

## **Instruction Manual**

# **Direct Drive & 5:1 Gear Reduction Under Tailgate Spreaders**

NOTE: This manual applies to spreaders with a top screen.

#### **Table of Contents**

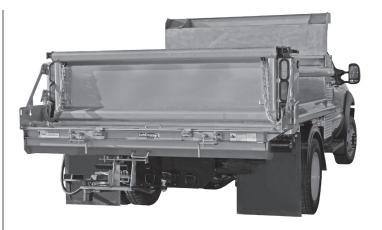
Warranty Information	1
Spreader Installation Instructions	1,2
Spreader Installation Drawing	2
Spinner Assembly Instructions	3
Spinner Assembly Drawing	3,4
Hydraulics Installation	4
Operating Instructions	5,6
Recommended Maintenance	6
Parts list: Spreader Assembly	7
Spreader Parts Drawing	7
Parts List: Hardware Box	8
Spinner Components Drawing	8
Auger Replacement Kits	8

#### UNDER TAILGATE SPREADER WARRANTY

This warranty replaces all previous warranties and no employee of this company is authorized to extend any additional warranties, or agreements, or implications not explicitly covered herein. Buyers Products Company warrants all parts of the product to be free from defects in material and workmanship for a period of (1) one year from the date of original installation. Parts must be properly installed and used under normal conditions. Normal wear is excluded.

Any part which has been altered, including modification, misuse, accident, or lack of maintenance will not be considered under this warranty. Hydraulic units are not to be disassembled without the express written permission from Buyers Products Company. The sole responsibility of Buyers Products Company under this warranty is limited to repairing or replacing any part(s) which are returned, prepaid, 30 days after such defect is discovered, and returned part(s) are found to be defective by Buyers Products Company.

Authorization from Buyers Products Company must be obtained before returning any part. The following information must accompany defective parts returned to Buyers Products Company: RMA#, spreader model, serial number, date installed, and distributor from whom it was purchased. Buyers Products Company shall not be liable for damage arising out of failure of any unit to operate properly, or failure, or delay in work, or for any consequential damages. No charges for transportation or labor performed on any part will be allowed under this warranty.



#### **Installation Instructions**

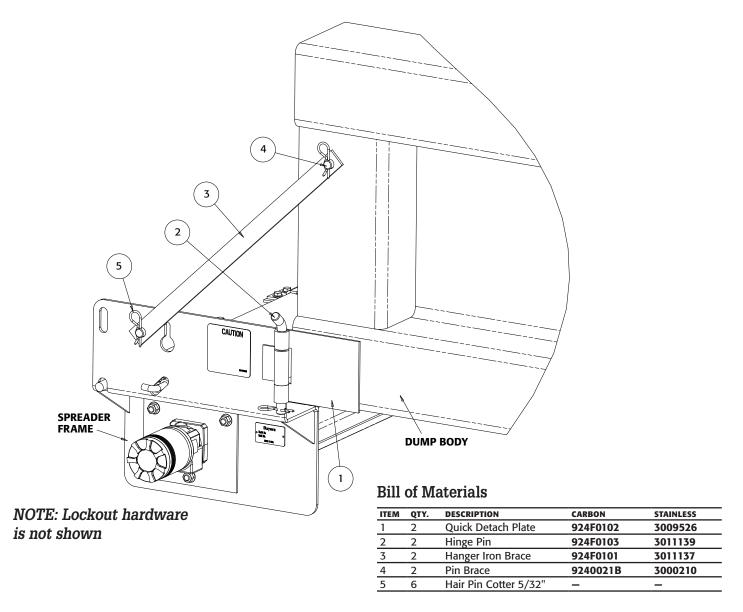
NOTE: The left and right end plates may, on occasion, get bent through improper handling during shipment or storage. If this should happen, square and true the left and right end plates before installation.

