INSTALLATION AND OPERATING INSTRUCTION MANUAL

"S" SERIES TAILGATE SPREADER

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PART NO. 00119-673-01, REV. B JULY 23, 2008

SAFETY PRECAUTIONS

The best safety device is a careful operator!



This symbol means ATTENTION!
Become Alert!
Your safety is involved!
Please read and understand completely before operating!

Improper use of this equipment can result in serious injury. To reduce this possibility, give complete and undivided attention to the job at hand, and follow these safety precautions.

Preparation

Know your controls. Read this instruction manual. Learn how to stop the equipment quickly in an emergency.

Do not allow children to operate machine; nor adults to operate it without proper instructions.

Keep all individuals not involved in the use of the equipment a safe distance away.

Operation

Observe and shut off all equipment controls before starting engine so equipment will not unintentionally operate when engine is started. Always check area around machine before engaging or operating controls.

Always wear relatively tight and belted clothing when operating equipment. Loose jackets, shirts, sleeves or other loose clothing should not be worn because of the danger of catching them in moving parts or controls.

Stop and inspect equipment if unusual movement, sounds or noises are observed. Repair damage before restarting and operating the equipment.

Disengage power to all operating equipment: (1) before leaving operator's position, (2) before making any repairs, adjustments, or cleaning, or (3) when not in use.

Take all possible precautions when leaving the equipment unattended; such as disengaging the hydraulic system from the vehicle engine, shifting vehicle out of gear, setting parking brake, shutting off engine and removing key.

NOTICE:

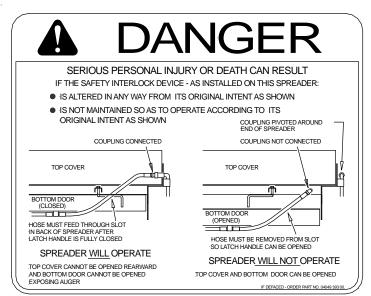
It is the responsibility of the owner of this spreader to replace any or all safety decals which become unreadable or otherwise defaced, and to apply the new decals to the spreader in a secure manner in the same location as the old decals.

Read and observe all "DANGER" and "CAUTION" safety decals appearing on equipment.

The following safety decals appear in various locations on your equipment. The sizes of the decals shown in this manual have been reduced in order to save space. Refer to page 4 for location and size of safety decals on your equipment.

NOTICE!

Your spreader is equipped with a safety interlock device. This device must be disconnected before the spreader trough bottom door and the spreader trough top cover can be opened exposing the auger. This device positively disconnects all hydraulic power from the auger drive motor to prevent accidental bodily injury due to contact with a turning auger.



This decal appears on the back of the spreader cover plate at the right end of the spreader. It alerts all to the danger associated with the improper use of the Safety Interlock Device.



This decal appears on the left end, or the right end of the spreader trough. It cautions all to observe general safety procedures when operating this equipment.

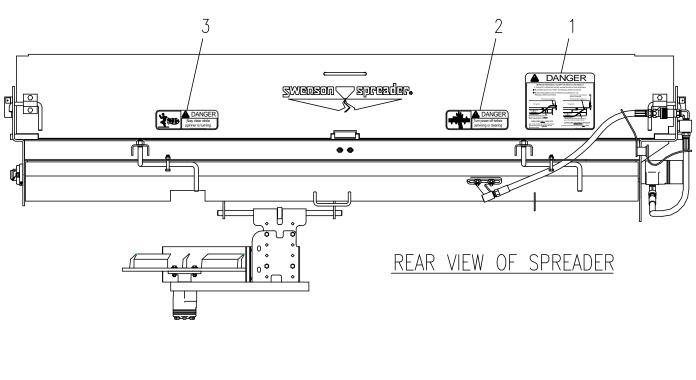


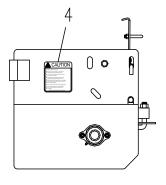
This decal appears on the back of the spreader trough cover plate. It alerts all to the danger of being caught in the dropout opening or from the top of the spreader trough where serious personal injury could result.



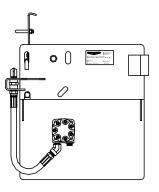
This decal appears near the spinner assembly on the back of the spreader trough cover plate. It alerts all to the danger of being struck by material being spread by the spinner assembly which could result in serious personal injury.

LOCATION OF SAFETY DECALS









RIGHT END OF SPREADER

S:\MANUAL\TAILGATE\S SERIES\SAFETY DECAL LOCATION - SAD1

<u>Decal</u>	Part Number	Qty.	<u>Description</u>
1	04049-393-00	1	Safety Interlock Decal (8" x 10" Red, White & Black)
2	04049-121-00	1	Auger Danger Decal (9" x 2 3/4" Red & White)
3	04049-044-00	1	Spinner Danger Decal (9" x 2 3/4" Red & White)
4	04049-045-00	1	General Caution Decal (4 1/4" x 4" Yellow & Black)

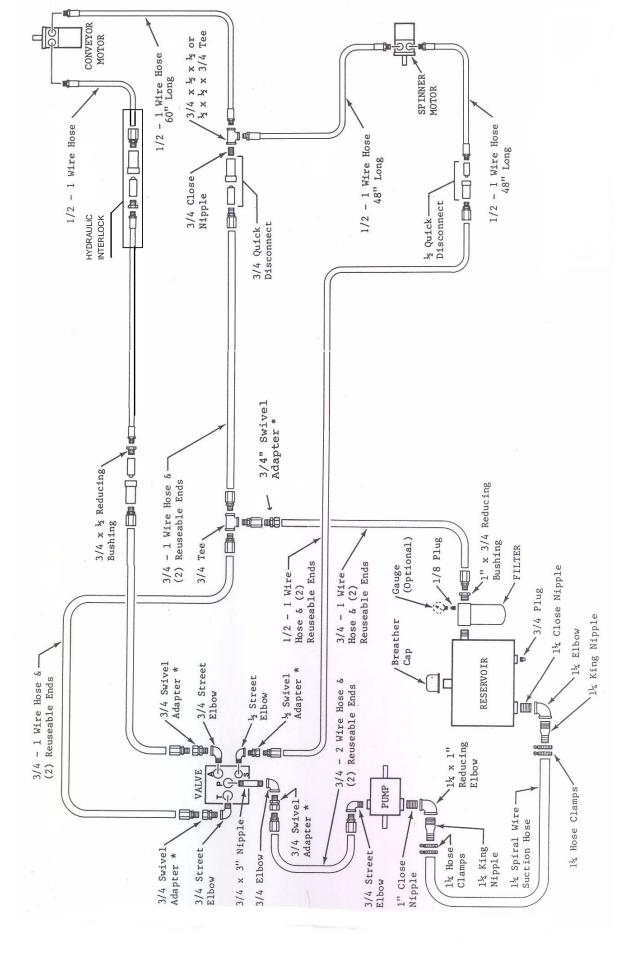
Refer to pages 44 & 45 for complete drawing and parts list for Safety Interlock device. Pages 36 & 37 for complete drawing and parts list for Safety Interlock Device.

CONTROL HYDRAULICS SPECIFICATIONS AND INSTALLATION

CONTROL AND HYDRAULIC SYSTEM SPECIFICATIONS:

Hydraulic Oil	Good Grade of MS10W Hydraulic Oil which has wear, oxidation and foam inhibitors.
• Oil Filter	10 Micron Element In Return Line
Relief Valve Setting	1500 PSI
• Oil Flow	Conveyor (A-Port) 0-15 GPM Spinner (S-Port) 0-7 GPM

CONTROL HYDRAULICS INSTALLATION



CONTROL HYDRAULICS INSTALLATION (Continued)

- This diagram is Swnson Spreader Company's complete recommended hydraulic system.
- 2. Standard pump, valve, tank and hose kits make up the complete system.
- 3. This diagram may be used to install an entire system, or part of a system, depending upon kits supplied, and existing components on truck.
- 4. Alternate proven methods and components are acceptable to suit various truck model requirements.
- 5. Hydraulic components should be kept as clean as possible during assembly operations.
- 6. Galvanized pipe and pipe fittings should not be used because flaking of galvanizing material can cause damage to major hydraulic components.
- 7. A pipe joint sealant, compatible with hydraulic oil, must be applied to all screwed fittings. (Teflon tape is not recommeneded.)
- 8. Sufficient hose should be allowed for raising dump body without kinking or stretching hose.
- 9. Hose should be protected where severe wear may be caused by vibration or sliding movement.
- 10. Long runs of hose should be supported by nylon ties or clamping.
- 11. Auger and Spinner pressure and return hoses may be reversed for proper motor rotation.
- 12. Three hose lines to rear of truck may be installed inside truck frame, under dump body floor, and secured in place.
- 13. Use hose manufacturers recommendations for fitting reusable hose ends.

ALVE 8.0" HOSE SLACK AFTER PLUMBING alve Stand (2) Halves 00105 874 00 Truck Cab Floor ō Flange Plate 00105 873 00 Φ BOTTOM VIEW A (SHOWN WITHOUT FITTINGS)

DUAL FLOW CONTROL VALVE INSTALLATION INSTRUCTIONS

- IMPORTANT: A pipe joint sealant compatible with hydraulic oil must be applied to all screwed fittings. (Teflon Tape Sealant is Not Recommended)
- 2. Hose ends connected to valve must be of the "swivel" type.
- 3. **CAUTION:** Overtightening of the fittings in flow valve may cause damage to valve body.
- 4. Approximately 8" of hose slack must be allowed between the valve and the valve stand after the valve has been completely plumbed. If this condition does not exist after the plumbing has been completed, removal of valve will require hoses to be removed at opposite end of hoses.
- 5. Assembly of valve on stand:
 - a. Cut a 5" x 5" square opening in floor of truck where the valve stand is to be located.
 - Bolt valve stand halves together forming a "box" over the 5" x 5" square opening. NOTE: When bolting valve stand halves in place, make sure holes in flanges of halves align with holes in flange plate.
 - Bolt flange plate to <u>VALVE</u>.
 (Use (2) 1/4" x 3" bolts, lockwashers, and nuts.)
 - d. Insert hoses through floor opening and valve stand and connect appropriate hoses to valve. (See instruction #1 thru #4.)
 - e. Bolt flange plate to valve stand flanges.

(See page 37 for parts list.)

