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Installation Instructions

PRO4000H & PRO4000HCH SaltDogg® Hydraulic Drive Poly Hopper Spreaders 4.0 cubic yards

Table of Contents

General Information 1
Safety Precautions 1
Installation Instructions 2-4
Spreader Operation 3-4
Spreader Maintenance 4
Repair Parts & Drawings 5-8
Warranty Information 8

General Information

Overall Length: 123.3 inches
Overall Width: 77 inches
Overall Height: 47.3 inches
Empty Weight: 812 lbs
Capacity Struck: 4.0 cu. yd.

Vehicle Requirements

Trucks with GVWR 15,000 to 26,000 lbs.
150 AMP or higher alternator is recommended.

Average Material Weights

Materials to use	Weight (pounds per cubic yard)
Fine Salt-Dry	2,250
Coarse Salt-Dry	1,431
Sand Coarse-Dry	2,565

Note: To calculate the total spreader weight (including ice control material), add the empty spreader weight plus the ice control material and spreader accessories.

⚠ WARNING

Improper installation and operation could cause personal injury, and/or property damage. Observe the following Safety Precautions before, during and after operating this spreader. By following these precautions and common sense, possible injury to persons and potential damage to this machine may be avoided.



⚠ CAUTION

Do not overload vehicle beyond the vehicle's GVWR or GAWR. Check vehicle's load rating certification sticker for maximum vehicle capacity.

Safety Precautions

1. Read this entire Owners Manual before operating this spreader.
2. Read all safety decals on the spreader before operating.
3. Check to make sure all safety guards are securely mounted into place before operating this spreader.
4. Verify that all personnel are clear of the spreader spray area before starting or operating this spreader.
5. Do not over-load your vehicle beyond payload limits. If there are any questions, contact the vehicle manufacturer.
6. Do not adjust, clean, lubricate or unclog material jambs without first turning off the spreader.
7. Do not climb on or in the spreader during operation. Do not ride on the spreader while the vehicle is in motion.
8. Make sure the spreader is securely fastened to the vehicle in accordance with this manual.
9. Do not operate a spreader that is in need of maintenance or repairs.
10. Batteries normally produce explosive gases which can cause personal injury. Always disconnect the battery before removing or replacing electrical components.
11. Do not leave unused material in hopper. Material can freeze or solidify, causing spreader to not work properly, and/ or damage the unit. Empty and clean after each use.

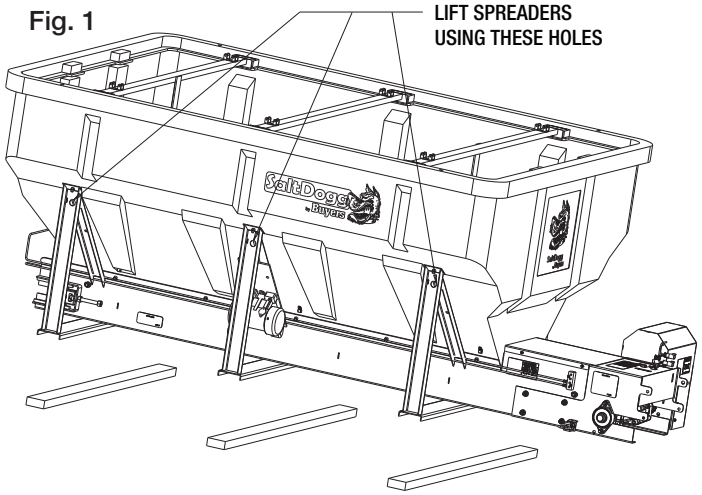
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INSTALLATION INSTRUCTIONS

MOUNTING THE SPREADER ONTO THE VEHICLE:

A. Remove the tailgate from the vehicle (if equipped) as well as any other object which will interfere with the spreader.
B. Check truck's bed for all kinds of sharp debris or foreign objects. They can cut and seriously damage poly hopper.
C. Remove chute, hardware kit from inside spreader. If spreader has been used make sure there is no material left in the hopper.
D. Prepare 4 boards as shown in Fig. 1. A board size is 2" x 4" x 60" long minimum. Boards can be as long as width of inside of trucks body.
E. Next, set the spreader in the truck body. Use four bars on the frame to lift the spreader (Fig. 1).

Fig. 1



F. Lower spreader onto 2" x 4" boards positioned in truck bed.
G. Center the spreader on the vehicle with the end of the gear mount 14" to the rear of the nearest vertical obstruction (bumper, trailer hitch, etc). Attach chute to spreader, check for interference between the vehicle and the Spinner/Chute Assembly.
H. Bolt the spreader to the vehicle frame through the lengths of lumber using the holes located in each of the four (4) cross members. Use 1/2" SAE Grade 5 hardware as required by vehicle application.
I. In addition, secure spreader using four ratchet straps or chain tie down kit (sold separately). Always tighten straps evenly!
• The spreader must be securely fastened to the frame of the vehicle.
• Verify with the vehicle's manufacturer that the factory installed anchor points are designed for tie-down of such load.
• Periodically check that the spreader mounting hardware is securely tightened, retighten if necessary.

⚠ CAUTION

Never lift spreader with material in the hopper.

⚠ WARNING

Do not drill holes into fuel tanks, fuel lines, thru electrical wiring, etc that may be damaged by drilling.

