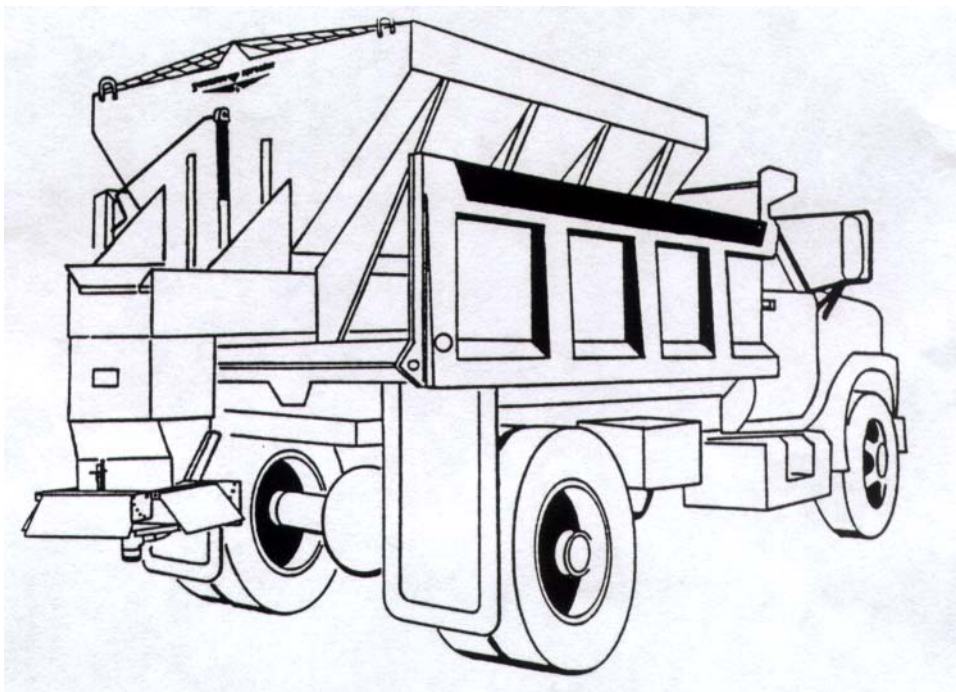


INSTALLATION *and* OPERATING INSTRUCTIONAL MANUAL

READ BEFORE INSTALLATION

V-BOX MATERIAL SPREADERS MODEL "EV" (with 6:1 spur gear drive)



INCLUDED IN THIS MANUAL

Spreader Mounting Instructions	3
Hydraulic Components Mounting Instructions	6
Operating and Maintenance Instructions	12
Troubleshooting	14
Parts Drawings and Parts Lists	15
Warranty	Back Cover



P.O. Box 127 - LINDENWOOD, ILLINOIS - 815/393-4455

Manual No. 00109-283-00
April 10, 2002

THE BEST SAFETY DEVICE IS A CAREFUL OPERATOR!

SAFETY ALERT SYMBOL



THIS SYMBOL MEANS **ATTENTION!**
BECOME ALERT!
YOUR SAFETY IS INVOLVED!
PLEASE READ AND UNDERSTAND COMPLETELY BEFORE DOING!

SAFE EQUIPMENT INSTALLERS and OPERATORS:



TURN OFF ALL POWER BEFORE PERFORMING ANY SERVICE OPERATIONS


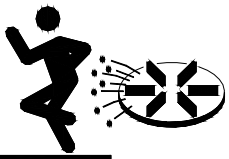
- FOLLOW RECOMMENDED OPERATING PROCEDURES.
- KEEP EQUIPMENT IN SAFE OPERATING CONDITION AT ALL TIMES.
- RECOGNIZE AND AVOID HAZARDS WHILE OPERATING, SERVICING AND MAINTAINING EQUIPMENT.



CAUTION

1. KEEP ALL SHIELDS IN PLACE.
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 OPERATORS POSITION. MAKE SURE ALL MOVEMENT HAS STOPPED BEFORE SERVICING, UNCLOGGING, OR CLEANING MACHINE.
5. USE FLASHING LIGHTS WHEN OPERATING MACHINE.
6. MAKE SURE MACHINE IS SOLIDLY SUPPORTED WHEN IT IS BEING MOUNTED, DISMOUNTED, OR STORED.



IF DEFACED - ORDER PART NO. 04049 045 00



DANGER

Stay clear while spinner is turning

IF DEFACED - ORDER PART NO. 04049 044 00



DANGER

Turn power off before servicing or cleaning

IF DEFACED - ORDER PART NO. 04049 182 00

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

INSTALLATION INSTRUCTIONS FOR V-BOX SPREADERS

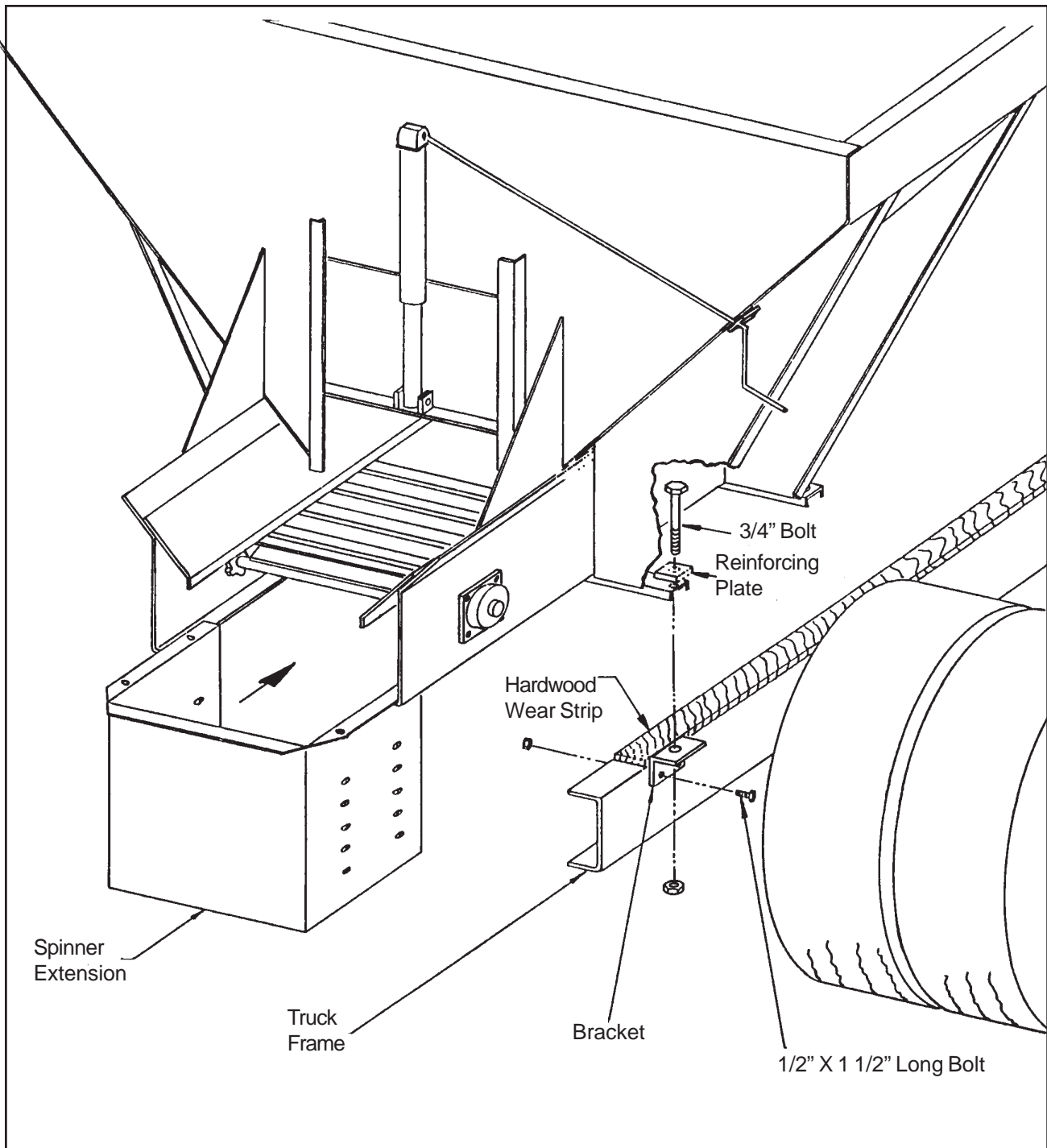
PERMANENT CHASSIS MOUNT

1. Hardwood wear strips usually 1" x 3" (not furnished) must be fitted to the truck chassis.
2. The V-Box should be positioned on the wooden wear strips so that a distance of approximately 6" be left between the truck cab and the front of the V-Box. This will help facilitate any future servicing of the conveyor chain.
3. Parts of some body jacks may have to be cut out to clear the truck tires.
4. Hardware kits for permanent mount V-Boxes Part #**00001 965 00** for 8 foot to 11 foot boxes and Part # **00001 966 00** for 12 foot to 17 foot boxes are used to attach the V-Box to the truck chassis. (See mounting detail on page 4.)
5. DO NOT WELD MOUNTING ANGLES TO THE TRUCK FRAME. Doing so can cause fatigue cracking of the truck frame.

SLIP IN V-BOXES

1. Remove and store the dump box tailgate.
2. Place the V-Box in the dump body and push as far forward as possible. Longitudinals must overhang rear at least *20 inches. If the dump body is not flat, it is suggested that the V-Box be placed on two 1" x 6" hardwood boards. This will evenly distribute the weight of the loaded V-Box on all the cross channels.
3. The spinner assembly is slid into place on the rear of the spreader. The top flanges of the spinner extension box rest on top of the bottom flanges of the spreader main longitudinals and can be slid into place. Use four 3/8" bolts to attach the spinner to the V-Box. (See mounting diagram page 4.)
4. The four optional tie down bolts are hooked into the holes in body jacks, two each side. The tiedown clips are slipped under the rail of the dump box and the nut and jam nut tightened.

