Combination (8 Ft)	26.	07-4597	4	Clip
2.	03-1939	2	Fitting, Adaptor, HP, 7/8MOR, 5/8MFS	27.	07-4599	4	Clip
3.	03-2003	4	O-Ring, FS, 3/4	28.	07-4748	2	Pin, Lock, 3/8 x 2 3/4, Bale
5.	03-4425	1	Motor, Hydraulic, White, 24/9 Cu In	29.	07-5816	2	Screw, Socket Head, M12-1.75 x 35mm
6.	03-4026	2	Hose, 3/4 x 16.38, 2W, 5/8FFS, 3/4FFS, 90°, W/PS Sleeve	30.	08-0067	1	Bearing, 1 1/4, 4 Bolt
4.	03-4139	2	Assembly, Tube, Hydraulic, 15.25, ORFS (5 Ft)	34.	13-10001	2	Weld, Stand, Quick Attach, Brush Frame
	03-4140	2	Assembly, Tube, Hydraulic, 21.25, ORFS (6 Ft)	35.	13-11775	1	Sheet, Hood, Brush Frame, 5 Ft
	03-3517	2	Assembly, Tube, Hydraulic, 26, ORFS (7 Ft)		13-11776	1	Sheet, Hood, Brush, Frame, 6 Ft
	03-4141	2	Assembly, Tube, Hydraulic, 33.25, ORFS (8 Ft)		13-11841	1	Sheet, Hood, Brush, Frame, 7 Ft
7.	07-1044	1	Clip, Hairpin, 14 Gauge x 1 3/4		13-11777	1	Sheet, Hood, Brush, Frame, 8 Ft
8.	07-1718	8	Washer, Lock, Split, 3/8	36.	13-11843	1	Sheet, Hood, Side, Left
9.	07-2116	4	Screw, Cap, 3/8-16 x 1 1/4	37.	13-11844	1	Sheet, Hood, Side, Right
10.	07-2952	14	Screw, M6-1 x 20mm	38.	13-11845	1	Weld, Mounting, Motor
11.	07-3279	12	Washer, Flat, 3/8	39.	13-11862	1	Weld, Core, 5 Ft
12.	07-3617	14	Nut, Inset, M6 x 1, Hex		13-11861	1	Weld, Core, 6 Ft
13.	07-3624	4	Tack, Metal		13-11849	1	Weld, Core, 7 Ft
14.	07-3655	4	Screw, Cap, 3/8-16 x 1 1/2		13-11860	1	Weld, Core, 8 Ft
15.	07-3730	3	Washer, Lock, Split, M6	40.	13-11856	1	Plate, Core, Hat
16.	07-3731	3	Screw, Cap, M6-1 x 30mm	41.	13-11772	1	Weld, Frame, Brush, 5 Ft
17.	07-3738	1	Washer, Lock, Split, M8		13-11773	1	Weld, Frame, Brush 6 Ft
18.	07-3777	1	Screw, Cap, M8-1.25 x 25mm		13-11857	1	Weld, Frame, Brush 7 Ft
19.	07-3745	3	Washer, Flat, M10		13-11774	1	Weld, Frame, Brush 8 Ft
20.	07-3747	9	Washer, Lock, Split, M10	42.	13-11890	1	Hub, Hex, 2 1/2 x 1 1/4, Tapered Bore
21.	07-3748	6	Screw, Cap, M10-1.5 x 25mm	43.	13-11903	1	Washer, .34 x 1.8 x 10 Gauge
22.	07-3752	3	Screw, Cap, M10-1.25 x 45mm	44.	50-0004	1	Label, Plate, Serial Number
				45.	50-0076-1	2	Label, Caution, Pinch Point, Avoid Injury
				46.	50-0252	1	Label, Logo, Sweepster
				47.	50-0576	2	Label, Tie Down Point
				48.	50-0577	2	Label, Warning, Arm Entanglement

# Brush Head



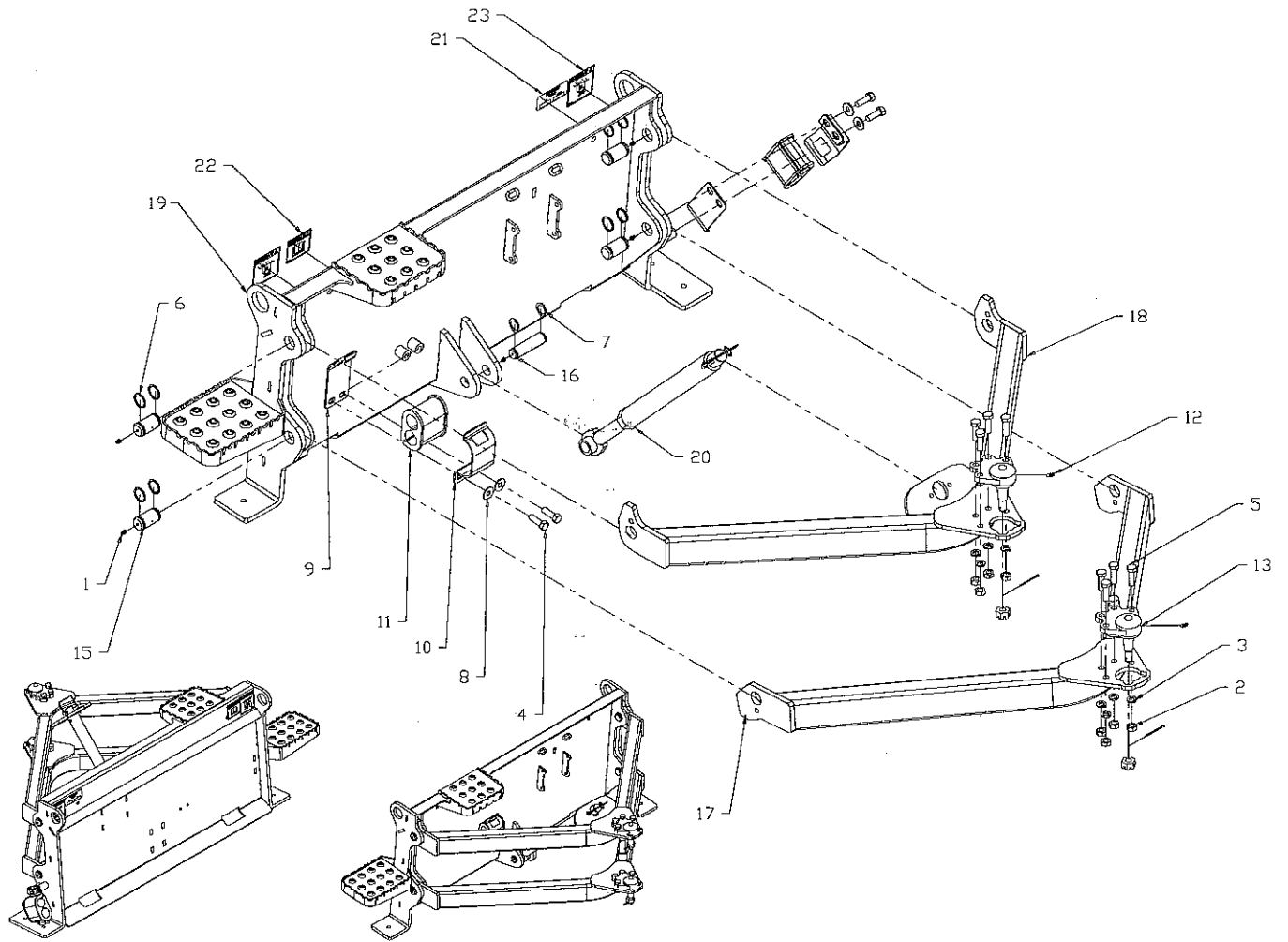
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## 28-9100 Quick Attach