⚠ CAUTION

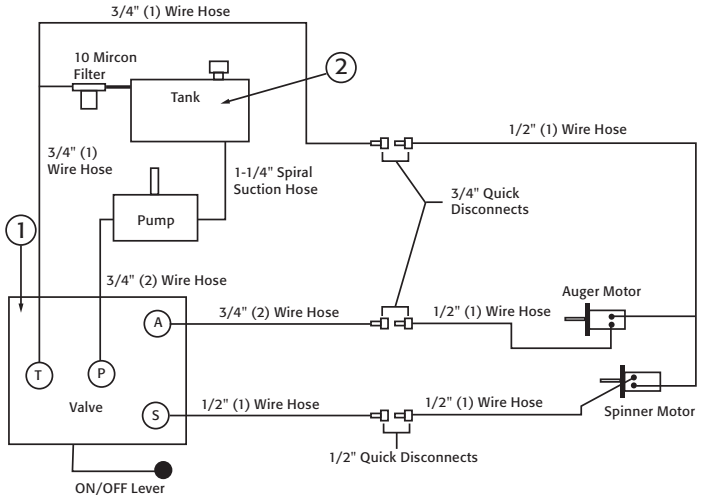
Inspect straps and hardware after each time spreader is loaded. Tighten straps and hardware if necessary.

⚠ WARNING

Important! Do not use ratchet straps or tailgate latch exclusively! Always fasten spreader to the vehicle!

Installation Instructions - Hydraulic

1. During assembly take precautions to keep all hydraulic components as clean as possible. See the figure below for hydraulic schematic.
2. 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.
3. Protect hoses from wear caused by abrasion and/or vibration.
4. For proper rotation of the auger and spinner motors, hoses may be reversed. The spinner rotates clockwise when looking down from the top.
Note: Use of a pipe joint sealant compatible with hydraulic oil is recommended for all screw fittings.
5. Use swivel type hose adapter fitting ends to connect hoses to flow valve. Damage to valve body may occur if the fittings in flow valve are over tightened.
6. A 10 micron return line filter is recommended to protect the pump, valve, and motors from wear causing contamination.



Valve Key
T= Tank/Reservoir
P= Pump/Pressure In
A= Auger
S= Spinner

(1) Single braid wire hose
(2) Double braid wire hose

Main Components

ITEM	PART NO.	QTY.	DESCRIPTION
1	HV715	1	Dual Flow Regulator Valve
2	–	1	Reservoir 25 Gal Min
N/S	HVC1	1	Dual Flow Regulator Console

Spreader Operation - Hydraulic Models

⚠ WARNING

- Before working in or around spreader equipment, be sure all hydraulic controls are moved to OFF position, the PTO must be disengaged (OFF) and the truck engine must be shut off.
- When operating, be sure everyone is standing clear of spreader.
- Be alert for anything that may require shutting down the system.
- Equipment must be started up slowly and watched from a safe distance.

⚠ CAUTION

Always follow the following precautions so as not to cause damage to the spreader.

- If the auger does not move because of dense material or a material jam, with the truck off, remove all material from the hopper and free the auger.
- To prevent the auger from freezing, do not store material in the spreader.
- If the material in the hopper freezes, move the spreader into a warm area to thaw.

Initial Priming and Inspecting of the System

1. Make certain the spreader hopper is empty
2. Fill oil reservoir approximately 3/4 full using high grade non-foaming hydraulic oil
3. Be certain the manual spreader valve ON/OFF lever is in the OFF position
4. Start the truck engine
5. Engage PTO and circulate hydraulic oil for several minutes to warm up hydraulic system
6. Position manual spreader valve ON/OFF lever to ON position
7. Rotate the auger control knob and spinner control knob on the manual spreader valve to the desired operating position
8. Check the auger and spinner to see that they are working properly and rotating in the correct direction
   a. To reverse rotation, switch the hydraulic lines at the motor. Only service your spreader when the truck engine is OFF
9. Shut the truck engine OFF
10. Inspect hydraulic system for leaks
11. Refill oil reservoir to 3/4 full
12. Hydraulic system is now be ready for use

Spreader Start-up

1. Set feed gate opening and baffle positions for desired material flow and spread pattern.
2. Check to make certain that no loose parts or other material are in hopper, chute or on the spinner disk
3. Warm up the hydraulic system
   a. Start the truck engine
   b. Engage PTO and circulate hydraulic oil for several minutes
   c. Position manual spreader valve ON/OFF lever to ON position
   d. Rotate the auger control knob and spinner control knob on the manual spreader valve to the desired operating position
   e. Move the ON/OFF lever to the OFF position after warming up the system. Position the spinner and auger control knobs to the desired settings
4. Put spreading material in the V-Box.
5. Changing the auger and spinner speeds as well as adjusting the feed gate and baffle positions will produce various spread patterns.

Operating the Spreader

1. Adjust the internal and external spinner baffles to positions that you have previously determined to give you desired spread pattern.
2. Before each use, warm up the hydraulic system following the procedure described in the Initial Spreader Setup section
3. Valve setting changes may be made with truck in motion
4. Allow Manual Spreader Valve to cool down before moving ON/OFF lever to the OFF position.
5. Moving the Manual Spreader Valve to the OFF position will stop the spinner and auger at the same time without changing their knob/valve settings