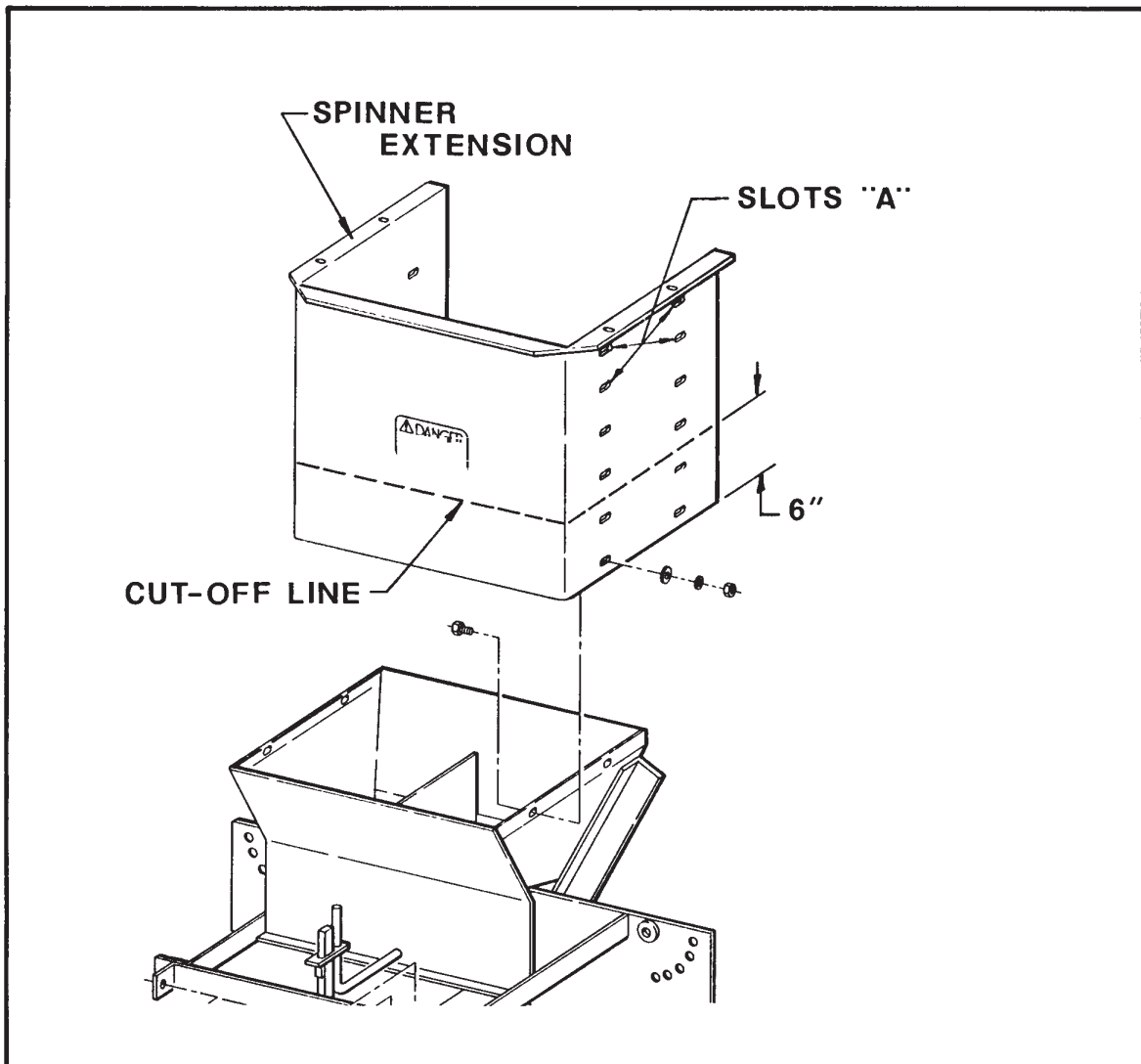
***NOTE:** If swing up spinner is used, longitudinals must overhang rear of dump body a minimum of 23 inches.



PARTS LIST FOR PERMANENT MOUNT MOUNTING HARDWARE

<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	00104-017-00	A/R	Bracket, Hold Down
2	00108-933-00	A/R	Plate, Reinforcing
3	04003-005-04	A/R	1/2" X 1 1/2" H.H. Gr. 5
4	04003-807-11	A/R	Locknut, 1/2" Hex (Deformed)
5	04003-007-07	A/R	Bolt, 3/4" X 4" H. H. Gr. 5
6	04003-807-13	A/R	Locknut, 3/4" Hex (Deformed)

INSTRUCTIONS FOR SPINNER EXTENSION ASSEMBLY



To achieve desired spinner height, assemble by using any of the slots available.

TO USE SLOTS "A" ONLY:

The bottom of the Spinner extension must be cut off as shown above, if the top slots (labeled "A") are to be used.

The use of slots "A" will give the shortest spinner profile available.

No Modifications are necessary if the other slots are used.

MOUNTING INSTRUCTIONS FOR THRU-SHAFT HYDRAULIC PUMP, RESERVOIR, FILTER, VALVE AND HOSES

(All Standard Truck and Hydraulic Spreader Plumbing Installations)

NOTE: Instructions for PTO mounted and front mounted pumps will be furnished upon request.

GENERAL

The thru-shaft pump, valve, reservoir and filter, with mounting brackets and fasteners may be used on most any truck with an existing transmission PTO and continuously operating dump hoist pump installation.



CAUTION!

1. If dump body is raised for easier pump installation, it must be blocked securely before disconnecting hoist pump.

IMPORTANT!

1. Taking time to plan location of major hydraulic components will save time in further plumbing operations.
2. All pipe fittings should be cleaned before installing, and all other hydraulic components to be kept as clean as possible during assembly.
3. Check rotation of PTO for proper pump mounting.
4. Pump must be mounted so shaft rotates in direction of arrow.
5. Two U-Joints (one standard type, and one slip type) must be used on ends of each piece of shafting installed in drive train.
6. Yokes on U-Joint must be in phase (time) for smooth operation.



CAUTION!

ALL SET SCREWS IN U-JOINTS MUST BE TIGHT AND PROPERLY SAFETY WIRED.

PUMP INSTALLATION

1. Pump is installed between transmission PTO and existing hoist pump. Remove existing shaft connecting PTO to hoist pump.
2. Check PTO RPM with truck engine at 2000 RPM. This reading should be in the operating range of 1200 to 1500 RPM, If this range cannot be achieved it will be necessary to change the PTO accordingly.

3. Determine best location for pump, and mount on bracket. (Following general instructions below.)
 - a. Keep in mind location of suction hoses, pressure hoses, and valve.
 - b. Pump drive shafting should be in as straight a line as possible not to exceed 15° bend at any U-Joint.
 - c. Pump drive shafting may be cut to length as needed. DO NOT drive U-Joints onto pump shaft. That will cause damage to internal pump parts.
 - d. If hoist pump is swivel type that moves as dump body is raised or lowered distance should be allowed between new pump and hoist pump for workable slip U-Joint.
 - e. Short leg of pump bracket is bolted inside truck chassis frame.
 - f. Pump is bolted to long leg of bracket using holes which best align pump.
 - g. Mounting bracket may be rebent as needed, and any excess cut off.
 - h. Furnished brace may be welded as needed for added support on pump bracket.

NOTE: Moving of hoist pump may be required, follow above general instructions as needed for reinstallation of hoist pump.

RESERVOIR and FILTER INSTALLATION

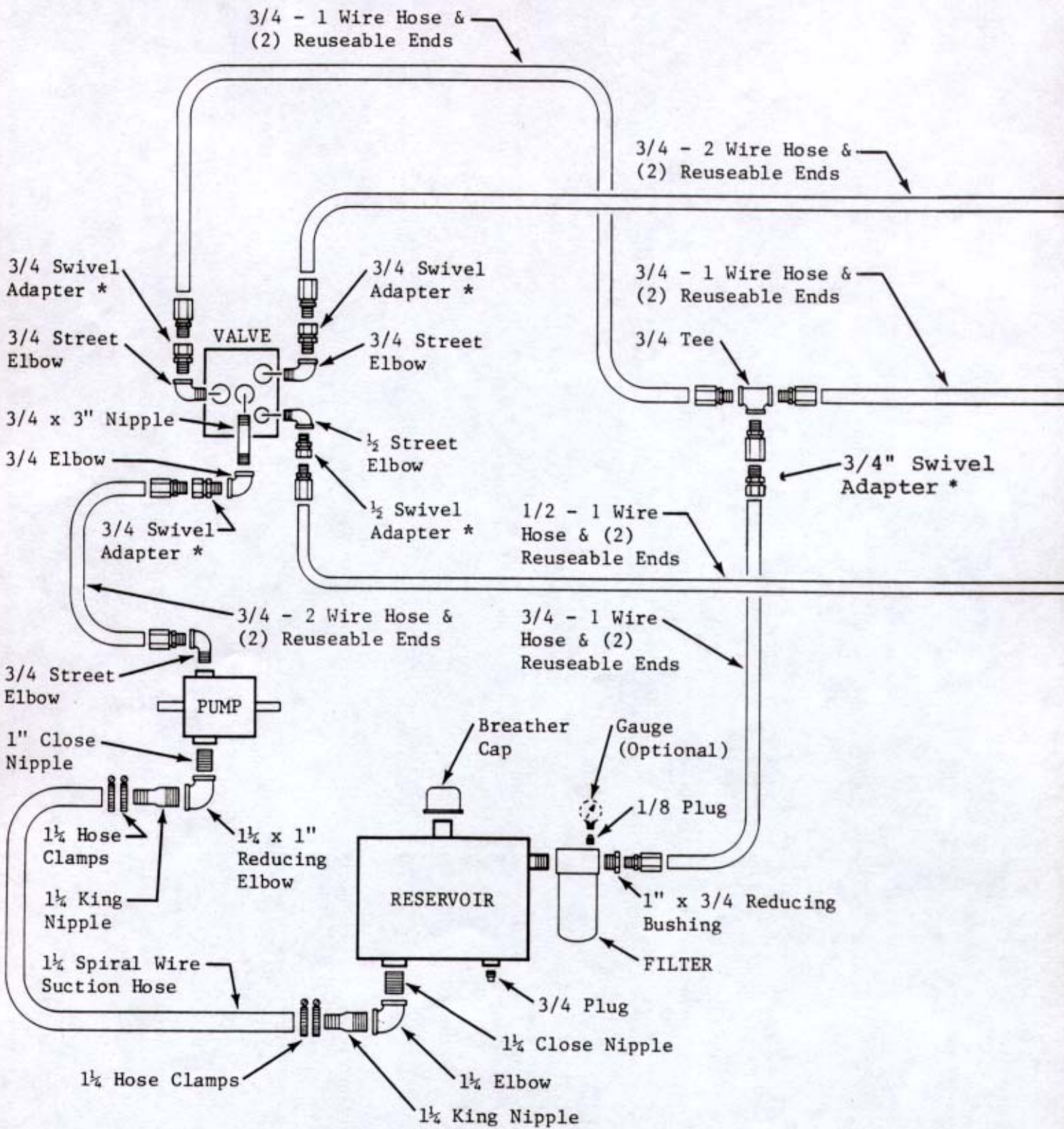
1. Locate reservoir as high and close to pump as possible.
2. Reservoir may be located inside or outside truck frame. (Ease in filling reservoir is important.)
3. Tank mounting brackets may be bolted to truck frame.
4. 3/4" plug at bottom of reservoir is drain.
5. Filter is screwed directly onto reservoir with cartridge down.
6. Oil must flow through filter in direction of arrow on filter.
7. Screw plug, or gauge (optional) into filter.

