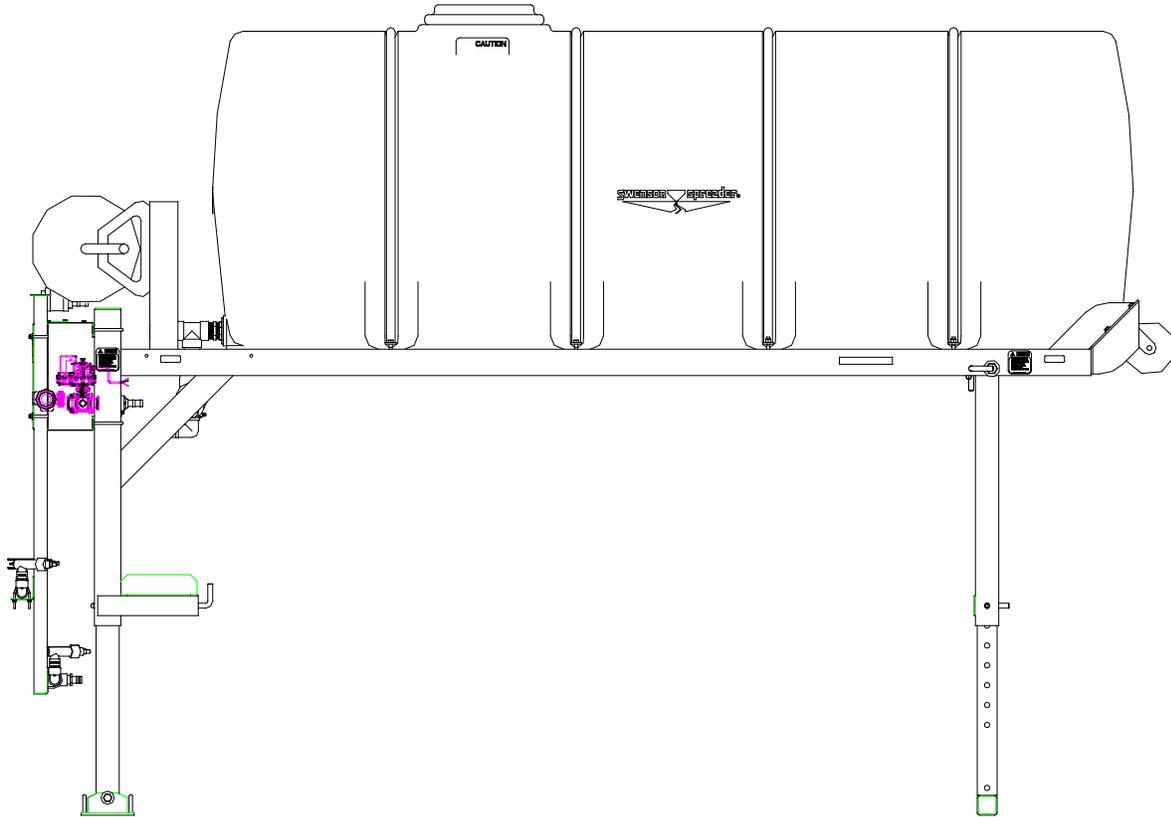


# 1000 Gallon Anti-Ice System With 300 Foot Reel



# SWENSON

**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**

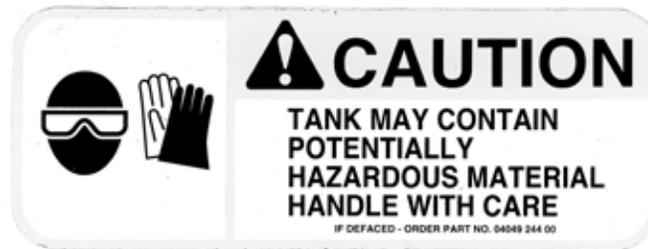


- FOLLOW RECOMMENDED OPERATING PROCEDURES.
- KEEP EQUIPMENT IN SAFE OPERATING CONDITION AT ALL TIMES.
- RECOGNIZE AND AVOID HAZARDS WHILE OPERATING, SERVICING AND MAINTAINING EQUIPMENT.

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



This decal appears on the leg stand frame at four points near each leg of the stand. It alerts workers to the danger of serious injury or death from not having the tank completely empty and the legs not pinned properly.



This decal appears at both sides of the fill opening of the tank and next to each of the quick-coupling locations on the platform. It alerts personnel of the potential for the tank to contain hazardous materials; and to wear appropriate personal protective equipment (PPE) when filling or emptying the tank.



This decal appears on the front of the platform and is a general CAUTION for operation of the equipment.

## HYDRAULIC SPRAY SYSTEM OPERATING INSTRUCTIONS



### CAUTION

1. When starting up new equipment, be sure everyone is standing clear, watch for anything that may require shutting the system down.
2. Turn on Ball Valve before starting unit.
3. The spray system hydraulic motor is hooked up in series with the spreader hydraulics; but, operates independently.
  - a. Start vehicle engine and allow hydraulic system to warm up as would be done with any hydraulic system.

**Note:** Vehicle hydraulics must be on operating mode when starting or operating spray system.

4. To start spray system turn control panel ON-OFF switch to the “On” position, the green and red light will come on, the green light will stay on to indicate system “ON”, the red light (low level/pressure) will stay on momentarily until operating pressure is reached, then it will go out.

The red light will come back on when your level of liquid is low in tank/tanks or the operating pressure drops below 10 P.S.I..

5. Visually inspect for leaks and make sure spray lines are clear of any moving, hot or sharp objects on vehicle.
6. Turn ball valve at each tank off when finished spreading for the day.

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

## MAINTENANCE HYDRAULIC SPRAY SYSTEM

- I. BRONZE PUMP
  - A. Lubricate with a high quality multipurpose grease every 8 to 10 hours of operation.  
**CAUTION:** DO NOT OVER GREASE PUMP. USE 1/2 STROKE WITH HAND GREASE GUN. NEWER MODELS DO NOT HAVE GREASE ZERKS AND DO NOT NEED TO BE GREASED.
- II. COUPLING
  - A. Visually inspect for wear on spider (rubber spacer) and loose set screws. Replace or tighten as required.
- III. HYDRAULIC MOTOR WITH SOLENOID
  - A. Visually inspect hydraulic hose connections for leaks. Tighten connections or replace hoses as required.
  - B. Visually inspect electrical wiring for frayed wires or loose connections. Repair or replace as required.
- IV. LOW LEVEL/LOW PRESSURE SENSOR
  - A. Visually inspect electrical wiring coming out of sensor for frayed wires or loose connections. Repair or replace as required.
  - B. If necessary to replace wiring into sensor.
- V. LINE STRAINER
  - A. Remove and clean strainer screen after every 8 or 10 hours of operation, more frequent cleaning may be required depending on how clean deicing chemicals are upon entering tank/tanks. To replace 100 mesh screen, order Swenson part number 04103 038 01.
- VI. NOZZLES
  - A. Visually inspect spray pattern for even spray output (should be cone shaped). If spray pattern is uneven disassemble and clean nozzles as required.
- VII. TANK/TANKS
  - A. Visually inspect for damage, loose fittings, mounting nuts and bolts, etc.. Tighten fittings, nuts and bolts as required.
- VIII. HOSES AND FITTINGS
  - A. Visually inspect hoses for binding, chafing, etc. Reroute and secure as required.
  - B. Visually inspect fittings for leaks and tighten as required.
- IX. IN-CAB ON-OFF CONTROL PANEL
  - A. Visually inspect electrical wiring for frayed wires or loose connections. Repair or replace as required.
  - B. Visually inspect lights for operation. Green light - System ON, Red light - Indicates LOW Liquid Level and LOW Pressure.