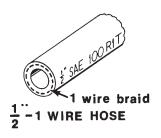
HOSE END ASSEMBLY INSTRUCTIONS

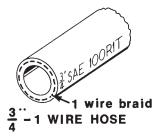
FITTING IDENTIFICATION

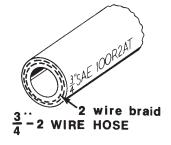
	GATES	AEROQUIP	PARKER
1"			
1 WIRE	∠Single Groove	Plain Machining	∠Plain Shoulder
3''			
1 WIRE	Single Groove	Plain Machining	∠Plain Shoulder
3'' 4 2 WIRE	Double Groove	Large Groove	Machined Notches

HOSE IDENTIFICATION

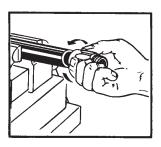
(Locate SAE number printed on hose as shown below)





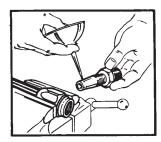


ASSEMBLY INSTRUCTIONS



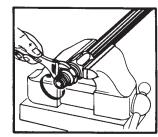
Step 1

Liberally oil hose cover with lube oil, place hose in vise just tight enough to prevent it from turning. Screw socket onto hose counter-clockwise until it bottoms. Back off 1/2 turn.



Step 2

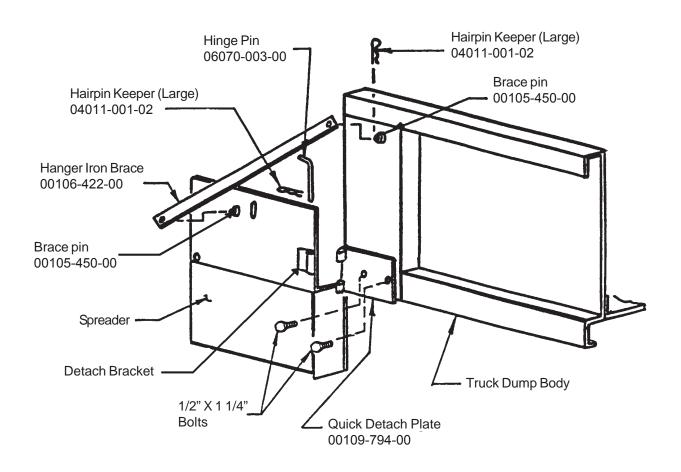
Oil nipple threads and inside of hose liberally.



Step 3

Screw nipple clockwise into socket and hose. Leave 1/32" to 1/16" clearance between nipple hex and socket. Clean and inspect all assemblies. Disassemble in reverse order.

TROUGH MOUNTING INSTRUCTIONS



TROUGH MOUNTING INSTRUCTIONS

(Continued)

GENERAL:

This spreader is designed to mount rigidly on the rear of the truck dump body, below the tail-gate, and supported by brackets bolted to the rub rails of the dump body. Instructional drawing is included in this manual to show the details on page 10.



Support spreader and other heavy components solidly when positioning for mounting on truck dump body.

IMPORTANT:

On occasion, due to improper handling during shipment or storage, the vertical ends of the trough get bent in or out slightly. Be sure these are square and true before installation. Once installed, the mounting brackets should prevent further deformation.

 Position the spreader under the dump body tailgate with the auger drive housing to the right side of the truck. The trough lip on the forward side of the spreader should be as close as possible to the cross member under the floor of the dump body.

The tailgate of the dump body should lay down horizontally over the spreader, yet the spreader must be mounted up under the tailgate as high as possible.

- 2. Pin quick detach plates to spreader detach brackets.
- Position quick detach plates against dump body cornerposts and clamp in a level position. Weld adequately to support loaded spreader trough. If bolting, is desired, drill (2) holes for 1/2" bolts simultaneously through bracket and cornerpost and bolt solidly.
- 4. Position hanger iron brace on brace pin located on spreader endplates.
- 5. Locate brace pins on dump body cornerposts approximately as shown using braces for exact positioning. (Braces may require bending for proper fit.)
- 6. Weld brace pins solidly to dump body, and retain braces at each end with hairpin keepers.
- 7. Carefully remove temporary spreader positioning apparatus.
- 8. If there is a gap between the trough lip and the dump body rear cross member, a "spillboard" of about 3/16" x 2" steel may be welded or bolted to the forward lip of the spreader to form a seal under the dump body floor. It may have to be notched or cut to fit around tailgate latches or other obstructions on the rear of the dump body.
- 9. Tailgate shields **(06024-000-00)**, if required, are bolted or welded to the inside of the tailgate to prevent material spillage over the ends of the spreader.

INSTALLATION OF SPINNER ASSEMBLIES ON "S" SERIES SPREADERS

(See pages 14-19.)



SPINNER ASSEMBLY PROCEDURE:

- 1. Attach spinner shield to spinner frame with 5/16" x 3/4" bolts and nuts.
- 2. Attach spinner disc to hub with 5/16" x 1 1/2" bolts, flatwashers and flange nuts.
- 3. Apply anti-seize compound to spinner motor shaft.
- 4. Mount spinner disc/hub assembly on spinner motor shaft.
- 5. Secure disc/hub assembly to motor shaft with proper size hardware (provided). Bolt should engage threads in motor shaft a minimum of 3/8" when bolt is tight.
- 6. Attach spinner frame assembly to spinner extension mounting bracket with (4) 3/8" X 1" bolts and flange nuts.
 - a. Appropriate spinner height depends on truck frame ground clearance. A shorter spinner height for light and medium duty trucks with contractor style bodies, a taller spinner height for heavy duty trucks with full size dump bodies.
- 7. While holding lock collar in middle notch of spinner extension mounting bracket, slide spinner hinge rod through both the mounting bracket and lock collar.

(TMS)TROUGH MOUNTED SPINNER OPTION:

1. See pages 16 through 19 for additional instructions.

MOUNTING PROCEDURES:

TRUCK SHOULD BE ON LEVEL SURFACE.

- 1. Install spinner assembly on spreader by sliding the hinge rod into the mounting tabs on bottom door. Insert (2) keeper pins into hinge rod. Center and lock spinner assembly between mounting tabs.
- 2. Raise and lower dump body to check spinner ground clearances. Adjust spinner height if needed. Repeat step if adjustments are made.

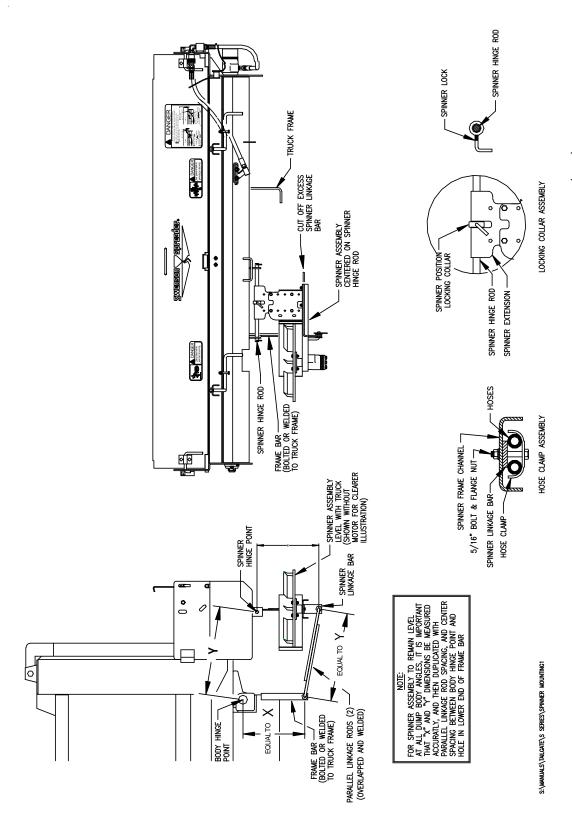
INSTALLATION OF SPINNER ASSEMBLIES ON "S" SERIES SPREADERS

(Continued)

- 3. Position spinner linkage bar under spinner frame channel so that L-Bend aligns with truck frame. Secure linkage bar to spinner frame with 5/16" X 1" bolt and flange nut, using the inside mounting hole. (Outside mounting hole is for hydraulic hose clamp.) Cut off any excess linkage bar if required.
- 4. With spinner disc level with ground, measure and record the distance between centerline of spinner hinge rod(s) and centerline of hole in spinner linkage bar(s) for dimension "X". Measure and record the space between centerline of dump body hinge pins and centerline of spinner hinge rod(s) for dimension "Y".

DIMENSION "X"_	
DIMENSION "Y"	

- 5. Temporarily clamp frame bar(s) in position (hole pointing down) against truck frame. Locate mounting hole below dump body hinge pins using "X" and "Y" dimensions from step 5.
- 6. Attach parallel linkage rods to the frame bars and in the spinner linkage bar(s) with 1/2" flatwasher and keeper pins. Overlap and temporarily clamp rods together.
- 7. Raise and lower dump body while checking spinner for binding and level operation at all dump angles. Check that temporary connection bars are not moving.
- 8. Secure frame bar(s) to truck frame in compliance with truck manufactures recommendations. Weld parallel linkage rod together. Remove all temporary clamps.
- 9. Attach spinner hydraulic hoses to spinner motor (use pipe thread sealant if applicable). Secure hoses to spinner frame with clamp and hardware provided.



LEFT HAND (CCW) SPINNER ASSEMBLY S SERIES SPREADER

RIGHT HAND (CW) SPINNER ASSEMBLY S SERIES SPREADER

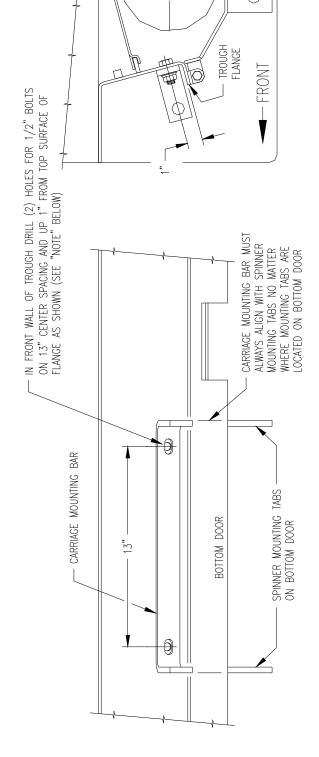
S:\MANUALS\TAILGATE\S SERIES\RH SPINNER MOUNTING!