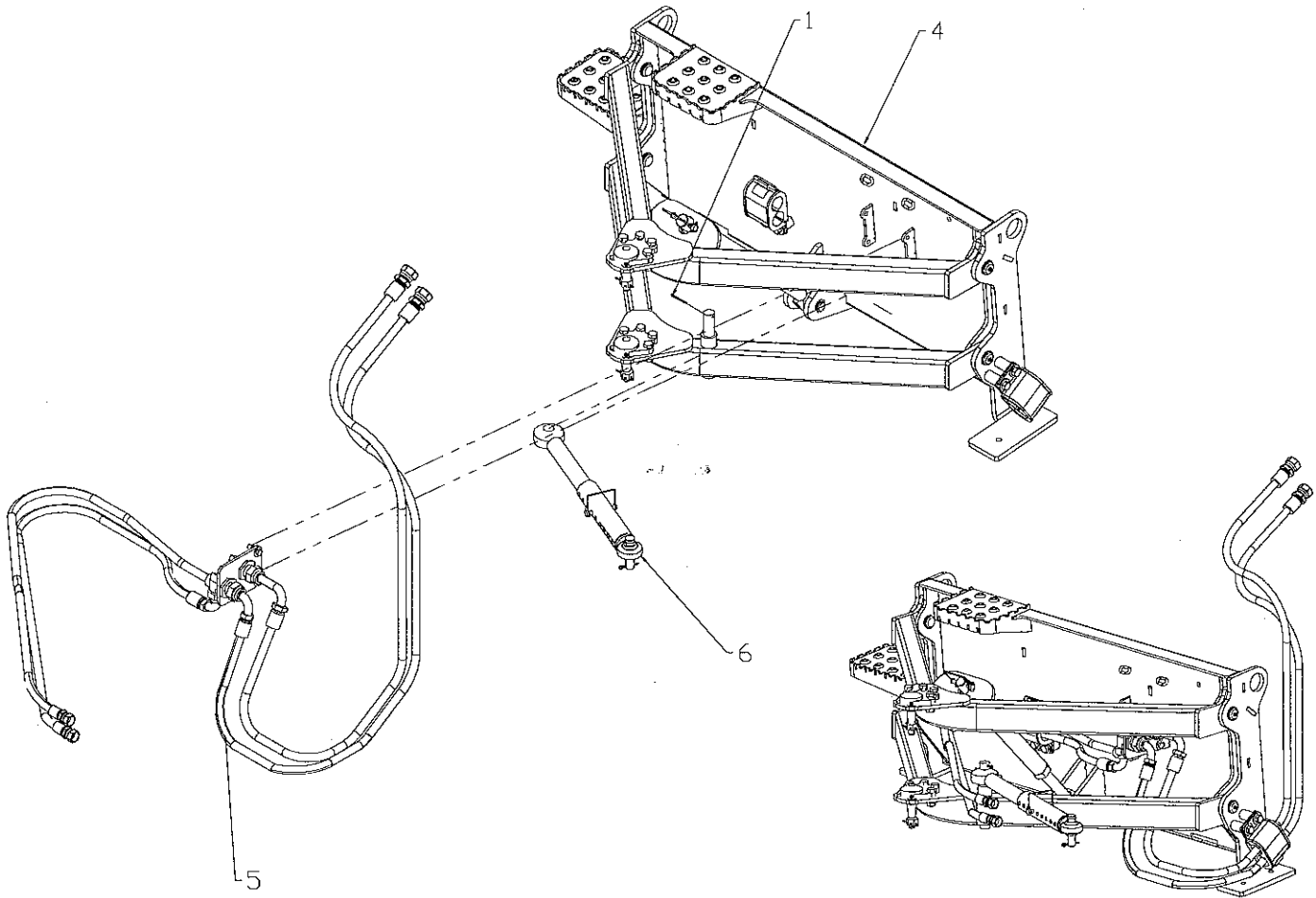
Item	Part	Qty	Description
1.	05-0763	5	Fitting, Zerk, 1/4-28
2.	07-3755	8	Nut, Hex, M12-1.75
3.	07-3756	8	Washer, Lock, Split, M12
4.	07-3758	4	Screw, Cap, M12-1.75 x 30mm
5.	07-3760	8	Screw, Cap, M12-1.75 x 40mm
6.	07-3842	8	Ring, Snap, 5160-1.25
7.	07-3939	2	Ring, Snap, 1 x .078
8.	07-4613	4	Washer, Flat, M12
9.	07-4598	2	Clip
10.	07-4600	2	Clip
11.	07-4601	2	Grommet
12.	07-5809	2	Fitting, Zerk, 45°, 1/4-28
13.	08-0168	2	Ball Joint, Chevy, 1 Ton
15.	13-10004	4	Pin, Pivot, Lift Arm, Quick Attach
16.	13-10005	1	Pin, Pivot, Support, Swing, Quick Attach
17.	13-11347	1	Weld, Arm, Lift, Bottom, Brush Frame
18.	13-11348	1	Weld, Arm, Lift, Top, Brush Frame
19.	13-11364	1	Weld, Quick Attach, Angle Broom
20.	28-9104	1	Assembly, Rod Lift, Brush Head, Quick Attach, Angle Broom
21.	50-0249	1	Label, Plate, Part Number
22.	50-0574	1	Label, Warning, Read Manual
23.	50-0576	2	Label, Tie Down Point



# 28-9100 Quick Attach



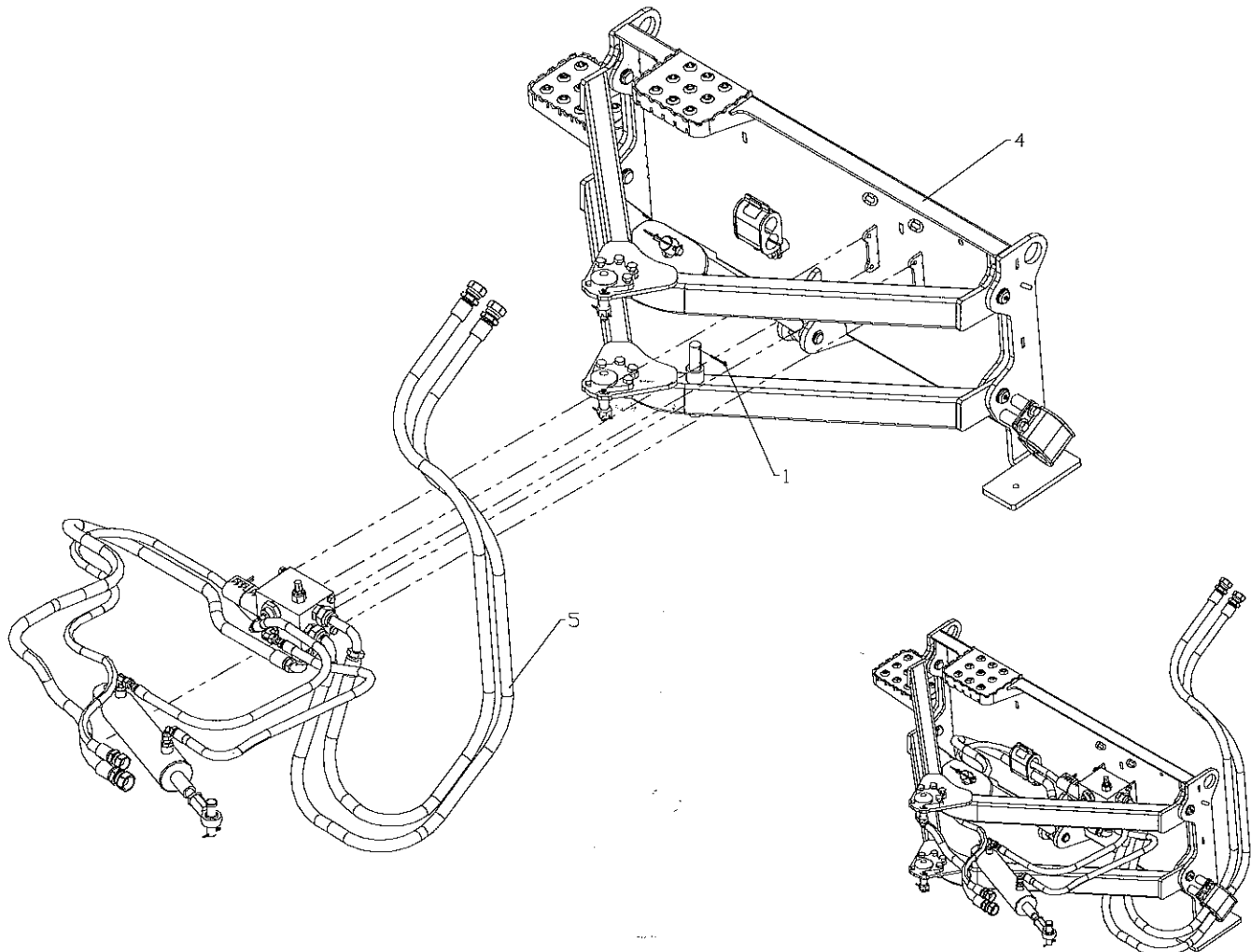
## 28-9132 Quick Attach With Manual Angle