## MAINTENANCE HYDRAULIC SPRAY SYSTEM

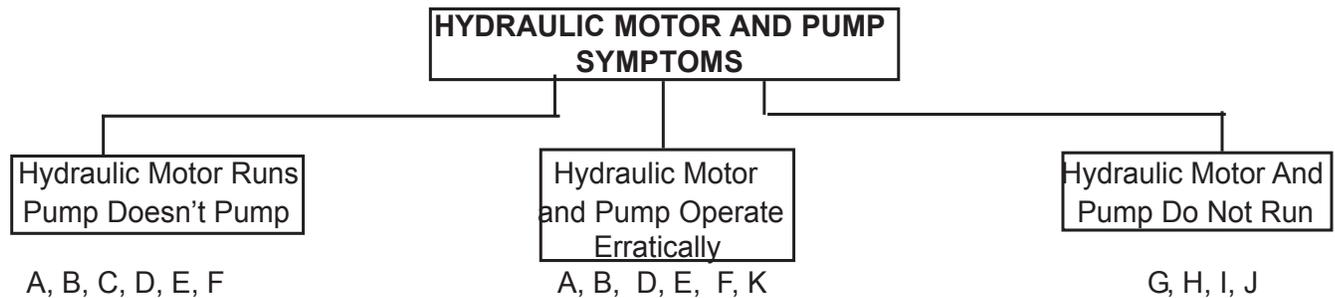
(CONTINUED)

- X. GENERAL CLEANING OF SPRAY SYSTEM
  - A. Wash down after each daily use (external parts) using hot soapy water to remove mist and spray from deicing chemicals. (Store unit inside to prevent freezing.)
  - B. If Spray system is not going to be used for two or more days drain deicing chemicals from tank/tanks and spray lines. (See "C" below)
  - C. It is highly advised that the tank/tanks be filled with 3 or 4 gallons each of R. V. anti-freeze or windshield washer solution and spray system run for two or three minutes to flush system. This procedure will prevent freezing of pump and spray lines and is also recommended for end of the season storage.

### CAUTION

1. DO NOT OPERATE LIQUID PUMP WITHOUT LIQUID!
2. KEEP Deicing LIQUID FREE OF SAND GRIT, ETC..
3. Deicing CHEMICALS MUST BE HANDLED WITH EXTREME CARE TO PREVENT ACCIDENTAL CONTACT WITH SKIN AND EYES.

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



## POSSIBLE CAUSE

A.	Coupling loose on pump shaft	Check and Tighten
B.	No or low liquid in tank/tanks	Fill tank/tanks
C.	On-Off valve at tank/tanks off	Turn valve/valves on
D.	Clogged strainer	Clean strainer screen
E.	Suction line damaged	Check and replace
F.	Clogged nozzles	Clean as required
G.	Hydraulics to operate hydraulic motor not turned on in cab (flow valve)	Adjust or turn hydraulic system on
H.	Solenoid burned up on hydraulic motor	See replacement parts
I.	On-Off switch turned off	Turn switch On
J.	Bad On-Off switch	Replace
K.	Electrical connection loose, etc.	Check wiring connections



## **CAUTION!**

**DE-ICING CHEMICALS MUST BE HANDLED WITH EXTREME CARE TO PREVENT ACCIDENTAL CONTACT WITH SKIN AND EYES.**

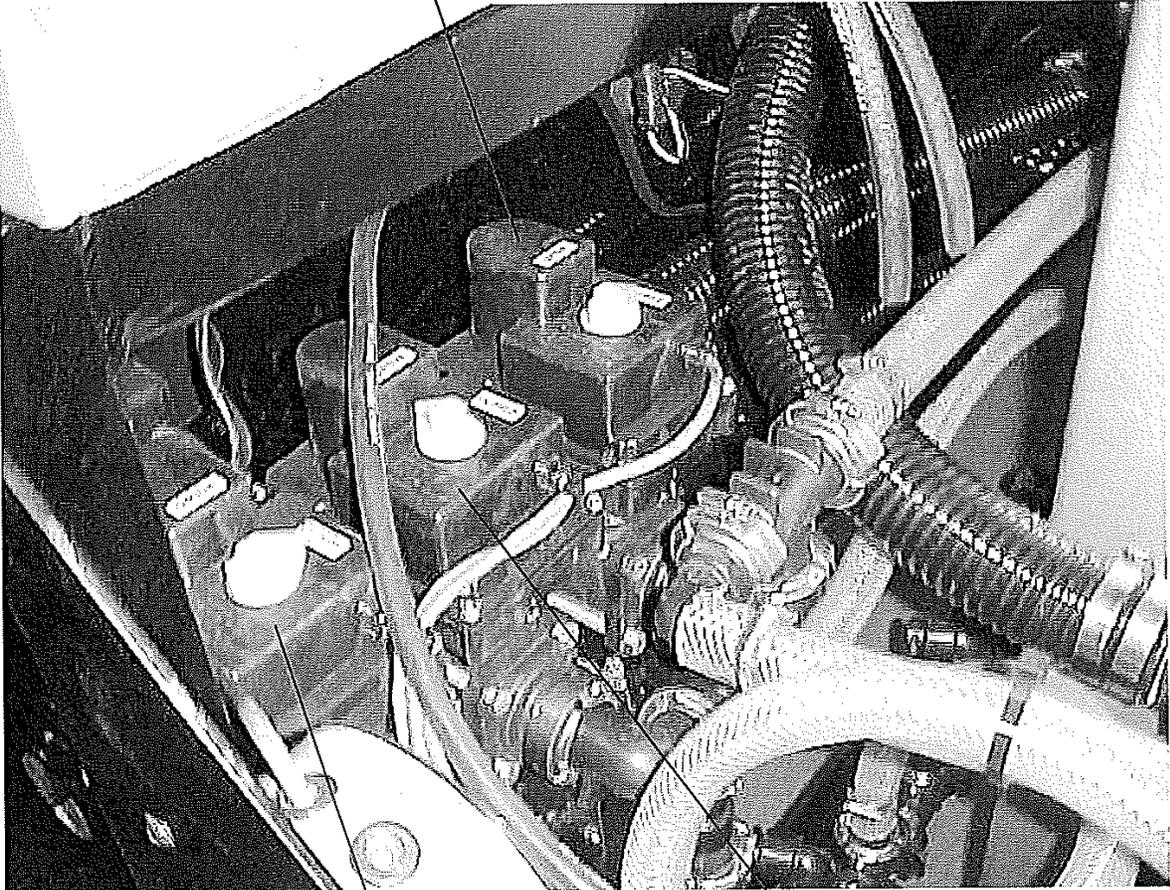
If additional refinement of liquid spray out-put is required, please contact factory.

PLEASE NOTE: Spray system is designed to operate with 15 gallon hydraulic oil maximum.

**PARTS LISTING  
PUMP SYSTEM**

**ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL**

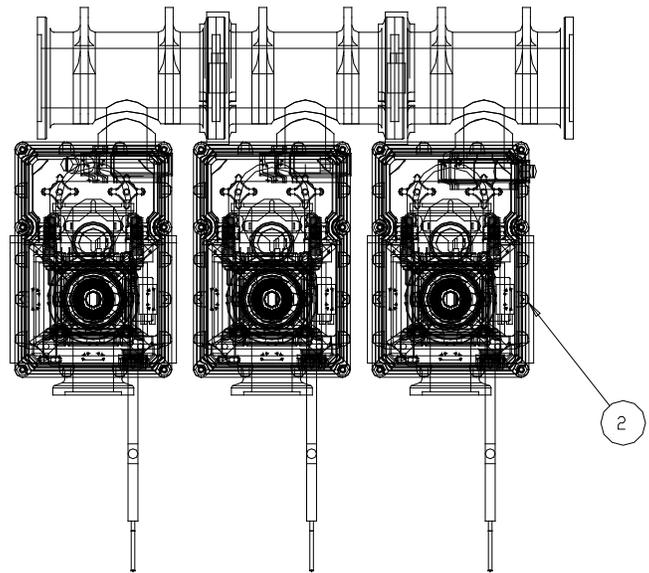
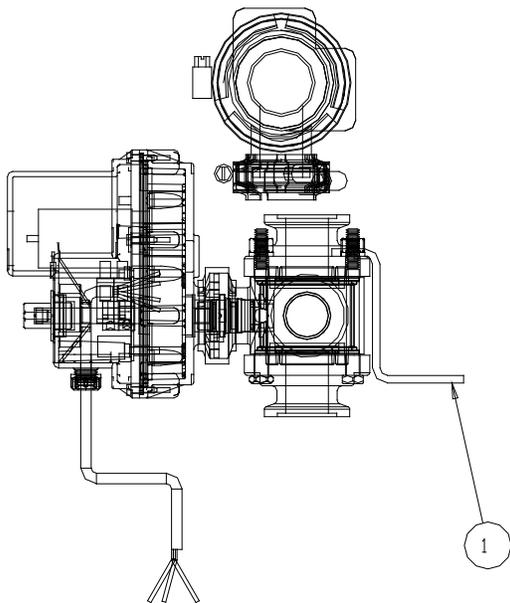
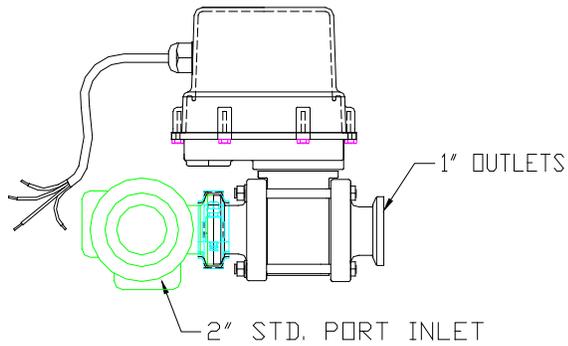
**CONTROLS UPPER SPRAY  
NOZZLES (TIRE TRACKS)**



