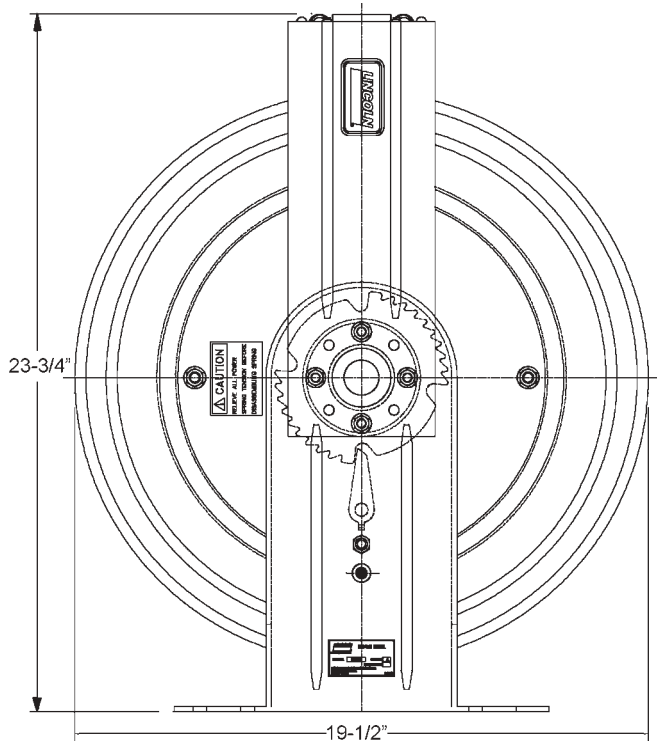


OWNER/OPERATOR MANUAL



SPECIFICATIONS

Maximum working pressure	
Models 87300 & 87700 (Bare Reels)	2500 PSI (See Note 1)
Models 87500 (Bare Reel)	8000 PSI (See Note 1)
Fluid type	
Models 87300	Oil
Models 87500	Grease
Models 87700	Air & Water (See Note 2)
Fluid Inlet	
Models 87300 & 87700	1/2" NPT (Female)
Models 87500	3/8" NPT (Female)
Fluid outlet	
Models 87300 & 87700	1/2" NPT (Female)
Models 87500	3/8" NPT (Female)
Sheave width	4-1/2"
Sheave diameter	19-1/2"
Drum diameter	12-5/8"
Overall width	6-5/8"
Overall height	23-3/4"
Overall depth	19-3/4"

Maximum hose capacities (Including hang down):

1/4" ID. Air/water hose	60 ft.
3/8" ID. Air/water hose	60 ft.
1/2" ID. Oil hose	50 ft.

NOTE: Exceeding these capacities voids warranty. Refer to DELIVERY HOSE INSTALLATION for proper hose to reel assembly.

NOTE 1: Operating maximum working pressure should not exceed the pressure rating of the installed hose.

NOTE 2: Bare reel hose model 87700 is designed to be corrosion resistant when used in applications using water, antifreeze solutions (ethylene Glycol or Polypropylene Glycol) and windshield wash solutions (Typically methyl alcohol diluted with water).

DESCRIPTION

The 87000 Series Reel is designed for hose storage wherever longer length delivery hose is required. The reel can be installed as a single unit or in multiple configurations. **This reel is not recommended for off-road use.**

Reel features include a reel latch that automatically locks at desired positions as the hose is extended and releases with a short pull on the hose

OWNER/OPERATOR RESPONSIBILITY

It is the owner/operator responsibility to properly use and maintain this equipment.

The instructions and warnings contained in this manual shall be read and understood by the owner/operator prior to operating this equipment.

If an owner/operator does not understand English, the contents of this manual shall be explained in the owner/operator native language to assure the owner/operator comprehends.

It is the owner/operator responsibility to maintain the legibility of all warning and instruction labels.

The owner/operator shall retain this manual for future reference to important warnings, operating and maintenance instructions.

WARNING

FAILURE TO HEED THE FOLLOWING WARNINGS INCLUDING MISUSE, OVER PRESSURIZING, MODIFYING PARTS, USING INCOMPATIBLE CHEMICALS AND FLUIDS, OR USING WORN OR DAMAGED PARTS, MAY RESULT IN EQUIPMENT DAMAGE AND/OR SERIOUS PERSONAL INJURY, FIRE, EXPLOSION, OR PROPERTY DAMAGE.