VALVE INSTALLATION

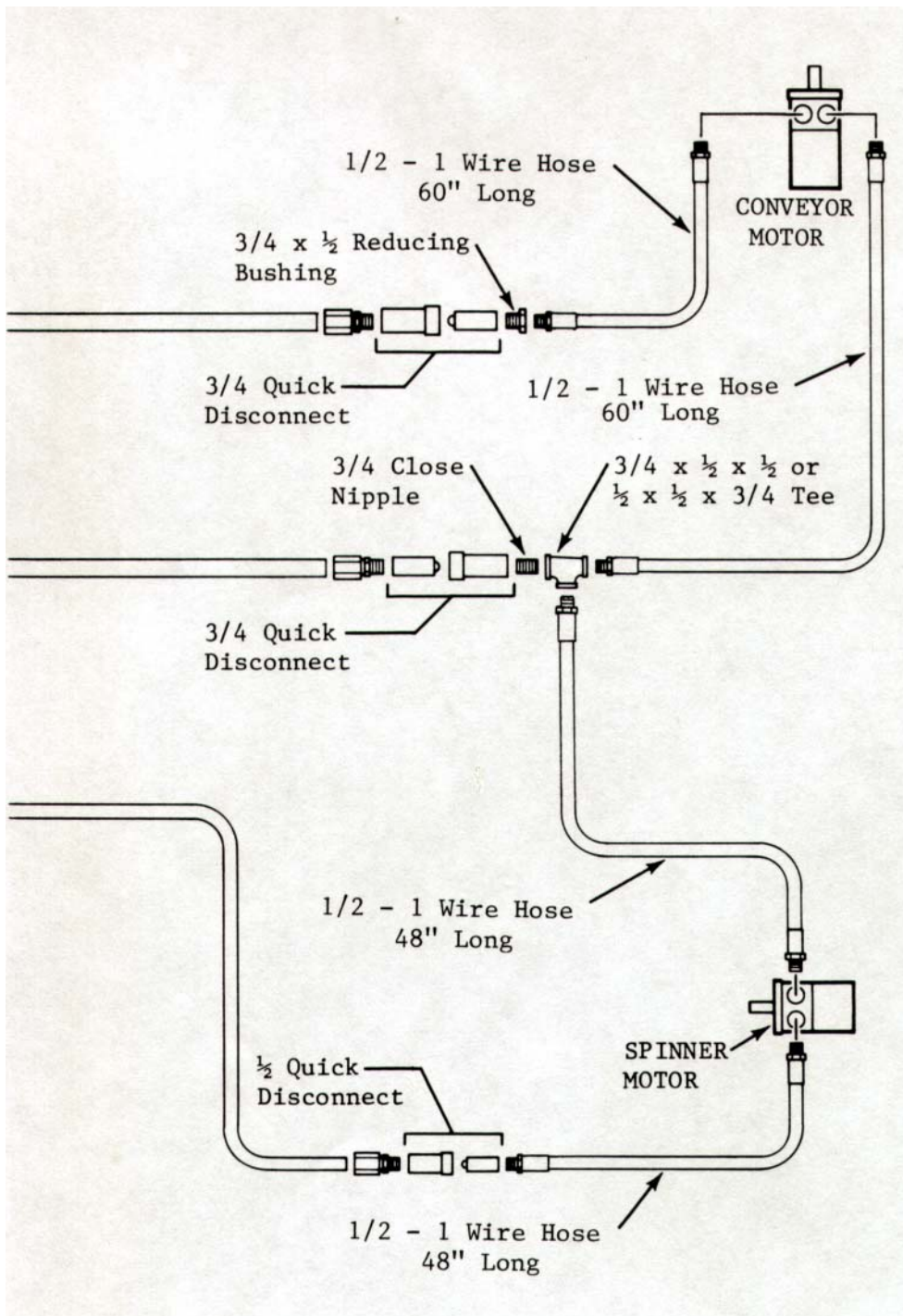
1. Consider final location of valve before assembling; depending upon location of valve, pipe fittings in valve body may require different positioning than that shown on valve assembly instructions included in this manual.
2. Locate valve in truck cab in position convenient for driver, and for hosing or piping through floorboard under driver's seat.
3. Valve may be operated in any position desired.

HOSE INSTALLATION

Enough hose and fittings are furnished in the various kits for standard spreader installation. Refer to the complete hydraulic plumbing diagram included in this manual for hosing all mounted components.



- This diagram is Swenson Spreader Company's complete recommended hydraulic system.
- This diagram may be used to install an entire system, or part of a system, depending upon kits supplied, and existing components on truck.
- Standard pump, valve, tank and hose kits make up the complete system.
- Alternate proven methods and components are acceptable to suit various truck model requirements.



* Swivel adapters are included in kits when "screw-on" type reusable hose ends are furnished.

For Permanent Mount V-Box Spreaders, Quick Disconnects are not included. Hydraulic hoses from motors screw directly into pipes welded to the side of the V-Box.

INSTALLATION NOTES

1. Hydraulic components should be kept as clean as possible during assembly operations.
2. Galvanized pipe and pipe fittings must not be used because flaking of galvanizing material can cause damage to major hydraulic components.
3. A pipe joint sealant, compatible with hydraulic oil, must be applied to all screwed fittings. (Teflon tape is not recommended.)
4. Sufficient hose should be allowed for raising dump body without kinking or stretching hose.
5. Hose should be protected where severe wear may be caused by vibration or sliding movement.
6. Long runs of hose should be supported by nylon ties or clamping.
7. Pressure and return hoses, connected to spinner or conveyor motors, may be reversed for proper motor rotation.
8. Three hose lines to rear of truck may be installed inside truck frame, under dump body floor, and secured in place.
9. Use hose manufacturers recommendations for fitting reusable hose ends.

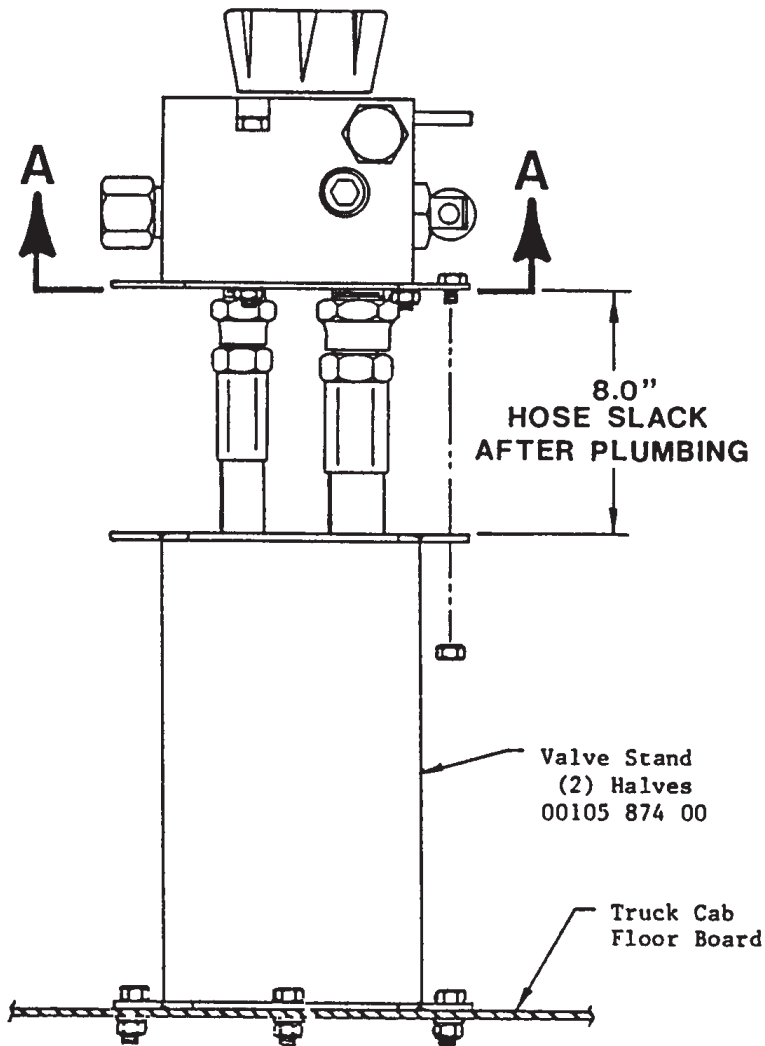
HYDRAULIC PLUMBING DIAGRAM FOR SLIP-IN V-BOX SPREADERS



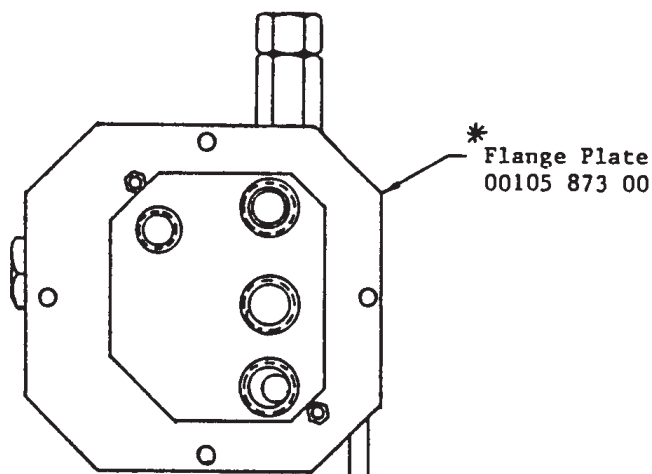
LINDENWOOD

ILLINOIS

**DUAL FLOW VALVE/STAND
INSTALLATION INSTRUCTIONS**



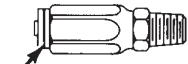
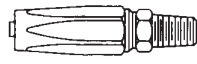


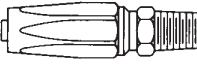
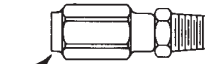
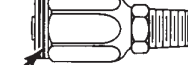


1. **IMPORTANT:** A pipe joint sealant compatible with hydraulic oil must be applied to all screw fittings. (Teflon Tape Sealant is Not Recommended)
2. Hose ends connected to flow valve must be of the "swivel" type.
3. **CAUTION:** Over tightening of the fittings in flow valve may cause damage to valve body.
4. Approximately 8" of hose slack must be realized between the flow valve and valve stand after the flow 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 valve.
5. Assembly of valve on stand:
 - a. Cut a 5" x 5" square opening in floor board of truck where the valve stand is to be located.
 - b. 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 align with holes in flange plate.*
 - c. Bolt flange plate to VALVE. (Use (2) 1/4" x 3" bolts, lockwashers, etc.)
 - d. Insert hoses through floor opening and valve stand and connect appropriate hoses (see instruction #1 thru #4) to flow valve.
 - e. Bolt flange plate to valve stand flanges.



**BOTTOM VIEW A-A
(SHOWN WITHOUT FITTINGS)**

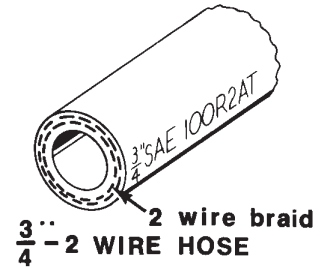
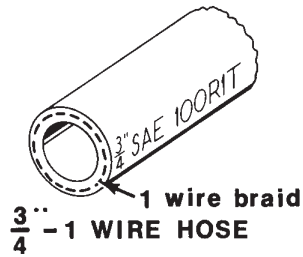
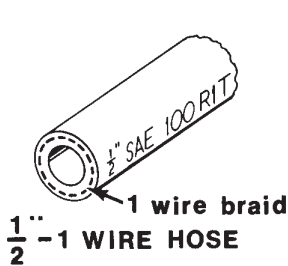
HOSE END ASSEMBLY INSTRUCTIONS

FITTING IDENTIFICATION

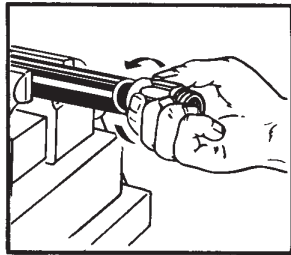
	GATES	AEROQUIP	PARKER
$\frac{1}{2}$ " 1 WIRE	 Single Groove	 Plain Machining	 Plain Shoulder
$\frac{3}{4}$ " 1 WIRE	 Single Groove	 Plain Machining	 Plain Shoulder
$\frac{3}{4}$ " 2 WIRE	 Double Groove	 Large Groove	 Machined Notches

HOSE IDENTIFICATION

(Locate SAE number printed on hose as shown below)

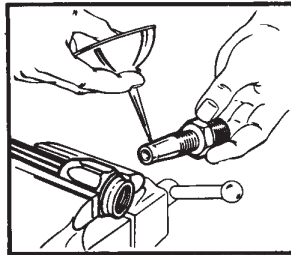


ASSEMBLY INSTRUCTIONS



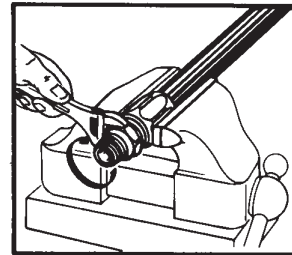
Step 1

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.