**CONTROLS R.H. LOWER  
SPRAY NOZZLES**

**CONTROLS L.H. LOWER  
SPRAY NOZZLES**

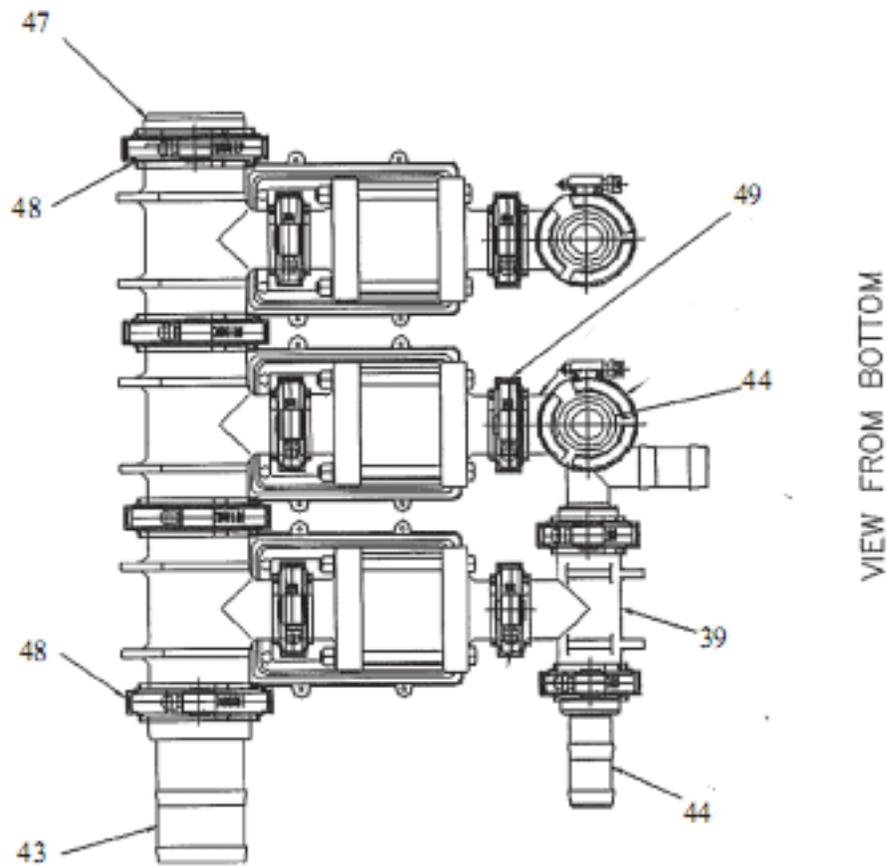
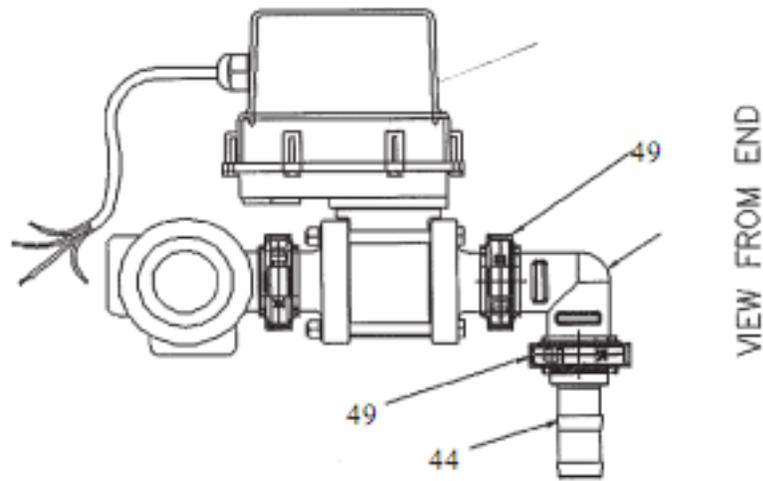
# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



ITEM	PART NUMBER	DESCRIPTION	QTY
1	00121-096-02	FORM, MANIFOLD SUPPORT	2
2	04105-358-00	VALVE, ELEC., 3-GANG, 2" IN, 1" OUT	1

**ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL**

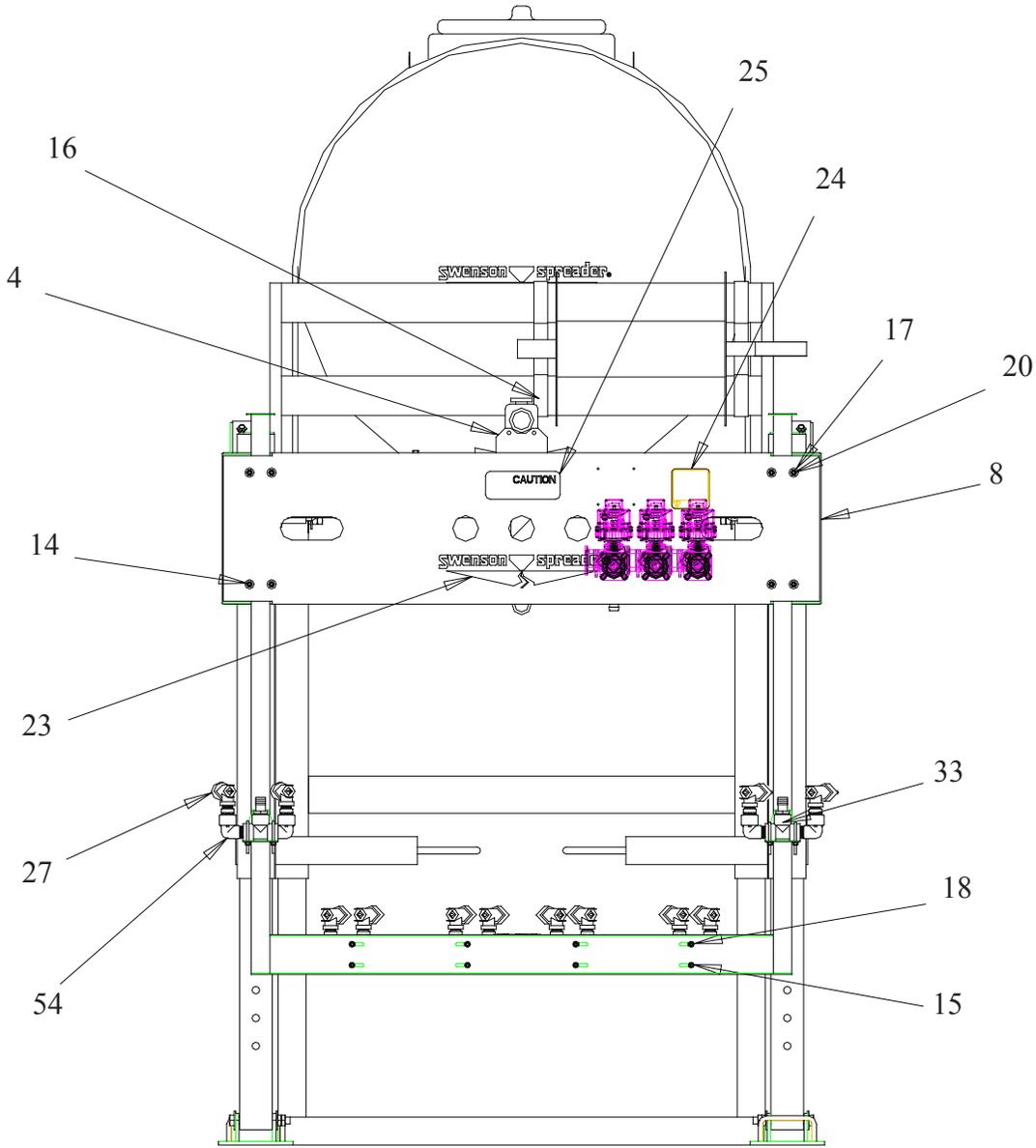
# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