⚠ CAUTION

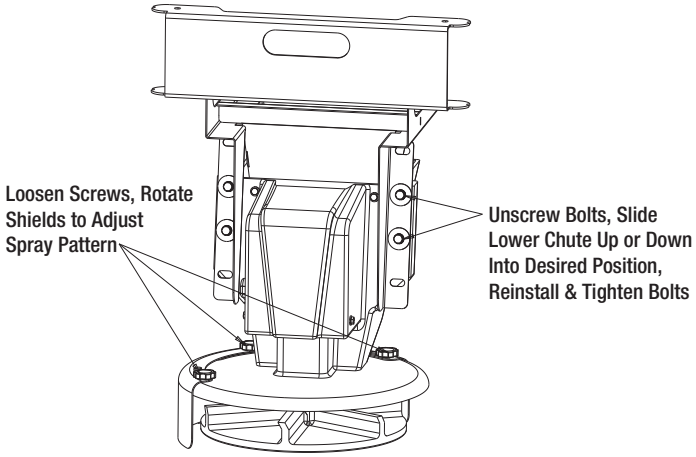
Position the valve on/off control lever in the off position when the spreader is not in use or is removed. In the event the valve on/off control lever is left in the on position, a heat problem may occur as the pump continues to pump oil to the hydraulic valve. This could cause a hose to burst spraying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

Spreader Maintenance

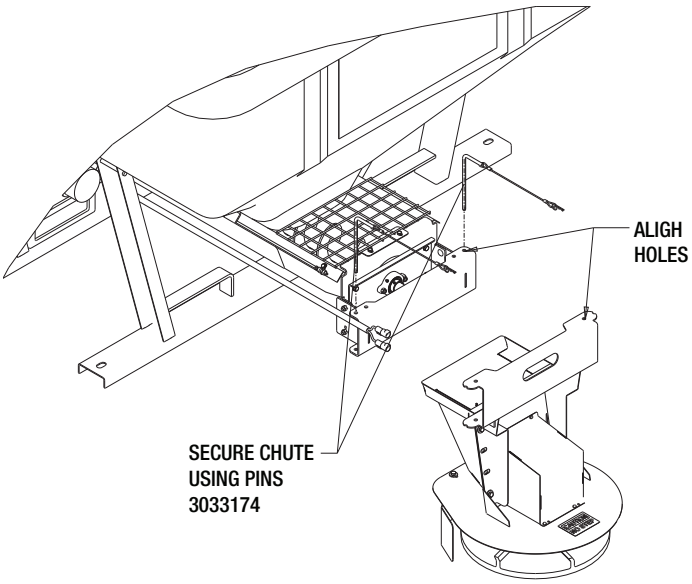
In-Season Maintenance

1. Wash spreader after every use. Make sure no material is left under auger/ chain and/or inside trough.
2. Inspect and retighten fasteners after every 7-10 hours of operation. Replace any loose or damaged fasteners.

4. SPINNER/CHUTE ASSEMBLY OPERATION



A. Chute Assembly. Assembly chute to hopper following instructions shown in picture below.



B. The spread pattern and the amount of material dispensed is dependent on the following factors:
1. Chain Gear Motor RPM
2. Baffle positions
3. Spinner Gear Motor RPM

⚠ CAUTION

Always follow the following precautions so as not to cause damage to the spreader.

5. Precautions

A. If the feed chain does not move because of dense material or a material jam, remove all material from the hopper and free the chain.

B. If the material in the hopper freezes, move the spreader into a warm area to thaw.

C. To prevent the feed chain from freezing, do not store material in the spreader.

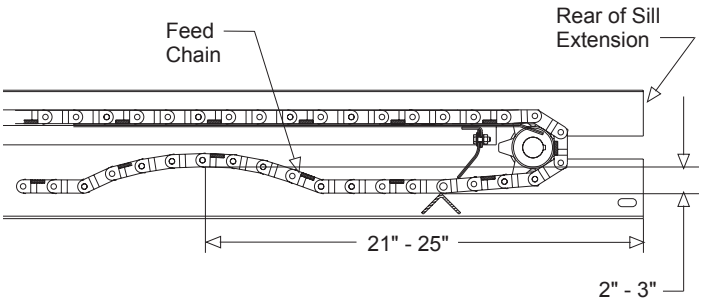
D. The gearbox is designed to only accept torque from the electrical motor. Therefore, DO NOT ATTEMPT TO FREE THE FEED CHAIN BY USING A PIPE OR SIMILAR TOOL TO MOVE OR DISLODGE THE CHAIN. If the feed chain is moved, the gears within the gearbox will strip. This action will void all warranties.

Spreader Maintenance

1. Use dielectric grease on all electrical connections before an electrical connection is made or after a connector is disconnected.

2. Grease the following:
- Idler shaft bearings (2)
- Flange bearings (2)

3. Check the Feed Chain tension periodically. To check the tension, measure in 21"-25" from the rear edge of the gear box mount. Push up on the chain with your hand. The conveyor chain should lift up 2"-3" off the conveyor chain guide or cross angles.



4. Empty the spreader of all ice control material when not in use to prevent a frozen feed chain.

5. Wash out the spreader when it is not in use. At the end of the season wash out the spreader to remove all ice control materials. Thoroughly dry all metal surfaces. Paint and oil all bare metal surfaces and chains to protect from rust. Properly store the spreader for the next season.

End of Season Maintenance.