### Item Part Qty Description

- |    |         |   |   |
|----|---------|---|---|
| 1. | 07-1044 | 1 | Pin, Cotter, 5/32 x 1 1/2               |
| 4. | 28-9100 | 1 | Assembly, Quick Attach, Angle Broom     |
| 5. | 28-9102 | 1 | Assembly, Fittings, Hoses, Manual Angle |
| 6. | 28-9103 | 1 | Assembly, Link, Manual Angle            |

## 28-9131 Quick Attach With Hydraulic Angle



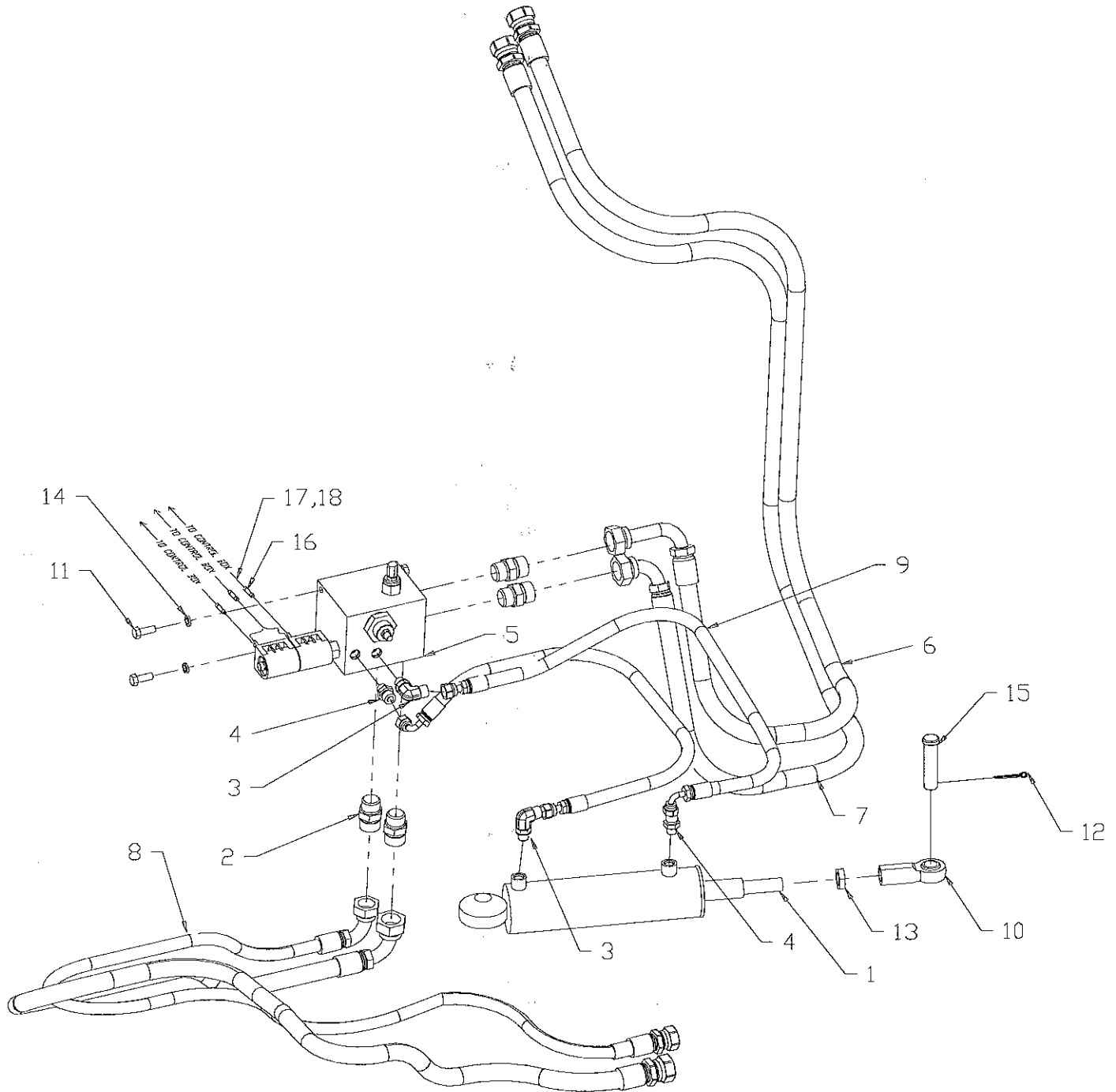
### Item Part Qty Description

- |    |         |   |                                     |
|----|---------|---|-------------------------------------|
| 1. | 07-1044 | 1 | Pin, Cotter, 5/32 x 1 1/2           |
| 4. | 28-9100 | 1 | Assembly, Quick Attach, Angle Broom |
| 5. | 28-9101 | 1 | Assembly, Manifold, Hoses, Fittings |

**28-9101 Hydraulic Angle**

Item	Part	Qty	Description
1.	03-0186	1	Cylinder, Hydraulic, 7 Stroke, 2 1/2 B, 1 1/8 Rod
2.	03-3180	4	Fitting, Adaptor, HP, 1 1/16MOR, 3/4MFS
3.	03-2092	2	Fitting, Elbow, HP, 90°, 9/16MOR, 3/8MFS
4.	03-2291	2	Fitting, Adaptor, HP, 3/8MFS, 9/16MOR
5.	03-3527	1	Manifold, 12 Volt, Swing
6.	03-4027	1	Hose, 3/4 x 80, 2W, 3/4FFS, 3/4FFS, 90°, Long, W/Sleeve
7.	03-4028	1	Hose, 3/4 x 80, 2W, 3/4FFS, 3/4FFS, 90°, W/Sleeve
8.	03-4029	2	Hose, 3/4 x 63, 2W, 3/4FFS, 3/4FFS, 90°, W/Sleeve
9.	03-4030	2	Hose, 3/8 x 32, 2W, 3/8FFS, 3/8FFS, 90°, W/Sleeve
10.	03-4031	1	Rod, End, 3/4Female, 3/4-16 Female
11.	07-0018	4	Screw, Cap, 3/8-16 x 1
12.	07-1044	1	Pin, Cotter, 5/32 x 1 1/2
13.	07-1663	1	Nut, Hex, Jam, 3/4-16
14.	07-1718	4	Washer, Lock, Split, 3/8
15.	07-3473	1	Pin, Clevis, 3/4 x 3
16.	07-0813	3	Terminal,
17.	07-1834	12 ft	Loom, Flex Guard, .5
18.	07-2920	12 ft	Wire, 12 Gauge, 3 Con