ITEM	PART NUMBER	DESCRIPTION	QTY
39	04109-144-02	TEE 1" FLANGE	1
43	04109-146-02	ADAPTER, 2" FLANGE, BARBED	1
44	04109-146-04	ADAPTER, 1" FLANGE, BARBED	4
47	04109-148-01	PLUG, 2" FLANGE	1
48	04109-148-04	CLAMP, 2" FLANGE	9
49	04109-148-05	CLAMP, 1" FLANGE	5

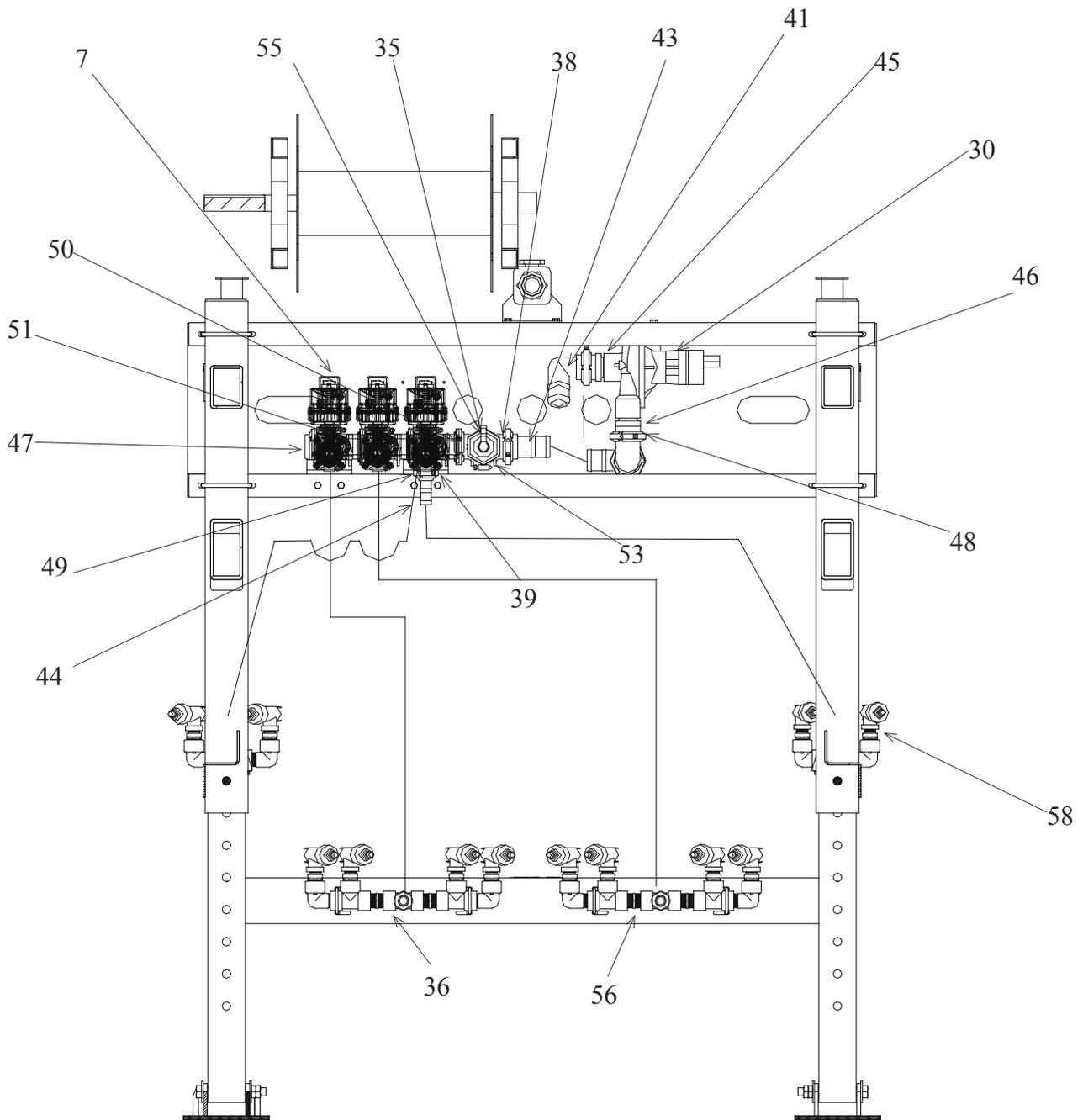
# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

ITEM	PRODUCT NUMBER	PRODUCT DESCRIPTION	QTY
4	0121-103-02	FORM, VALVE SUPPORT	1
8	00121-111-01	WELDMENT, REAR LIGHT	1
14	04003-804-08	LOCKNUT, 3/8"-16 FLANGE SS	24
15	04003-804-21	LOCKNUT, 1/4"-20 NYLON SS	16
16	04003-806-12	NUT, 3/8"-16 FLANGE SS	4
17	04004-002-20	3/8" FLAT WASHER SS	24
18	04004-002-24	1/4" FLAT WASHER SS	16
20	04048-524-04	U-BOLT, 3/8" SQUARE	4
23	04049-002-01	DECAL, SWENSON, LOGO (WHITE)	1
24	04049-045-00	DECL, CAUTION	1
25	04049-244-00	DECAL, SPRAY WARNING	3
27	04078-048-00	NOZZLE, SPRAYTRONICS	12
33	04109-045-00	FITTING, 1" MPT X 1" OD BARB	4
54	04110-006-17	ELBOW, 1" 90 DEG STREET (POLY)	8