INSTALLATION AND OPERATING INSTRUCTIONS FOR FRONT TROUGH MOUNTED SPINNER CARRIAGE ASSEMBLY

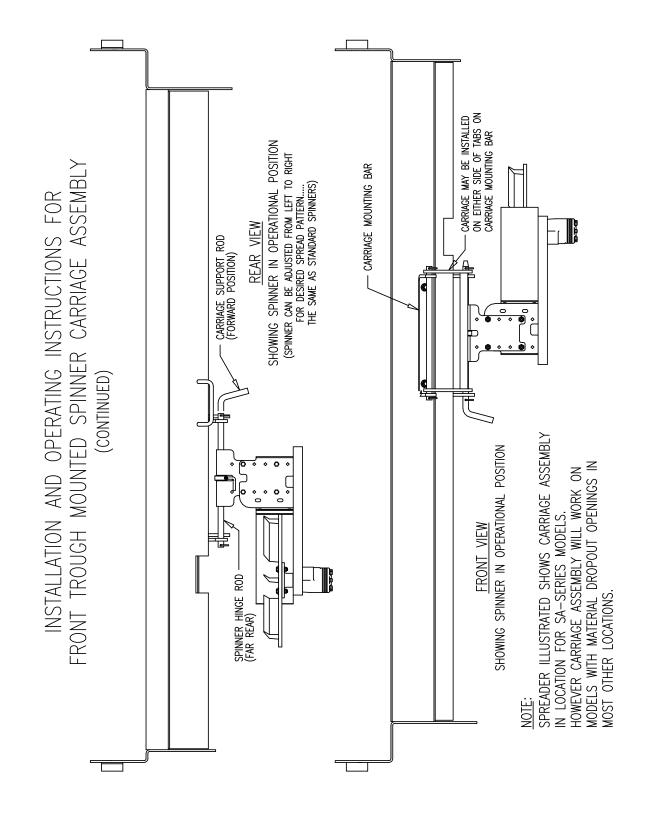
THESE INSTRUCTIONS APPLY TO ALL UNDER-TAILGATE TYPE SPREADERS HAVING A SWING-DOWN BOTTOM DOOR INCLUDING SPREADERS WITH RIGHT END DISCHARGE (EXCEPT MODEL ST-SERIES)



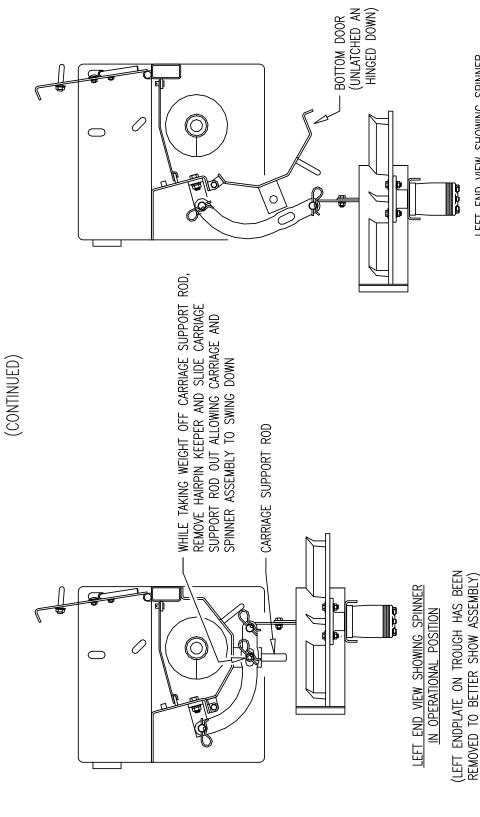
SUPPORT SPREADER AND OTHER HEAVY COMPONENTS SOLIDLY WHEN POSITIONING FOR INSTALLATION OF FRONT TROUGH MOUNTED SPINNER CARRIAGE ASSEMBLY.



NOTE: FOR EASIER PINNING—UP OF SPINNER CARRIAGE, CARRIAGE MOUNTING BAR MUST BE INSTALLED AS PARALLEL AS POSSIBLE WITH TROUGH FLANGE AT THE 1" SPACING AS SHOWN AT RIGHT.

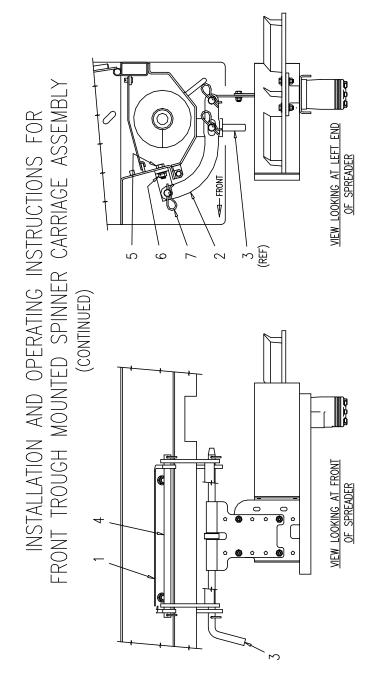


INSTALLATION AND OPERATING INSTRUCTIONS FOR FRONT TROUGH MOUNTED SPINNER CARRIAGE ASSEMBLY



(LEFT ENDPLATE ON TROUGH HAS BEEN REMOVED TO BETTER SHOW ASSEMBLY)

LEFT END VIEW SHOWING SPINNER IN SWUNG-DOWN POSITION



PARTS LIST FOR NON-STANDARD COMPONENTS RELATED TO FRONT TROUGH MOUNTED SPINNER CARRIAGE ASSEMBLY

(Refer to instruction manual parts lists for all other components.)

<u>Description</u>	Bar, Carriage Mounting	Weldment, Spinner Carriage(S-Series)	Rod, carriage Support	Rod, Hinge	Bolt, 1/2" X 1-1/4" HH Gr. 5	Nut, 1/2" Hex Flange	Keeper, Hairpin
Qty.	_	_	7	7	7	7	4
<u>Stainless</u>	00119-551-02	00119-546-02	00119-538-02	00109-374-00	04003-005-23	04003-806-16	04011-001-04
Carbon	00119-551-01	00119-546-01	00119-538-01	00106-401-00	04003-005-02	04003-806-03	04011-001-02
<u>Item</u>	_	2	က	4	2	9	7

OPERATING INSTRUCTIONS



- 1. WHEN STARTING UP NEW EQUIPMENT, BE SURE EVERYONE IS STANDING CLEAR, WATCH FOR ANYTHING THAT MAY REQUIRE SHUTTING SYSTEM DOWN. EQUIPMENT MUST BE STARTED UP SLOWLY AND WATCHED FROM A SAFE DISTANCE. WATCH FOR ANYTHING THAT MAY BE HITTING SOMETHING THAT IT SHOULD NOT BE HITTING, AND LISTEN FOR SOUNDS THAT ARE ABNORMAL. CORRECT ANYTHING THAT IS ABNORMAL BEFORE CONTINUING USE OF THE EQUIPMENT.
- 2. BEFORE INSTALLATION, MAINTENANCE, CLEANING, OR REMOVAL OF SPREADER, ALL HYDRAULIC VALVES, PTO, AND TRUCK ENGINE MUST BE SHUT OFF.
- 3. WHEN SPREADER IS REMOVED FROM VEHICLE, OR NOT IN USE, THE VALVE ON-OFF LEVER SHOULD BE IN THE "OFF" POSITION. IF LEFT IN "ON" POSITION EXCESSIVE HEAT MAY OCCUR IF PUMP CONTINUES TO PUMP OIL THROUGH THE HYDRAULIC VALVE. THIS THEN COULD CAUSE A HOSE TO BURST SPRAYING HOT OIL ON THOSE NEARBY.

INITIAL START UP:

This spreader is equipped with a hydraulic safety interlock device designed to interrupt oil flow to the auger motor when disconnected. The spreader is shipped with the interlock device in the disconnected position and must be connected for operating the spreader.

- 1. Connect hydraulic hoses to safety interlock, spreader and spinner.
- 2. Fill reservoir about three-fourths full with hydraulic oil. (See page 5 for type.) KEEP OIL CLEAN.
- 3. Start truck engine.
- 4. Be sure valve ON-OFF lever is in "OFF" position.
- 5. Keep auger and spinner knobs on valve in closed position.
- 6. Engage PTO and allow hydraulic oil to circulate several minutes to warm up.
- 7. Open both valve knobs to first position.
- 8. Move valve ON-OFF lever to "ON" position.
- 9. Examine auger and spinner to see if they are functioning properly. (They will be operating slowly.) (Left hand mounted spinner should turn in CCW rotation, and right hand mounted spinner should turn in CW rotation, as viewed from above spinner. Auger should turn in direction which makes auger fliting appear to move towards trough dropout opening.)
- Open valve knobs to other positions and check to see if spinner and auger operate faster as knobs are opened, and slower as knobs are closed.
- 11. Turn valve knobs to closed position and move ON-OFF lever to "OFF" position.
- 12. Shut truck engine off.
- 13. Check entire hydraulic system for leaks.
- 14. Refill reservoir to three-fourths full.
- 15. Hydraulic system is now ready for use.

OPERATING INSTRUCTIONS

(Continued)

PREPARING SPREADER FOR USE:

- 1. Position spreader cover plate vertically and secure with latches.
- With dump body empty, unlatch dump body tailgate from bottom and open as wide as possible but not bearing against cover plate, set the stop (or spread) chains.
- 3. Loosen spinner lock and slide spinner assembly to far left and retighten lock. (Position for spreading three or four lane highway from right lane.)
- 4. Start truck engine and allow hydraulic system to warm up by shutting off spinner and auger knobs and moving ON-OFF lever to "ON" position.
- 5. Move ON-OFF lever to "OFF" position after warming up.
- 6. Put spreading material in dump body and raise dump body to fill spreader trough.
- 7. Lower dump body to safe position.
- 8. Open spinner and auger knobs, and move ON-OFF lever to "ON" position. Spread small amount of material to determine placement of material at various spinner and auger speeds with spinner in this far left position.
- 9. Move valve lever to "OFF" position and shut off truck engine.
- Loosen spinner lock and slide spinner assembly to far right and retighten lock. (Position for spreading behind truck and to extreme right covering up to four lanes from left lane.)
- 11. Start truck engine.
- 12. Open spinner and auger knobs, and move ON-OFF lever to "ON" position. Spread small amount of material to determine placement of material at various spinner and auger speeds with spinner in this far right position.
- 13. It should now be visible that various spread patterns may be obtained by placing spinner at various positions from left to right, and by changing spinner speeds on valve.