- Do not exceed the stated maximum working pressure of the reel or of the lowest rated component in your system.
- Do not alter or modify any part of this equipment.
- Do not operate this equipment with combustible gas.
- Do not attempt to repair or disassemble the equipment while the system is pressurized.
- Make sure all fluid connections are securely tightened before using this equipment.
- Always read and follow the fluid manufacturer's recommendations regarding fluid compatibility, and the use of protective clothing and equipment.
- Check all equipment regularly and repair or replace worn or damaged parts immediately.
- Never point the dispensing valve at any part of the body or at another person.
- Never try to stop or deflect material from dispensing valve or leading connection or component with your hand or body.
- Always check equipment for proper operation before each use, making sure safety devices are in place and operating properly.
- **Always follow the pressure relief procedure after shutting off the pump, when checking or servicing any part of the system, and when installing, cleaning or changing any part of the system.**

INSTALLATION

DELIVERY HOSE INSTALLATION (MAXIMUM SPRING TENSION)

WARNING

Always wear heavy gloves when adjusting the spring tension to protect hands from being cut on the hose reel.

WARNING

Never allow the reel to spin freely. The hose could spin out of control and cause serious injury if you are hit by it.

CAUTION

To prevent damaging hose connections and/or components when pulling hose from reel, pull on the hose itself and not on the control valve swivel. Do not pull or jerk on the hose when fully withdrawn from the reel.

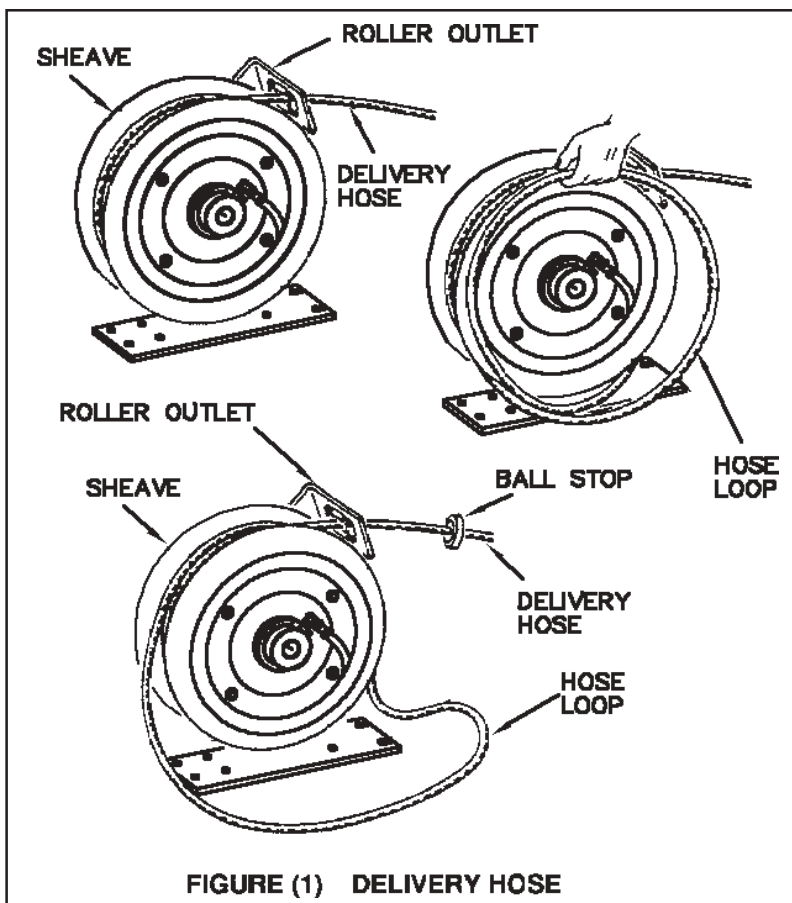
IMPORTANT INSTRUCTIONS

Perform the following instructions as stated to correctly set the power spring for maximum tension.

CAUTION

To avoid damaging reel components, always make sure hose clamp is properly installed.

1. Secure the reel on flat surface.
2. Adjust position of the hose guide (272042). See Fig. 3.
3. Wind the reel 13 full turns and securely latch it. Use heavy gloves and both hands to wind the reel.
4. Before installing hose, attach C-clamp to reel flange to prevent the reel from unintentionally becoming unlatched and spinning free.
5. Position hose clamp so that approximately 1/2 loop of hose remains on reel and latching does not occur when hose is fully extended.
6. While holding hose, allow reel to retract hose until desired height from floor is obtained, then latch reel.
7. Slide ball stop over free end of hose and position slightly below roller outlet. Tighten screws to secure ball stop to hose.
8. Power spring is now set to maximum tension.