OPERATING INSTRUCTIONS FOR V-BOX SPREADERS

CAUTION

1. When starting up new equipment, be sure every one is standing clear, watch for anything that may require shutting system down.
2. Be sure lever on valve is moved completely to “OFF” position before working in or around spreading equipment.
3. Recommended material is 1/2” screened size or less for standard chain (belt over chain is required for larger material).

INITIAL START UP

1. Fill reservoir about three-fourths full with high grade nonfoaming hydraulic oil.
KEEP OIL CLEAN!
2. Move valve ON-OFF lever to “OFF” position.
3. Open auger and spinner knobs on valve.
4. Engage PTO and allow hydraulic oil to circulate several minutes to warm up.
5. Move valve ON-OFF lever to “ON” position.
6. Check entire hydraulic system for leaks.
7. Examine conveyor and spinner to see if they are running in right direction.
8. Refill reservoir to three-fourth full.
9. Hydraulic system is ready for use.

SPREADER OPERATION

1. Start truck engine and allow hydraulic system to warm up by shutting off spinner and conveyor knobs and moving ON-OFF lever to “ON” position.
2. Turning the knob marked “SPINNER” counter clockwise will increase the spinner speed and width of spread.
3. Turning the knob marked “AUGER” counter clockwise will increase the conveyor speed and thus the amount of material spread.
4. The gate on the rear of the box will also allow more material to pass to the spinner when opened wider.
5. The directional chute over the spinner will control the direction of the spread pattern. If the baffles are located to drop the material on the left side of the spinner disc, then the pattern will be behind and to the right side of the truck. If the baffles direct the material to the right side of the disc, then the pattern will be behind and to the left of the truck. A little experimenting with the different positions of the baffles and the spinner speed control will show the pattern spread exactly as desired for direction and width.
6. The control valve may be turned on and off or adjusted while the truck is in motion.
7. Spinner and conveyor may be stopped at the same time without changing their valve settings by moving the ON-OFF lever to “OFF” position.

RECOMMENDED MAINTENANCE FOR MATERIAL SPREADERS

CAUTION

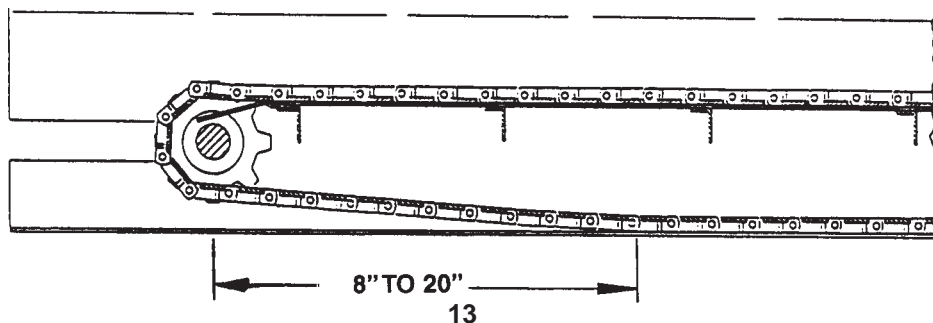
1. Always replace shields and covers when maintenance is complete.

MAINTENANCE FOR ALL MATERIAL SPREADER

1. Allow hydraulic system to warm up before using.
2. Maintain a three-fourths full reservoir using high grade nonfoaming hydraulic oil.
3. Avoid getting contaminants in reservoir when filling.
4. Replace filter cartridge (**04104 005 00**) with new cartridge at least twice a year and more often if necessary.
5. Clean quick disconnects before taking apart or connecting.
6. Protect quick disconnects while in use and after taking apart with oily rag or other suitable protection.
7. All bearings require periodic greasing, and more frequent greasing during periods of greater use.
8. Greasing pump shaft U-Joints and slip-end of slip U-Joints is recommended with each truck lubricating.
9. Drive chains should be checked frequently, cleaned, oiled, and taken up if slack is excessive.
10. Oiling or greasing spinner hinge rod (if on spreader) is suggested.
11. Gear boxes should be checked for proper lubrication level, and SAE 90 gear type lubricant added if necessary.
12. Drive chains and drag chains of all types should be checked for slack shortly after initial start up, and if necessary, slack should be taken up.
13. Hosing down and cleaning spreader after each use, and repainting or oiling after each season will greatly prolong spreader life.
14. Spreader trough or hopper should be kept empty to prevent material from freezing around conveyor (or roll) in severe cold weather.

ADDITIONAL MAINTENANCE FOR V-BOXES

1. Grease fittings on gear boxes should be greased at same time bearings are greased. **CAUTION!** Over greasing may cause seal damage.
2. Gear box vents, when supplied, should be kept open at all times, or damage may result to seals.
3. Drag chain slack should be checked periodically and taken up until distance between centerline of rear sprocket and point where chain contacts lower flange on longitudinal is 8 inches to 20 inches.
4. A coating of grease on V-Box drag chain taken-up bolt is recommended for easier chain adjustment.
5. Follow engine manufacturers instructions for engine maintenance recommendations.



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. Oil too heavy.
- e. Excessive pump speed. Normal pump speed 1400 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 low viscosity non-detergent oil.
- e. Pump capacity is 16 GPM at 1000 RPM. Decrease PTO speed accordingly.

CONDITION 3

Erratic operation of conveyor 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.
- e. Adjust relief valve for 1500 PSI.
- f. Refer to pump section.(Condition 1)
- g. Clean or replace vent cap to admit atmospheric pressure to inside the tank.

CONDITION 2

Slow operation of conveyor and/or spinner.

CAUSE

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

CORRECTION

- a. Repair or replace pump.
- *b. Repair or replace motor.
- c. Refer to pump section.(Condition 1)
- d. Pump capacity is 16 GPM at 1000 RPM. Increase PTO accordingly.

CONDITION 4

Conveyor and/or spinner will not operate.

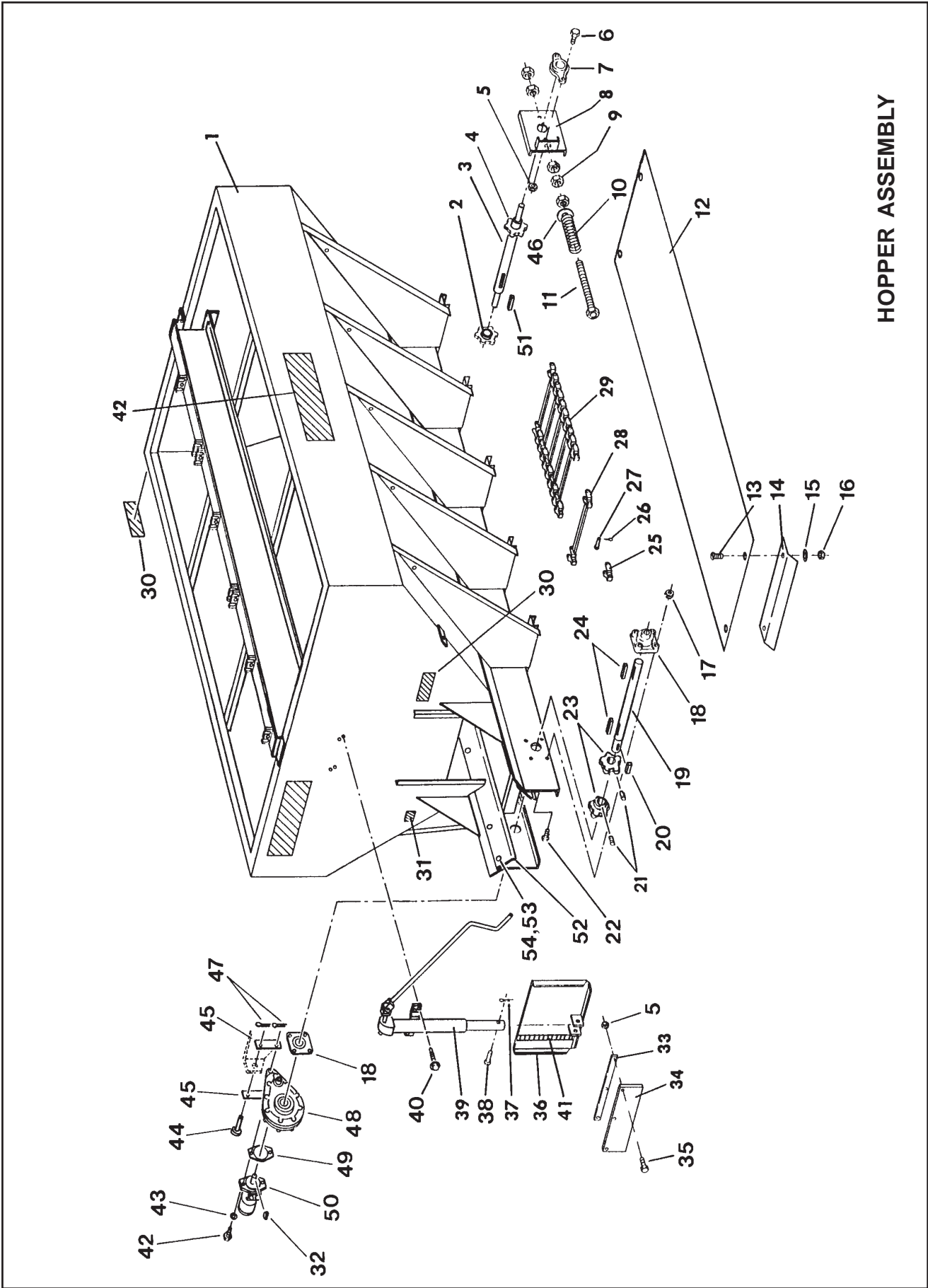
CAUSE

- a. Quick disconnects are dirty, damaged or improperly connected.
- b. Hose connections wrong.
- c. Foreign material in valve compensator.

CORRECTION

- a. Clean or replace and properly connect.
- b. Refer to illustration for proper hosing.
- c. Remove compensator and clean.

* Swenson Spreader warranty does not cover unauthorized disassembly of Hydraulic or Electric components.