# 28-9101 Hydraulic Angle

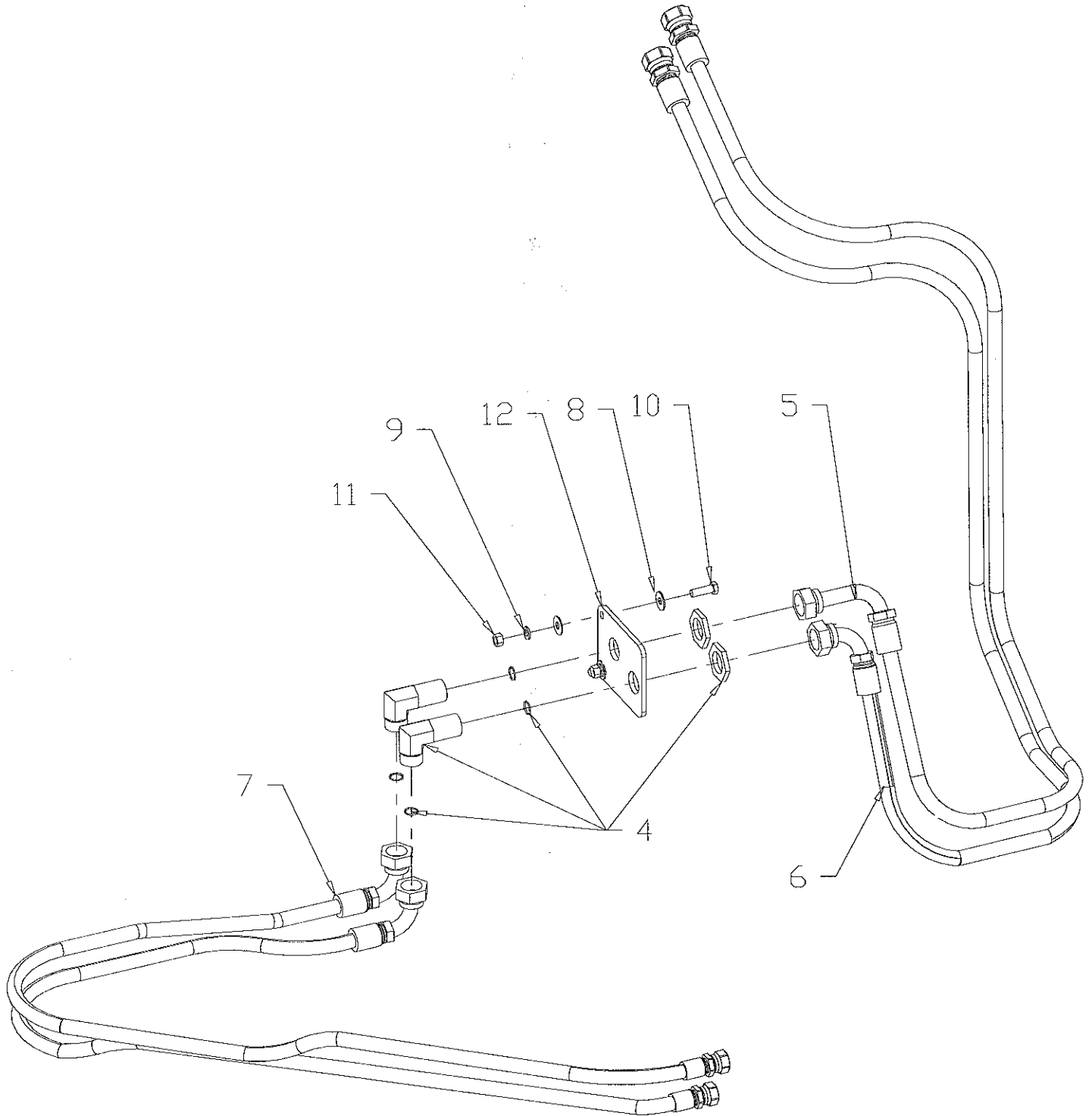


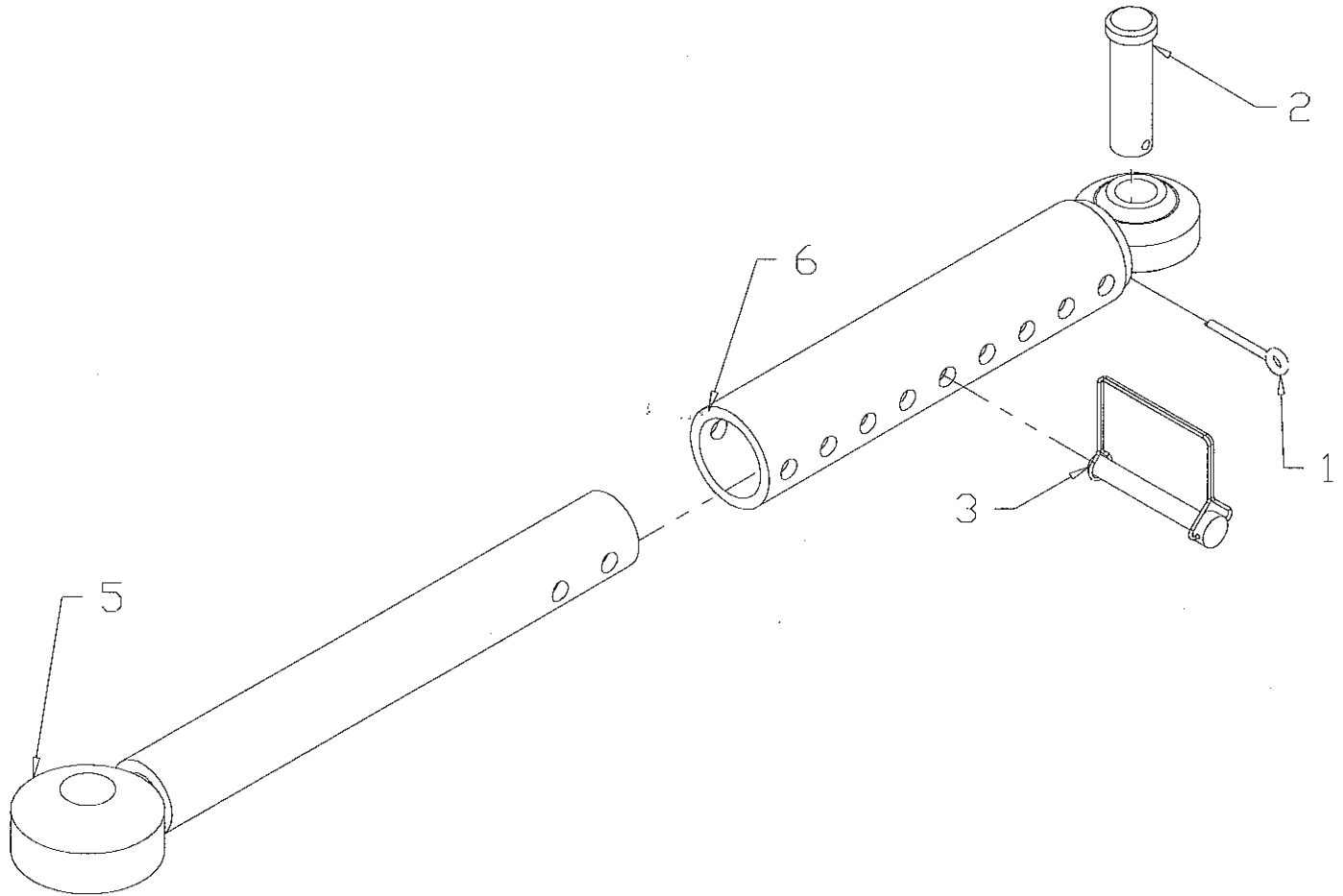
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## 28-9102 Hoses F/Manual Angle

Item	Part	Qty	Description
4.	03-3531	2	Fitting, Elbow, HP, 90°, 3/4MFS
5.	03-4027	1	Hose, 3/4 x 80, 2W, 3/4FFS, 3/4FFS, 90°, Long
6.	03-4028	1	Hose, 3/4 x 80, 2W, 3/4FFS, 3/4FFS, 90°
7.	03-4029	2	Hose, 3/4 x 63, 2W, 3/4FFS, 90°, 3/4FFS
8.	07-3745	4	Washer, Flat, M10
9.	07-3747	1	Washer, Lock, Split, M10-1.5
10.	07-3749	2	Screw, Cap, M10-1.5 x 30mm
11.	07-3775	2	Nut, Hex, M10-1.5
12.	13-10046	1	Plate, Mounting, Fittings, Bulkhead

