

Installation Instructions

Municipal-Sized Electric Powered Stainless Steel Hopper Spreaders

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GENERAL INFORMATION

MODEL NO.	OVERALL LENGTH	OVERALL WIDTH	OVERALL HEIGHT	EMPTY WEIGHT	CAPACITY CU. YDS
1490757SSE	143"	82"	62.3"	2,932 lbs.	7.0
1490957SSE	167"	82"	62.3"	3,433 lbs.	9.0

1. Recommended Vehicle Requirements

Buyers Municipal-Sized Hopper Spreaders are intended for spreading abrasives and/or chemicals, primarily for ice and snow control. They are intended for installation on truck chassis or dump bodies with GVWR 26,000 lbs. Spreaders are intended to be mounted on trucks with **Cab To Axle/Tandem Dimension** minimum of 84 inches.

IMPORTANT

The Cab to Axle/Tandem dimensions are only guidelines. Consult federal, state and local weight laws and chassis manufacturer's ratings to ensure neither government weight restrictions, nor GVWR and GAWRs are exceeded.

2. Average Material Weights

MATERIAL WEIGHT (POUNDS PER CUBIC YARD)

- #1 Rock Salt - 950
- #2 Rock Salt - 1,215
- Coarse Sand - Dry 2,565

3. Recommended Fastener Torques

Maintain all fastener torques as shown in the following table. Failure to do so may cause injury to persons.

	SAE GRADE 2 ft-lbs	SAE GRADE 5 ft-lbs
5/16-18	11	18
3/8-18	19	31
3/8-24	24	46
7/16-14	30	50
1/2-13	45	75
9/16-12	66	110
5/8-11	93	150



SPREADER WARRANTY INFORMATION

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 one (1) year from the date of installation. 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.

—continued inside

SAFETY PRECAUTIONS

WARNING

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.

1. Read this entire Owner's Manual before operating this spreader.
2. Read all safety decals on the spreader before operating the spreader. IF DECALS BECAME DEFACED-REPLACE!
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. Keep all loose clothing, hair, jewelry and limbs clear of the spreader before starting or operating this spreader.
6. Do not over-load your vehicle beyond payload limits. If there are any questions, contact the vehicle manufacturer.
7. Do not adjust, clean, oil or unclog material jams without first turning off the spreader.
8. Do not climb on or in the spreader during operation. Do not ride on the spreader while the vehicle is in motion.
9. Make sure the spreader is securely fastened to the vehicle in accordance with this manual.
10. Do not operate a spreader that is in need of maintenance or repairs.
11. Always disconnect the wire harness before removing or replacing any electrical components.
12. Make sure that spreader solidly supported when it is being mounted, dismantled or stored.

INSTALLATION INSTRUCTIONS

Dump Body Mounting

1. Remove the tailgate from the vehicle if applicable.
2. Lift the spreader using the (4) lifting loops in the corners of the hopper.

WARNING

The lifting device must be adequately rated to lift a payload equal to or greater than the spreader weight. See page 1 for spreader weights. Empty the spreader before lifting.

3. Center the spreader in the vehicle. Spreader sills must overhang 20" beyond the back end of the vehicle.
4. If the dump body is not flat, it is suggested that the spreader be placed on two 1" x 6" hardwood boards. This will evenly distribute the weight of the loaded spreader on the entire cross channels.
5. The spreader may be secured to the vehicle by using Tie-Down Kit Buyers part #3010548 (sold separately).
6. Periodically check that the spreader mounting hardware is securely tightened.

Chassis Mounting

1. Hardwood wear strips usually 1" x 3" (not furnished) must be fitted to the truck chassis.
2. The spreader should be positioned on the wooden wear strips so hopper sills must overhang 20" beyond the back end of the vehicle.
3. In addition a distance of approximately 4"-6" must be left between the truck cab and the front of the hopper. This will help facilitate any future servicing of the conveyor chain.
4. Qualified installer must fabricate suitable angles to attach hopper cross members to track's frame. **DO NOT** weld mounting angles to the truck frame. Doing so can cause fatigue cracking of the truck frame.