ADJUSTING SPRING TENSION

Should less spring tension be desired, pull hose out from roller outlet to provide slack and latch reel.

CAUTION

To prevent premature power spring failure, spring tension should be adjusted so that it requires at least two full turns of the reel sheave before the spring is wound tight.

Unwind one loop of hose from reel. Pull excess hose out through roller outlet and unlatch reel to retract hose.

Check tension and repeat above procedure until desired tension is obtained.

PRESSURE RELIEF PROCEDURE

Perform the following procedure:

- A. Disconnect the air supply to the pump.
- B. Point the dispensing valve away from yourself and others.
- C. Open the dispensing valve into an appropriate container until the pressure is relieved.

If the above procedure does not relieve the pressure, the dispensing valve or hose may be restricted. To relieve the pressure, very slowly loosen the hose end coupling. Then loosen completely and clear the dispensing valve and/or hose.

INSPECTION

Prior to operation or maintenance a visual inspection shall be made. Check reel system for leaks, worn or missing parts.

Any reel that appears to be damaged in any way, is badly worn or operates abnormally shall be removed from use until repairs are made. Contact factory authorized service center for repairs.

If over-pressurizing of the equipment is believed to have occurred, contact a factory authorized service center for inspection of the reel.

Annual inspection by a factory authorized service center is recommended.

SERVICE

Assemble reel as follows. Refer to SERVICE PARTS for part numbers and location.

1. SUBASSEMBLY NO.1

- A. Assemble pawl pin onto support assembly and secure with nut.
- B. Assemble pawl spring to pawl .
- C. Assemble items in step (B) to pawl pin and secure with washer and retaining ring.
- D. Assemble one retaining ring to the groove nearest the inlet in the axle.
- E. Assemble axle into bushing on support assembly and secure with set screw.

2. SUBASSEMBLY NO. 2

- A. Assemble latch hub assembly and three latch plates to spring cover assembly and secure with three hex nuts.
- B. Assemble four studs to spring over assembly and secure with four hex nuts.

3. SUBASSEMBLY NO. 3

- A. Apply pipe sealant to the adapter union and

assemble to swivel hub and tighten securely. Refer to SERVICE PAGE 6 for proper orientation of assembly after tightening.

- B. Assemble one backup ring and one o-ring into each of the grooves in Bushing as shown in Detail A or B and lubricate with grease.
- C. Insert items in step (B) to swivel hub.
- D. Assemble items in step (C) to sheave assembly and secure with three hex nuts.

4. FINAL ASSEMBLY

- A. Assemble Subassembly No. 2 to axle and secure with one retaining ring by installing it in the groove of axle.
- B. Lay the assembly in Step (A) down on its back with the axle extending upward.
- C. Assemble arbor key onto the flat of axle.
- D. Assemble arbor on axle over the arbor key.
- E. Assemble one backup ring and one O-ring into each of the two grooves in axle and lubricate with grease on models 87300 and 87700 or one U-Cup. Seal into each of the two grooves in axle and lubricate with grease on model 87500.
- F. Assemble the power spring by sliding the outer loop of spring over stud that is offset from the other three. Seat inner loop of power spring in the arbor.

CAUTION

Make sure wind direction is correct for proper orientation of arbor.

- G. Align holes in subassembly No.3 with the four sets of studs. Assemble by sliding onto axle and secure with four nuts.
- H. Assemble hose clamp in hole of sheave assembly and secure with 1/4" hex screws and hex nuts.
- I. Assemble roller arm assembly to studs on support assembly and secure with four hex nuts.

DISASSEMBLY

To disassemble, perform ASSEMBLY procedures in reverse.