HOPPER ASSEMBLY

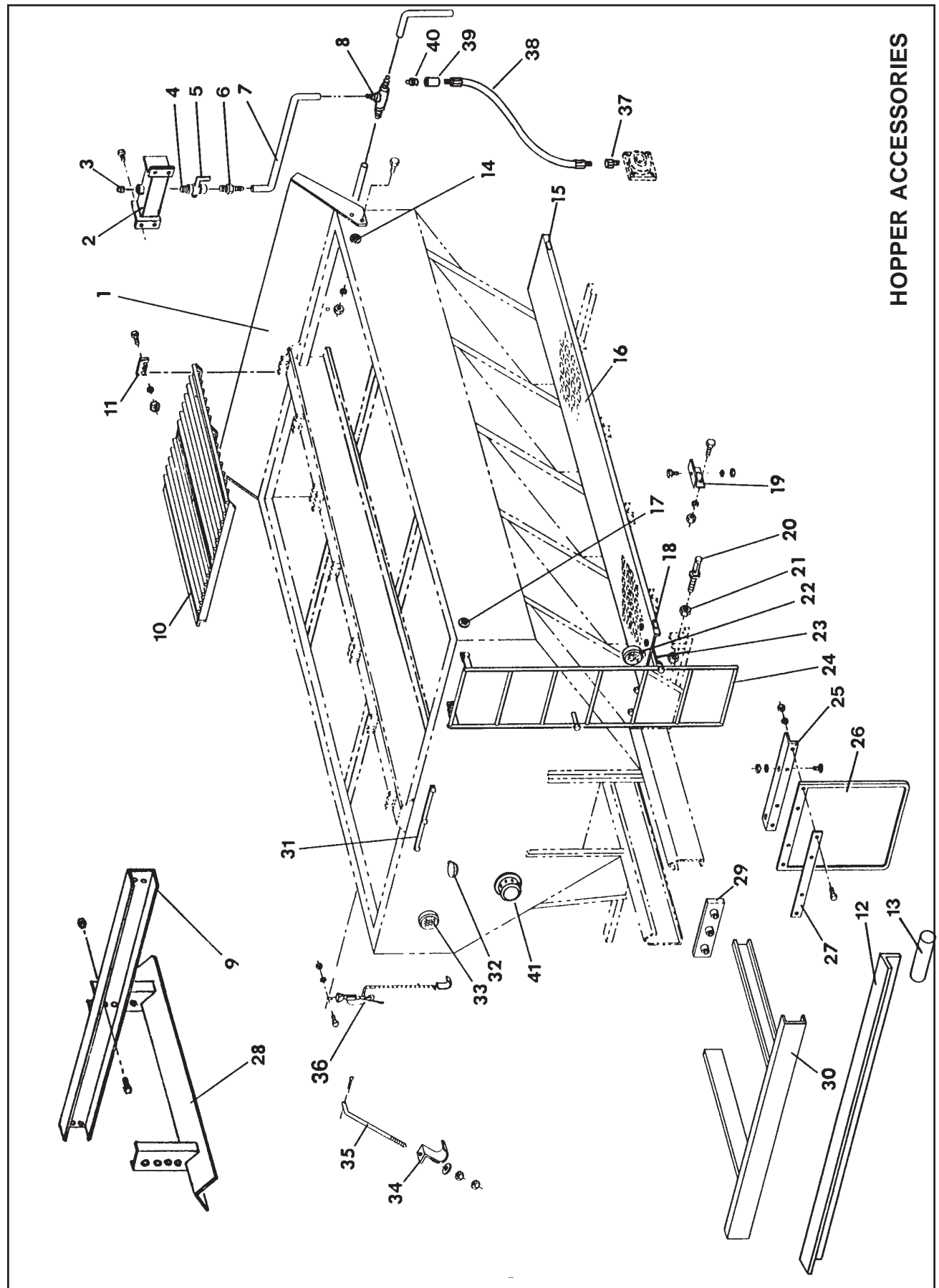
PARTS LIST FOR HOPPER ASSEMBLY

<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	-----	1	Weldment, Hopper
2	00108-180-00	1	Sprocket, Idler (with Keyway)
3	00100-667-00	1	Shaft, Idler
4	00108-179-00	1	Sprocket, Idler (with out Keyway)
5	04003-806-02	7	Nut, 3/8" Hex Flange
6	04003-003-05	4	Bolt, 3/8" X 1 1/2" H.H.
7	04080-005-00	2	Bearing, 1 1/4" Bore
8	00101-562-00	2	Bracket, Bearing
9	04003-802-07	10	Nut, 3/4" Hex Jam
10	04091-023-00	2	Spring, Compression
11	00101-561-00	2	Weldment, Threaded Rod
12	00102-426-00	1	Plate, Floor - 8 Ft.
	00102-427-00	1	Plate, Floor - 9 Ft.
	00102-428-00	1	Plate, Floor - 10 Ft.
	00102-429-00	1	Plate, Floor - 11 Ft.
	00102-430-00	1	Plate, Floor - 12 Ft.
	00102-431-00	1	Plate, Floor - 13 Ft.
	00102-432-00	1	Plate, Floor - 14 Ft.
	00102-433-00	1	Plate, Floor - 15 Ft.
	00102-434-00	1	Plate, Floor - 16 Ft.
	00104-517-00	1	Plate, Floor - 17 Ft.
13	04003-018-04	4	Bolt, 3/8" X 1 1/4" Flat Head
14	00105-950-00	2	Nosepiece
15	04004-002-08	4	Flatwasher, 3/8"
16	04003-804-02	4	Locknut, 3/8" Hex (Nylon Insert)
17	04003-806-04	8	Nut, 5/8" Hex Flange
18	04080-059-00	2	Bearing, 2" Bore
19	00104-613-00	1	Shaft, Drive
20	04031-021-00	1	Key, 1/2" Sq. X 1 5/8" Straight
21	04007-009-05	3	Setscrew, 3/8" X 1/2" Allen Hd.
22	04003-006-02	8	Bolt, 5/8" X 2" H.H.
23	00103-220-00	2	Sprocket, Drive
24	04031-020-00	2	Key, 1/2" Sq. X 2 1/2" Straight
25	04045-046-00	-	Link, Connecting (Not required when ordering Item # 29.)
26	04045-048-00	2	Pin, Cotter (Required when ordering Item # 29.)
27	04045-044-00	2	Pin, Connector (Required when ordering Item # 29.)
28	04045-043-00	-	Weldment, Bar (Not required when ordering Item # 29.)
29	04045-222-02	1	Weldment, Drag Chain - 8 Ft.
	04045-222-03	1	Weldment, Drag Chain - 9 Ft.
	04045-222-04	1	Weldment, Drag Chain - 10 Ft.
	04045-222-05	1	Weldment, Drag Chain - 11 Ft.
	04045-222-06	1	Weldment, Drag Chain - 12 Ft.
	04045-222-07	1	Weldment, Drag Chain - 13 Ft.
	04045-222-08	1	Weldment, Drag Chain - 14 Ft.
	04045-222-09	1	Weldment, Drag Chain - 15 Ft.
	04045-222-10	1	Weldment, Drag Chain - 16 Ft.
	04045-222-11	1	Weldment, Drag Chain - 17 Ft.

PARTS LIST FOR HOPPER ASSEMBLY

(continued)

<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
30	04049-182-00	2	Decal, Danger w/Pictorial Symbol V-Box
31	04049-045-00	1	Decal, Caution
32	04009-002-02	1	Key, 1/4" X 1" Hardened Woodruff
33	00102-859-00	1	Bar, Wiper Back-up
34	04086-005-00	1	Wiper, Rubber
35	04003-003-04	3	Bolt, 3/8" X 1 1/4" H.H.
36	09052-000-00	1	Weldment, Feedgate
37	04010-004-01	1	Pin, 1/8" X 1" Cotter
38	04014-002-01	1	Pin, 3/8" X 2 1/2" Clevis
39	06016-004-00	1	Jack, Gate (Right Hand Crank)
40	04002-066-01	4	Screw, 1/4" X 1" TEKS
41	04049-083-00	1	Decal, Gate Ruler
42	04003-005-36	2	Bolt, 1/2" X 1 1/4" H.H. Gr. 5
43	04004-001-09	2	Lockwasher, 1/2"
44	04014-005-01	2	Pin, 3/4" X 2" Clevis
45	00108-953-00	2	Bar, Link
46	04004-002-16	2	Flatwasher, 3/4"
47	04010-004-03	2	Pin, 5/32" X 1 1/4" Cotter
48	04132-091-00	1	Gearbox, 6:1 Spur Gear
49	04084-033-00	1	Gasket
50	04101-101-00	1	Motor, Hydraulic
N/S	04101-102-01	1	Flange, 2-Bolt Mounting
N/S	04101-102-09	1	Seal Kit
51	04031-018-00	1	Key, 3/8" Sq. X 2 1/2" Straight
52	00105-754-08	2	Shield, Replaceable Chain - 8 Ft.
	00105-754-09	2	Shield, Replaceable Chain - 9 Ft.
	00105-754-10	2	Shield, Replaceable Chain - 10 Ft.
	00105-754-11	2	Shield, Replaceable Chain - 11 Ft.
	00105-754-12	2	Shield, Replaceable Chain - 12 Ft.
	00105-754-13	2	Shield, Replaceable Chain - 13 Ft.
	00105-754-14	2	Shield, Replaceable Chain - 14 Ft.
	00105-754-15	2	Shield, Replaceable Chain - 15 Ft.
	00105-754-16	2	Shield, Replaceable Chain - 16 Ft.
	00105-754-17	2	Shield, Replaceable Chain - 17 Ft.
53	04003-032-02	-	Bolt, 5/16" X 1" Carriage
54	04003-806-01	-	Nut, 5/16" Hex Flange
NOT SHOWN:	00001-774-00	1	Package, Safety Decal
	00109-283-00	1	Manual, Instruction