Chute Installation

1. Bolt chute to Chute Guide using screws, washers and nuts. Place washers between Chute Guide tabs and Chute brackets.
2. Swing chute towards vehicle. Connect chute to the hopper by engaging two latches into corresponding holes in chute brackets.
3. Chute heights can be adjusted by sliding lower chute assembly up or down inside of upper chute assembly. Adjustment slots are spaced by 3". Secure lower chute assembly using all 4 carriage bolts provided. Make sure all four bolts are used for installation. To increase ground clearance cut upper chute as shown and use lower slots in bottom chute.

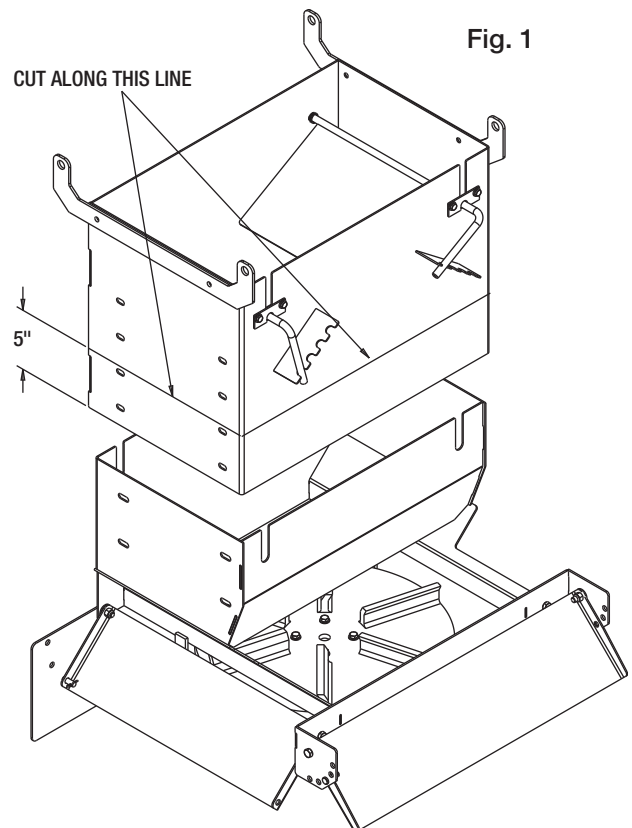


Fig. 1

Control Box & Vehicle Wiring Harness Installation

Make sure you have connected the proper wire color. This is wire ground electrical system! No connections to truck's frame or body allowed!

WARNING

Do not drill holes into fuel tanks, fuel lines, through electrical wiring, etc. that may be damaged by drilling. To insure good performance of your spreader, check the condition of truck's electrical system. Using digital voltmeter, check alternator and battery voltage. With engine running and head lights and heater fan ON good voltage reading should fall between 13.0 and 15.3 volts. If voltage reading falls out of this range, check and adjust your electric system.

NOTE: Always disconnect battery before attempting to install electrical components on your vehicle.

1. Mount the controller in a convenient location in the truck cab. It is recommended not to mount the controller directly in front of heat vents. Allow ample air space around controller.

CAUTION

Do not mount controller in the way of air bag deployment!

- 2.** Route both wire harnesses into truck cab through firewall (it maybe necessary to drill holes). Install grommets to protect wire harnesses. Insulate hole to avoid water leaks.
- 3.** Insure no wires are nicked or damaged during installation.
- 4.** Connect the 4-pin connector on the wire harness to the control box 4-pin connector.
- 5.** Connect the 2-pin connector on the power cable to the mating control box mating connector.

6. Connect wire harness single connectors to control box connectors.

7. Connect fuse connector to the fuse terminal or ignition switch (5 AMP max).

8. Lay out a path for the power cable to the battery, use quick ties to secure power cable. **DO NOT CONNECT TO BATTERY AT THIS TIME!**

9. Lay out path for wire harness to the rear of the vehicle. It is recommended to stay clear of the exhaust system. Excess heat can damage the wire harnesses. Use quick ties to secure harness to underbody.