1. Wash spreader. Make sure no material or residue left in and outside hopper.

2. Lubricate bearing using general automotive grease.

3. Inspect wire harness, connectors for broken insulation, missing components. Replace if necessary.

4. Apply dielectric grease on all electrical connectors.

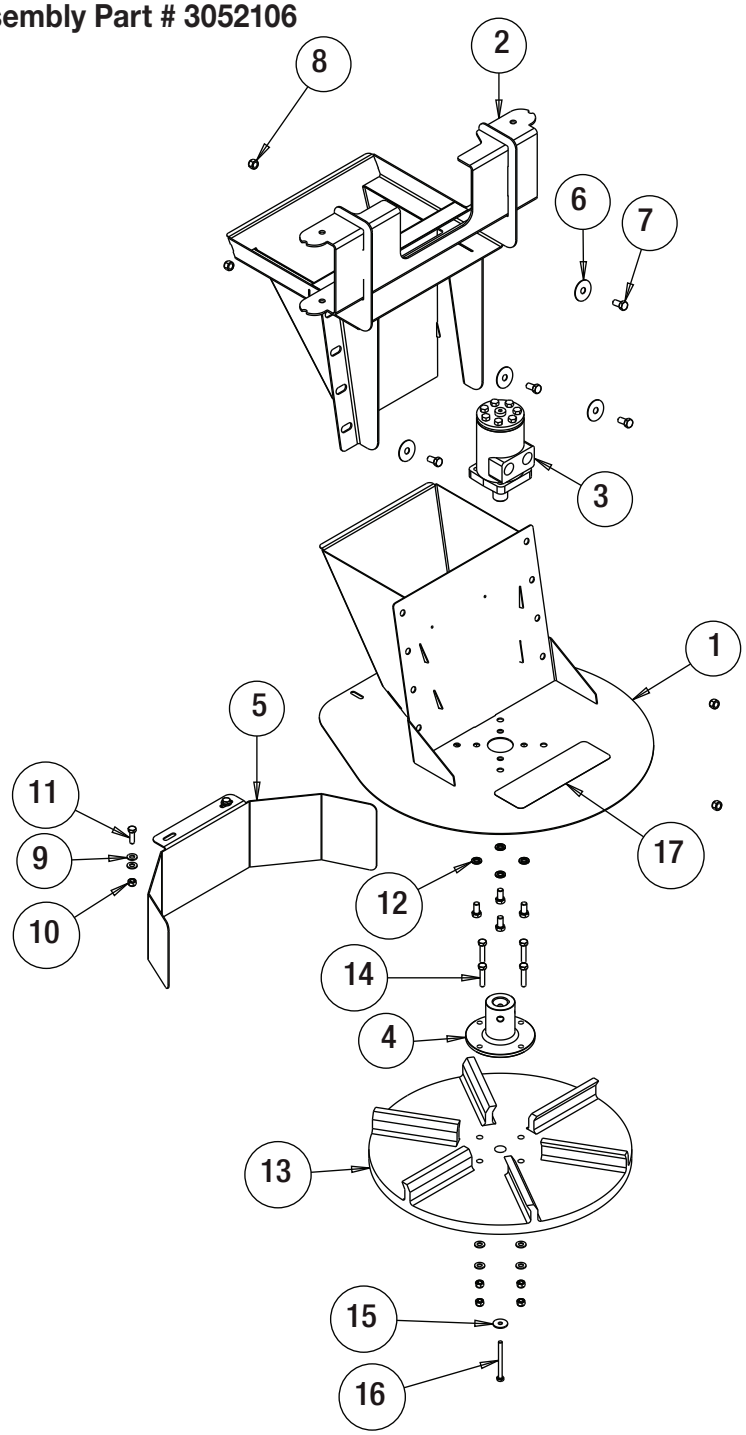
5. Store hopper indoors, in dry, cool place.