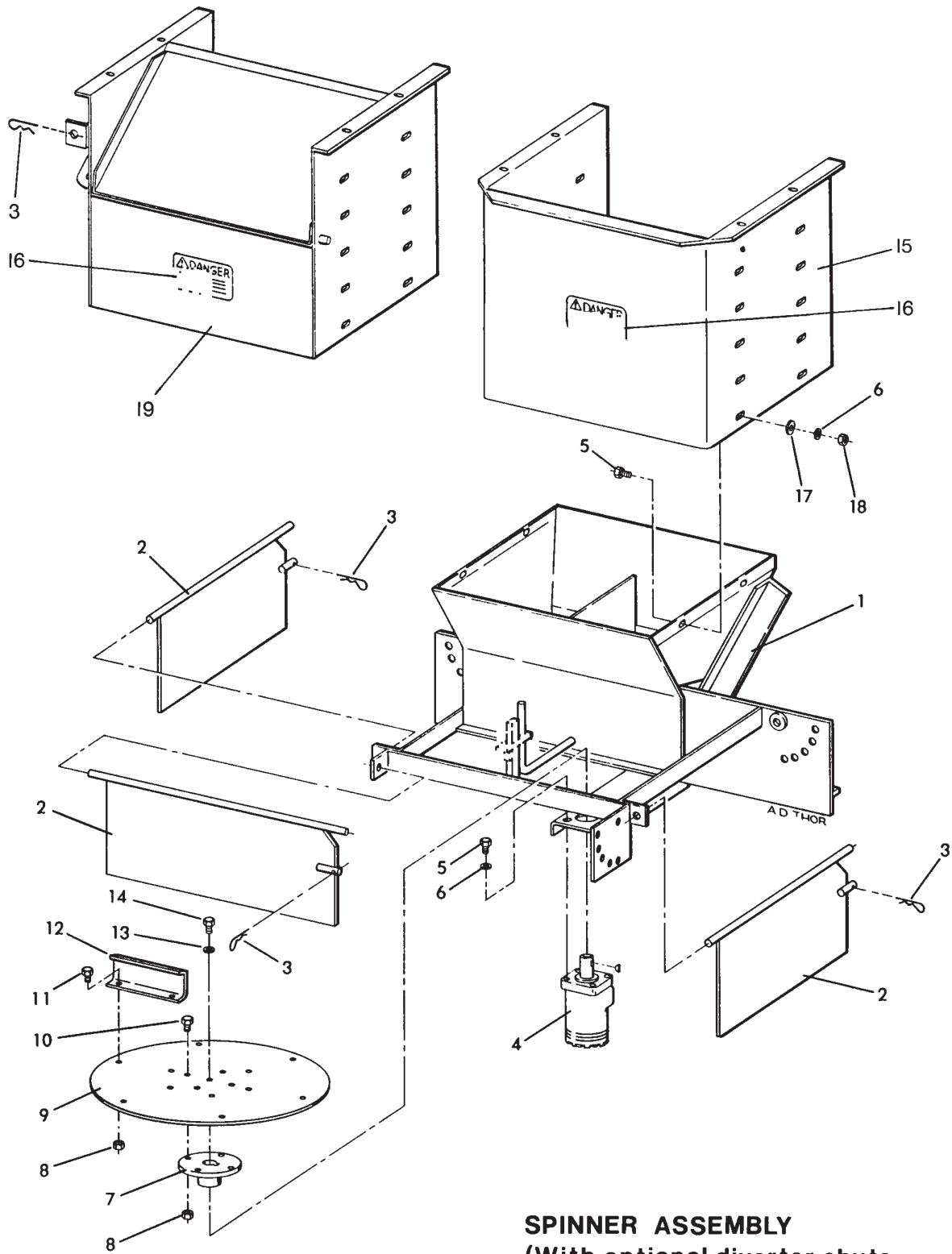


HOPPER ACCESSORIES

PARTS LIST FOR HOPPER ACCESSORIES

<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	00101-412-00	1	Weldment, Cab Shield
2	00100-403-00	1	Weldment, Chain Oiler Tank
3	00100-411-00	1	Breather Plug
4	04110-025-01	1	Close Nipple, 1/4"
5	04123-017-00	1	Valve, 1/4" NPT On-Off
6	04109-024-00	1	Connector, 1/4" NPT X 1/4" Barbed Tube
7	04120-024-00	1	Hose, 1/4" ID X 9 Ft. Par Flex
8	04109-027-00	1	Tee, 1/4"
9	00105-181-00	2	Channel, Cross
10	00101-194-00	A/R	Screen, 41 1/4" X 45 1/4"
	00101-193-00	A/R	Screen, 41 1/4" X 33 1/4"
11	00101-186-00	A/R	Screen Mounting Clip
12	00100-228-00	1	Angle, Mounting
13	00100-229-00	2	Pin, Mounting
14	04608-001-00	2	Amber, Reflector
15	04605-007-00	2	Amber, Clearance Light
16	00102-455-01	1	Weldment, R.H. Catwalk (8 & 9 Ft.)
	00102-456-01	1	Weldment, L.H. Catwalk (8 & 9 Ft.)
	00102-455-02	1	Weldment, R.H. Catwalk (10 & 11 Ft.)
	00102-456-02	1	Weldment, L.H. Catwalk (10 & 11 Ft.)
	00102-455-03	1	Weldment, R.H. Catwalk (12 & 13 Ft.)
	00102-456-03	1	Weldment, L.H. Catwalk (12 & 13 Ft.)
	00102-455-04	1	Weldment, R.H. Catwalk (14 & 15 Ft.)
	00102-456-04	1	Weldment, L.H. Catwalk (14 & 15 Ft.)
	00102-455-05	1	Weldment, R.H. Catwalk (16 & 17 Ft.)
	00102-456-05	1	Weldment, L.H. Catwalk (16 & 17 Ft.)
17	04608-003-00	2	Red Reflector
18	04605-008-00	2	Red Clearance Light
19	00104-017-00	6	Hold Down Bracket
20	07956-000-00	4	Side Adjusting Screw
21	04003-802-08	8	Nut, 7/8" Hex Jam
22	04605-005-00	2	Stop, Turn & Tail Light
23	00101-519-00	1	Ladder Mounting Bracket
24	09345-000-00	1	Ladder (For Chassis Mount V-Box)
	00101-937-00	1	Ladder (For Slip-in Mount V-Box)
25	09315-010-00	1	Mud Flap Mounting Angle (R.H.)
	09315-011-00	1	Mud Flap Mounting Angle (L.H.)
26	04073-001-00	2	Mud Flap
27	09315-020-00	2	Mud Flap Mounting Bar
28	00106-022-01	1	Weldment, Inverted "V" (8 & 9 ft.)
	00106-022-02	1	Weldment, Inverted "V" (10,11,12 & 13 Ft.)
	00106-022-03	1	Weldment, Inverted "V" (14,15,16 & 17 Ft.)
29	09245-012-00	1	Bracket, Quick Disconnect
30	00100-410-00	1	Weldment, Bumper
31	04605-009-00	1	Identification Lamp
32	04605-017-00	1	Flood Light 4" Clear Glass
33	04605-006-00	1	Hazard Light 7" Amber
34	09090-000-00	4	Bracket, Tie Down
35	09092-000-00	4	Bolt, Tie Down
36	00100-581-00	4	Chain Binder Assembly
37	04614-001-00	2	Adapter
38	04120-047-04	2	Hose, Grease
39	04110-003-01	2	Coupling, 1/8" NPT Pipe
40	04015-001-00	2	Fitting, 1/8" NPT Straight Grease
41	04615-034-00	1	Box, Electrical Junction

A/R=As Required

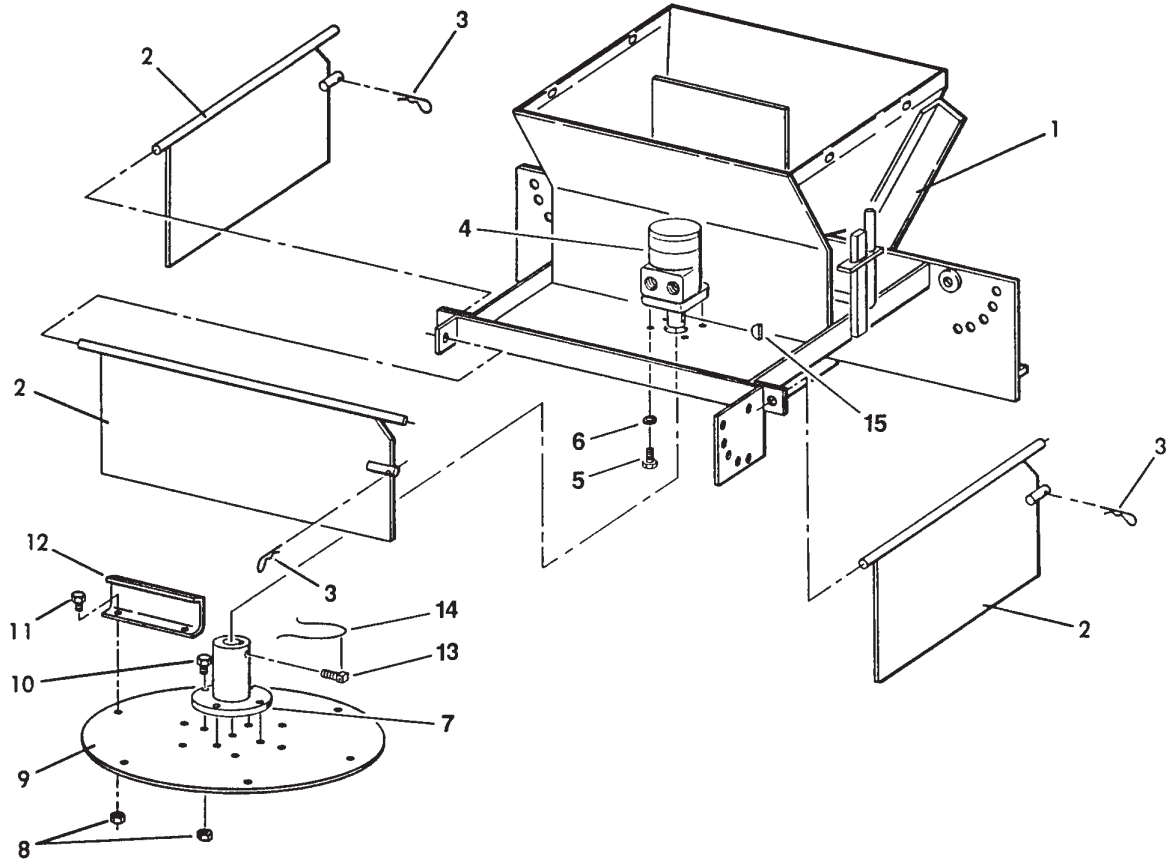


SPINNER ASSEMBLY
 (With optional diverter chute package)

PARTS LIST FOR EV SPINNER

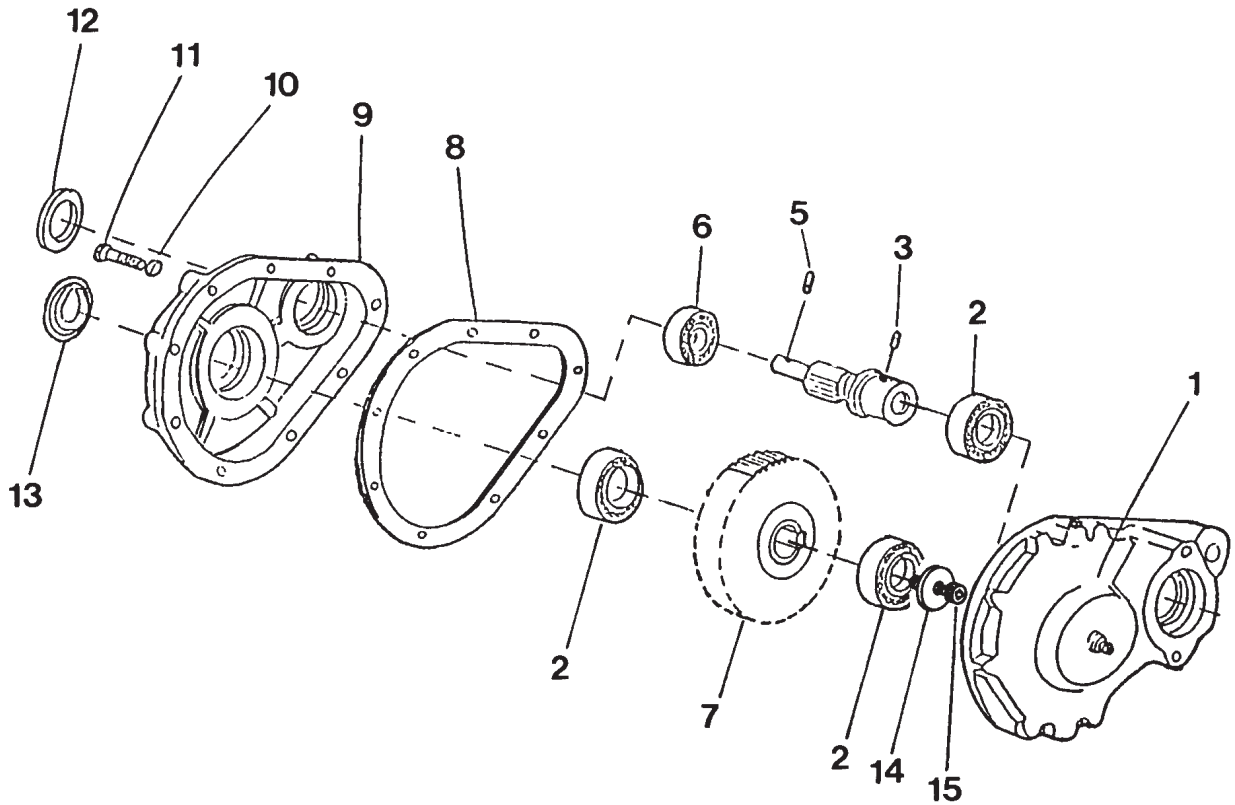
(Includes Optional Diverter Chute Package)