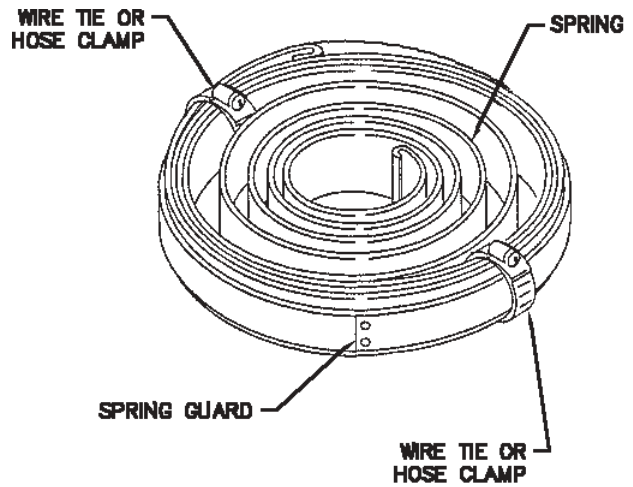
REPAIR

Repair is limited to replacement of listed service parts. Special procedures and tools are required. Contact Lincoln Customer Service, One Lincoln Way, St. Louis, MO 63120-1578, (314) 879-4200 for your nearest authorized service center.

When ordering replacement parts, list: part number, description, model number and series letter.

POWER SPRING REPLACEMENT

- A. Securely clamp hose reel to a work surface.
- B. Loosen set screw in support arm bushing and remove sheave assembly.
- C. Remove retaining ring from axle behind ratchet assembly.
- D. Remove four hex nuts retaining spring cover and ratchet assembly and gently remove from sheave assembly.
- E. Install new power spring by sliding the outer loop of spring over stud that is offset from the other three (see section C-C).
- F. Remove wire ties from spring. (DO NOT REMOVE SPRING GUARD)
- G. Reinstall spring cover and ratchet assembly using four hex nuts.
- H. Reinstall retaining ring on axle behind ratchet assembly.
- I. Assemble reel assembly to support arm assembly and torque set screw.



DETAIL C

LIMITED WARRANTY

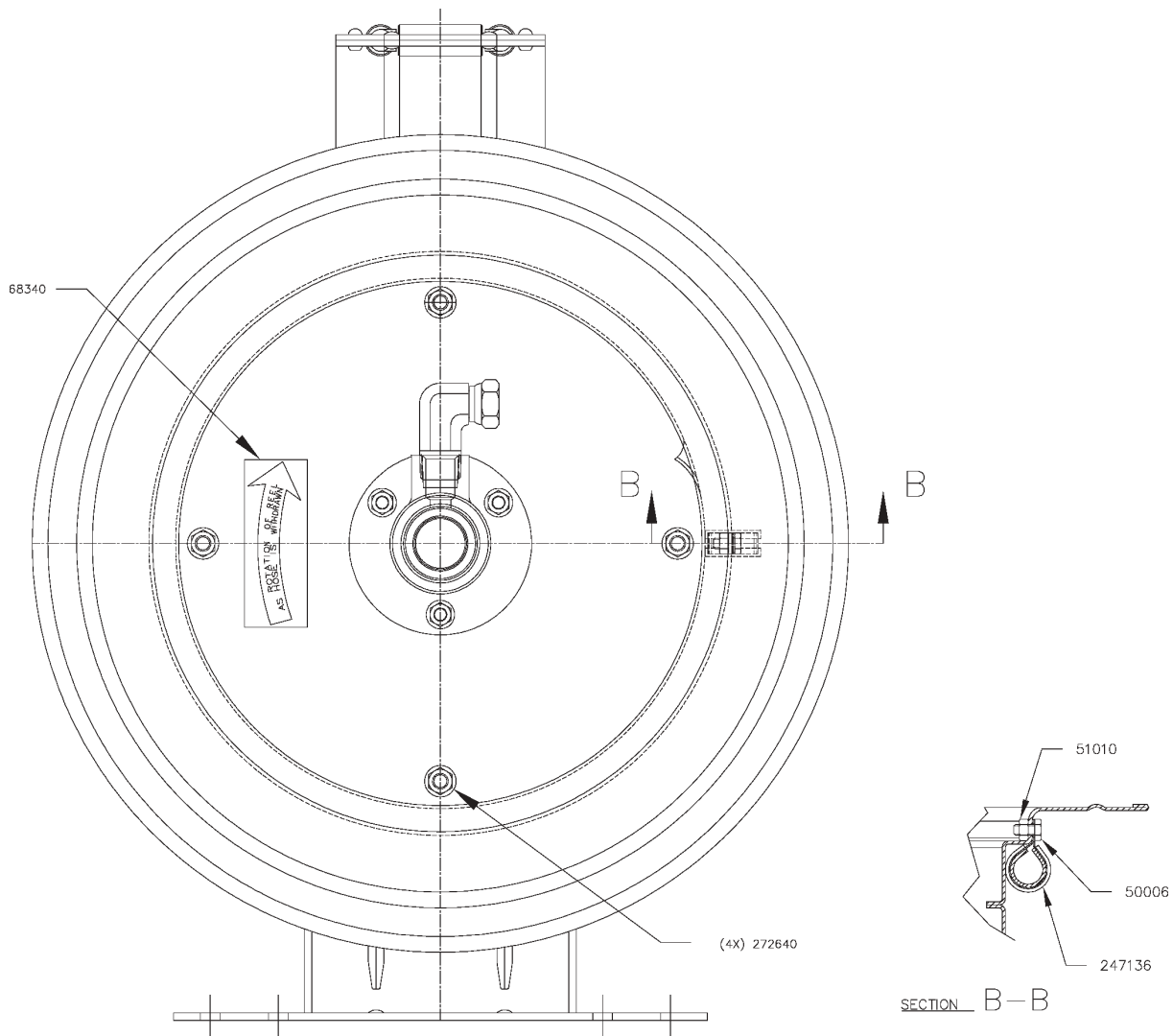
Lincoln warrants that lubrication equipment, materials dispensing equipment and other related equipment manufactured by it will be free from defects in material and workmanship during the one (1) year following the date of purchase. If equipment proves to be defective during this warranty period, it will be repaired or replaced without charge, provided that factory examination indicates the equipment to be defective. To obtain repair or replacement, it must be shipped, transportation charges prepaid, with proof of date of purchase to a Lincoln authorized Warranty and Service Center, within the one (1) year following the date of purchase.