OPERATING SPREADER:

- 1. For operating hydraulic system, follow same procedures as for preparing spreader for use.
- 2. Any valve knob setting changes may be made while truck is in motion.
- Spinner and auger may be stopped at the same time, without changing their valve settings, by moving ON-OFF lever to "OFF" position.
- 4. For normal use of dump truck, cover plate may be laid flat over spreader trough and locked in place. Dump body tailgate may be opened from top or bottom.
- When using truck for normal hauling and dumping, it is recommended that hydraulic safety interlock be disconnected. Feed hose out of slot and place hose end in hose holder under bottom door. Push dust cap over disconnect at end of hose.
- Pivot upper end of disconnect around to end of spreader. Push plug into end of disconnect while at same time position strap (on plug) in slot at forward end of fitting support bracket (which is welded to spreader endplate).
- 7. Refer to safety interlock danger decal on trough cover plate for proper use of safety interlock.
- 8. To avoid spinner damage, spinner may be removed when truck is used for extensive hauling. Protect hydraulic quick disconnects with appropriate plugs and caps.

ADJUSTING SPINNER FOR DESIRED SPREAD PATTERN



DANGER!

Serious personal injury can result from being caught in a turning spinner. Stay clear and keep all others clear when spinner is turning.

Serious personal injury can result if hit by flying particles being thrown by a turning spinner.

Stand back, and keep all others back at least 50 feet while spinner is turning. DO NOT ASSUME that particles cannot be thrown by a turning spinner just because material is not being dropped onto the spinner; particles that have been sticking to the spinner may suddenly come loose and be thrown causing possible injury.

In general, for the most commonly desired spread patterns, the material drop zone should be **over forward half** and **within outside edge of disc.** See below and next page. Adjusting the specific location where material falls on the forward half of the spinner disc is very important. This allows the greatest portion of the material to be placed on the road surface in the three most commonly desired locations: 1. To the left of the vehicle. 2. To the left and rear of the vehicle. 3. To the rear and right of the vehicle.

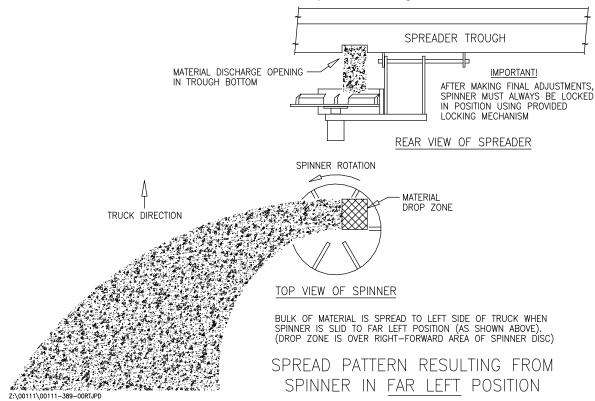
The spinner shield which is positioned approximately at the right forward quadrant of the spinner disc, is intended to restrict "stray" material to the spinner area and to aid in a more defined spread pattern.

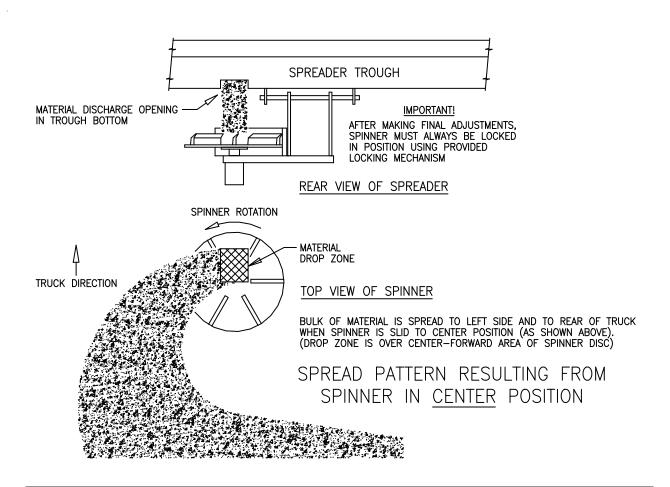
Once the desired spread pattern has been obtained, increasing the spinner speed by opening the spinner control knob will give a wider spread pattern, and closing the spinner control knob will give a narrower spread pattern.

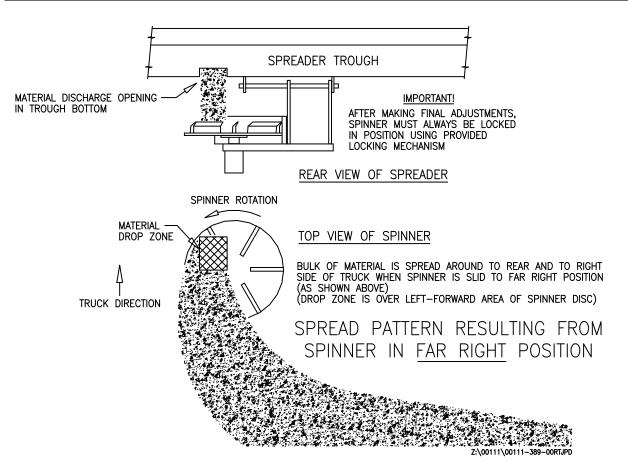
It should be noted that the spread pattern width will vary as the dump body is raised and lowered during spreading operations. This is due to the spinner becoming closer to the road surface as the body is raised, and farther away from the road surface as the body is lowered. A higher spinner assembly above the road surface will give a wider spread pattern, and a lower spinner assembly above the road surface will give a narrower spread pattern. When establishing spread pattern width, raise the body to the dump angle normally used during spreading operations, and have the spinner control knob at the setting normally used during spreading operations.

Sliding the spinner to intermediate positions from those shown below and on the following page will give variations of spread patterns to those shown. After establishing the desired spread pattern, it is suggested that the spinner position on the hinge rod, the dump body angle, and the valve spinner control setting be recorded for future use.

IMPORTANT! After making final adjustments, the spinner assembly must always be locked in position using the provided locking mechanism.







RECOMMENDED REGULAR MAINTENANCE

A DANGER

SERIOUS PERSONAL INJURY CAN RESULT FROM BEING CAUGHT IN A TURNING AUGER, A TURNING SPINNER, OR OTHER OPERATING TRUCK EQUIPMENT. BEFORE PERFORMING MAINTENANCE OPERATIONS, PARK VEHICLE ON LEVEL GROUND. SET PARKING BRAKE, SHUT OFF ALL POWER, AND SHUT OFF TRUCK ENGINE. ALWAYS REPLACE SHIELDS AND COVERS WHEN MAINTENANCE IS COMPLETE.

- 1. Maintain a three-fourths full reservoir using high grade non-foaming hydraulic oil. (See page 5.)
- 2. Avoid getting contaminants in reservoir when filling.
- Replace filter cartridge with new cartridge at least twice a year and more often if necessary. (If installed, filter condition gauge has red zone indicating when cartridge needs changing.)
- 4. Clean hydraulic quick disconnects before taking apart or connecting.
- 5. Protect hydraulic quick disconnects while in use and after taking apart with oily rag or other suitable protection.
- 6. Auger bearing requires periodic greasing every 15 hours of use and more frequent greasing during periods of greater use.
- 7. Greasing spinner hinge rod at support pivot points is suggested.
- 8. Hosing down and cleaning spreader after each use, and repainting or oiling after each season will greatly prolong spreader life. To open bottom door and top cover, disconnect hydraulic safety interlock and pivot around to end of spreader.
- 9. Spreader trough should be completely emptied after each use during severe cold weather to prevent material from freezing around auger.

HYDRAULIC TROUBLE-SHOOTING CHART

CONDITION 1

Pump cavitation recognized by excessive noise. CAUSE

- a. Air entering system through suction lines.
- b. Suction line kinked, twisted or too long.
- c. Inadequate size suction line.
- d. Hydraulic oil too heavy.
- e. Excessive pump speed. Normal pump speed should be 1200 to 1500 RPM.

CORRECTION

- a. Check line from reservoir for possible leaks.
- b. Install suction line as short and straight as possible.
- c. Increase suction line size.
- d. Drain and replace with a lower viscosity hydraulic oil.
- e. Pump capacity is 16 GPM at 1000 RPM. Decrease PTO speed accordingly.

CONDITION 3

Erratic operation of auger and/or spinner. CAUSE

- a. Low Oil.
- b. Worn or defective motor.
- c. Dirty, worn or defective flow control valve.
- d. Plugged filter.
- e. Relief valve setting too low.
- f. Pump cavitation.
- g. Air vent on reservoir tank is blocked.

CORRECTION

- a. Fill reservoir to a 3/4 full level.
- b. Repair or replace motor.
- c. Clean repair or replace flow control.
- d. Replace filter element and clean filter base.
- e. Adjust relief valve for 1500 PSI.
- f. Refer to condition 1.
- g. Clean or replace vent cap to admit atmospheric pressure to inside of tank.

CONDITION 2

Slow operation of auger and/or spinner.

CAUSE

- a. Worn or defective pump.
- b. Worn or defective motor.
- c. Pump cavitation.
- d. Insufficient pump speed.

CORRECTION

- a. Repair of replace pump.
- b. Repair or replace motor.
- c. Refer to pump section.
- d. Pump capacity is 16 GPM at 1000 RPM. Increase PTO accordingly.

CONDITION 4

Auger and/or spinner will not operate, or operates in wrong direction.

CAUSE

- a. Quick disconnects are dirty or damaged causing incomplete connection.
- b. System hose connections wrong.
- c. Hose connections wrong, causing motors to operate in wrong direction.
- d. Foreign material in valve compensator section.

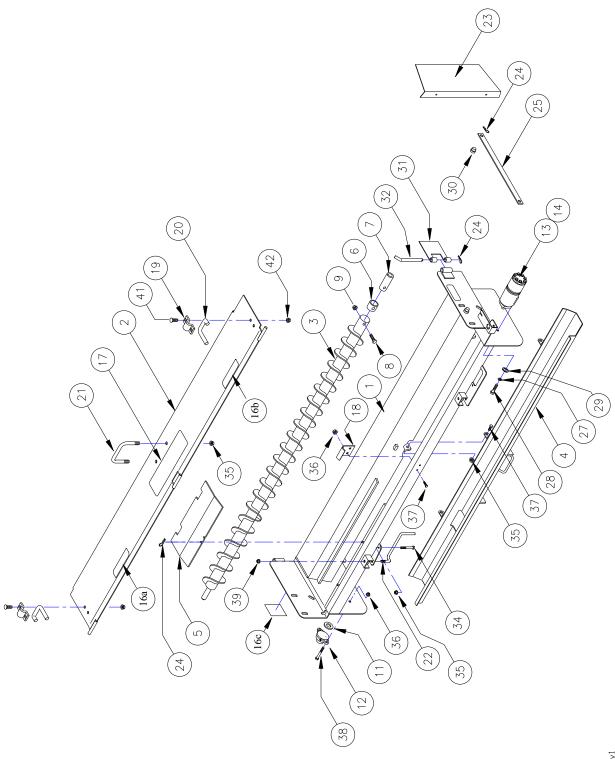
CORRECTION

- a. Clean or replace and properly connect.
- b. Refer to plumbing diagram for proper hose connections, and reconnect.
- Refer to illustration for proper hose connections at motor and reconnect.
- d. Remove compensator section and clean.