10. Connect the wire harness to the motors. Make sure wire colors on wire harness match colors on the motors.

11. Thoroughly clean battery terminals. Make sure battery terminals have no tarnish or corrosion. **DO NOT CONNECT WIRE HARNESS TO DAMAGED OR CORRODED TERMINALS! IT MAY RESULT IN OVERHEATING, LOST POWER AND POTENTIAL CONTROLLER DAMAGE!**

12. Connect the power cable directly to the battery.

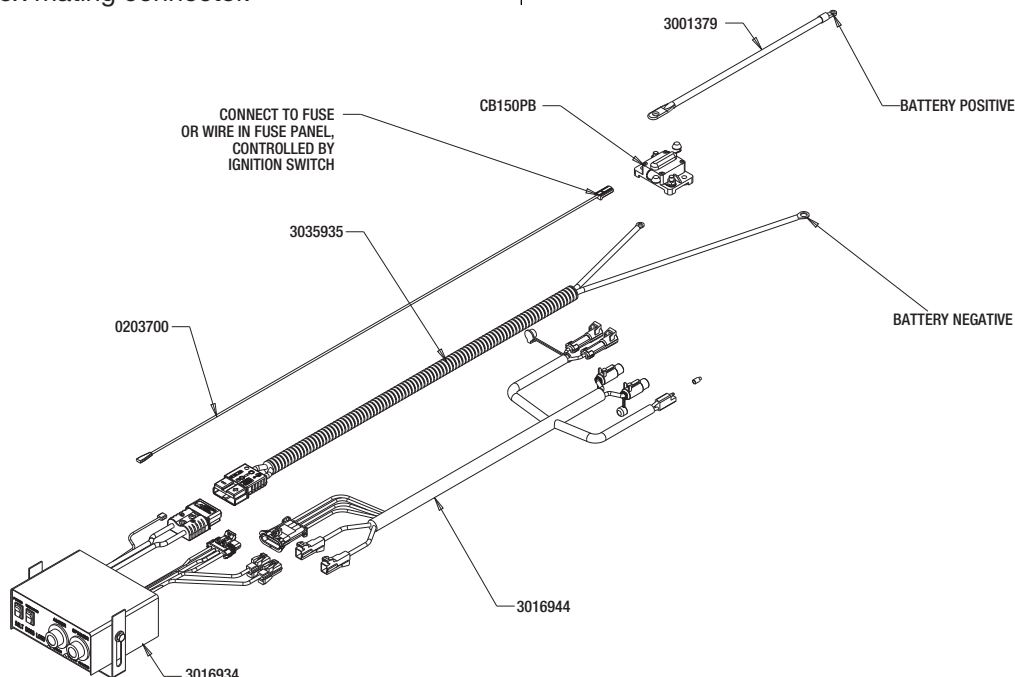
13. Insure all functions of the controller are working properly.

14. Observe chain moving in proper direction. If direction is wrong reverse wires between Motor and Wire Harness.

15. Optional spot light (5 AMP max) can be installed on spreader. Remove cap from single white wire. Connect

IMPORTANT

Make sure all wires securely attached to vehicle or spreader. Use wire ties and/or wire clamps to attach wires. All excess wires must be rolled into bungles and attached to vehicle or spreader.



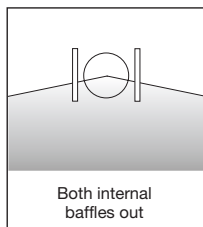
light to this wire and trucks frame.

SPREADER OPERATION

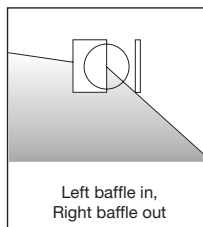
The spread pattern and the amount of material dispensed will depend on the following factors:

- Conveyor speed.
- Spinner RPM.
- Feed gate door position.
- Baffle settings.

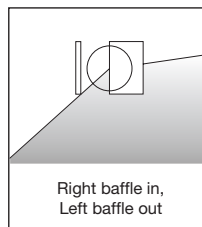
Internal Baffle Adjustment



Both internal baffles out

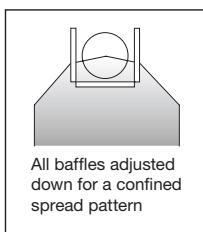


Left baffle in, Right baffle out

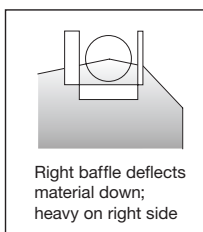


Right baffle in, Left baffle out

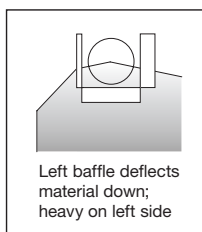
External Baffle Adjustment



All baffles adjusted down for a confined spread pattern



Right baffle deflects material down; heavy on right side



Left baffle deflects material down; heavy on left side

CAUTION

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

- If the conveyor chain does not move because of dense material or a material jam, remove all material from the hopper and free the chain.
- If the material in the hopper freezes, move the spreader into a warm area to thaw.
- To prevent the feed chain from freezing, do not store material in the spreader.
- The gearbox is designed to only accept torque from the electric motor. Therefore, DO NOT ATTEMPT TO FREE THE CONVEYOR BY USING A PIPE OR SIMILAR TOOL TO MOVE OR DISLODGE THE CHAIN. This action will void all warranties.