6. Inspect, clean and repaint frame.

7. Remove controller from truck. Store controller indoors, in dry, cool place

8. Wash and lubricate chain.

Repair Parts - Chute Assembly Part # 3052106

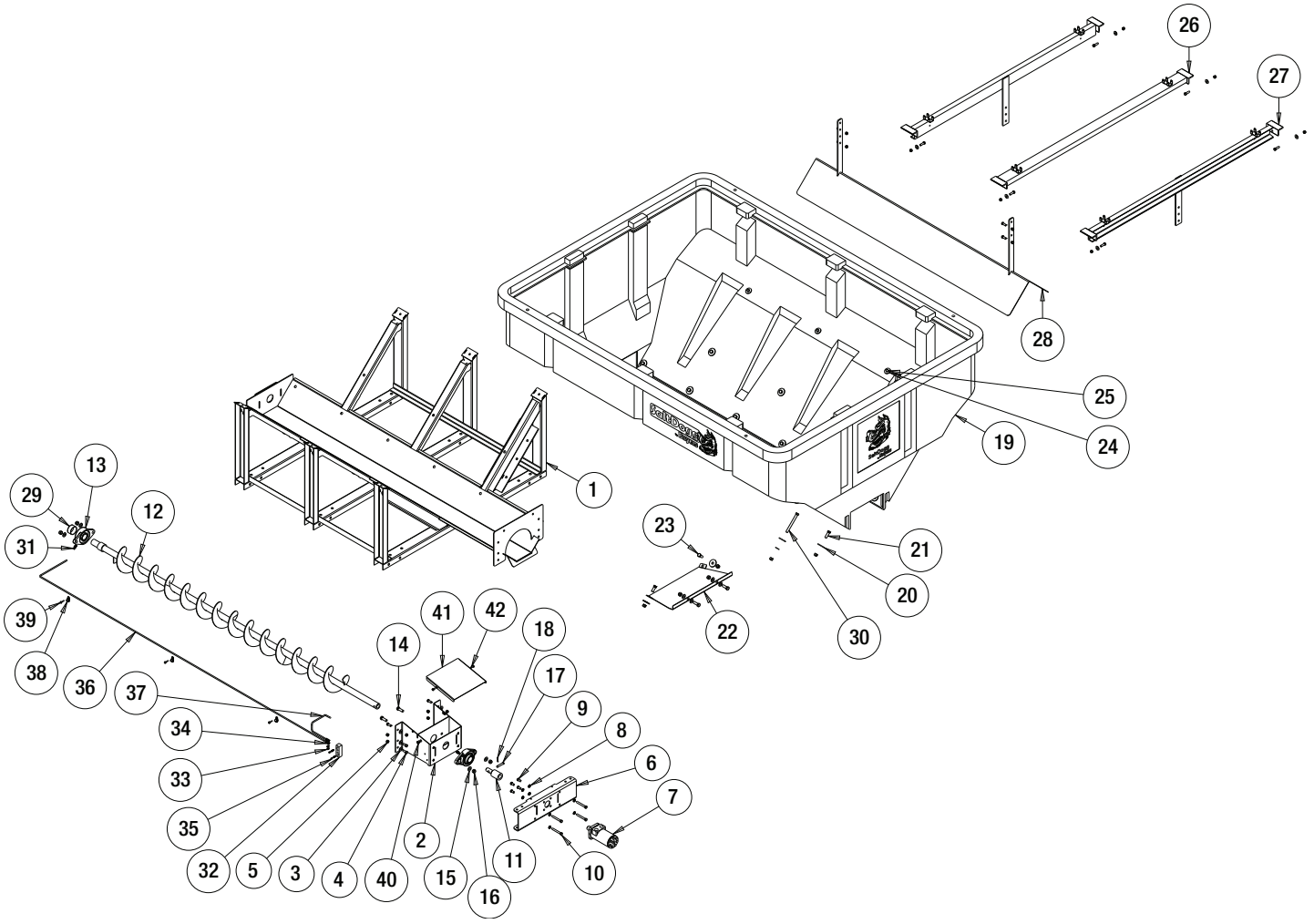


Bill of Material

ITEM	PART NO.	QTY.	DESCRIPTION
1	3052038	1	CHUTE LOWER WELDM
2	3056844	1	GHUTE UPPER, PRO
3	CM004P	1	MOTOR, HYD 4 BOLT
4	3008632	1	HUB, LONG NECK SPINNER
5	3052046	1	SHIELD
6	3007115	4	WASHER, FLAT 3/8 X 1.5 X.048 SST
7	FCS038016075SS	8	SCREW, HHC-3/8-16 X 3/4 SST
8	FNE038016044SS	4	NUT, NYLOCK 3/8-16 X 7/16 SST
9	FWF031075006SS	8	WASHER, FLAT, 5/16 X .688 X .065, SST

ITEM	PART NO.	QTY.	DESCRIPTION
10	FNE031018034SS	6	NUT, NYLOCK, 5/16-18, GR A, SST
11	3018701	2	SCREW, HHC 5/16-18 X 1.0 SST FULL THD
12	FWL038069009SS	4	WASHER, LOCK RHS-3/8 SST
13	3030179	1	SPINNER 18" POLY CW
14	FCS031018150SS	4	SCREW, HHC 5/16-18 X 1.5 SST
15	3030039	1	WASHER FLAT 1/4 ID 1 OD SST
16	3013623	1	SCREW HH CAP 1/4-20 X 3.0 SST
17	3007844	1	DECAL, DANGER STAY CLEAR