# 28-9102 Hoses F/Manual Angle

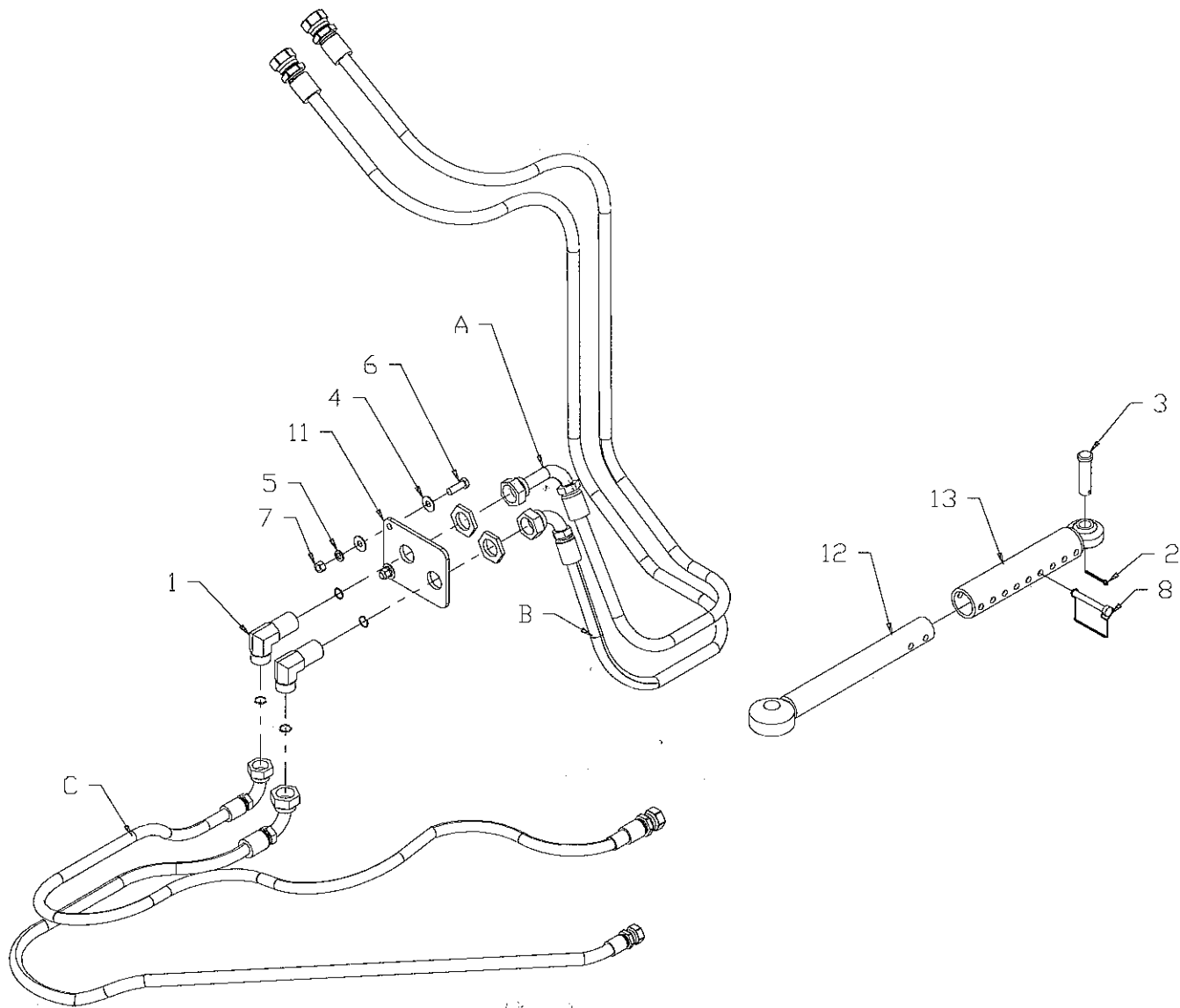


**28-9103 Manual Angle Link****Item Part Qty Description**

- |    |          |   |   |
|----|----------|---|---|
| 1. | 07-1044  | 1 | Pin, Cotter, 5/32 x 1 1/2                       |
| 2. | 07-3473  | 1 | Pin, Clevis, 3/4 x 3                            |
| 3. | 07-4748  | 1 | Pin, Lock, 3/8 x 2 3/4, Bale, 2 1/2 Grip Length |
| 5. | 13-11385 | 1 | Weld, Link, Inner, Manual Angle                 |
| 6. | 13-11386 | 1 | Weld, Link, Outer, Manual Angle                 |



## 28-9133 Hydraulic to Manual Angle Conversion Kit

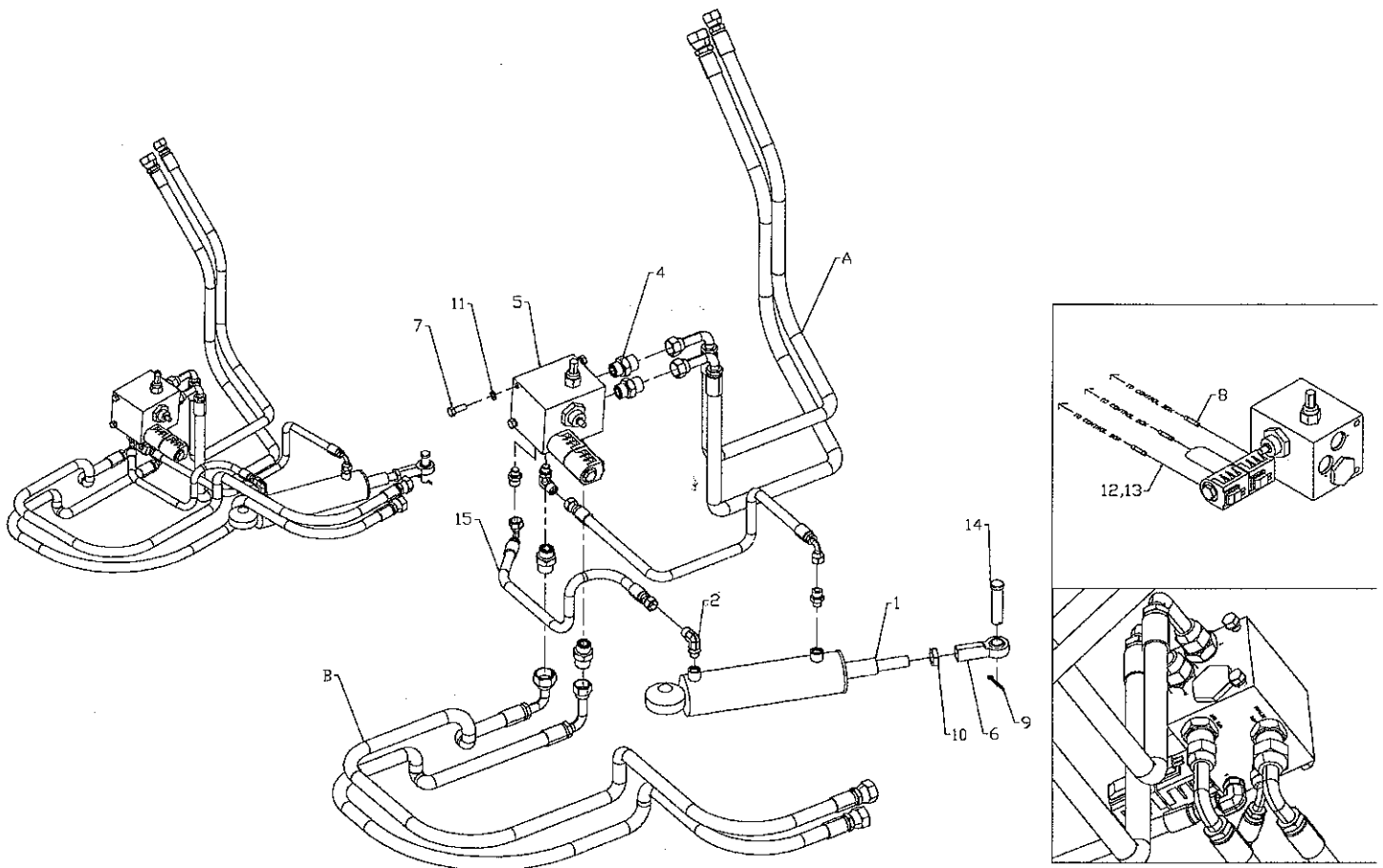


**NOTE** – Items A,B and C are for reference only as they were supplied with the hydraulic angle.

### Item Part Qty Description

1.	03-4443	2	Fitting, Elbow, HP, 90°, 3/4MFS, Bulkhead
2.	07-1044	1	Pin, Cotter, 5/32 x 1 1/2
3.	07-3473	1	Pin, Clevis, 3/4 x 3
4.	07-3745	4	Washer, Flat, M10
5.	07-3747	1	Washer, Lock, Split, M10
6.	07-3749	2	Screw, Cap, M10-1.5 x 30mm
7.	07-3775	2	Nut, Hex, M10-1.5
8.	07-4748	1	Pin, Lock, 3/8 x 2, Grip, Square
11.	13-12714	1	Plate, Mounting, Fittings, Bulkhead
12.	13-11385	1	Weld, Link, Inner, Manual Angle
13.	13-11386	1	Weld, Link, Outer, Manual Angle
A.	03-4027	1	Hose, 3/4 x 80, 3/4FFS, 3/4FFS90° Long
B.	03-4028	1	Hose, 3/4 x 80, 3/4FFS, 3/4FFS90°
C.	03-4029	1	Hose, 3/4 x 63, 3/4FFS90°, 3/4FFS