NOTE: If a motor operates in the wrong direction, reverse hose connections at motor ports (usually easier).

NOTE: Swenson Spreader LLC warranty does not cover unauthorized disassembly of hydraulic pumps, motors, valves or electric components.

SAD TROUGH ASSEMBLY

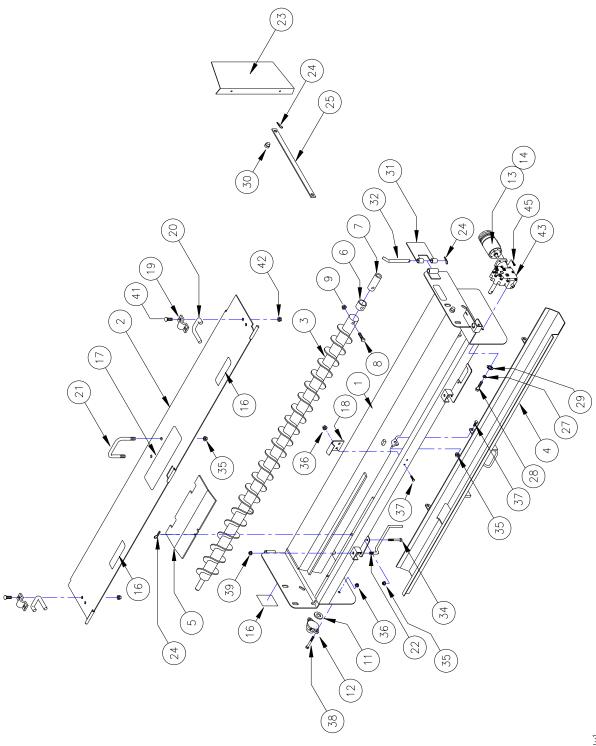


SAD Assembly1

PARTS LIST FOR S SERIES DIRECT DRIVE (SAD)

<u>ltem</u>	SAD Carbon	SADS Stainless	Qty.	<u>Description</u>
1	00119-652-01	00119-652-02	1	Weldment, Trough, SA/SC
2	00119-653-01	00119-653-02	1	Weldment, Top Cover
3	00117-100-00		1	Weldment, "SA" Auger
4	00119-654-01	00119-654-02	1	Weldment, "SA" Bottom Door
5	00107-692-00	00107-692-01	1	Cover, Anti-Flow
6	00111-294-00		1	Insert, Auger (2 1/2")
7	04038-041-01		1	Coupling, Drive
8	04003-005-43		1	Bolt, 1/2-13 X 3 1/2" HH Gr. 8
9	04003-807-11		1	Locknut, 1/2-13 Top Lock
11	04005-002-00		1	Washer, 1-1/4" Felt
12	04080-005-00		1	Bearing, 1-1/4"
13	04101-042-00		1	Motor, Hydraulic
14	04009-001-03		1	Key, Woodruff 1/4" x 1"
16	04049-044-	-00	1	Spinner Danger Decal
16b	04049-121-	00	1	Auger Danger Decal
16c	04049-045-	00	1	General Caution Decal
17	04049-002-00		1	Decal, Swenson
18	00119-669-01	00119-669-02	1	Clip, Cover Holddown
19	00115-060-00		2	Bracket
20	00106-315-00	00109-360-00	2	Handle
21	00119-665-01	00119-665-02	1	Handle Lift
22	00119-664-01	00119-664-02	2	Latch, Bottom Door
23	06024-000-00	06024-000-01	2	Shield, Tailgate
24	04011-001-02	04011-001-04	5	Keeper, Hairpin Large
25	00106-422-00	00106-422-01	2	Iron, Hanger
27	04004-001-07	04004-001-14	4	Lockwasher, 3/8" Med. Split
28	04003-003-01	04003-003-24	4	Bolt, 3/8-16 X 3/4" HH
29	04004-002-08	04004-002-20	4	Flatwasher, 3/8"
30	00105-450-00	00109-321-00	2	Pin. Brace
31	00109-794-00	00109-794-01	2	Plate, Quick Detach
32	06070-003-00	06070-003-01	2	Pin, Hinge
34	04003-003-07	04003-003-29	2	Bolt, 3/8-16 X 2" H.H.
35	04003-804-02	04003-804-08	7	Locknut, 3/8-16 Nylon Insert
36	04003-806-02	04003-806-12	4	Nut, 3/8-16 Serrated Flange
37	04003-003-03	04003-003-20	3	Bolt, 3/8-16 X 1" H.H.
38	04003-003-04	04003-003-26	2	Bolt, 3/8-16 X 1 1/4" H.H.
39	04003-807-12	04003-807-22	2	Locknut, 5/8-11 Top Lock
41	04003-032-07		4	Bolt, 5/16-18 X 5/8" Carriage, SS
42	04003-806-13		4	Nut, 5/16-18 Serrated Flange, SS

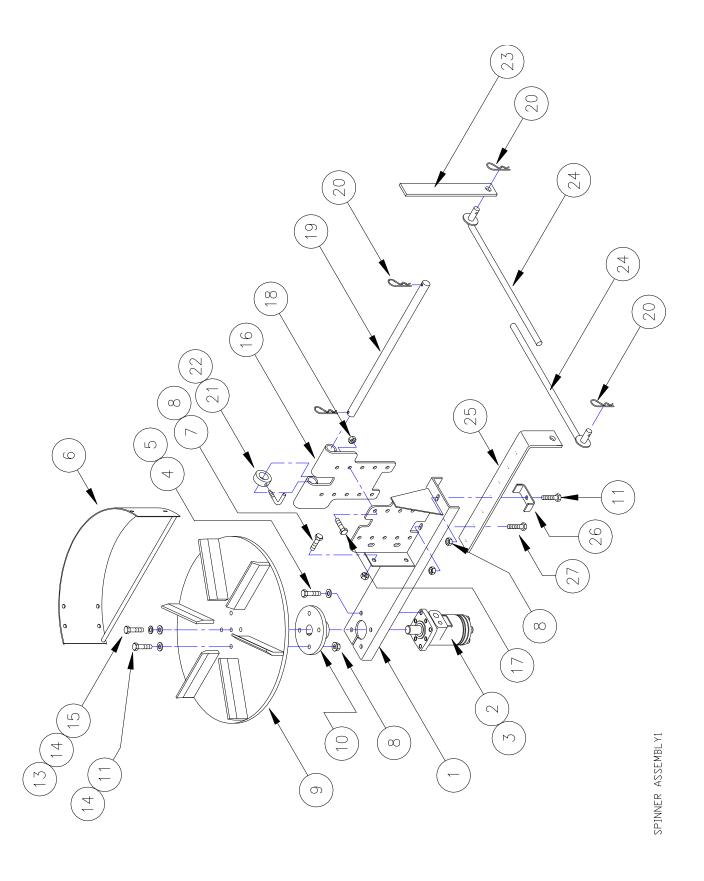
SAG TROUGH ASSEMBLY



PARTS LIST FOR S SERIES GEARBOX DRIVE (SAG)

<u>ltem</u>	SAG Carbon	SAG Stainless	Qty.	<u>Description</u>
1	00119-652-01	00119-652-02	1	Weldment, Trough, SA/SC
2	00119-653-01	00119-653-02	1	Weldment, Top Cover
3	00117-100-00	00117-100-00	1	Weldment, "SA" Auger
4	00119-654-01	00119-654-02	1	Weldment, "SA" Bottom Door
5	00107-692-00	00107-692-01	1	Cover, Anti-Flow
6	00106-448-00	00106-448-00	1	Insert, Auger (2 1/2")
8	04003-005-43	04003-005-43	1	Bolt, 1/2-13 X 3 1/2" HH Gr. 8
9	04003-807-11	04003-807-11	1	Locknut, 1/2-13 Top Lock
11	04005-002-00	04005-002-00	1	Washer, 1-1/4" Felt
12	04080-005-00	04080-005-00	1	Bearing, 1-1/4"
13	04101-037-00	04101-037-00	1	Motor, Hydraulic
13b	04101-124-00	04101-124-00	1	Motor, sensored, Hydraulic
14	04009-001-03	04009-001-03	1	Key, Woodruff 1/4" X 1"
16	00002-464-00	00002-464-00	1	Safety Decal Package
17	04049-002-00	04049-002-00	1	Decal, Swenson (Included in Safety
				Decal Package #00002-464-00)
18	00119-669-01	00119-669-02	1	Clip, Cover Holddown
19	00115-060-00	00115-060-00	2	Bracket
20	00106-315-00	00109-360-00	2	Handle
21	00119-665-01	00119-665-02	1	Handle Lift
22	00119-664-01	00119-664-02	2	Latch, Bottom Door
23	06024-000-00	06024-000-01	2	Shield, Tailgate
24	04011-001-02	04011-001-04	5	Keeper, Hairpin Large
25	00106-422-00	00106-422-01	2	Iron, Hanger
27	04004-001-09	04004-001-16	4	Lockwasher, 1/2" Med. Split
28	04003-005-02	04003-005-23	4	Bolt, 1/2-13 X 1 1/4" HH
29	04004-002-10	04004-002-22	2	Flatwasher, 1/2"
30	00105-450-00	00109-321-00	2	Pin. Brace
31	00109-794-00	00109-794-01	2	Plate, Quick Detach
32	06070-003-00	06070-003-01	2	Pin, Hinge
34	04003-003-07	04003-003-29	2	Bolt, 3/8-16 X 2"
35	04003-804-02	04003-804-08	7	Locknut, 3/8-16 Nylon Insert
36	04003-806-02	04003-806-12	4	Nut, 3/8-16 Serrated Flange
37	04003-003-03	04003-003-20	3	Bolt, 3/8-16 X 1" H.H.
38	04003-003-04	04003-003-26	2	Bolt, 3/8-16 X 1 1/4" H.H.
39	04003-807-12	04003-807-22	2	Locknut, 5/8-11 Top Lock
41	04003-032-07	04003-032-07	4	Bolt, 5/16-18 X 5/8" Carriage, SS
42	04003-806-13	04003-806-13	4	Nut, 5/16-18 Serrated Flange, SS
43	04132-118-00	04132-118-00	1	Assembly, Gearbox 5:1
45	04003-082-02	04003-082-02	4	Bolt, 3/8-16 X 1 1/4" Soc. Cap