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

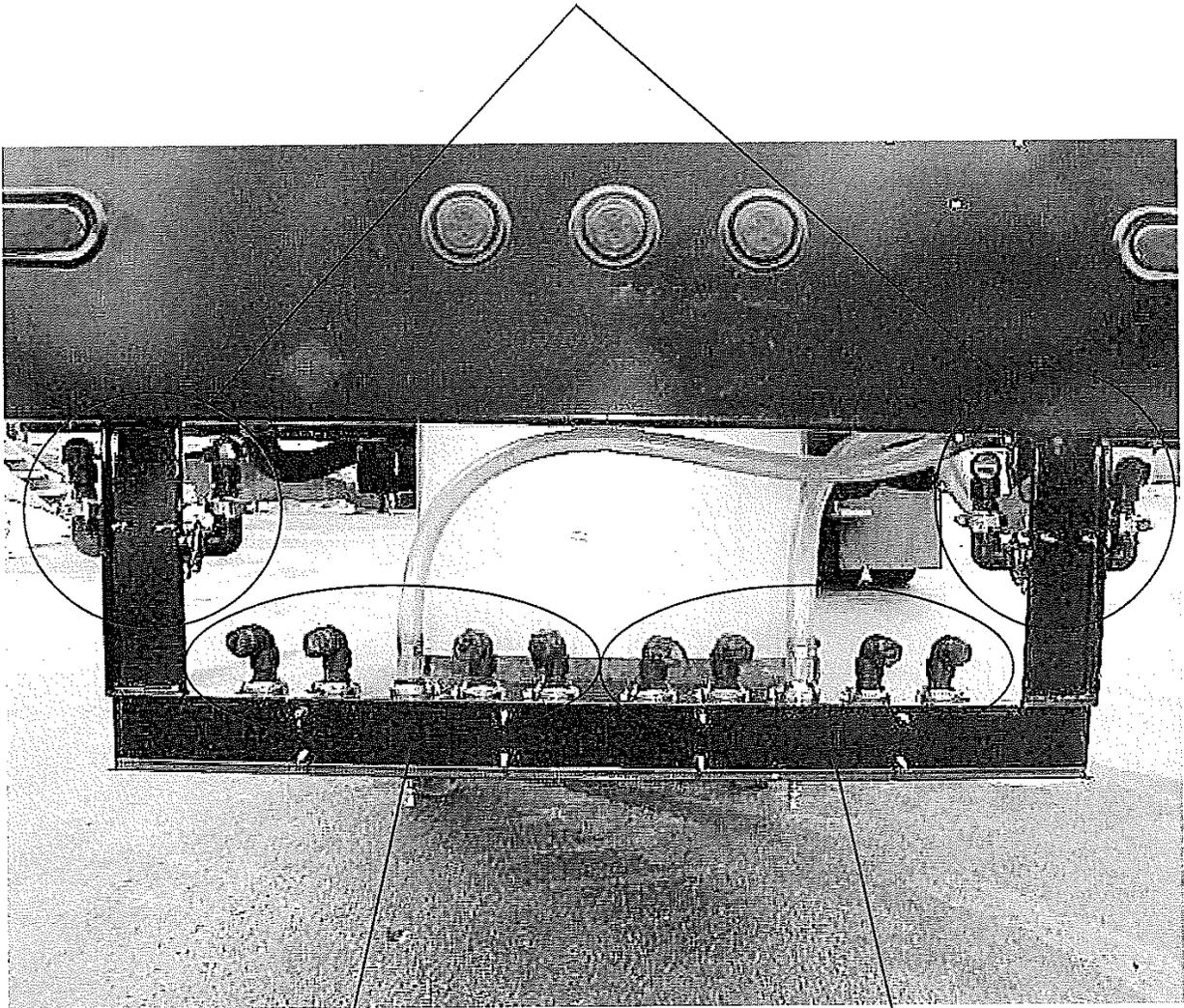


# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

ITEM	PRODUCT NUMBER	PRODUCT DESCRIPTION	QTY
7	00121-106-02	ASSEMBLY, BANJO MANIFOLD	1
30	04102-1125-00	PUMP, HYPRO	1
35	04109-119-00	ELBOW, 3/4" NPT X 1/2" BARB (POLY)	1
36	04109-127-00	TEE, 1" (POLY)	8
38	04109-144-01	TEE, 2" FLANGE	1
39 NS	04109-144-02	TEE, 1" FLANGE	1
41	04109-145-06	ELBOW, 2" STD FLANGE 2" HOSE 90	3
43	04109-146-02	ADAPTER, 2" FLANGE 2" HOSE	1
44	04109-146-04	ADAPTER, 1" FLANGE BARBED	4
46	04109-146-06	FITTING 2" FLANGE X 1 1/4" MPT	1
47	04109-148-01	PLUG 2" FLANGE	1
48	04109-148-04	CLAMP, 2" FLANGE	9
49	04109-148-05	CLAMP, 1" FLANGE	5
50 NS	04019-148-06	GASKET, 2" FLANGE	9
51 NS	04109-148-07	GASKET, 1" FLANGE	5
53	04019-153-00	FITTING 2" FLANGE 2" FPT (POLY)	1
55	004110-017-39	REDUCER, 2" MPT X 3/4" FPT (POLY)	1
56	04110-029-13	NIPPLE, 1" CLOSE	4
58	04110-035-08	NIPPLE, 1" X 3/4" (POLY)	12

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

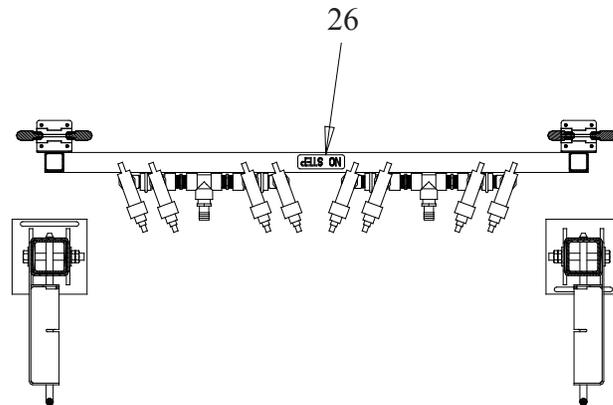
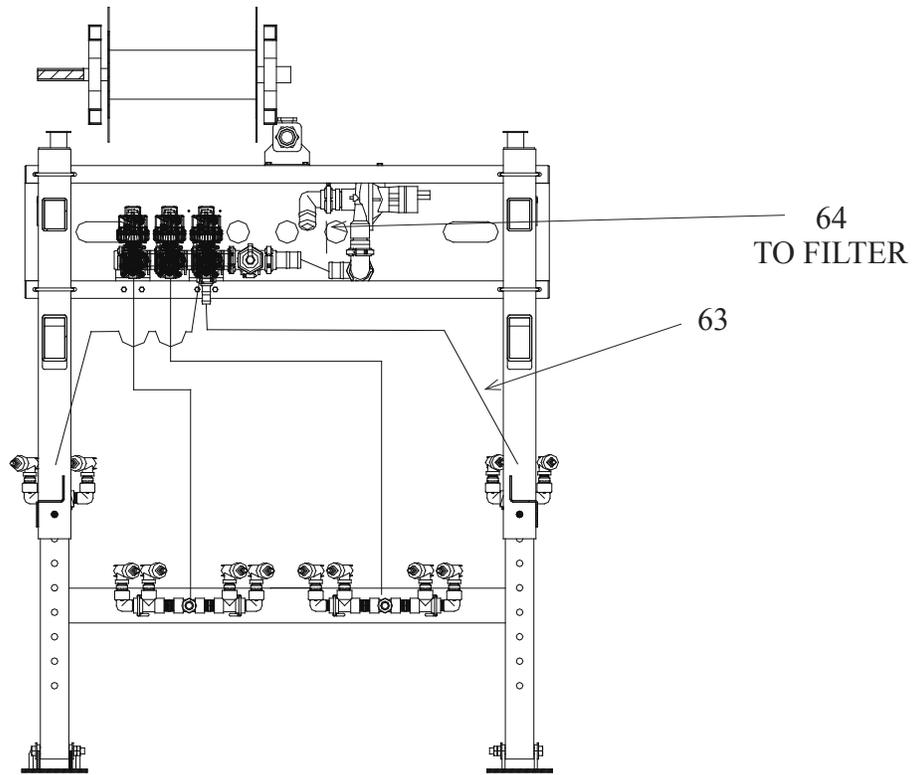
UPPER SPRAY NOZZLES  
FOR DIRECTLY BEHIND  
TRUCK