## 28-9141 Manual to Hydraulic Angle Conversion Kit

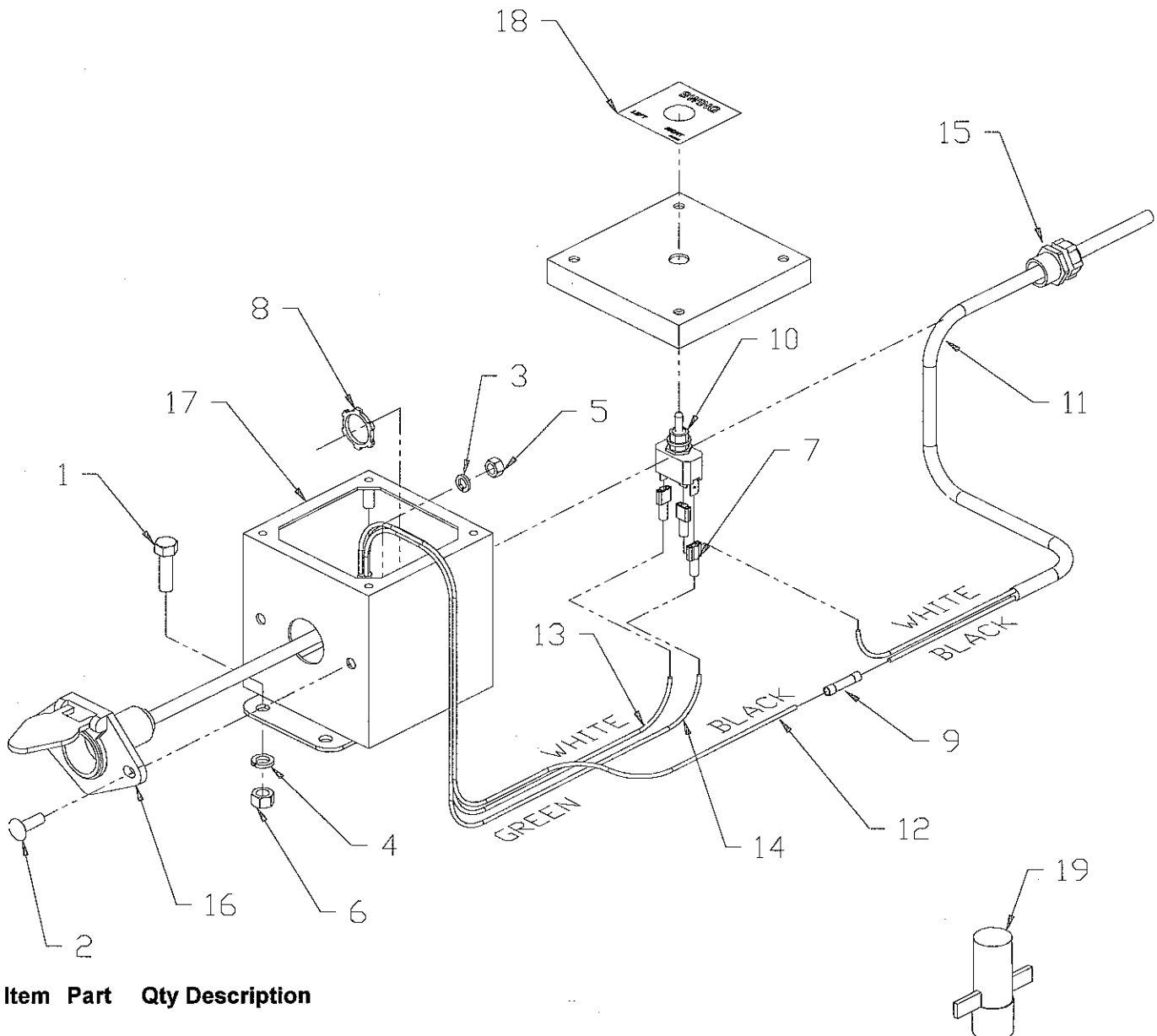


### Item Part Qty Description

1.	03-0186	1	Cylinder, Hydraulic, 2 1/2 Bore, 7 Stroke
2.	03-2092	2	Fitting, Elbow, HP, 90°, 9/16MOR, 3/8MFS
3.	03-2291	2	Fitting, Adaptor, HP, 3/8MFS, 9/16MOR
4.	03-3180	4	Fitting, Adaptor, 5/8MFS, 1 1/16MOR
5.	03-3527	1	Manifold, 12 Volt, Swing,
6.	03-4031	1	Rod, End, 3/4 Female
7.	07-0018	4	Screw, Cap, 3/8-16 x 1
8.	07-0867	3	Terminal, Butt, 16-14
9.	07-1044	1	Pin, Cotter, 5/32 x 1 1/2
10.	07-1663	1	Nut, Hex, Jam, 3/4-16
11.	07-1718	4	Washer, Lock, Split, 3/8
12.	07-1834	8in	Loom, Flex, Guard
13.	07-2920	12ft	Wire, 12 Gauge, 3 Connector
14.	07-3473	1	Pin, Clevis, 3/4 x 3
15.	03-4030	2	Hose, 3/8 x 32, 3/8FFS, 3/8FFS90°
A.	03-4028	2	Hose, 5/8 x 80, 5/8FFS, 5/8FFS90°
B.	03-4029	2	Hose, 5/8 x 63, 5/8FFS90°, 3/4FFS

**NOTE** – Items A and B are for reference only as they were supplied with the manual angle.

PARTS MANUAL  
OPTION - CONTROL BOX



**Item Part Qty Description**

1.	07-1714	4	Screw, Cap, 5/16-18 x 1
2.	07-3690	2	Bolt, Carriage, 1/4-20 x 3/4
3.	07-4038	2	Washer, Lock, Split, 1/4
4.	07-3273	4	Washer, Lock, Split, 5/16
5.	07-4039	2	Nut, Hex, 1/4-20
6.	07-3278	4	Nut, Hex, 5/16-18
7.	07-0812	3	Terminal, Quick Disconnect, 16-14
8.	07-0856	1	Nut, Lock, 1/2, F/Strain Relief
9.	07-0867	1	Terminal, Butt, Spline, 16-14
10.	07-0868	1	Switch, Spot
11.	07-0917	4	Wire, 16 Gauge, 2 Cond
12.	07-0961	.5	Wire, Black, 16 Gauge
13.	07-0966	.5	Wire, White, 16 Gauge
14.	07-0988	.5	Wire, Green, 16 Gauge
15.	07-1427	1	Strain, Relief, 1/2
16.	07-3111	1	Connector, 4 Pole, Socket
17.	13-4492	1	Box, Control, Electric Swing
18.	50-0311	1	Label, Swing, Left/Right
19.	07-2153	1	Connector, Trailer, 4 Prong, W/Guard

**NOTE** - All wire quantities given show length of wire in feet.

## PARTS MANUAL

## OPTION – SPRINKLER KIT

**12 Volt Systems**

11-4190 (5 ft)  
 11-4045 (6 ft)  
 11-4171 (7 ft)  
 11-4062 (8 ft)  
 11-4262 (9 ft),  
 11-4271 (10 ft)

**24 Volt Systems**

11-4379 (8/9 ft)  
 11-5924 (10 ft)