#### **1.** Aligning the spreader:

- **A.** Position the spreader with the truck such that the auger drive is located on the right side of the truck (passenger side).
- **B.** Lift the spreader up and under the dump body tailgate, positioning the spreader forward as close as possible to the dump body. The tailgate of the dump body should lay down horizontally over the spreader.
- **C.** Support the spreader solidly and securely when positioning for mounting.
- **2.** Attach mounting brackets: (See hardware installation drawing on page 2.)
- **A.** Attach a quick detach plate, (Item 1) to both sides of the spreader frame using hinge pins (Item 2) and a hairpin cotter pins (Item 5).
- **B.** Position the (2) quick detach plates over the dump body rub rails and flush with rear edge of dump body.
- **C.** Weld the (2) quick detach plates to the dump body rub rails. Weld the plates continuously around (3) sides of each plate. Do not weld along the edge of the plates next to the attachment pin.



#### **Mounting Hardware Installation Drawing**



- **D.** Align the pin brace (Item 4) on the dump body using the iron brace (Item 3) for exact positioning. For proper fit, hanger iron brace may require some minor bending.
- **E.** Weld the (2) pin braces (Item 4) to the dump body sides, all around.
- **F.** Attach the iron braces (Item 3) to the pin braces on the sides of the dump body and the sides of the spreader using (2) hairpin cotter pins (Item 5).
- **G.** If there is a gap between the spreader and the dump body, weld or bolt a steel strip to the forward edge of the spreader to cover the gap.
- **H.** If you have purchased the tailgate side shields (purchased separately as P/N 924F0106PR or 924F0106SSPR, Stainless), bolt or weld them to the inside of the tailgate to prevent material spillage at the ends of the spreader.

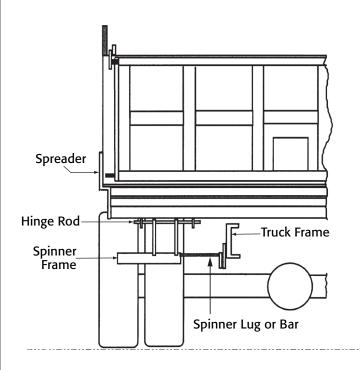


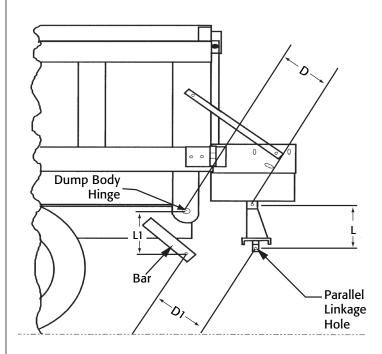
- **3. Spinner assembly installation**: (See installation drawings on pages 3 and 4.)
- **A.** Attach the spinner shield (Item 2) to the spinner frame (Item 1) using (2) 5/16-18 x 1-1/4 cap screws, 5/16 flat washers and (2) 5/16-18 hex flange nuts.
- **B.** Attach the spinner disk sub assembly to the hydraulic motor on the spinner frame and tighten the set screw in the disk collar.

Note: Be sure to lubricate the hydraulic motor shaft generously with Never Seez lubricant before assembling.

- **C.** Attach the spinner frame assembly to the lower tray of the spreader with the hinge rod and attach (2) hairpin cotter pins.
- **D.** The leveling mechanism may now be mounted. Park truck on flat, level surface. With spinner assembly in level position, carefully measure "L" and "D" distances. Use any of 3 available holes in height adjustment bracket. Locate bar or spinner lug such that ½" hole will position with D1=D and L1=L. Modify angle if necessary.
- **E.** Secure bar or spinner lug to the truck frame.
- **F.** Attach parallel linkage rods to heights adjustment bracket and angle. Secure them using ½" washers and hair pins.
- **G.** Clamp parallel linkage rods together. To verify leveling action, slowly raise the dump. Be sure that spinner motor assembly and linkages do not have any interference with truck body and it does not have contact with the road. After checking weld parallel linkage bars together.
- **H.** Keeping the spinner assembly level, remove the set screw from the clamp collar and secure the spinner frame in place using the spinner assembly lock.