PRO4000H Hopper Assembly

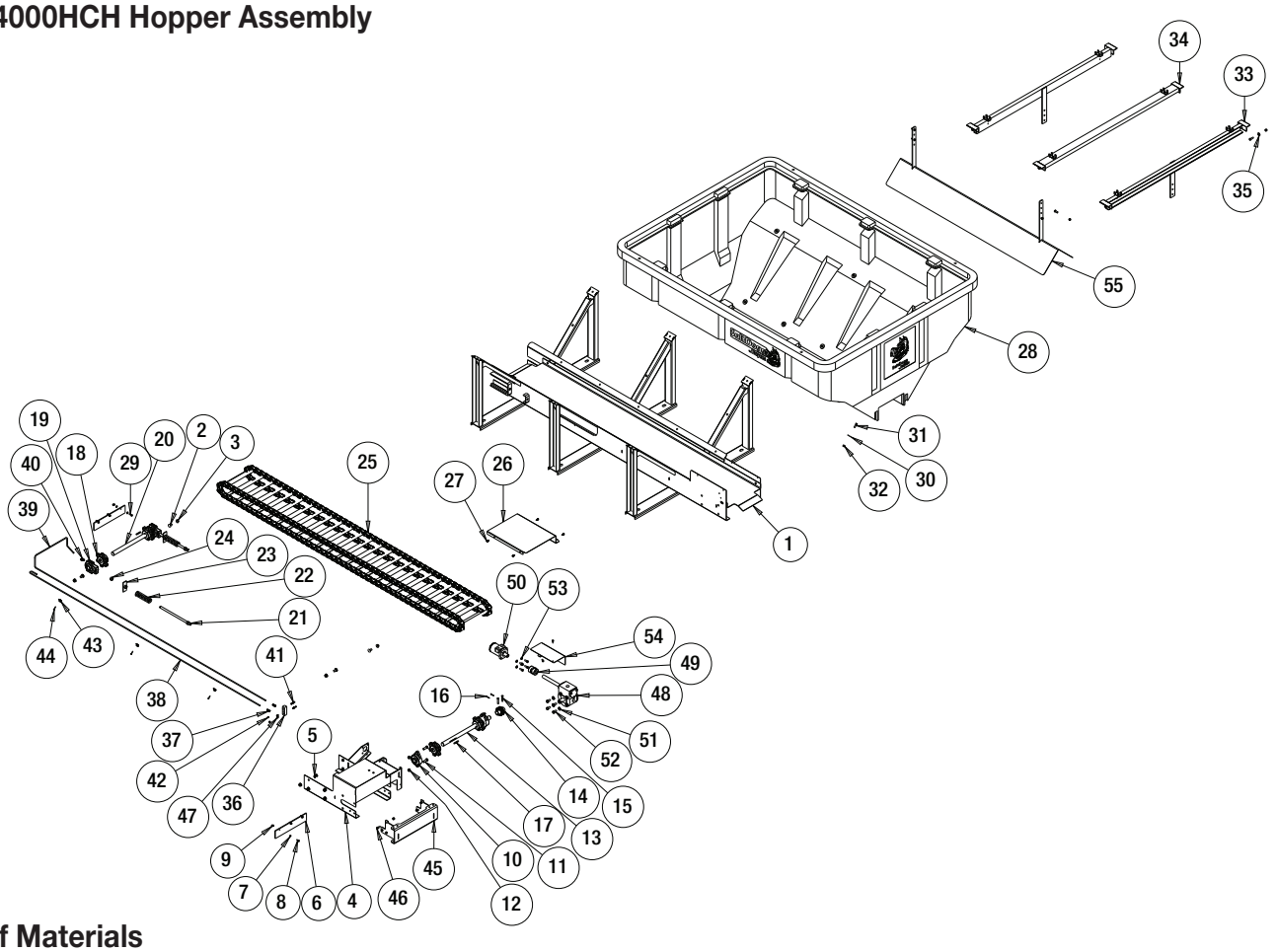


Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	3052795	1	TROUGH WELDMENT, PRO4000
2	3057269	1	MOUNT WELDMENT, HYD. MOTOR
3	FWF038100007SS	12	WASHER, FLAT 3/8 USS SST
4	FCS038016100SS	10	SCREW, HHC 3/8-16 X 1 304 SST
5	FNE038016044SS	22	NUT, NYLOCK 3/8-16 X 7/16 SST
6	3056852	1	CHUTE MOUNT WELDMENT
7	CM074P	1	MOTOR, HYD 4 BOLT
8	FWL038069009SS	8	WASHER, LOCK RHS-3/8 SST
9	FCS038016075SS	4	SCREW, HHC-3/8-16 X 3/4 SST
10	3007068	4	CAP SCREW, HX HD-3/8-16X3 SST
11	3055556	1	ADAPTOR
12	3012001	1	AUGER SHPE4000
13	2F24SCR	2	BEARING FLANGE 2 HOLES .75 ID SET SCREW
14	FCS050013150SS	4	SCREW, HHC-1/2-13 X 1.50 SST
15	3003873	14	WASHER, FLAT 1/2" SAE TYPE A SST
16	FNE050013053SS	24	NUT, NYLOCK 1/2-13 SS
17	1410803	1	PIN, CLEVIS, 3/8 X 2, 1038 ST, YZN
18	FPC013000100	1	COTTER PIN, 1/8 X 1, ZINC
19	3011999	1	HOPPER POLY 4 CU YA
20	3013516	18	WASHER, FLAT 1/2 ID 2.0 OD .135 THK SST
21	3006723	14	SCREW, HEX HD 1/2-13x1.5 GR5 SS

ITEM	PART NO.	QTY.	DESCRIPTION
22	3012607	1	COVER DISCHARGE
23	FCS050013125SS	2	SCREW, HHC-1/2-13 X 1-1/4 SST
24	3014189	6	WASHER, FLAT 3/8 X 1.5 X.120 SST
25	FCS038016125SS	12	SCREW, HHC-3/8-16 X 1.25 SST
26	3013279	1	SCREEN SUPPORT, SHPE4000
27	3039490	2	SCREEN SUPPORT, SHPE4000
28	3039492	1	INVERTED VEE, WELDMENT
29	3013541	1	CAP VYNIL 2.0 ID 1.0 LG
30	3019616	2	SCREW, HEX HEAD CAP 1/2-13 X 5.00 SST
31	3035344	2	GREASE FITTING 1/4TUBE 1/4-28 MALE STRAIGHT
32	3035346	1	RIGHT ANGLE JUNCTION BLOCK
33	800	2	GREASE FITTING, 1/8in NPT, STRAIGHT
34	3035347	2	GREASE FITTING 1/4TUBE 1/8 NPT STRAIGHT
35	3035357	2	SCREW SOCKET HD, RND 8-32X 1.50 SST
36	3036016	1	GREASE TUBE FRONT BEARING AUGER
37	3035359	1	GREASE TUBE REAR BEARING AUGER
38	4375	3	CLAMP, HOSE .4375, 9/32 HOLE
39	3007522	3	SCREW, SHEET MTL #12x1.0 HEX WASHER HD SST
40	3035742	1	BUSHING SNAP THICK PANEL
41	3056856	1	COVER
42	FCS025020075SS	2	SCREW, CAP 1/4-20 X 3/4 SST