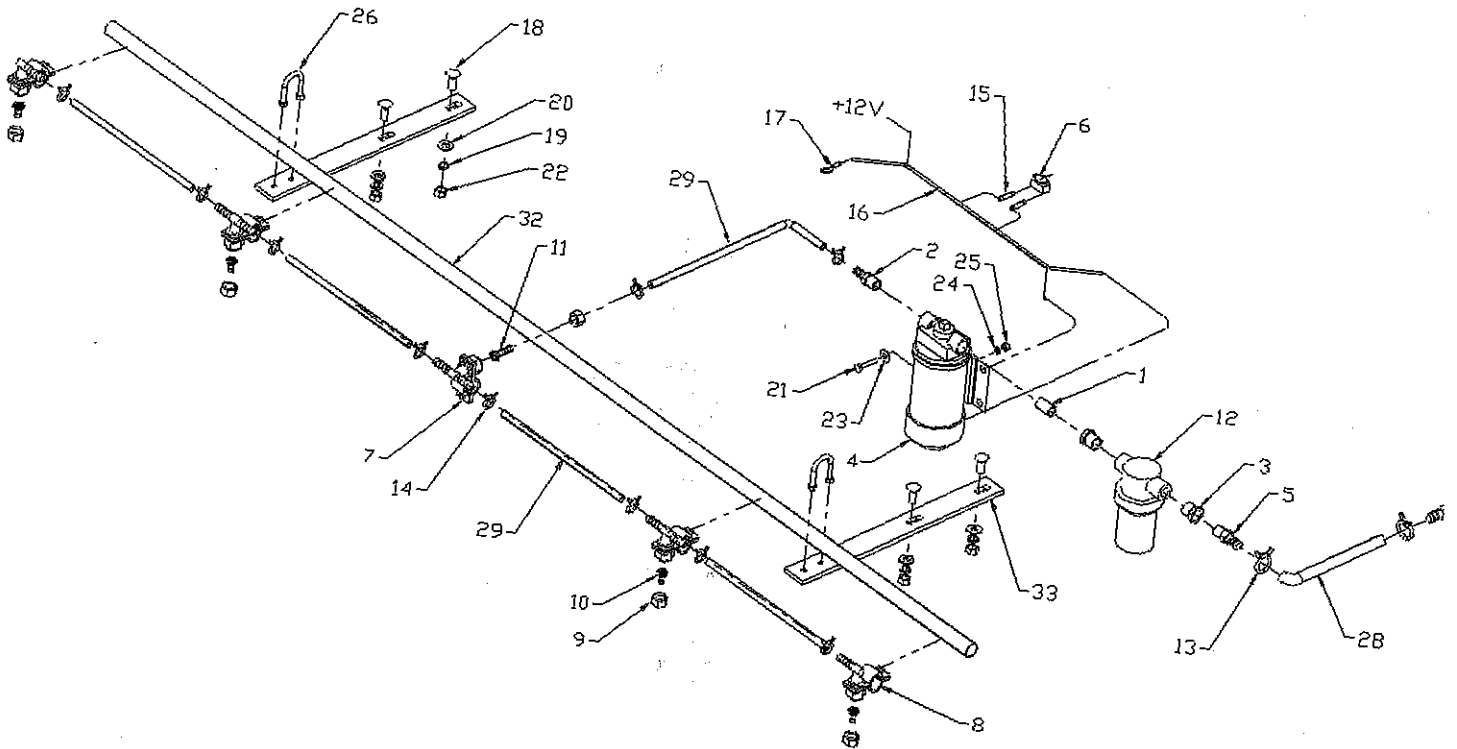
Item	Part	Qty	Description
1.	03-0076	1	Fitting, Nipple, BP, Close, 3/8
2.	03-0457	1	Fitting, Barb, Nylon, 3/8–3/8 MP
3.	03-0819	2	Fitting, Reducer Bushing, BP, 1/2–3/8
4.	03-1326	1	Pump, Flojet, Water, 2.9 gpm, 12 volt
	03-2558	1	Pump, Flojet, Water, 2.9 gpm, 24 volt
5.	03-1709	2	Fitting, Barb, Nylon, 5/8–3/8 MP
6.	07-0343	1	Switch, Toggle, 2 Position
7.	07-0411	3	Nozzle, Tee, with Clamp (5/6/7)
	07-0411	5	Nozzle, Tee, with Clamp (8/9/10)
8.	07-0412	2	Nozzle, Elbow, with Clamp
9.	07-0413	5	Nozzle, Cap, Nylon (5/6/7)
	07-0413	7	Nozzle, Cap, Nylon (8/9/10)
10.	07-0414	4	Nozzle, Tip, Brass (5/6/7)
	07-0414	6	Nozzle, Tip, Brass (8/9/10)
11.	07-0417	1	Fitting, Barb, Brass, 3/8
12.	07-0532	1	Strainer, Hypro, Water
13.	07-0547	2	Clamp, Spring, 7/8 Hose
14.	07-0549	10	Clamp, Spring, 5/8 Hose (5/6/7)
	07-0549	14	Clamp, Spring, 5/8 Hose (8/9/10)
15.	07-0867	4	Terminal, Butt
16.	07-0917	20 ft	Wire, Bulk, Cord, 16 gauge
17.	07-0929	1	Terminal, Ring, 3/8, 16-14
18.	07-1716	4	Bolt, Carriage, 3/8-16 x 1
19.	07-1718	4	Washer, Lock, Split, 3/8
20.	07-3279	4	Washer, Flat, 3/8
21.	07-3638	4	Screw, Cap, 1/4-20 x 1-1/4
22.	07-3654	4	Nut, Hex, 3/8-16
23.	07-4032	4	Washer, Flat, 1/4
24.	07-4038	4	Washer, Lock, Split, 1/4
25.	07-4039	4	Nut, Hex, 1/4-20
26.	07-4673	2	U-Bolt, STD, 1/4-20 x 1
28.	09-0028	7 ft	Hose, Heater, 5/8 (5/6/7/9/10)
	09-0028	10 ft	Hose, Heater, 5/8 (8)
29.	09-0056	23.75 ft	Hose, Heater, 3/8 (5)
	09-0056	25 ft	Hose, Heater, 3/8 (6)
	09-0056	26.25ft	Hose, Heater, 3/8 (7)
	09-0056	27.5 ft	Hose, Heater, 3/8 (8)
	09-0056	28.75 ft	Hose, Heater, 3/8 (9)
	09-0056	29 ft	Hose, Heater, 3/8 (10)
32.	13-2164	1	Tube, RD, 7/8 x 16 Gauge x 60 (5)
	11-6684	1	Tube, RD, 7/8 x 16 Gauge x 72 (6/7)
	13-2821	1	Tube, RD, 7/8 x 16 Gauge x 93 (8)
	13-2802	1	Tube, RD, 7/8 x 16 Gauge x 104 (9/10)
33.	13-10076	2	Plate, Mounting, Sprinkler Bar, Adj

**12 Volt Systems**

- 11-4190 (5 ft)
- 11-4045 (6 ft)
- 11-4171 (7 ft)
- 11-4062 (8 ft)
- 11-4262 (9 ft),
- 11-4271 (10 ft)