#### Parallel Linkage, Spinner Frame & Bar Installation Drawings





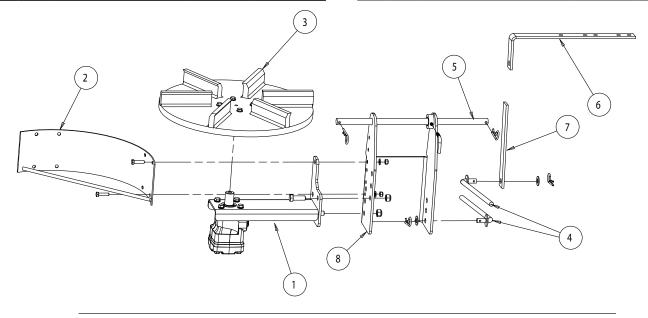


#### Parallel Linkage, Spinner Frame & Bar Installation Drawings (cont.)

#### **Bill of Materials**

ITEM	QTY.	DESCRIPTION	CARBON	STAINLESS
1	1	Spinner Frame Assy.	3020184	3018416
2	1	Spinner Shield	924F0015	3006659
3	1	Spinner Disk Assy.	3001472A	3001472A
4	2	Linkage Rods Welded	924F0012	924F0012

ITEM	QTY.	DESCRIPTION	CARBON	STAINLESS
5	1	Hinge Rod	924F0018	3006646
6	1	Spinner Lug	924F0013	3006645
7	1	Bar	924F0014	924F0014
8	1	Height Adjustment Bracket	3020185	3017175



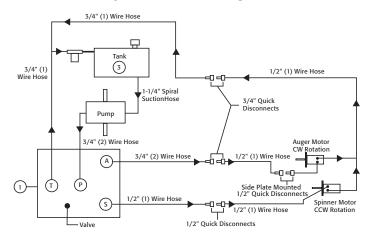
#### **Hydraulic Installation Instructions**

- **A.** During assembly take precautions to keep all hydraulic components as clean as possible.
- **B.** Allow enough hose length to prevent kinking and stretching of the hoses and to permit raising the dump body. Support long hoses with wire ties or clamps.
- **C**. Protect hoses from wear caused by sliding and/ or vibration.
- **D.** For proper rotation of auger and spinner motors, hoses may be reversed.

**Note:** Use of a pipe joint sealant compatible with hydraulic oil is recommended for all screw fittings.

- **E.** Use swivel type hose ends to connect hoses to flow valve. Damage to valve body may occur if the fittings in flow valve are over tightened
- **F.** To achieve an additional positive shutoff of the auger motor, the inlet flow must pass through the bulkhead fitting (preinstalled on the bottom tray), through latch bracket, through the quick disconnect fitting assembly (preinstalled on the side plate) then to the motor.
- **G.** Buyers Products recommends a minimum flow rate of 9 GPM @ 1000 rpm to operate our spreaders.

#### **Hydraulic Flow Diagram**

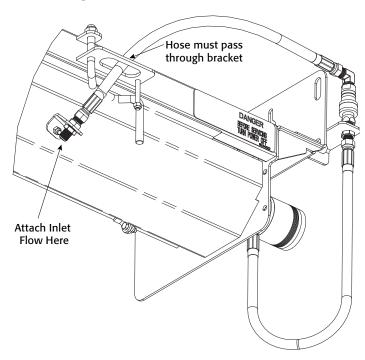


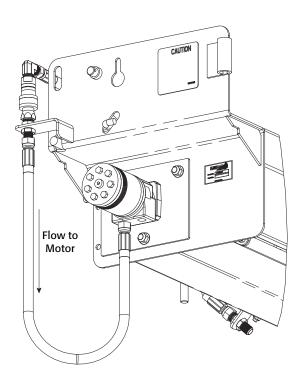
#### **Recommended Parts (not included)**

ITEM	PART NO.	QTY	DESCRIPTION
1	HV715	1	Dual Flow Regulator Valve
2	HVC1	1	Dual Flow Regulator Console
3	SMR15	1	15 Gallon Reservoir



#### **Auger Quick Disconnect Installation**





### **Operating Instructions**

## **A** CAUTION

- A. Be sure everyone is standing clear.
- B. Be alert for anything that may require shutting down the system.
- C. Before working in or around spreader equipment, be sure all hydraulic controls are moved to off position.