LOWER SPRAY NOZZLES  
FOR L.H. LANE

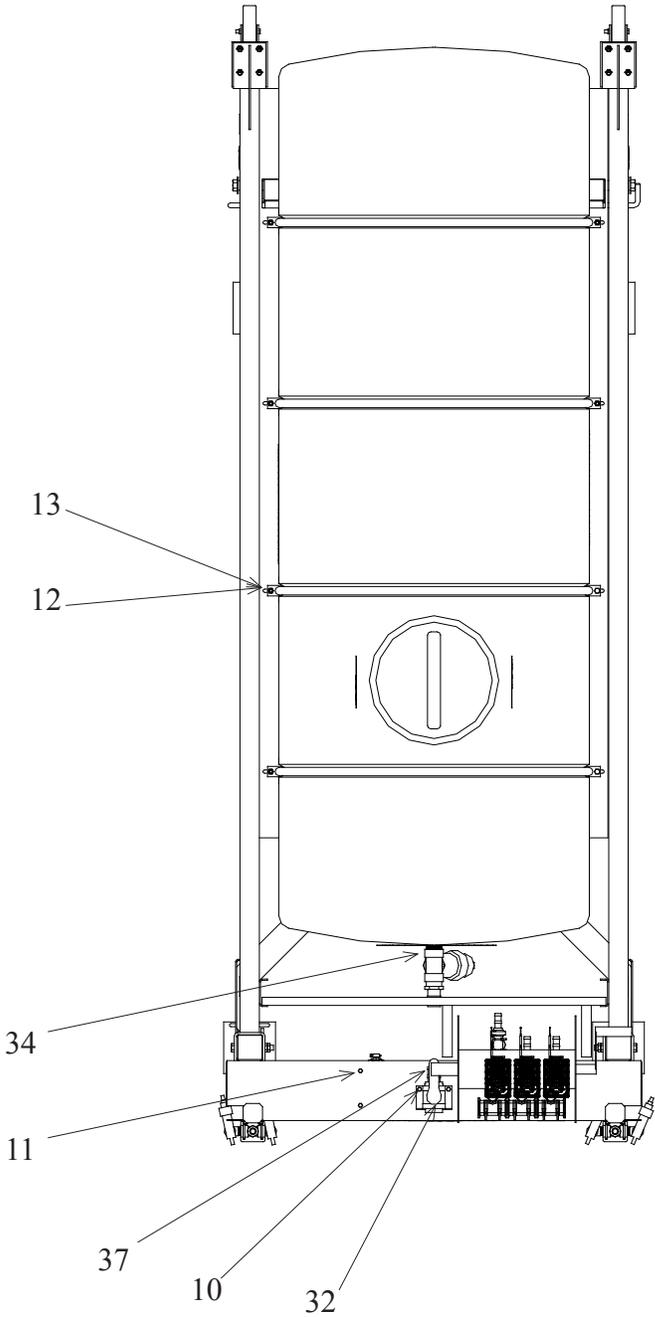
LOWER SPRAY NOZZLES  
FOR R.H. LANE

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



ITEM	PRODUCT NUMBER	PRODUCT DESCRIPTION	QTY
26	04049-358-00	DECAL, NO STEP	1
63	04610-026-00	HOSE, 1" NYL BRAIDED CLEAR PVC	23 FT
64	04610-028-00	HOSE, 2" ID POLY 50 WP CLR MESH	6 FT

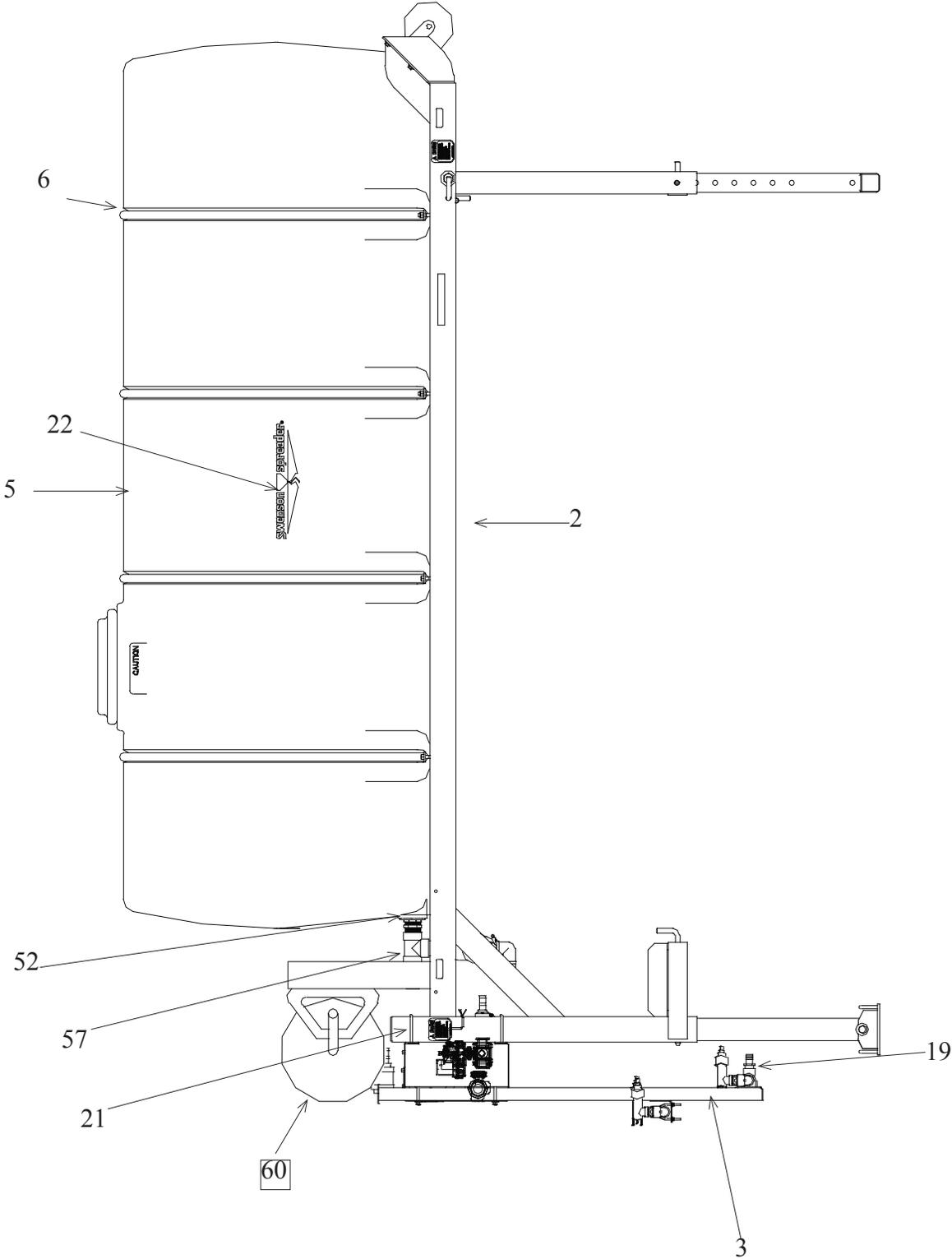
# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

ITEM	PRODUCT NUMBER	PRODUCT DESCRIPTION	QTY
10	04003-003-20	BOLT, 3/8" - 16 X 1" HH SS	10
11	04003-003-26	BOLT, 3/8" - 16 X 1.25" HH SS	2
12	04003-005-27	BOLT, 1/2" -13 X 2" HH SS	8
13	04003-804-07	LOCKNUT, 1/2"-13 NYLON SS	8
32	04105-334-01	VALVE, BALL 2" POLY	1
34	04109-085-00	TEE, 2" PLASTIC, PVC NPT	1
37	04109-133-00	2" NPT (M) X 2" BARB (POLY)	2