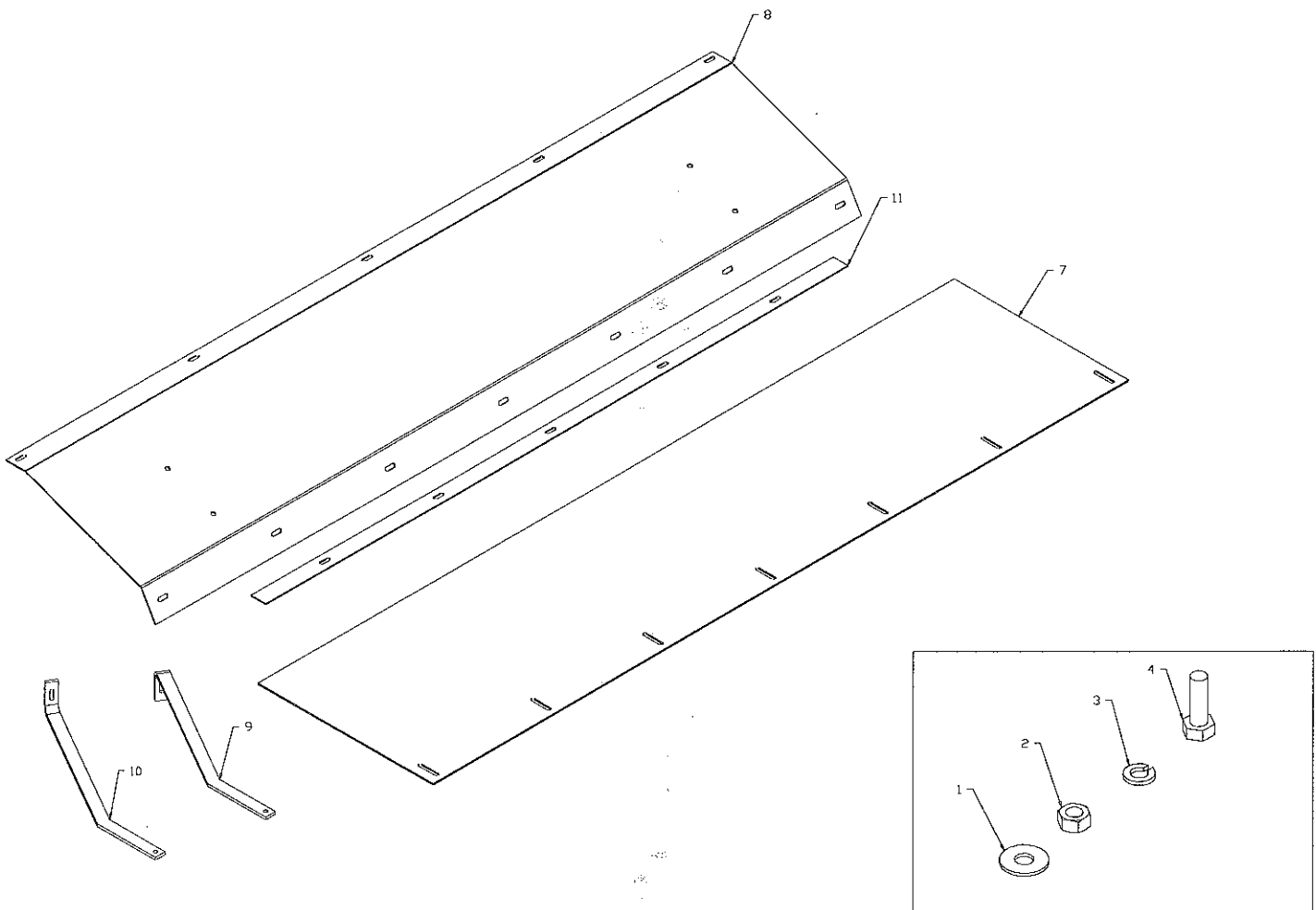
**24 Volt Systems**

- 11-4379 (8/9 ft)
- 11-5924 (10 ft)



## PARTS MANUAL

## OPTION - DIRT DEFLECTOR

**Item Part Qty Description**

- |     |          |    |  |
|-----|----------|----|--|
| 1.  | 07-3736  | 24 | Washer, Flat, M8                               |
| 2.  | 07-3737  | 12 | Nut, Hex, M8-1.25                              |
| 3.  | 07-3738  | 12 | Washer, Lock, Split, M8                        |
| 4.  | 07-3739  | 12 | Screw, Cap, M8-1.25 x 25mm                     |
| 7.  | 13-8671  | 1  | Flap, 6 Feet, 1/8 x 18 x 72                    |
| 8.  | 13-12295 | 1  | Plate, Extension, Deflector                    |
| 9.  | 13-12296 | 1  | Bracket, Deflector, Right                      |
| 10. | 13-12297 | 1  | Bracket, Deflector, Left                       |
| 11. | 13-12298 | 1  | Plate, Retainer, 6 Feet, 12 Gauge x 1 1/2 x 59 |

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# Appendix

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## Angle Brooms

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### Big Dawg Series

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Bolt Torque Specifications ..... 61

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**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 dividing by 12.  
If the nut and screw are not the same grade, the lower grade will always be used.

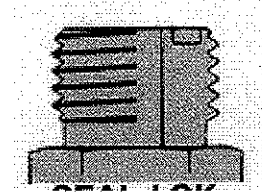
**NOTE** – Nylock nuts are utilized when greater resistance to vibrating loose is required, and greater operating temperatures are not a factor. In addition, like lock nuts, nylock nuts have a safety feature that if the bolt does vibrate loose, the nut will remain on the screw. Install nylock nuts to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

APPENDIX  
TORQUE SPECS.

## Hydraulic Torque Specifications

### Face Seal: Assembly, Tube to Fitting

**Note** – 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 any 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 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

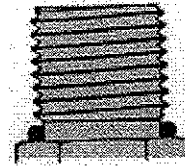
**NOTE** – ft-lb may be converted to Newton Meters by multiplying by 1.35582.

**NOTE** – in-lb may be converted to Newton Meters by 0.11298.

## Hydraulic Torque Specifications

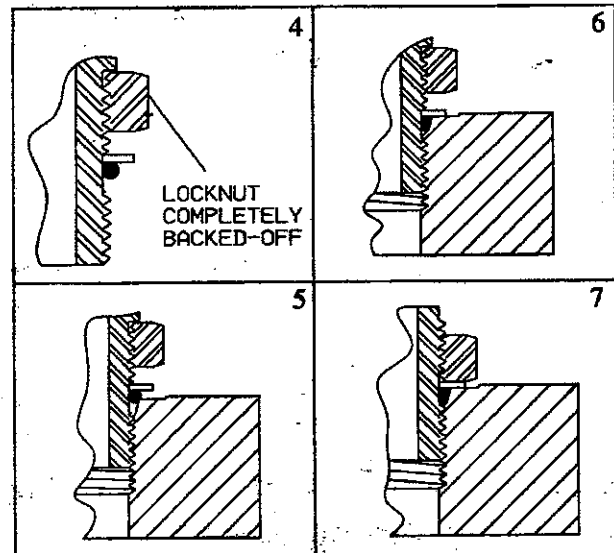
### Straight Thread O-ring Fitting: Assembly, Fitting to Port

**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 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 back-up 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 the table in section. (Figure 7)



Figures 4, 5, 6 and 7

### Torque Values

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 – 16	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 Newton Meters by multiplying by 1.35582.

**NOTE** – in-lb may be converted to Newton Meters by 0.11298.

APPENDIX  
GLOSSARY

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**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.

**CV** – constant velocity; usually refers to a drive shaft.

**core** – weldment that holds brush sections.

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

**dirt deflector** – kit made of metal and/or rubber parts designed to direct debris away from the operator.

**F** – female.

**FS** – face seal.

**front** – side that is in front when facing the normal forward direction of travel of the machine

**front pump unit** – sweeper in which the pump is mounted on a front PTO.

**gpm** – gallons per minute.

**HP** – high pressure.

**hood** – brush shield.

**hydraulic angle kit** – means of swinging the brush head assembly hydraulically.

**important** – used for instructions when machine damage may be involved.

**in.** – inches.

**kph** – kilometers per hour.

**lb** – pounds.

**left-hand** – side that is on the 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.

**mid pump unit** – sweeper in which the pump is mounted on the mid PTO.

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

**NPT** – national pipe thread.

**note** – indicates supplementary information.

**OR** – O-ring.

**psi** – pounds per square inch.

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

**plate swing** – swing assembly that includes a half-moon plate.

**power pack** – auxiliary hydraulic packaged used when prime mover hydraulics do not have enough flow available.

**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 rear when facing the normal forward direction of travel of the machine

**rear pump unit** – sweeper in which the pump is mounted on a rear PTO.

**retainer** – removable plate or set of plates that keeps sections on the core.

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

**section** – 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 brush off the ground when the sweeper is dismounted.

**swing or swing assembly** – portion of the sweeper that allows the brush head assembly to angle.

**swing cylinder** – means of angling the brush head assembly hydraulically.

**tank assembly, hydraulic** – assembly that includes the hydraulic reservoir, filter and fittings; may also incorporate valves.

**three-point contact** – method of mounting sweeper where contact is constant with three points be it two feet and one hand or two hands and one foot.

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

**weld** – weldment.

**windrow** – pile of debris.

**zerk** – grease fitting.

# SWEEPSTER WARRANTY 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**

Purchaser's Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_

Model Number \_\_\_\_\_ Serial Number \_\_\_\_\_

Engine Make \_\_\_\_\_ Engine Model \_\_\_\_\_

Date Delivered to Dealer \_\_\_\_\_ Date Delivered to Customer \_\_\_\_\_

Dealer's Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_

White-Customer Yellow-Dealer Card-Return to Sweepster postage paid

Form: SWR Rev 4/87

**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 \_\_\_\_\_

**5. WHY DID YOU PURCHASE A SWEEPSTER? (check one)**

- Quality  Price  Reputation  Simplicity  Prior Use
- Dealer Referral  Operation  Features  Availability
- Other \_\_\_\_\_

**6. PLEASE RATE THE FOLLOWING (check one)**

- Appearance:  Excellent  Good  Poor
- Delivery Time:  Excellent  Good  Poor
- Sales Service:  Excellent  Good  Poor
- Performance:  Excellent  Good  Poor
- Technical Support:  Excellent  Good  Poor

**7. SUGGESTIONS/COMMENTS?**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## 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.