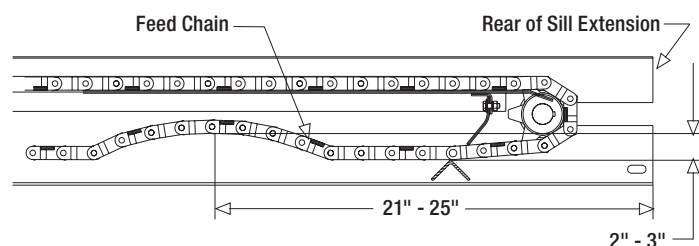
Below are illustrations that show the baffles effect on the spread pattern as viewed from the top of the spinner disk.

SPREADER MAINTENANCE

- Grease the following components regularly:
- Idler shaft bearings (2)

IMPORTANT

Check the Feed Chain tension periodically. Proper chain tension is illustrated below. Be sure the chain is tensioned equally on both sides. This adjustment is made on each side of the spreader at the idler bearing.



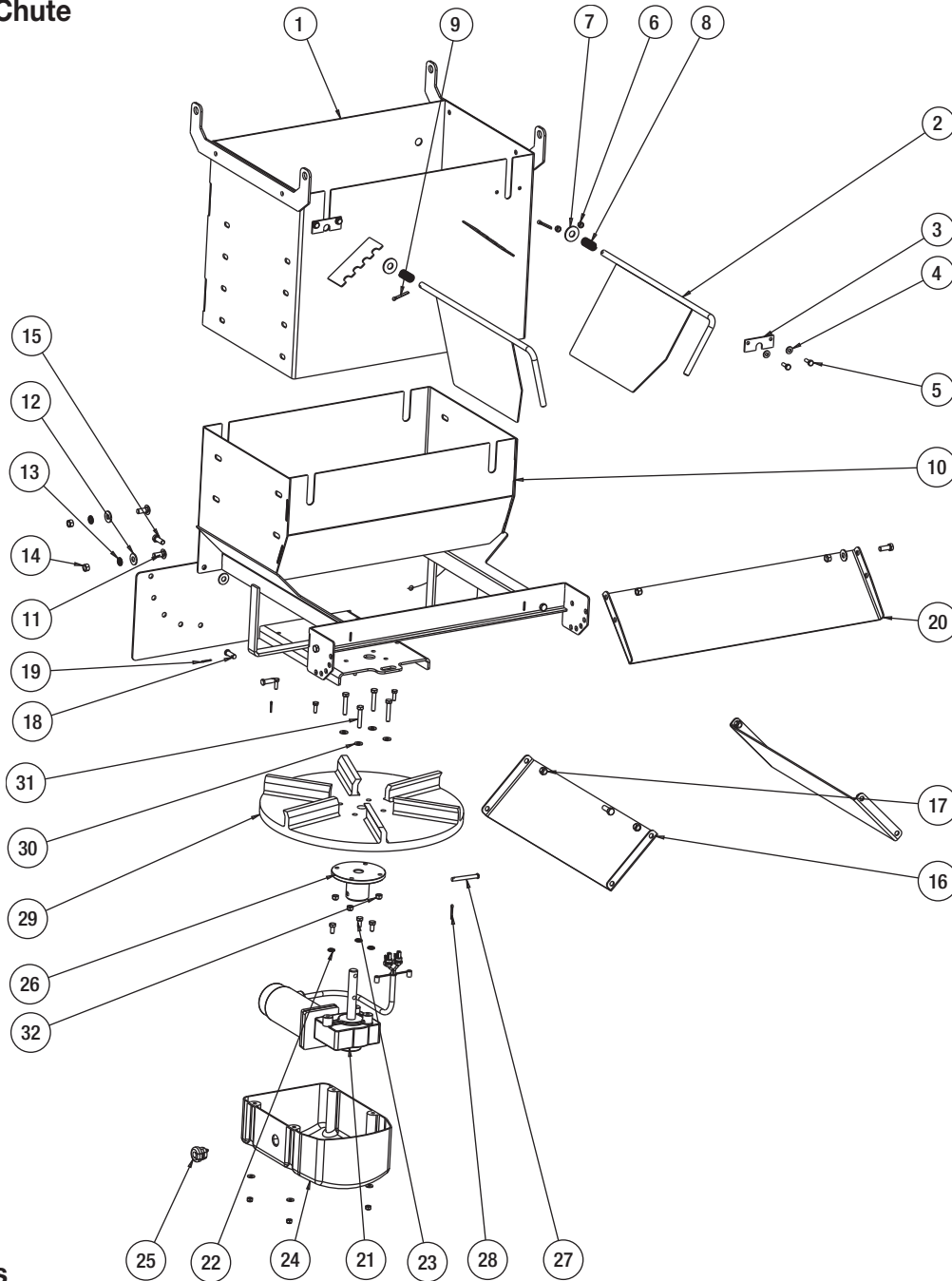
- Drive shaft bearing (1)
- Feed Gate Jack
- Lubricate the conveyor chain at least once a week. Use a mixture of 75% fuel oil and 25% SAE 10 oil in a pressurized hand spray gun.
- Tighten all screw fasteners to recommended torques after the first week of operation and annually thereafter. If loose fasteners are found at any time, tighten to the recommended torques. Replace any lost or damaged fasteners or other parts immediately upon finding such damage or loss. Check body mounting bolts every week.