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

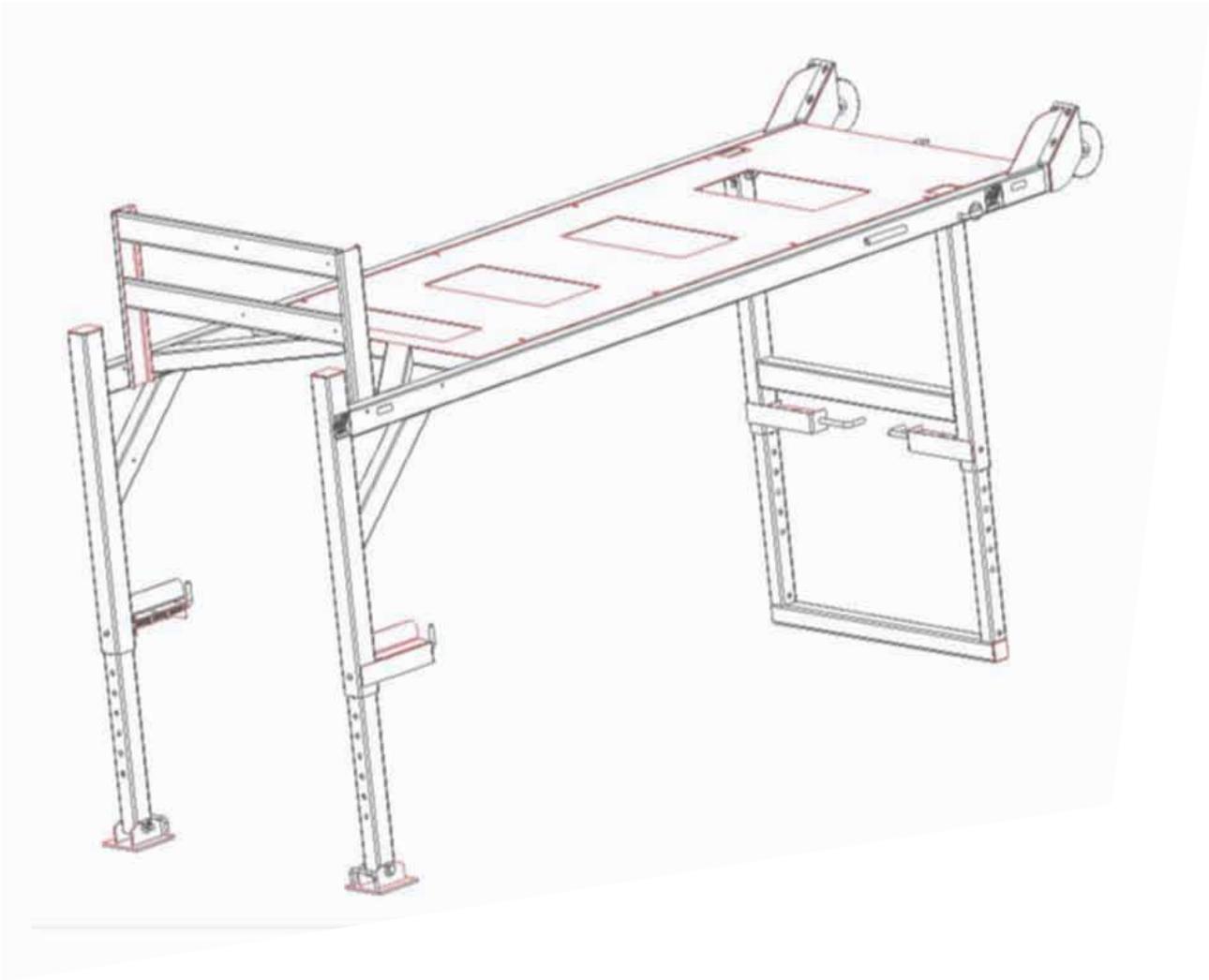


# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

ITEM	PRODUCT NUMBER	PRODUCT DESCRIPTION	
2	00121-081-06	ASSEMBLY, LEG STAND	1
3	00121-099-01	WELDMENT, NOZZLE SUPPORT	1
5	00121-104-00	TANK, 1000 GAL, HOR LEG	1
6	00121-105-00	HOOP, 48" TANK	4
19	04048-509-09	U-BOLT, 1/4"-20	8
21	04048-524-05	U-BOLT 3/8" SQUARE	4
22	04049-002-00	DECAL, SWENSON LOGO, (BLACK)	3
52	04109-149-00	FITTING, 2" BULKHD ANTI-VOTEX	1
57	04110-032-16	NIPPLE, 2" CLOSE	1
60	04630-003-00	REEL, HVY DUTY	1

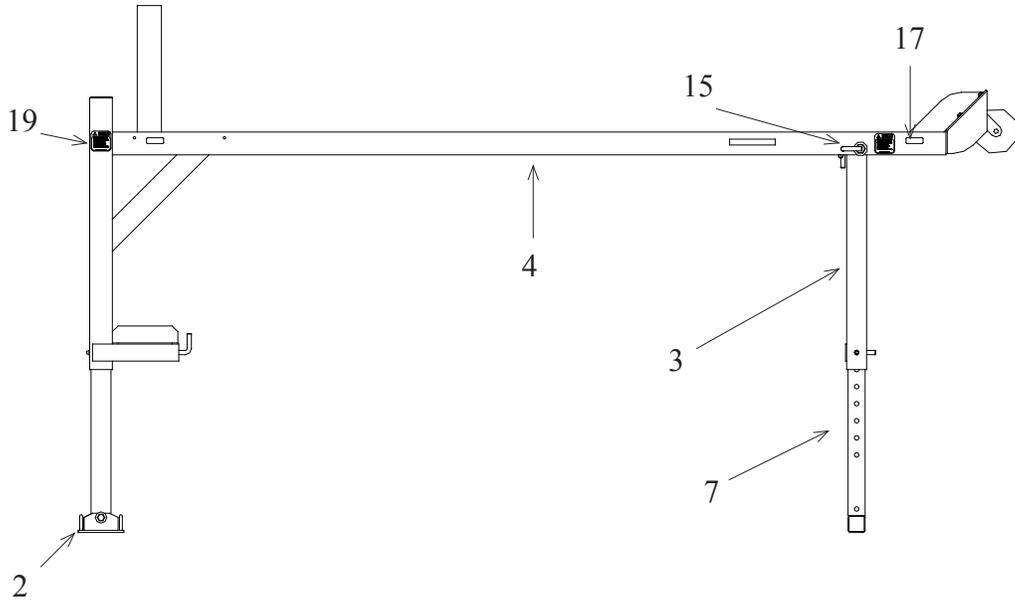
**PARTS LISTING  
LEG STAND**

ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



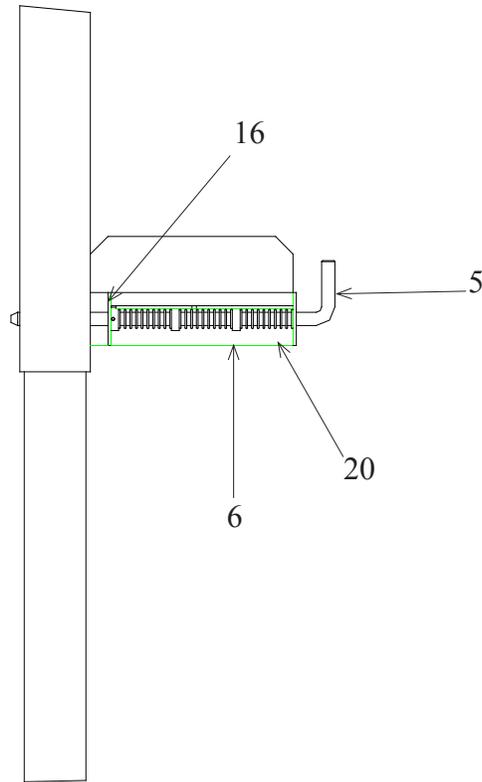
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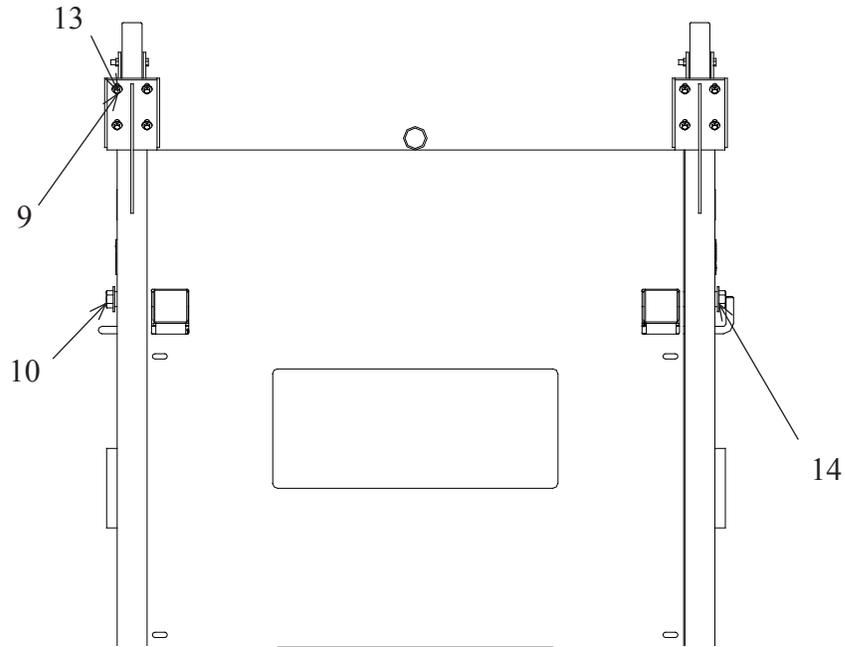
ITEM	PRODUCT NUMBER	PRODUCT DESCRIPTION	
2	00121-072-01	ASSEMBLY, LEG/FOOT	2
3	00121-074-01	WELD, FRONT/TOP LEG	1
4	00121-076-06	WELDMENT, BASE	1
7	00121-089-01	WELDMENT, FRONT LEG	1
15	04011-001-04	KEEPER, HAIRPIN	2
17	04049-052-00	DECAL, LOGO	4
19	04049-364-00	DECAL, DANGER, LEG STAND	4