#### 1. Pre-start up.

- **A.** Use high grade non foaming hydraulic oil to fill reservoir about 3/4 full.
- **B.** Position valve on/off lever to off.
- **C.** Move auger and spinner knobs on the valve to the open position.
- **D.** Engage PTO and circulate hydraulic oil for several minutes to warm up.
- **E.** Move valve on/off lever to on.
- **F.** Inspect hydraulic system for leaks.
- **G.** Check auger and spinner to see if they are working properly.
- **H.** Refill reservoir to 3/4 full.
- **I.** Hydraulic system should now be ready for use.

#### 2. Initial use of spreader

- **A.** Shut off spinner and auger knobs and position the on/off lever to on. Engage the PTO and allow the hydraulic system to warm up.
- **B.** Open the cover plate and secure vertically with locking brackets.
- **C.** Open dump body tailgate as wide as possible from bottom without bearing against cover plate. Set stop chains.
- **D.** Position spinner assembly to the far left (drivers side), tighten clamp. Determine placement of material at various spinner and auger speeds by spreading a small amount of material (Far left position used to spread (3) three or (4) four lane highway from right lane).
- **E.** Position spinner assembly to the far right (passenger side), tighten clamp. Determine placement of material at various spinner and auger speeds by spreading a small amount of material (Far right position used to spread (4) four lane highway from left lane).
- **F.** Changing auger and spinner speeds on the valve and placing spinner at various positions from left to right will produce various spread patterns.



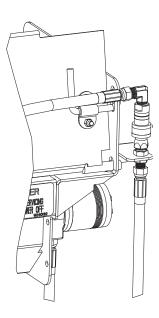
#### 3. Using the Auger Lock-out System

- **A.** Shut off spinner and auger then position the main hydraulics on/off lever to off. Turn off truck.
- **B.** Verify hydraulic system is shut off then disconnect the quick disconnect fitting on the side plate of the spreader.
- **C.** The lower tray may now be opened for servicing.
- **D.** After servicing, close and lock the tray in operating position then reroute the hydraulic hose through the latch bracket and reconnect the quick disconnect coupler.
- **E.** Verify that all hydraulic components are still in operational condition, turn the main hydraulics back on and test the function of the unit. If any issues are noticed turn off spreader and main hydraulics then inspect and/or service the entire spreader and/or hydraulic system.

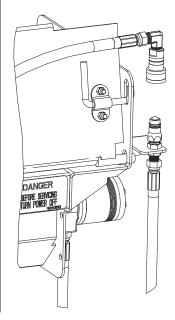
## A DANGER

Before working in or around the auger area, all power to the spreader must be turned off. Disengage the PTO, shut off the engine and follow the lock out instructions. After servicing is complete, reverse the process to restore the spreader function. NEVER PUT ANY PART OF YOUR BODY INSIDE THE AUGER AREA OF SPREADER.

HYDRAULICS SHOWN CONNECTED (AUGER POWER ON) TRAY AND LID MUST REMAIN IN OPERATIONAL POSITIONS



HYDRAULICS SHOWN DISCONNECTED (AUGER POWER OFF) MAIN POWER MUST ALSO BE SWITCHED OFF BEFORE TRAY AND LID MAY BE OPENED FOR SERVICE



#### 4. Miscellaneous

- **A.** Valve setting changes may be made with truck in motion.
- **B.** By moving on/off lever to the off position, spinner and auger may be stopped at the same time without changing their valve settings.
- **C.** Close cover plate flat over spreader trough and lock in place for normal use of dump truck. Tailgate may be opened from top or bottom.
- **D.** When truck is used for extensive hauling the spinner assembly should be removed.
- **E.** If auger clogs, shut off spinner, open auger knob valve and increase the engine speed. With the engine at a higher speed, move the valve lever from the on to the off positions rapidly; repeat as needed. This action may unclog the auger. If this action fails to free the auger, manual unclogging will be required.