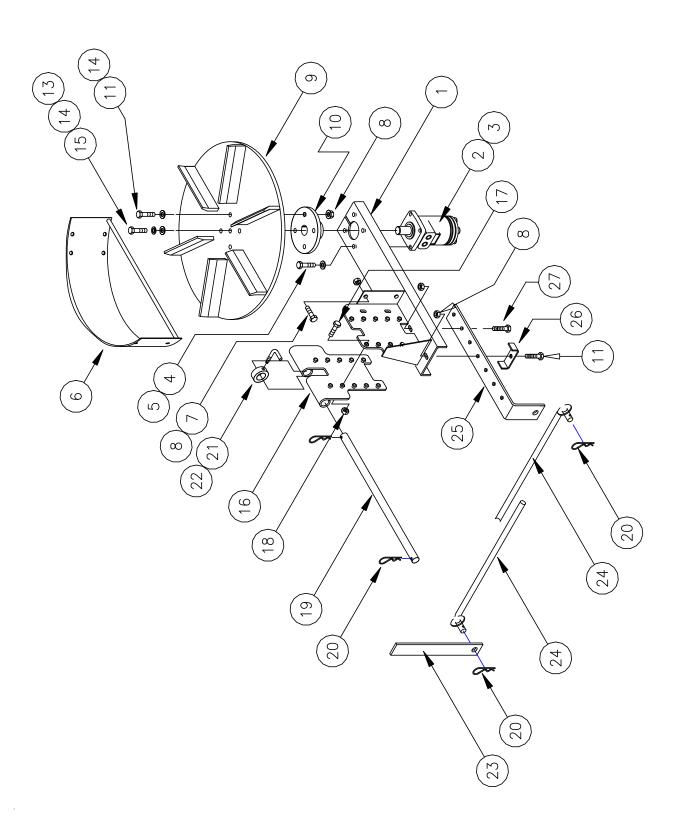
LEFT HAND (CCW) SPINNER ASSEMBLY



PARTS LIST FOR LEFT HAND (CCW) SPINNER ASSEMBLY

<u>ltem</u>	<u>Carbon</u>	<u>Stainless</u>	Qty.	<u>Description</u>
1	00119-521-01	00119-521-02	1	Weld, Spinner Frame
2	04101-035-00	04101-035-00	1	Motor, Hydraulic (3.0 CID)
3	04009-001-03	04009-001-03	1	Key, 1/4" X 1" Woodruff
4	04003-003-01	04003-003-24	4	Bolt, 3/8"-16 X 3/4" HH
5	04004-001-07	04004-001-14	4	Lockwasher, 3/8"
6	06043-001-00	00101-831-00	1	Weld, Spinner Shield
7	04003-002-02	04003-002-23	4	Bolt, 5/16"-18 X 3/4" HH
8	04003-806-01	04003-806-13	10	Nut, 5/16"-18 Serrated Flange
9	04622-002-00	04622-002-00	1	Disc, Poly 18" (CCW)
10	06012-003-00	06012-003-00	1	Hub, Spinner
11	04003-002-06	04003-002-21	5	Bolt, 5/16"-18 X 1-1/2" HH,
13	04003-001-11	04003-001-11	1	Bolt, 1/4"-20 X 3/4" HH SS(For Eaton Motor)
	04003-001-16	04003-001-16	1	Bolt, 1/4"-20 X 1" HH SS (For Eaton Motor)
	04003-002-24	04003-002-24	1	Bolt, 5/16"-18 X 1" HH SS (For White Motor)
	04003-002-26	04003-002-26	1	Bolt, 5/16"-18 X 1-1/4" HH SS(For White Motor)
14	04004-002-05	04004-002-05	1	Flatwasher, 1/4"
	04004-002-07	04004-002-07	5	Flatwasher, 5/16"
15	04004-001-05	04004-001-06	1	Lockwasher, 5/16"
16	00119-524-01	00119-524-02	1	Weld, Spinner Extension
17	04003-003-05	04003-003-20	4	Bolt, 3/8"-16 X 1" HH
18	04003-806-02	04003-806-20	4	Nut, 3/8"-16 Serrated Flange
19	00106-401-00	00109-374-00	1	Rod, Hinge
20	04011-001-02	04011-001-04	4	Keeper, Large
21	04001-001-01	04001-001-01	1	Collar Set 1"
22	00106-314-00	00106-314-00	1	Lock, Spinner, SS
23	00100-715-00	00100-715-01	1	Bar, Frame
24	08036-001-00	08036-001-01	2	Weld, Linkage Rod
25	00110-665-00	00110-665-01	1	Bar, Spinner Linkage
26	06010-000-00	06010-000-01	1	Clamp, Hose
27	04003-002-04	04003-002-24	1	Bolt, 5/16-18 X 1" HH
N/S	04540-007-00	04540-007-00	1	Tube, Anti-Seize

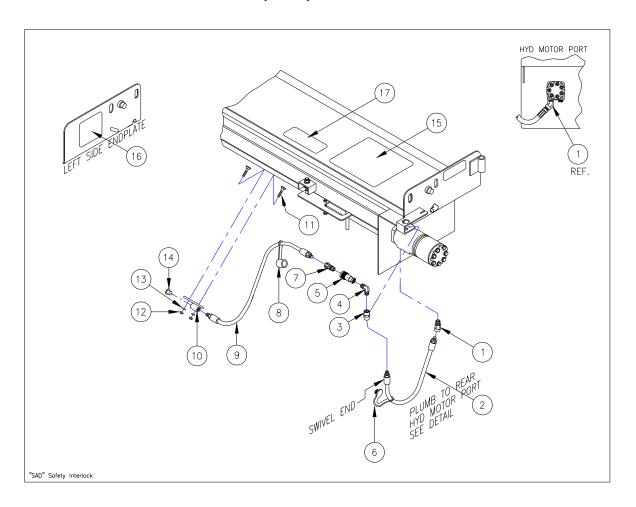
RIGHT HAND (CW) SPINNER ASSEMBLY



PARTS LIST FOR RIGHT HAND (CW) SPINNER ASSEMBLY

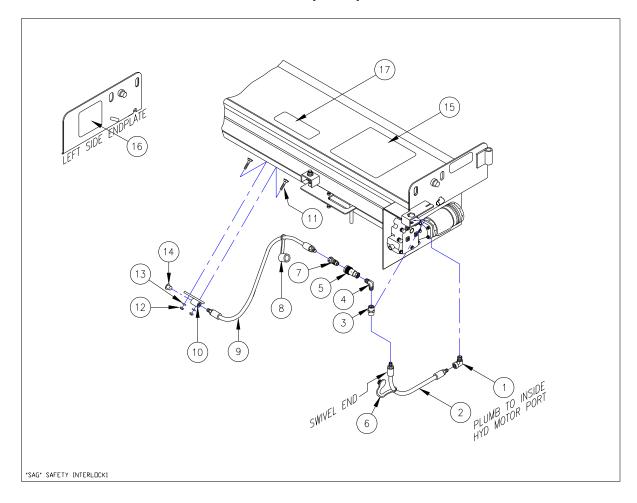
<u>ltem</u>	<u>Carbon</u>	<u>Stainless</u>	Qty.	<u>Description</u>
1	00119-521-01	00119-521-02	1	Weld, Spinner Frame
2	04101-035-00	04101-035-00	1	Motor, Hydraulic (3.0 CID)
3	04009-001-03	04009-001-03	1	Key, 1/4" X 1" Woodruff
4	04003-003-01	04003-003-24	4	Bolt, 3/8"-16 X 3/4" HH
5	04004-001-07	04004-001-14	4	Lockwasher, 3/8"
6	06043-001-00	00101-831-00	1	Weld, Spinner Shield
7	04003-002-02	04003-002-23	4	Bolt, 5/16"-18 X 3/4" HH
8	04003-806-01	04003-806-13	10	Nut, 5/16"-18 Serrated Flange
9	04622-009-00	04622-009-00	1	Disc, Poly 18" (CW)
10	06012-003-00	06012-003-00	1	Hub, Spinner
11	04003-002-06	04003-002-21	5	Bolt, 5/16"-18 X 1-1/2" HH
13	04003-001-11	04003-001-11	1	Bolt, 1/4"-20 X 3/4" HH SS(For Eaton Motor)
	04003-001-16	04003-001-16	1	Bolt, 1/4"-20 X 1" HH SS (For Eaton Motor)
	04003-002-24	04003-002-24	1	Bolt, 5/16"-18 X 1" HH SS (For White Motor)
	04003-002-26	04003-002-26	1	Bolt, 5/16"-18 X 1-1/4" HH SS(For White Motor)
14	04004-002-05	04004-002-05	1	Flatwasher, 1/4"
	04004-002-07	04004-002-07	5	Flatwasher, 5/16"
15	04004-001-05	04004-001-06	1	Lockwasher, 5/16"
16	00119-524-01	00119-524-02	1	Weld, Spinner Extension
17	04003-003-05	04003-003-20	4	Bolt, 3/8"-16 X 1" HH
18	04003-806-02	04003-806-20	4	Nut, 3/8"-16 Serrated Flange
19	00106-401-00	00109-374-00	1	Rod, Hinge
20	04011-001-02	04011-001-04	4	Keeper, Large
21	04001-001-01	04001-001-01	1	Collar Set 1"
22	00106-314-00	00106-314-00	1	Lock, Spinner, SS
23	00100-715-00	00100-715-01	1	Bar, Frame
24	08036-001-00	08036-001-01	2	Weld, Linkage Rod
25	00110-665-00	00110-665-01	1	Bar, Spinner Linkage
26	06010-000-00	06010-000-01	1	Clamp, Hose
27	04003-002-04	04003-002-24	1	Bolt, 5/16-18 X 1" HH
N/S	04540-007-00	04540-007-00	1	Tube, Anti-Seize

PARTS LIST FOR DIRECT DRIVE (SAD) HYDRAULIC SAFETY INTERLOCK



<u>ltem</u>	Part Number	Qty.	<u>Description</u>		
1	04121-032-03	1	Elbow, 1/2" X 45 Degree		
2	04120-003-07	1	Hose, 1/2" (18")		
3	04121-073-01	1	Coupling, 1/2"		
4	04121-033-02	1	Elbow, 1/2" X 90 Degree		
5	04119-110-00	1	Coupler, Quick Disc. (4000 Series)		
6	04118-019-00	1	Plug, 1/2" Dust (4000 Series)		
7	04119-111-00	1	Nipple, Quick Disc. (4000 Series)		
8	04118-043-00	1	Cap, 1/2" Dust (4000 Series)		
9	04120-020-01	1	Hose, 1/2" (28")		
10	00117-035-01	1	Weld, Coupling Plate		
11	*		2 Bolt, 3/8-16 X 1" Carriage		
12	*		2 Locknut, 3/8-16 Top Lock		
13	*		2 Flatwasher, 3/8"		
14	04111-009-00	1	Plug, 1/2" NPT (CA9)		
15	04049-393-00	1	Decal, Safety Interlock		
16	04049-045-00	1	Decal, Caution		
17	04049-121-00	1	Decal, Danger (Auger)		
	* Indicates items	readily ava	ilable locally.		