PRO4000HCH Hopper Assembly

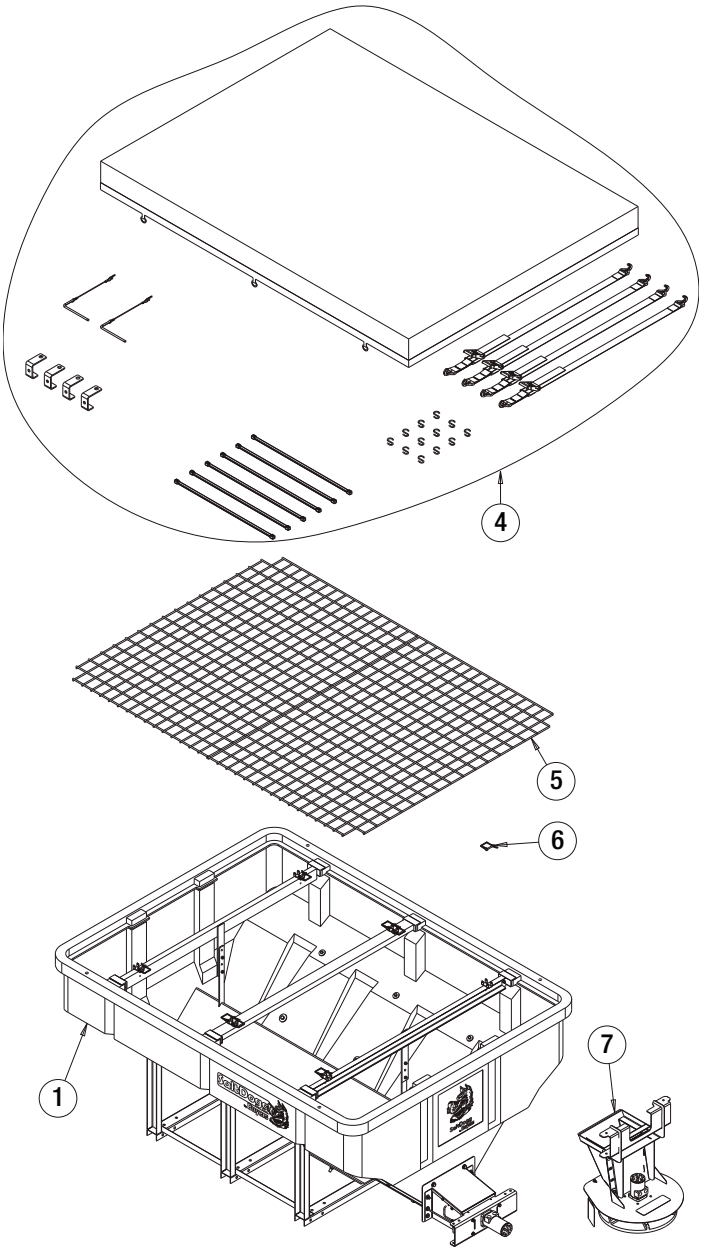


Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	3038843	1	TROUGH WELDMENT SHPE4000CH
2	3001522	4	BOLT, CARRIAGE 1/2-13 X 1 SST
3	3001523	12	NUT, SERRATED FLANGE, 1/2-13, GRA, SST
4	3057404	1	MOTOR DECK, WELDMENT
5	3004278	8	SCREW, BTN HD SOC CAP 1/2-13x 1 SST
6	3008872	2	WIPER BELT, HOPPER
7	FWF025063007SS	9	WASHER, FLAT 1/4 SAE SS
8	FCS025020075SS	5	SCREW, CAP 1/4-20 X 3/4 SST
9	FNE025020031SS	6	NUT, NYLOCK, 1/4-20, GR A, SST
10	3008294	2	BEARING, FLANGED
11	3006723	4	SCREW, HEX HD 1/2-13x1.5 GR5 SS
12	FNE050013053SS	4	NUT, NYLOCK 1/2-13 SS
13	3008316	1	SHAFT, SPROCKET DRIVE END
14	3008289	1	COUPLING, DRIVE SHAFT/ GEARBOX
15	1410803	2	PIN, CLEVIS, 3/8 X 2, 1038 ST, YZN
16	FPC013000100	2	COTTER PIN, 1/8 X 1, ZINC
17	KS402	3	KEY, 1/4 X 1/4 X 2
18	3008300	4	SPROCKET, D667H CHAIN
19	3008290	2	BEARING, HEAVY DUTY TAKE-UP
20	3008317	1	SHAFT, IDLER SPROCKET
21	3023046	2	BOLT, WELDED TAKE UP
22	3023022	2	SPRING CHAIN TENSION
23	3031199	2	TAKE-UP NUT WELDMENT
24	FNH063011054SS	2	NUT, HH 5/8-11 X 17/32 HIGH SST
25	3008860	1	CHAIN, 9FT. D667H CONVEYOR
26	3039489	1	COVER, CHAIN
27	3015873	4	SCREW #12-14x.74 SS SELF DRIL HEX WASHER HD
28	3038847	1	HOPPER POLY 4 CU YA

ITEM	PART NO.	QTY.	DESCRIPTION
29	FCS025020100SS	3	SCREW, CAP HEX HD 1/4-20 X 1 SST
30	3007115	16	WASHER, FLAT 3/8 X 1.5 X.048 SST
31	FCS038016125SS	22	SCREW, HHC-3/8-16 X 1.25 SST
32	FNE038016044SS	32	NUT, NYLOCK 3/8-16 X 7/16 SST
33	3039490	2	SCREEN SUPPORT, SHPE4000
34	3013279	1	SCREEN SUPPORT, SHPE4000
35	FWF038100007SS	6	WASHER, FLAT 3/8 USS SST
36	3035346	1	RIGHT ANGLE JUNCTION BLOCK
37	3035347	2	GREASE FITTING 1/4TUBE 1/8 NPT STRAIGHT
38	3036051	1	GREASE HOSE FRONT DR SIDE
39	3036052	1	GREASE HOSE FRONT PS SIDE
40	3035345	2	GREASE FITTING 1/4TUBE 1/4-28 MALE 90 DEGREES
41	3035357	2	SCREW SOCKET HD, RND 8-32X 1.50 SST
42	3035358	2	NUT, NYLOCK 8-32 SST, BLACK OXIDE
43	4375	3	CLAMP, HOSE .4375, 9/32 HOLE
44	3007522	3	SCREW, SHEET MTL #12x1.0 HEX WASHER HD SST
45	3052651	1	CHUTE ATTACHMENT, PRO4000/6000
46	FCS038016100SS	14	SCREW, HHC 3/8-16 X 1 304 SST
47	800	2	GREASE FITTING, 1/8in NPT, STRAIGHT
48	1401200	1	GEARBOX
49	3009215	1	COUPLING, SHAFT 1 X 1
50	CM004P	1	MOTOR, HYD 4 BOLT
51	FWL050088013SS	4	WASHER, LOCK - 1/2 SPLIT SST
52	FCS050013100SS	4	SCREW, HHC-1/2-13 X 1 SST
53	FWL038069009SS	4	WASHER, LOCK RHS-3/8 SST
54	3025249	1	COVER, SHAFT
55	3039492	1	INVERTED VEE, WELDMENT