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



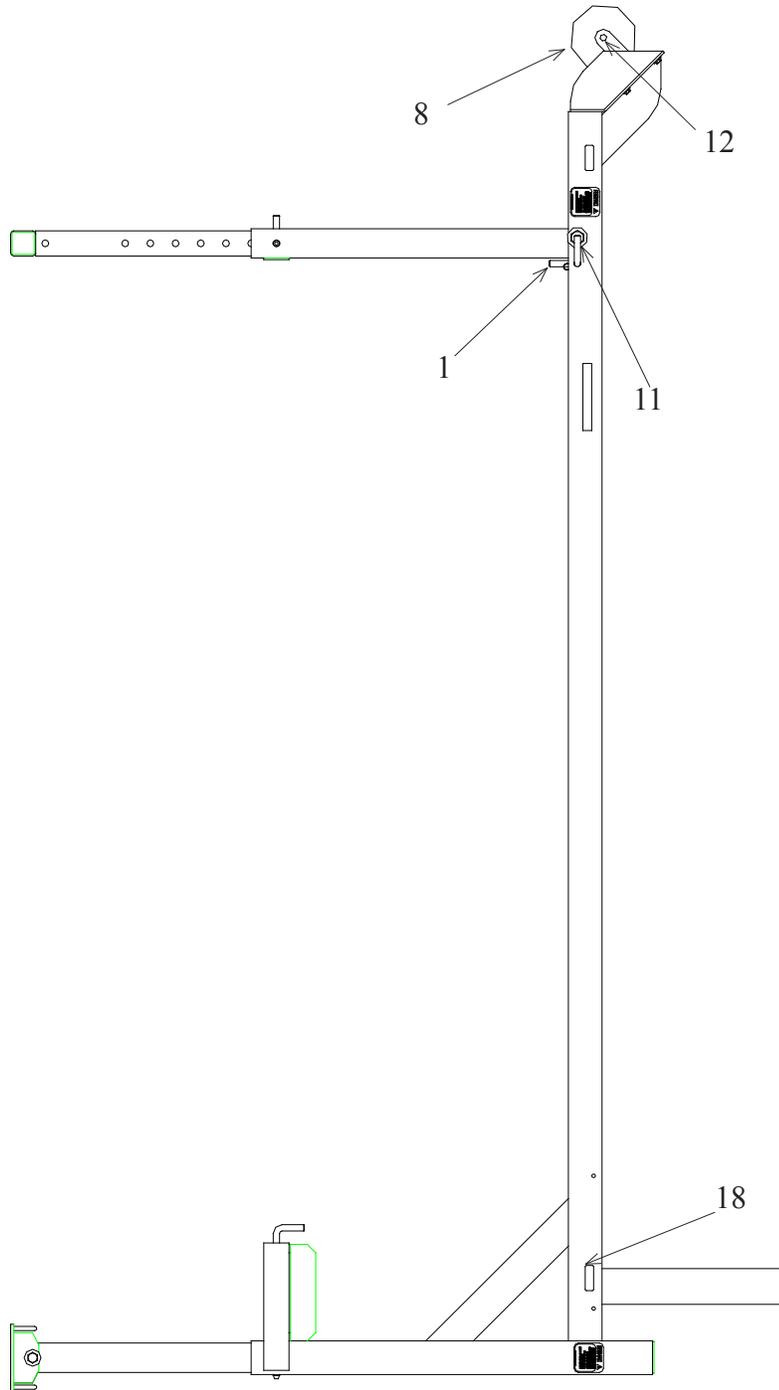
ITEM	PRODUCT NUMBER	PRODUCT DESCRIPTION	QTY
5	00121-077-00	PIN, BENT .750 DIA	4
6	00121-087-00	SPACER	2
16	04012-001-06	PIN, GROOVED	4
20	04091-046-00	SPRING, COMPRESSION	12

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



ITEM	PRODUCT NUMBER	PRODUCT DESCRIPTION	QTY
9	04003-003-26	BOLT, 3/8"-16- X 1.25" HH SS	8
10	004003-009-07	BOLT, 1-8 X 9 HH GR5 SS	2
13	04004-002-20	FLAT WASHER, 3/8" SS	16
14	04004-002-23	FLAT WASHER 1" SS	4

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL



# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

ITEM	PRODUCT NUMBER	PRODUCT DESCRIPTION	QTY
1	00117-622-00	PIN, BENT	2
8	00121-092-00	CASTER, WHEEL, (22665T84)	2
11	04003-802-18	NUT, 1-8 , HEX JAM SS	4
12	04003-804-08	LOCKNUT, 3/8" - 16 NYLON SS	8
18	04049-165-00	DECAL, SERIAL NUMBER	1

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

## NAME PLATE INFORMATION

- When ordering parts or requesting information or assistance, always include the information listed below.
- The description, part number and serial number for the spreader is shown on the serial number decal.
- The space below is provided as a convenient place to record these numbers; just fill in the blanks.

MODEL NUMBER \_\_\_\_\_

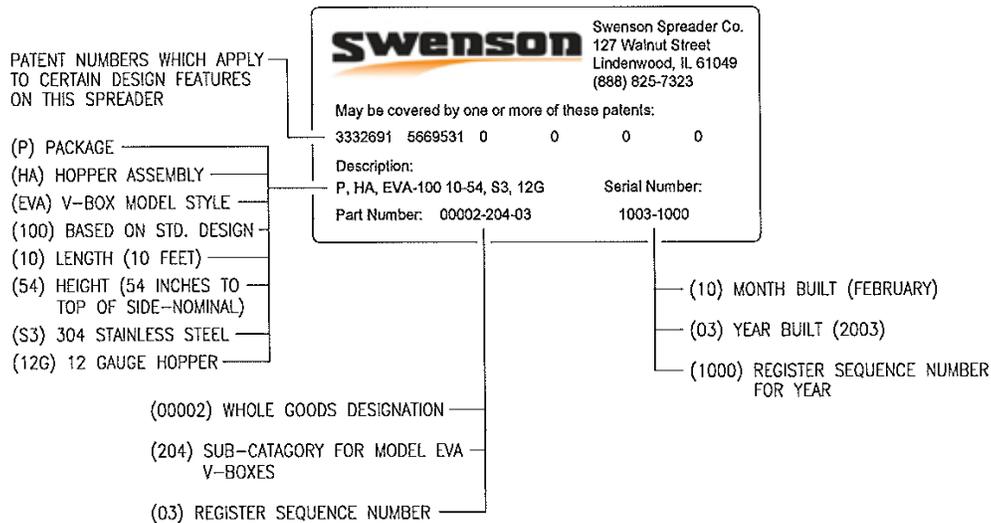
SPREADER SERIAL NUMBER \_\_\_\_\_

SPRAY SYSTEM SERIAL NUMBER \_\_\_\_\_

DATE PURCHASED \_\_\_\_\_

DEALER PURCHASED FROM \_\_\_\_\_

DEALER'S SERVICE DEPARTMENT PHONE NUMBER \_\_\_\_\_



Z:\00111\00111-389-00RTJPD

**CALL YOUR AUTHORIZED SWENSON SPREADER DEALER FOR PARTS AND SERVICE**

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

# ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL

**ANTI-ICE INSTALLATION AND OPERATING INSTRUCTION MANUAL**

# SWENSON



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website: [www.swensonspreader.com](http://www.swensonspreader.com)

**IMPORTANT  
INFORMATION  
ENCLOSED**