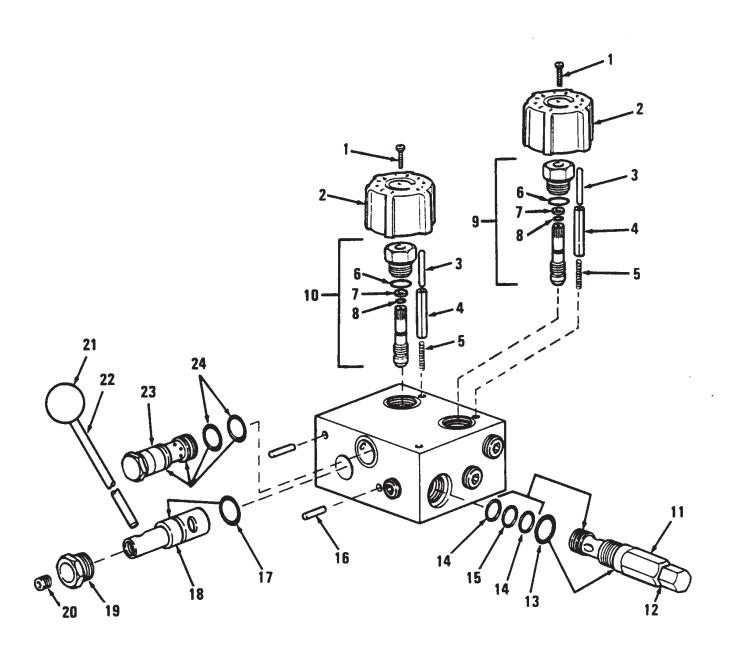
PARTS LIST FOR GEARBOX DRIVE (SAG) HYDRAULIC SAFETY INTERLOCK



<u>ltem</u>	Part Number	Qty.	<u>Description</u>
1	04121-024-03	1	Elbow, 1/2" X 90 Degree
2	04120-003-20	1	Hose, 1/2" (24")
3	04121-073-01	1	Coupling, 1/2"
4	04121-033-02	1	Elbow, 1/2" X 90 Degree
5	04119-110-00	1	Coupler, Quick Disc. (4000 Series)
6	04118-019-00	1	Plug, 1/2" Dust (4000 Series)
7	04119-111-00	1	Nipple, Quick Disc. (4000 Series)
8	04118-043-00	1	Cap, 1/2" Dust (4000 Series)
9	04120-020-01	1	Hose, 1/2" (28")
10	00117-035-01	1	Weld, Coupling Plate
11	*		2 Bolt, 3/8-16 X 1" Carriage
12	*		2 Locknut, 3/8-16 Top Lock
13	*		2 Flatwasher, 3/8"
14	04111-009-00	1	Plug, 1/2" NPT (CA9)
15	04049-393-00	1	Decal, Safety Interlock
16	04049-045-00	1	Decal, Caution
17	04049-121-00	1	Decal, Danger (Auger)
	* Indicates items	readily ava	ilable locally.

HYDRAULIC DUAL FLOW CONTROL VALVE

(04105 285 00)



PARTS LIST FOR HYDRAULIC DUAL FLOW CONTROL VALVE

(04105 285 00)

<u>ltem</u>	Part Number	Qty.	<u>Description</u>
1A	04105-285-46		Detent Repair Kit (Consists of 1,2,3,4 & 5)
1B	04105-285-09		Kit, Seal for Item # 9 & 10 Consists of Items 6, 7 & 8
1D	04105-285-31		Kit, Seal
4		0	Consists of Items: 6,7,8,12,13,14,15,17,23 & 24
1		2	Screw
2		2	Handknob
3		2	Dowel Pin
4		2	Roll Pin
5		2	Spring
6		2	O-Ring®
7		2	Back-up, Teflon®
8		2	O-Ring, Viton®
9	04105-285-10	1	Auger Adj. Assy 7 GPM
	04105-285-11	1	Auger Adj. Assy 10 GPM
	04105-285-12	1	Auger Adj. Assy 15 GPM
	04105-285-13	1	Auger Adj. Assy 20 GPM
	04105-285-14	1	Auger Adj. Assy 25 GPM
	04105-285-15	1	Auger Adj. Assy 30 GPM
10	04105-285-16	1	Spinner Adj. Assy 5 GPM
	04105-285-17	1	Spinner Adj. Assy 7 GPM
	04105-285-18		Spinner Adj. Assy 10 GPM
11	04105-285-19	1	Relief Cartridge
12		1	Gasket
13		1	O-Ring, Viton ®
14		2	Ring, Back-up, Teflon®
15		1	O-Ring, Viton®
16	04105-285-24	2	Roll Pin
17		1	O-Ring (Dump Stem)
18	04105-032-21	1	Stem (Not Available - Can no longer service)
19	04105-285-26	1	Plug
20	04105-032-26	1	Setscrew
21	04105-032-28	1	Handknob
22	04105-032-25	1	Handle
23		1	Bypass Assy.
24		2	O-Ring, Viton®

PARTS LIST FOR VALVE STAND KIT

(#00001-692-00)

(See page 8 for Drawing)

<u>ltem</u>	Part Number	Qty.	<u>Description</u>
1	00105-874-00	2	Valve Stand (Upright
2	00105-873-00	1	Flange Plate
3	04003-001-10	2	Bolt, 1/4" X 3" H.H.
4	04003-001-05	8	Bolt, 1/4" X 1" H.H.
5	04003-801-07	10	Nut, 1/4" H.H.
6	04004-001-05	10	Lockwasher, 1/4"

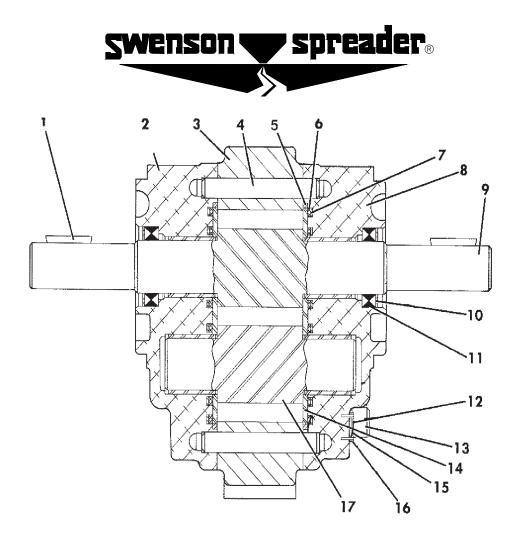
PARTS LIST FOR HYDRAULIC HOSE & FITTING KIT

(8'-11' Dump Body) (00001 206 00) See page 6 for drawing.

<u>ltem</u>	Part Number	Qty.	<u>Description</u>
1	04120-003-01	2	Hose, 1/2" x 48" x (1) Wire
2	04120-003-12	2	Hose, 1/2" x 60" x (1) Wire
3	04120-026-04	1	Hose, 1/2" x 15' x (1) Wire
4	04120-014-04	1	Hose, 3/4" x 15' x (1) Wire
5	04120-033-01	1	Hose, 3/4" x 25' x (2) Wire
6	04119-110-00	2	Quick Disconnect, 1/2" (Female)
	04119-111-00	2	Quick Disconnect, 1/2" (Male)
7	04119-112-00	2	Quick Disconnect, 3/4" (Female)
	04119-113-00	2	Quick Disconnect, 3/4" (Male)
8	04121-002-01	2	Reusable Hose End, 1/2"
9	04121-002-03	6	Reusable Hose End, 3/4"
10	04121-002-04	4	Reusable Hose End, 3/4"
11	04121-003-04	1	Swivel Adapter, 1/2" (F) x 1/2" (M)
12	04121-003-05	4	Swivel Adapter, 3/4"
13	04110-016-05	1	Bushing, 1" x 3/4" Reducing
17	04110-011-01	1	Tee, 3/4" x 1/2" x 1/2" Reducing
18	04110-027-05	1	Nipple, 1/2" x 3"
19	04110-004-04	1	Elbow, 1/2" 90 Degree
20	04110-006-04	1	Elbow, 1/2" 90 Degree Street
21	04118-019-00	2	Dust Plug 1/2"
22	04118-043-00	2	Dust Cap 1/2"
23	04118-018-00	2	Dust Plug 3/4"
24	04118-028-00	2	Dust Cap 3/4"

PARTS AVAILABLE FOR HYDRAULIC MOTORS

Part Number	Qty.	<u>Description</u>
04101-035-98	1	Seal Kit for "White" Roller Stator Spinner Hydraulic Motor
04101-102-09	1	Seal Kit for "Eaton" (Char-Lynn) Spinner Hydraulic Motor
04101-102-02	1	4-Bolt Motor Mounting Flange for "Eaton" (Char-Lynn) Hydraulic Motor only (Will not work on other manufacturer's motors.)