<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	00105-373-00	1	Weldment, EV Spinner
2	00105-337-00	3	Weldment, Baffle
3	04011-001-02	3	Hairpin Keeper
4	04101-035-00	1	Motor, Hydraulic
N/S	04101-102-02	1	Flange, 4-Bolt Mounting
N/S	04101-102-09	1	Seal Kit
5	04003-003-01	8	Bolt, 3/8" X 3/4" H.H.
6	04004-001-07	8	Lockwasher, 3/8"
7	06012-003-00	1	Spinner Hub
8	04003-806-01	16	Nut, 5/16" Flange
9	00107-230-00	1	Spinner Disc, 20"
10	04003-002-17	4	Bolt, 5/16" X 1" H.H. Gr. 5
11	04003-002-02	12	Bolt, 5/16" X 3/4" H.H. Gr. 5
12	06009-008-00	6	Spinner Flite
13	04004-001-05	1	Lockwasher, 1/4"
14	04003-001-11	1	Bolt, 1/4" X 3/4" H.H., SS
15	00105-343-00	1	Extension, Spinner
16	04049-044-00	1	Decal, Danger
17	04004-002-08	4	Flatwasher, 3/8"
18	04003-801-09	4	Nut, 3/8" Hex
19	00001-962-05	1	Package, Diverter Chute (Option) (Includes Items 3 & 16)



PARTS LIST FOR TOP MOUNTED SPINNER ASSEMBLY

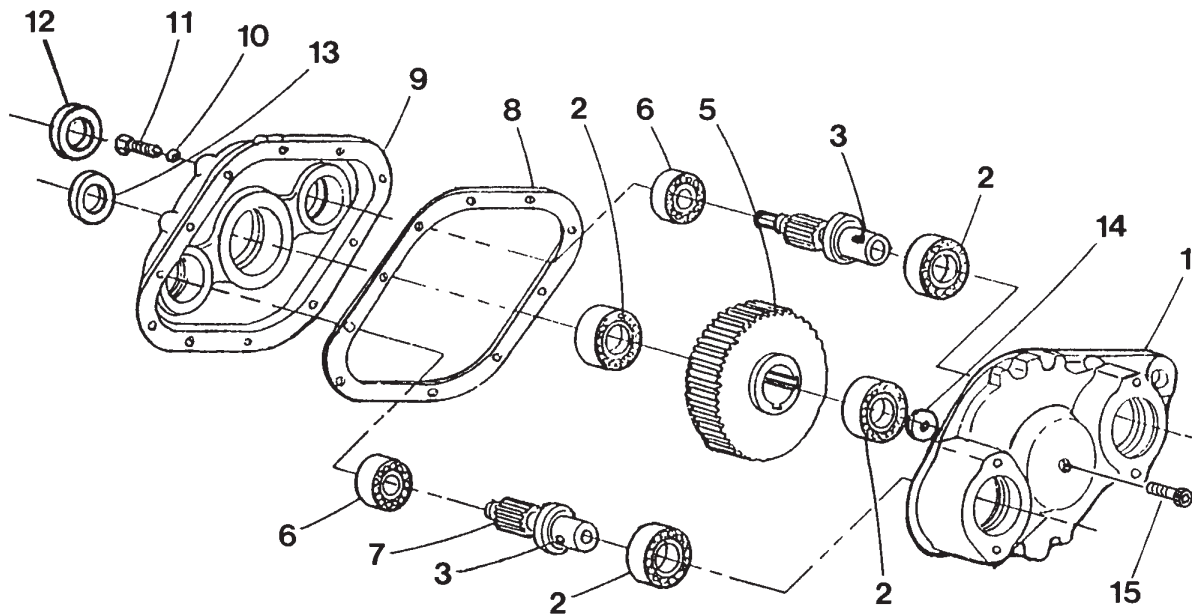
<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	00109-209-00	1	Weldment, Spinner
2	00105-337-00	3	Weldment, Baffle
3	04011-001-02	3	Keeper, Hairpin
4	04101-035-00	1	Motor, Hydraulic
5	04003-003-01	4	Bolt, 3/8" X 3/4" H.H.
6	04004-001-07	4	Lockwasher, 3/8"
7	00109-218-00	1	Weldment, Spinner Hub
8	04003-806-01	16	Nut, 5/16" Hex Flange
9	00107-230-00	1	Disc, 20" Spinner
10	04003-002-17	4	Bolt, 5/16" X 1" H.H. Gr. 5
11	04003-002-02	12	Bolt, 5/16" X 3/4" H.H. Gr. 5
12	06009-008-00	6	Flite, Spinner
13	04006-008-03	1	Setscrew, 3/8" x 1" Sq. Hd.
14	06020-000-00	1	Wire, Safety
15	04009-002-02	1	Key, 1/4" X 1" Hardened Woodruff



PARTS LIST FOR SINGLE PINION GEARBOX ASSEMBLY

(with Sensor Mounting Shaft)
(04132-091-00)

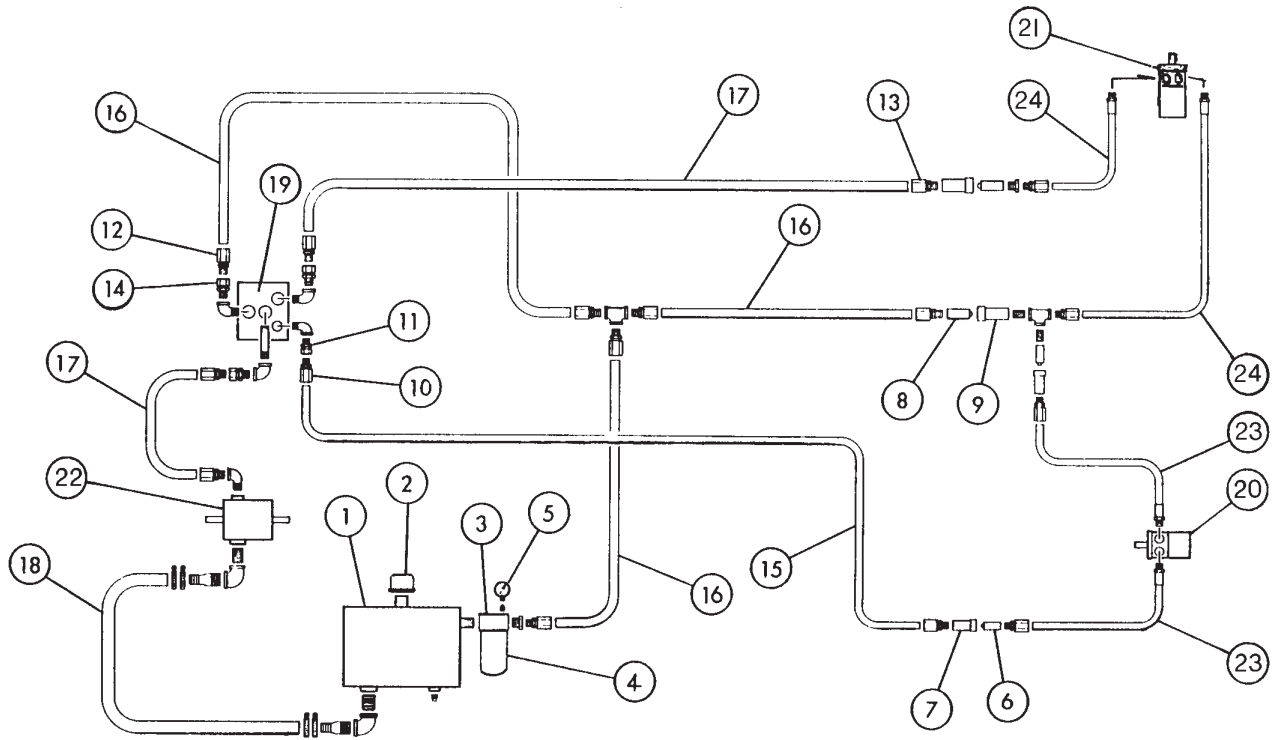
<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	04132-081-06	1	Housing, Outboard
2	04132-081-07	3	Bearing
3	04132-081-02	1	Plug, Delrin
5	04132-082-03	1	Set Screw
6	04132-081-08	1	Bearing
7	04132-081-03	1	Gear Drive
8	04132-081-10	1	Gasket
9	04132-082-02	1	Housing, Inboard
10	04132-081-12	9	Lockwasher
11	04132-081-13	9	Capscrew
12	04132-082-04	1	Seal, Oil
13	04132-081-09	1	Seal, Oil
14	04132-090-03	1	Washer
15	04132-090-18	1	Screw, 5/16" x 1" Allen Head Nylon Insert



PARTS LIST FOR TWIN PINION GEARBOX ASSEMBLY

(with Sensor Mounting Shaft)
(04132-090-00)