This warranty is extended to the original retail purchaser only. This warranty does not apply to equipment damaged from accident, overload, abuse, misuse, negligence, faulty installation or abrasive or corrosive materials or to equipment repaired or altered by anyone not authorized by Lincoln to repair or alter the equipment. This warranty applies only to equipment installed and operated according to the recommendations of Lincoln or its authorized field personnel. No other express warranty applies to lubrication equipment, materials dispensing equipment and other related equipment manufactured by Lincoln.

ANY IMPLIED WARRANTIES applicable to lubrication equipment, materials dispensing equipment, and other related equipment manufactured by Lincoln INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WILL LAST ONLY FOR ONE (1) YEAR FROM THE DATE OF PURCHASE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS. SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

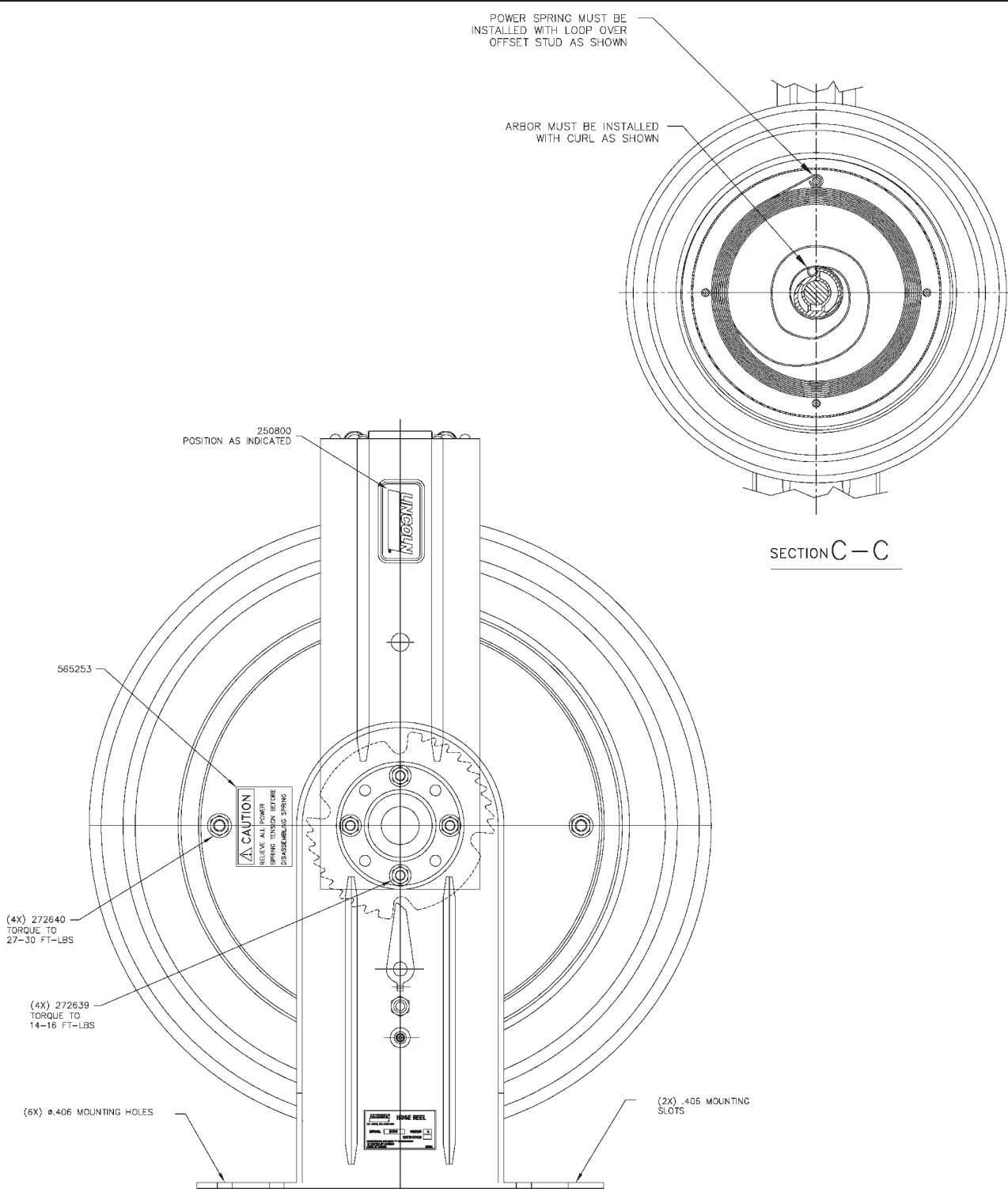
In no event shall Lincoln be liable for incidental or consequential damages. The liability of Lincoln on any claim for loss or damage arising out of the sale, resale, or use of lubrication equipment materials dispensing equipment, and other related equipment shall in no event exceed the purchase price. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.