CAUTION

Do not over-tension the conveyor chain. This can cause damage to the chain, bearings, and gear motor.

- Empty the spreader of all ice control material when not in use to prevent a frozen feed chain & damage due to corrosion.
- 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. Re-paint and oil all previously painted surfaces and chains to protect from rust. Properly store the spreader for the next season.

Repair Parts - Chute

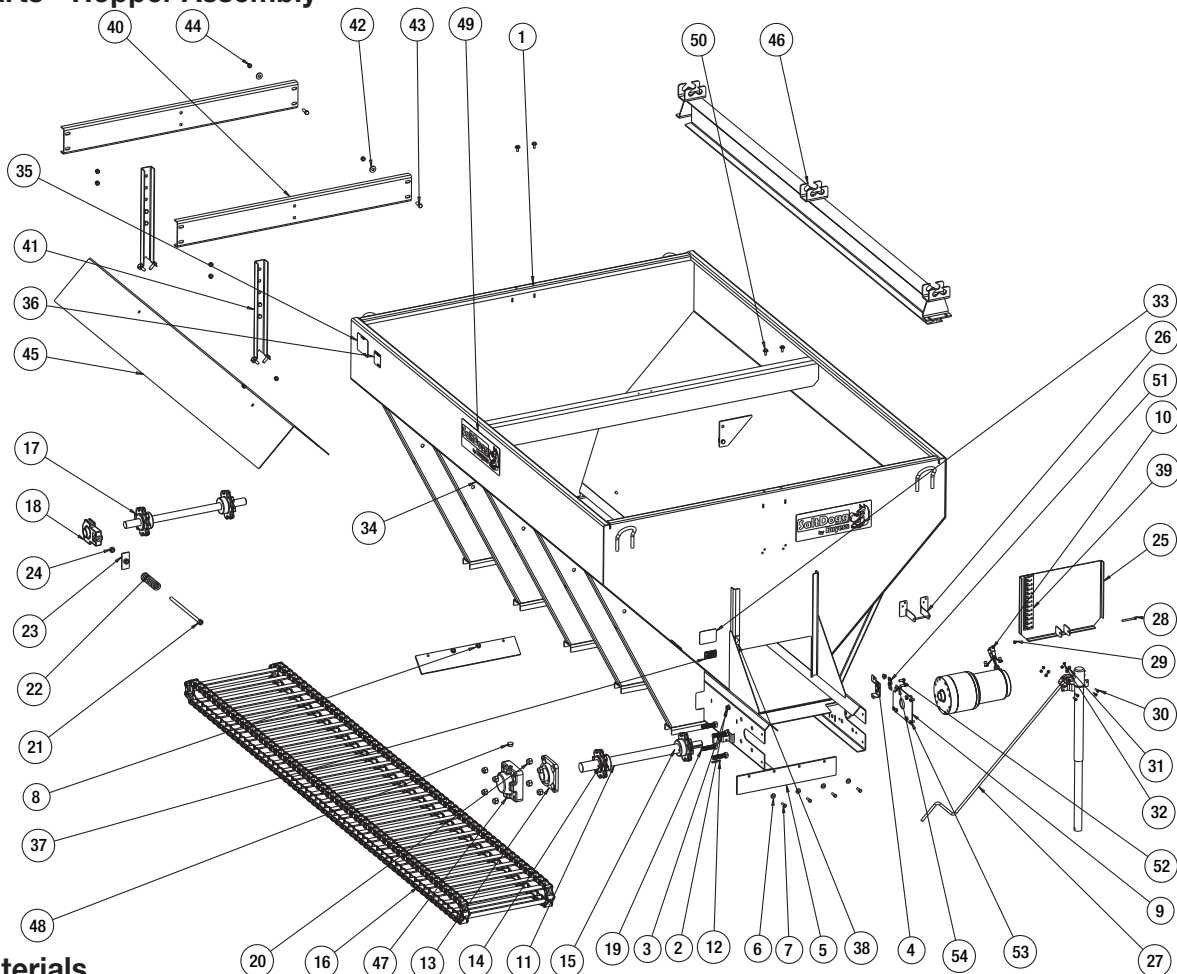


Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	3010172	1	WELDMENT UPPER, CHUTE
2	3010202	2	WELDMENT, DEFLECTOR INNER
3	3010278	2	RETAINER, DEFLECTORS INNER
4	FWF025063007SS	12	WASHER, FLAT 1/4 SAE SS
5	FCS025020075SS	8	SCREW, CAP 1/4-20 X 3/4 SST
6	FNE025020031SS	8	NUT, NYLON INSERT 1/4-20 SST
7	3000269	2	WASHER, FLAT 1/2 USS, SST
8	3008853	2	SPRING, SPINNER CHUTE BAFFLE
9	FPC019000125	2	PIN, COTTER 3/16" X 1.25" ZN
10	3032824	1	WELDMENT, LOWER CHUTE BOTTOM MOTOF