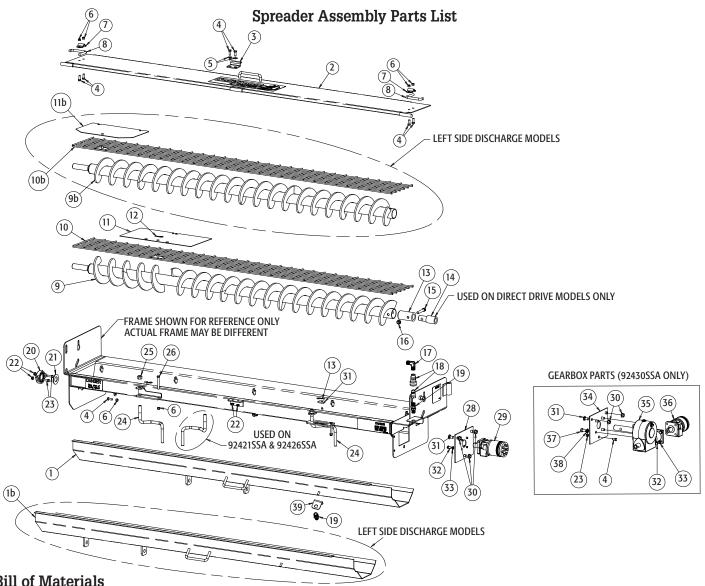
## **A** CAUTION

Position the valve on/off control lever in the off position when the spreader is not in use or is removed. In the event the valve on/off control lever is left in the on position, a heat problem may occur as the pump continues to pump oil to the hydraulic valve. This could cause a hose to burst spraying hot oil.

#### Recommended Maintenance

- **A.** Warm up hydraulic system before using.
- **B.** Keep the reservoir 3/4 full with high grade non-foaming hydraulic oil.
- **C.** Use precautions to keep contaminants from getting in reservoir when filling.
- **D.** Quick connects are a prime source of contamination.
  - **1.** Clean quick connects before connecting or disconnecting them.
  - **2.** Protect quick connects from contaminates.
- **E.** Lubricate all bearings with suitable type grease on a regular basis. More frequent lubrication is recommended during periods of heavy use.
- **F.** Lubricate the spinner hinge rod periodically.
- **G.** Maintain the proper lubrication level in all gearboxes with SAE 90 gear lubricant.
- **H.** When not in use, keep the spreader tray empty to prevent freezing of material around auger in extremely cold weather.
- **I.** To extend the life of your spreader:
  - 1. Hose down and clean after each use.
  - **2.** Repaint and/or oil after each season.





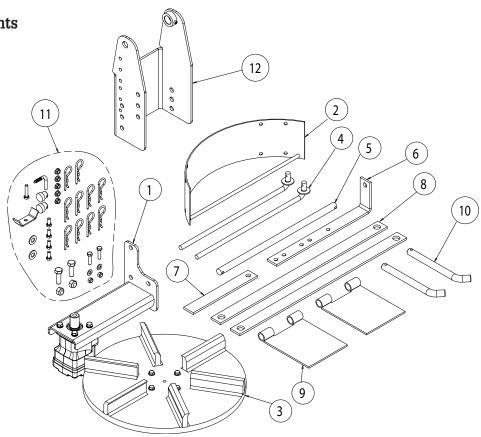
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ITEM	QTY.	DESCRIPTION	CARBON	STAINLESS
1	1	Bottom Tray - Standard Discharge	3008429	3008443
1b	1	Bottom Tray - Driver Side Discharge	-	3024304
2	1	Top Cover	3013931	3025122
3	1	Bracket, Cover Mount	3008430	3008447
4	9/10	Screw, Hex Head Cap, 3/8-16 X 1	FCS038016100	FCS038016100SS
		(Direct Drive/Gearbox)		
_ 5	3	Washer, Flat, 3/8in	FWF038100007	FWF038100007SS
6	10	Nut, Nylon Locking, 3/8-16 X 7/16	FNE038016044	FNE038016044SS
_ 7	2	Bracket, Cover Latch	3006965	3006968
8	2	Latch Handle	9240063	3000268
9	1	Auger - Standard Discharge	924F0082	924F0081
9b	1	Auger - Driver Side Discharge	-	3017487
10	1	Screen - Standard Discharge	3024306	3024306
10b	1	Screen - Driver Side Discharge	-	3023297
11	1	Plate, Anti-Spill - Standard Discharge	3026623	3022531
11b	1	Plate, Anti-Spill - Driver Side Discharge	-	3023298
12	4	Hairpin Cotter	1420016	1420016
13	1	Sleeve, Auger	9240083	9240083
14	1	Motor Adapter	924F0084	924F0084
15	1	Screw, Hex Head Cap, 1/2-13 X 3	FCS050013300	3001250
16	1	Nut, Locking, 1/2-13	92401213	3001253
17	1	Elbow, 90 Deg Male NPT to Male NPT	H3529X8	H3529X8
18	1	Coupler, Hydraulic Quick, 1/2in NPT	B40004	B40004
	-	Male Half of B40004	B400041	B400041
	-	Female Half of B40004	B400042	B400042