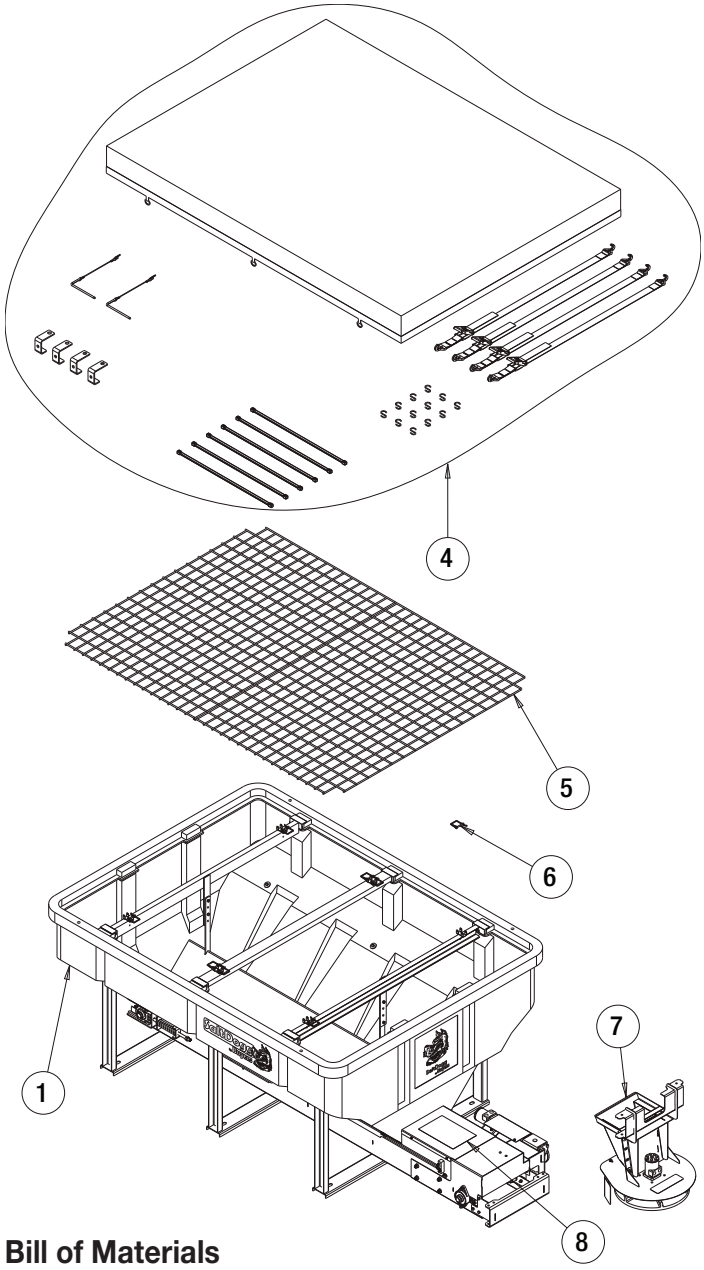
PRO4000H Assembly



Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	3056845	1	HOPPER ASSEMBLY PRO4000H
2	3018487	1	PALLET SHIPPING SHPE4000
3	3010850	4	SCREW,HEX HD LAG,1/2 X4.0, ZN
4	3057271	1	HARDWARE KIT PRO4000H, HCH
5	3012458	2	SCREEN, MESH, 46.7X68.3, .31in WIRE
6	66050	8	SNAPPER PIN, 1/4 X 2, YLW ZINC
7	3052106	1	CHUTE SWING, ADJUSTABLE, HYD

PRO4000HCH Assembly



Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	3057405	1	HOPPER ASM. PRO4000HCH
2	3009331	1	PALLET, 70" HOPPER SHIPPING
3	3010850	4	SCREW,HEX HD LAG,1/2 X4.0, ZN
4	3057271	1	HARDWARE KIT PRO4000H, HCH
5	3012458	2	SCREEN, MESH, 46.7X68.3, .31in WIRE
6	66050	8	SNAPPER PIN, 1/4 X 2, YLW ZINC
7	3052106	1	CHUTE SWING, ADJUSTABLE, HYD
8	3048137	1	LABEL DANGER, REAR

SALTDOGG® SPREADER WARRANTY

This warranty replaces all previous warranties and no employee of this company is authorized to extend 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 two (2) years. Parts must be properly installed and used under normal conditions. Normal wear is excluded. Any part, which has been altered, including modifications, misuse, accident, or lack of maintenance will not be considered under this warranty. 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 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.