11	FCB037516100SS	4	BOLT, 3/8-16 X 1 CARRIAGE SST
12	FWF038100007SS	10	WASHER, FLAT 3/8 USS SST
13	FWL038069009SS	4	WASHER, LOCK RHS-3/8 SST
14	FNH038016028SS	4	NUT, 3/8-16 HEX SST
15	FCS038016100SS	6	SCREW, HHC 3/8-16 X 1 304 SST
16	3012506	2	BAFFLE SIDE, LOWER CHUTE

ITEM	PART NO.	QTY.	DESCRIPTION
17	FNE038016044SS	6	NUT, NYLOCK 3/8-16 X 7/16 SST
18	BCP84620SS	3	PIN, CLEVIS 3/8 X 1.125 SST
19	FPC009000075SS	3	PIN, COTTER 3/32 X 3/4 STAINLESS
20	3012507	1	BAFFLE REAR, LOWER CHUTE
21	3030222	1	GEAR MOTOR .4 HP SPINNER
22	FWL031058008SS	3	WASHER, 5/16 LOCK SST
23	FCS031018063SS	3	SCREW, HHC 5/16-18 X 5/8 SST
24	3030575	1	ENCLOSURE, GEAR MOTOR CHUTE
25	3025065	1	BUSHING STRAIN RELIEF
26	3030182	1	HUB, SPINNER POLY
27	3007113	1	PIN, CLEVIS, 5/16 X 2-1/2, .141 HOLE ZN
28	3014994	1	PIN, COTTER, 1/8IN X 1IN SST
29	3030179	1	SPINNER 18" POLY CW
30	FWF031075006SS	4	WASHER, 5/16 SAE SST
31	FCS031018175SS	4	SCREW, HHC 5/16-18 X 1 3/4 SS
32	FNE031018034SS	4	NUT, NYLOCK 5/16-18 SS