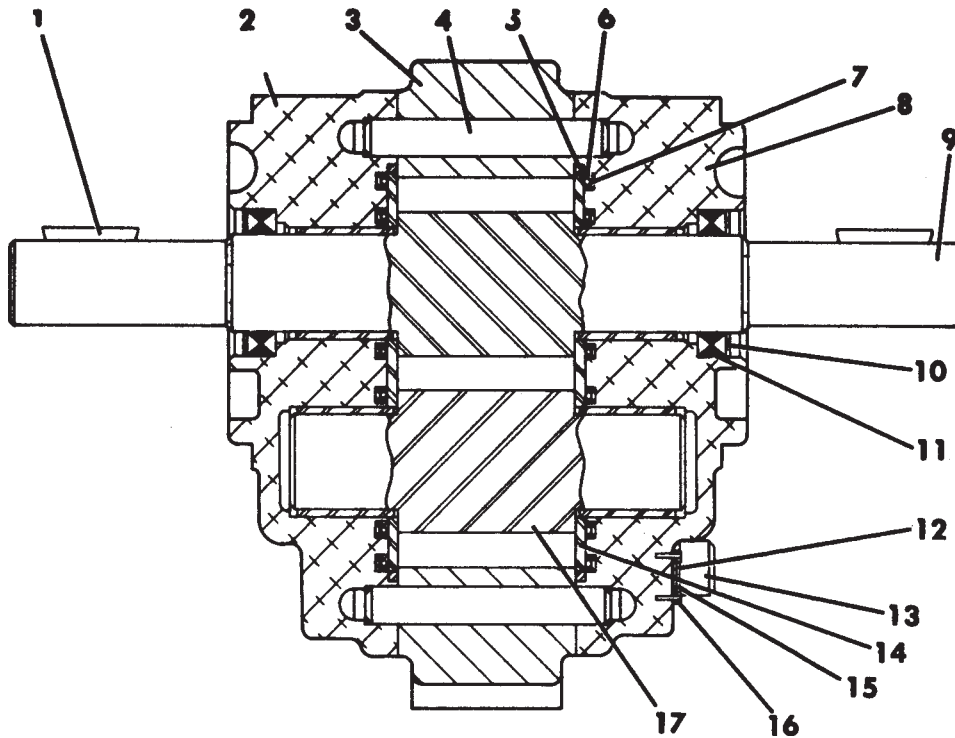
<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	04132-090-08	1	Housing, Outboard
2	04132-081-07	4	Bearing
3	04132-081-02	1	Plug, Delrin
5	04132-090-05	1	Gear Drive
6	04132-081-08	1	Bearing
7	04132-081-04	1	Gear, Pinion
8	04132-090-14	1	Gasket
9	04132-090-07	1	Housing, Inboard
10	04132-081-12	9	Lockwasher
11	04132-081-13	9	Capscrew
12	04132-082-04	1	Seal, Oil
13	04132-081-09	1	Seal, Oil
14	04132-090-03	1	Washer
15	04132-090-18	1	Screw. 5/16" X 1" Allen Head Nylon Insert



PARTS LIST FOR EV HYDRAULIC SYSTEM

(with 6:1 Spur Gear Drive)

<u>Item</u>	<u>Part Number</u>	<u>Description</u>
1	04122-001-00	7 Gallon Oil Tank
N/S	04088-002-00	R.H. Bracket 7 Gallon Tank
N/S	04088-045-00	L.H. Bracket 7 Gallon Tank
	04122-008-00	15 Gallon Oil Tank
N/S	04088-008-00	R.H. Bracket 15 Gallon Tank
N/S	04088-009-00	L.H. Bracket 15 Gallon Tank
	04122-015-00	24 Gallon Oil Tank
N/S	00102-762-00	R.H. Bracket 24 Gallon Tank
N/S	00102-763-00	L.H. Bracket 24 Gallon Tank
2	04123-001-00	Breather Cap
3	04103-010-00	Cap, Filter
4	04104-005-00	Hydraulic Filter Element
5	04106-001-00	Marsh Gauge
6	04119-017-00	Quick Disconnect, 1/2" Female
7	04119-004-00	Quick Disconnect 1/2" Male
8	04119-026-00	Quick Disconnect 3/4" Female
9	04119-025-00	Quick Disconnect 3/4" Male
10	04121-002-04	1/2" Reusable Hose End
11	04121-003-04	1/2" Swivel Adapter
12	04121-002-03	3/4" Reusable Hose End (1) Wire Hose
13	04121-002-04	3/4" Reusable Hose End (2) Wire Hose
14	04121-003-05	3/4" Swivel Adapter
15	04120-026-24	1/2" X 15' (1) Wire Hose Plain Ends
16	04120-014-04	3/4" X 15' (1) Wire Hose Plain Ends
17	04120-033-01	3/4" X 25' (2) Wire Hose Plain Ends
18	04120-013-02	Hose, 1 1/4" X 6' Spiral Wire Plain Ends
19	04105-285-00	Hydraulic Flow Control Valve
20	04101-035-00	Hydraulic Motor, Spinner
21	04101-101-00	Hydraulic Motor, Conveyor
22	04102-064-00	Hydraulic Pump, 16 Gallon Thru Shaft
23	04120-003-01	Hose, 1/2" X 48" (1) Wire w/Permanent Ends
24	04120-003-12	Hose, 1/2" X 60" (1) Wire w/Permanent Ends

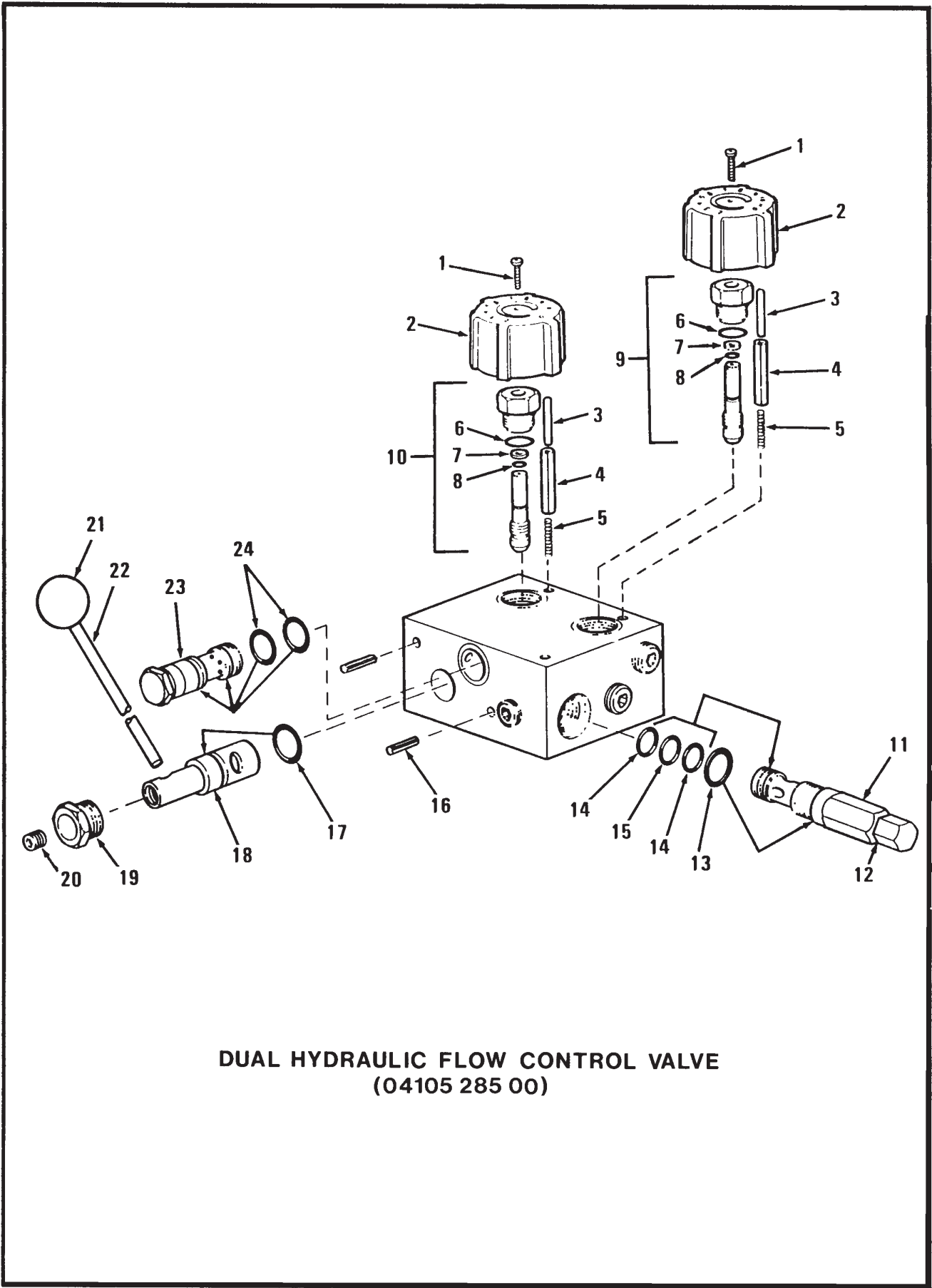


PARTS LIST FOR GEAR PUMP

16 Gallon Webster (04102-064-00)

<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<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	Idler Gear
	04102-064-90		Minor Repair Kit (Consisting of Items 5,6,7,10,11 & 14.)

NOTES:



**DUAL HYDRAULIC FLOW CONTROL VALVE
(04105 285 00)**

PARTS LIST FOR DUAL HYDRAULIC FLOW CONTROL VALVE

(04105-285-00)

<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	04105-285-01	2	Screw
2	04105-285-02	2	Hand Knob
3	04105-285-03	2	Dowel Pin
4	04105-285-04	2	Roll Pin
5	04105-285-05	2	Spring
6	04105-285-06	2	O-Ring, Viton
7	04105-285-07	2	Back-up, Teflon
8	04105-285-08	2	O-Ring, Viton
-	04105-285-09		Kit, Seal - Consists of Items 6, 7, & 8
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	1	Spinner Adj. Assy. - 10 GPM
11	04105-285-19	1	Relief Cartridge
-	04105-285-40		Kit, Seal (For Item 11) Consists of Items: 12, 13, 14 & 15
12	04105-285-20	1	Gasket
13	04105-285-21	1	O-Ring, Viton
14	04105-032-30	2	Back-Up, Teflon Repaired Valve
15	04105-285-22	1	O-Ring, Viton
16	04105-285-24	2	Roll Pin
17	04105-285-25	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	Lever
23	04105-285-28	1	Bypass Assy.
24	04105-031-20	2	O-Ring, Viton

NOT SHOWN

04105-285-31	Kit Seal Consists of Items: 6, 7, 8, 12, 13, 14, 15 17, 23 & 24
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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 is 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 _____

PURCHASED FROM _____

DEALER'S SERVICE DEPARTMENT PHONE NUMBER

CONTROL AND HYDRAULIC SYSTEM SPECIFICATION

- Hydraulic Oil.....Good Grade of MS10W Hydraulic Oil which has wear, oxidation and foam inhibitors.
- Oil Filter.....10 Micron Element Return Line
- Pump Output (Minimum Requirement).....22 GPM
- Relief Valve Setting.....1500 PSI
- Oil Flow.....Conveyor (A-Port) 0-15 GPM
Spinner (S-Port) 0-7 GPM

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



Effective 5/1/99

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

SWENSON warrants to the original purchaser for use that, if any part of the product proves to be defective in material or workmanship within one year from the date of original installation, and is returned to SWENSON within 30 days after such defect is discovered, SWENSON will (at our option) either replace or repair said part. This warranty does not apply to damage resulting from misuse, neglect, accident or improper installation or maintenance. Said part will not be considered defective if it substantially fulfills the performance specifications. **THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS FOR PURPOSE AND OF ANY OTHER TYPE, WHETHER EXPRESS OR IMPLIED. SWENSON® neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with said part and will not be liable for consequential damages.**

All gasoline engines and hydraulic pumps are warranted by their manufacturer and not by Swenson Spreader Company. Electrical or hydraulic components are not to be disassembled without the express written permission of Swenson Spreader Company. Defective parts returned to Swenson Spreader Company must be accompanied by the following information: spreader model, serial number, date installed and dealer from whom purchased.

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

swenson spreader®

LINDENWOOD

ILLINOIS

SWENSON SPREADER COMPANY
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**