87300 87500 87700 SERVICE PARTS

NUMBER	DESCRIPTION	QTY	NUMBER	DESCRIPTION	QTY
50006	HEX HEAD SCREW .250-20	1	272037	SHEAVE ASSEMBLY	1
51010	NUT, HEX 1/4-20 GR5	1	272038	AXLE MODEL 87500	1
68340	DECAL, INSTRUCTION	1	272042	ARM ASSEMBLY, ROLLER	1
229623	SCR, SET 1/2-13X3/8 CUP	1	272043	O-RING	2
237683	PAWL, LATCH	1	272044	BACK UP RING	2
237695	SPRING, EXT 1/4ID X 1.375	1	272045	RETAINING RING METRIC	2
247136	CLAMP, HOSE (.98 O.D. Hose)	1	272081	U-CUP SEAL MODEL 87500	1
247356	PIN, PAWL	1	272167	CLAMP, HOSE (.75 O. D. HOSE)	1
247357	WASHER	1	272168	CLAMP, HOSE (.63 O. D. HOSE)	1
247368	KEY, ARBOR	1	272635	COVER, SPRING ASSEM	1
247369	ARBOR	1	272639	NUT, SERRATED .312-18	10
247370	RING, BACK-UP MODEL 87300 & 87700	2	272640	NUT, SERRATED .375-24	8
247371	O-RING, MODEL 87300 & 87700	2	272641	HUB, LATCH ASSEMBLY	1
247383	POWER SPRING	1	272646	NUT, SERRATED .500-13	1
248370	STUD	4	272651	1/2NPT-3/8 NPSM 90 DEGREE UNION MODEL 87500	1
250800	LABEL, LOGO LINCOLN	1	272652	1/2NPT-1/2 NPSM 90 DEGREE UNION MODEL 87300 & 87700	1
261113	AXLE MODEL 87300	1	272674	RETAINING RING METRIC	1
272032	BUSHING	1	272675	RETAINING RING METRIC	2
272033	HUB, SWIVEL	1	272682	AXLE MODEL 87700	1
272034	PLATE, LATCH	3	565253	LABEL, CAUTION	1
272035	SUPPORT ASSEMBLY	1			



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