Repair Parts - Hopper Assembly

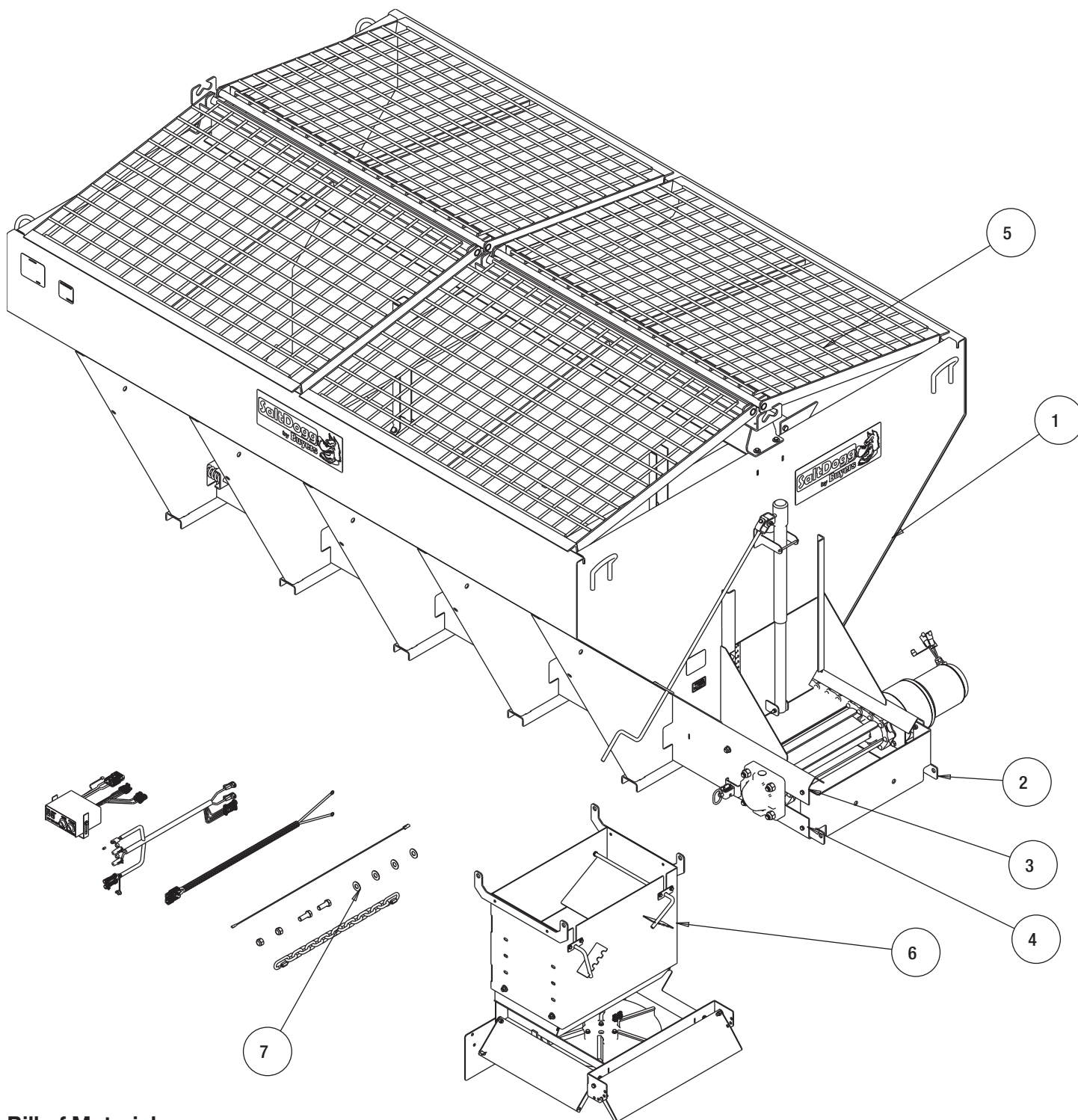


Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	3032621	1	HOPPER WELDMENT 10 FT 57 IN SST ELECTRIC
	3034751	1	HOPPER WELDMENT 12 FT 9CUYD SST ELECTRIC
2	3001522	4	BOLT, CARRIAGE 1/2-13X1 SST
3	3001523	4	NUT, HX FLNG-1/2-13 SST
4	3034718	1	BRACKET CONNECTORS
5	3010131	2	WIPER, RUBBER
6	FWF038100007SS	14	WASHER, FLAT 3/8 USS SST
7	FCS038016125SS	6	SCREW, HHC-3/8-16X 1.25 SST
8	FNE038016044SS	15	NUT, NYLOCK 3/8-16 X 7/16 SST
9	3019694	1	ADAPTER GEAR BOX
10	3034230	1	GEAR MOTOR 3/4 HP 12VDC 280:1
11	3032660	1	DRIVE SHAFT
12	KS402	1	KEY, 1/4 X 1/4X2
13	4F32SCR	1	BEARING FLANGE 2.0 DIA, 4 HOLES SET SCREW
14	3010989	2	KEY, SQUARE 1/2" X 2 1/2"
15	3010845	2	SPROCKET DRIVE, ASSEMBLY
	1457150	1	CHAIN, 10 FT. D667H CONVEYOR
16	3034759	1	CHAIN, 12 FT. D667X CONVEYOR 1.5x.25 BARS
17	3010358	1	IDLER SHAFT, ASSEMBLY
18	3010603	2	BEARING, HD TAKE-UP 1.5 DIA.
19	3026276	4	SCREW HH, 3/4-10 X 3.0 FULL THREAD, SST
20	3010659	8	NUT, HEX NYLOCK 3/4-10 SST
21	3023046	2	BOLT, WELDED TAKE UP
22	3023022	2	SPRING CHAIN TENSION
23	3023044	2	TAKE-UP NUT WELDMENT
24	FNH063011054SS	2	NUT, HH 5/8-11 X 17/32 HIGH SST
25	3010312	1	FEED GATE, WELDMENT
26	3032849	1	BRACKET, CHAIN CHUTE
27	3010443	1	JACK ASSEMBLY, FEED GATE

ITEM	PART NO.	QTY.	DESCRIPTION
28	FCS031018300SS	1	SCREW, HH CAP 5/16-18 X 3 SST
29	FNE031018034SS	1	NUT, NYLOCK 5/16-18 SS
30	FCS025020100SS	4	SCREW, CAP HEX HD 1/4-20 X 1 SST
31	FWF025063007SS	4	WASHER, FLAT 1/4 SAE SS