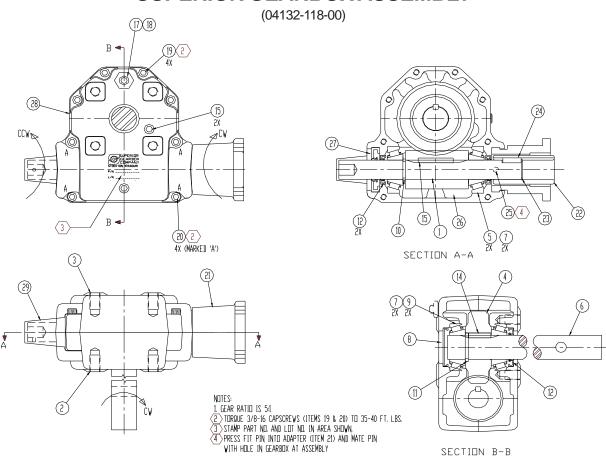


PARTS LIST FOR GEAR PUMP

16 Gallon Webster (04102-064-00)

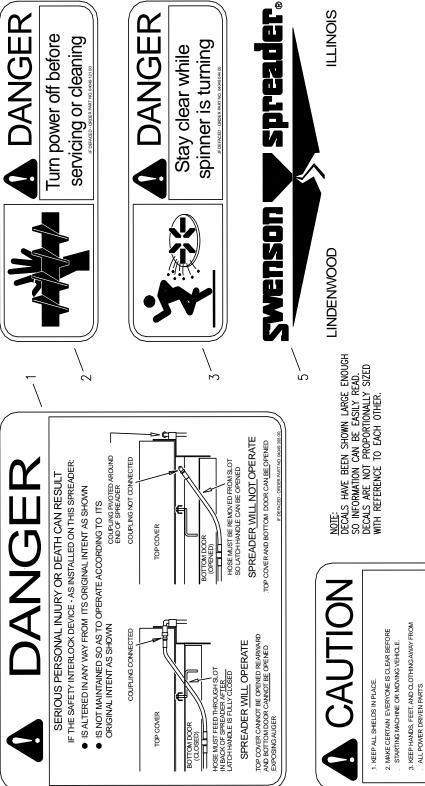
<u>ltem</u>	Part Number	Qty.	<u>Description</u>
1	04102-071-07	2	#15 Woodruff Key
2	04102-071-01	1	L.H. Body Assembly
3	04102-064-01	1	Gear Plate
4	04102-068-04	2	Dowel Pin
5		2	Ring Seal
6		2	Load Seal
7		2	Pre-Load Seal
8	04102-071-05	1	R.H. Body Assembly
9	04102-064-02	1	Drive Shaft
10		2	Retaining Ring
11		2	Oil Seal
12	04102-071-08	6	Washer
13	04102-064-03	6	Socket Head Screw, 3/8" x 3 3/4"
14		2	Wear Plate
15	04102-071-11	1	Name Plate
16	04102-071-12	2	Drive Screw
17	04102-068-10	1	ldler gear
	04102-064-90	-	Minor Repair Kit
			(Consisting of Items 5,6,7,10,11 & 14.)

SUPERIOR GEARBOX ASSEMBLY



<u>ltem</u>	Part Number	Qty.	<u>Description</u>
1	04132-118-01	<u>uty.</u> 1	Shaft, Input
2	04132-118-02	1	Casting, Mach Tap Stand
3	04132-118-03	1	Casting, Machine Thru Stand
4	04132-118-04	1	Gear, Worm 5:1 RH 1/4 KW
5	04132-113-05	2	Bearing, Cone
6	04132-118-06	1	Shaft, Output
7	04132-113-07	4	Bearing, Cup
8	04132-113-16	1	End, Cap
9	04132-113-06	2	Bearing, Cone
10	04132-113-08	1	Retaining Ring, Ext. 1.000 Shaft
11	04132-113-09	1	Retaining Ring, Ext. 1.250 Shaft
12	04132-113-10	2	Seal
13	04132-113-11	1	Seal
14	04132-113-12	1	Key, 1/4" X 1/4", 1.080
15	04132-113-13	1	Key, 1/4" X 1/4", 1.580
16	04132-113-14	3	Plug, 1/4"-18 NPT SCHD W/3M
17	04132-113-17	1	Bushing, 1/4" NPT X 1/8" NPT
18	04132-113-18	1	Plug, Vent 5 PSI
19	04132-113-20	4	Bolt, 5/16"-18 X 1.50"
20	04132-113-21	4	Bolt, 5/16"-18 X 1.75"
21	04132-118-21	1	Adapter, Hydraulic 40Bolt
22	04132-118-22	1	Coupler
23	04132-118-23	1	Retaining, Ring
24	04132-115-18	1	Key, 1/4" X 1/4", .930
25	04132-115-23	1	Adapter Pin
26	04132-118-26	1	Gear, Worm Rolledm 4-L RH 5:1
27	04132-113-19	1	Seal, 1.000
28	04132-113-27	16	Lube/EB 85W140
29	04132-116-19	1	Shaft Guard

DECAL GROUP



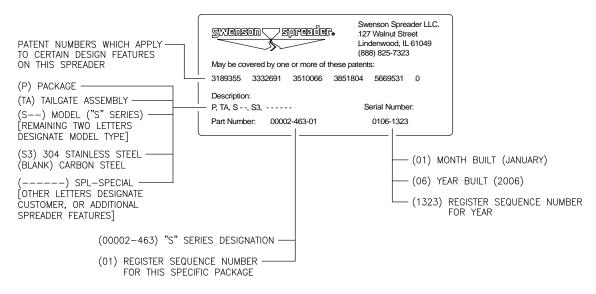
	DECALS A	DECALS ARE NOT PROPORTIONALLY SIZED		
1. KEEP ALL SHIELDS IN PLACE.	WITH REFE	WITH REFERENCE TO EACH OTHER.		
2. MAKE CERTAIN EVERYONE IS CLEAR BEFORE STARTING MACHINE OR MOVING VEHICLE.				
3. KEEP HANDS, FEET, AND CLOTHING AWAY FROM ALL POWER DRIVEN PARTS.				
4. DISENGAGE PTO, SHUT OFF HYDRAULIC VALVE, AND SET PARKING BRAKE BEFORE LEAVING	Decal	Part Number	Qty	Description
OPERATORS POSITION. MAKE SURE ALL MOVEMENT HAS STOPPED BEFORE SERVICING, UNCLOGGING,				
OR CLEANING MACHINE.	_	04049-393-00	_	Safety Interlock Decal (8" X 10" Red & White)
5. USE FLASHING LIGHTS WHEN OPERATING MACHINE.	- (04040400		
6. MAKE SURE MACHINE IS SOLIDLY SUPPORTED	.7	04049-121-00	_	Auger Danger Decal (9" X Z 3/4" Ked & Wnite)
WHEN IT IS BEING MOUNTED, DISMOUNTED,	က	04049-044-00	_	Spinner Danger Decal (9" X 2 3/4" Red & White)
OR STORED.	4	04049-045-00	_	General Caution Decal (4 1/4" X 4" Yellow & Black
JF DEFACED - ORDER PART NO. 04049 045 00	· ·	04040 003 00		Caronical Casa Docal
	ი \	04048-002-00	_	owerson rogo decal
		00002-464-00	,	Decal Package (Consists of Items 1 - 5)
TAKE IN THE PARTY OF THE PARTY				

NAME PLATE INFORMATION

- When ordering parts or requesting information or assistance, always include the information listed below.
- The Model Number and Serial Number for the Spreader are shown on the name plate.
- The space below is provided as a convenient place to record these numbers; just fill in the blanks.

MODEL NUMBER	
SERIAL NUMBER	
DATE PURCHASED	
DEALER PURCHASED FROM	
DEALER'S SERVICE DEPARTMENT PHONE NUMBER	

EXPLANATION OF SERIAL NUMBER DECAL



S:\00111\00111-389-00RTJPD

CALL YOUR AUTHORIZED SWENSON SPREADER DEALER FOR PARTS AND SERVICE SWENSON SPREADER (815) 393-4455 TOLL FREE (888) 825-7323 FAX (866) 310-0300

email: swensonsales@swensonspreader.com

NOTICE: INSTRUCTIONAL MATERIAL AND PARTS LISTS INCLUDED IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE.



Dealers have the responsibility of calling to the attention of their customers the following warranty prior to acceptance of an order from that customer for any SWENSON® product.

WARRANTY

WHATTHIS WARRANTY COVERS

Swenson Spreader LLC (hereinafter "Swenson") is committed to assuring Customer satisfaction with the Spreader (hereinafter "Product"). Swenson warrants to the original owner (hereinafter "Purchaser") of the Product to be free from defects in material and workmanship for the following term: Swenson warrants ALL PARTS AND ASSEMBLIES to be free from defects in material and workmanship for a period of one year from the date of purchase. Installation of the Product must be in accordance with Swenson's instructions. This warranty extends to the Purchaser and may not be assigned without the prior written approval of Swenson; except a distributor may assign this warranty to the first titled owner of the Product.

If a Product has a defect in material or workmanship covered by the warranty, Swenson will (at our option) either replace or repair said part. Swenson's has sole discretion as to repair of defects covered by this warranty, or replacement of the Product. Swenson's responsibilities as described herein shall not exceed the amount of the purchase of the Product.

WHAT THIS WARRANTY DOES NOT COVER

Swenson's warranty does not extend to Product which have been misused, abused, improperly installed, repaired with non-genuine Swenson parts, improperly cared for, if materials such as lava rock or cinders are used, or for which payment has not been made. The warranty is void if repairs or alterations to the Product are made by unauthorized persons, or the Product serial numbers have been altered or defaced.

All gasoline engines and hydraulic pumps are warranted by their manufacturer and not by Swenson Spreader LLC. Electrical or hydraulic components are not to be disassembled without the express written permission of Swenson Spreader LLC.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SWENSON'S MAXIMUM OBLIGATION AND LIABILITY UNDER THIS WARRANTY SHALL BE LIMITED TO AN AMOUNT EQUAL TO THE PRESENT PURCHASE PRICE FOR THE SWENSON PRODUCT. SWENSON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER DIRECT OR INDIRECT, INCIDENTAL, CONSEQUENTIAL OR OTHERWISE ARISING OUT OF BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages.

Defective parts returned to Swenson Spreader LLC must be accompanied by the following information:

RGA #	
Spreader Model	
Serial Number	
Date Installed	
Where Purchased	

Purchaser accepts these terms and warranty limitations unless product is returned within fifteen days for full refund of purchase price.



SWENSON SPREADER LLC P.O. BOX 127 LINDENWOOD, ILLINOIS 61049-0127

PHONE: (815)393-4455 TOLL FREE: (888)825-7323 SALES & SERVICE FAX: (866)310-0300

email:swensonsales@swensonspreader.com website: www.swensonspreader.com

IMPORTANT INFORMATION ENCLOSED