ITEM	QTY.		CARBON	STAINLESS
19	1	Fitting, Bulkhead, 1/2in MNPT X 1/2in	H2706LNX8X8	H2706LNX8X8
		MJIC W/ Lock Nut		
20	_1	Bearing	9240086	9240086
21	1	Felt Gasket	9240087	9240087
22	4/5	Nut, Serrated Flange, 3/8-16	92401211	3001255
		(Direct Drive/Gearbox)		
23	2	Screw, Hex Head Cap, 3/8in-16 X 1-1/4	FCS038016125	FCS038016125SS
24	2/1	Cam Handle - CW	3014762	3019032
24b	0/1	Cam Handle - CCW	3014763	3019033
25	2	Nut, Nylon Locking, 5/8-11	FNE063011069	3001247
26	2	Screw, Hex Head Cap, 3/8-16 X 3	FCS038016300	3007068
27	3	Bracket, Screen Mount	3026624	3022533
28	1	Plate, Motor Mount	3000458	3001367
29	1	Hydraulic Motor - Direct Drive Only	CM074P	CM074P
30	3/2	Nut, Serrated Flange, 1/2-13	92401212	3001523
		(Direct Drive/Gearbox)		
31	3/2	Bolt, Carriage, 1/2-13 X 1	FCB050013100	3001522
		(Direct Drive/Gearbox)		
32	4	Screw, Hex Head Cap, 3/8-16 X 3/4	9240125	FCS038016075SS
33	4	Washer, Split Lock, 3/8in	FWL038069009	FWL038069009SS
34	1	Plate, Gearbox Mount	3000457	3001366
35	1	Gearbox	9240089	9240089
36	1	Hydraulic Motor - Gearbox Model Only	CM034P	CM034P
37	4	Screw, Hex Head Cap, 1/2in-13 X 1	FCS050013100	FCS050013100SS
38	4	Washer, Split Lock, 1/2in	FWL050088013	FWL050088013SS
39	1	Bracket, Fitting Mount	3026625	3023290



#### **Hardware Box Contents**



#### **Bill of Materials**

ITEM	QTY.	DESCRIPTION	CARBON	STAINLESS
1	1	Spinner Frame Assy.	3020184	3018416
2	1	Spinner Shield	924F0015	3006659
3	1	Spinner Disk Assy.	3001472A	3001472A
4	2	Linkage Rods, Welded	924F0012	924F0012
5	1	Hinge Rod	924F0018	3006646
6	1	Spinner Lug	924F0013	3006645

ITEM	QTY	DESCRIPTION	CARBON	STAINLESS
7	1	Bar	924F0014	924F0014
8	2	Bar, Hanger Brace	924F0101	3011137
9	2	Detatch Mounting Plate	924F0102	3009526
10	2	Hinge Pin	924F0103	3011139
11	1	Hardware Bag	3015630	3017834
12	1	Height Adjustment Bracket	3020185	3017175

Auger Replacement Kit Standard Discharge (924F0081AK) Left Side Discharge (3026661)