32	FNE025020031SS	4	NUT, NYLON INSERT 1/4-20 SST
33	1499020	1	LABEL, WARNING 1
34	1499035	2	LABEL, WARNING 3
35	1499030	1	LABEL, CAUTION 1 (PAYLOAD)
36	1499045	1	LABEL, WARNING 4
37	3010916	1	LABEL, SERIAL NUMBER
38	3010918	1	DECAL, POINTER FEED GATE
39	3010917	1	DECAL, GAUGE FEED GATE
40	3017730	2	CROSS MEMBER, INVERTED VEE
41	3017731	2	HANGER, INVERTED VEE
42	3000269	8	WASHER, FLAT 1/2 USS, SST
43	3006723	16	SCREW, HEX HD 1/2-13x1.5 GR5 SS
44	FNE050013053SS	16	NUT, NYLOCK 1/2-13 SS
	3032805	1	DEFLECTOR, INVERTED VEE
45	3034757	1	DEFLECTOR, INVERTED VEE
	3032688	1	GRATE SUPPORT 10 FT, BLACK
46	3028914	1	GRATE SUPPORT, WELDMENT
47	3025824	1	COVER, BEARING 4F32SCR
48	3026277	1	PLUG, BEARING COVER
49	3011132	3	DECAL, SALT DOGG, BLK/WHT ON CLR 18X6.3125
50	FCS038016100SS	4	SCREW, HHC 3/8-16 X 1 304 SST
51	3017121	2	BRACKET, RECEPTACLE SZ8 DEUTSCH
52	3016740	2	SCREW, HHC-3/8-16 X 1/2 SST
53	FCS038016075SS	3	SCREW, HHC-3/8-16 X 3/4 SST
54	FCS050013100SS	4	SCREW, HHC-1/2-13 X 1 SST

Repair Parts - Spreader



Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	3032620	1	HOPPER ASM, 10 FT 57 IN SST ELECTRIC
	3034750	1	HOPPER ASM 12 FT 9 CU YD ELECTRIC
2	3010180	1	GUIDE, CHUTE
3	FCS038016100SS	4	SCREW, HHC 3/8-16 X 1 304 SST
4	FNE038016044SS	4	NUT, NYLOCK 3/8-16 X 7/16 SST
5	3010116	4	GRATE, WELDED HOPPER TOP
	3015554	6	GRATE, WELDED HOPPER TOP (6)
6	3032633	1	CHUTE ADJUSTBLE, LOW MOTOR
7	3032855	1	HARDWARE KIT



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