

OPERATION, PARTS AND SAFETY MANUAL



SIGNODE®

**DF-2D
STRAP DISPENSER**

**IMPORTANT!
DO NOT DESTROY**

**It is the customer's responsibility to
have all operators and servicemen
read and understand this manual.**

Contact your local Signode representative
for additional copies of this manual.

READ ALL INSTRUCTIONS BEFORE OPERATING THIS SIGNODE PRODUCT

SIGNODE • 3620 WEST LAKE AVENUE • GLENVIEW, ILLINOIS 60025 U.S.A.

⚠️ WARNING

READ THESE INSTRUCTIONS CAREFULLY. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS PERSONAL INJURY.

GENERAL SAFETY CONSIDERATIONS

1. EYE INJURY HAZARD.

Failure to wear safety glasses with side shields can result in serious eye injury or blindness. Always wear safety glasses with side shields which conform to ANSI Standard Z87.1 or European Norm 166.



2. CUT HAZARD.

Handling strap or sharp parts could result in cut hands or fingers. Wear protective gloves.



3. TRAINING.

This dispenser must not be used by persons not properly trained in its use. Be certain that you receive proper training from your employer. If you have any questions contact your Signode Representative.

4. DISPENSER CARE.

Take good care of this dispenser. Inspect and clean it weekly. Replace any worn or broken parts.

5. WORK AREA.

Keep work areas uncluttered and well lighted.

SAFETY PROCEDURES FOR DISPENSER OPERATION

Before loading a coil of strap into the dispenser, read the loading and safety instructions.

- 1. Follow the loading and threading instructions.**
- 2. Maintain proper footing and balance when loading dispenser.**
- 3. Do not load dispenser when you are in an awkward position. Strap coils can be heavy. To prevent back or other bodily injuries, your employer may also contact the National Safety Council, Itaska, IL 60143 U.S.A. for additional information on lifting techniques.**
- 4. When mounting dispensers on wall and/or columns, use the proper Signode suspension brackets.**

CUTTING TENSIONED STRAP

Use only cutters designed for cutting strap; never use claw hammers, crowbars, chisels, axes or similar tools. Such tools will cause the strap to fly apart with hazardous force. Before using any Signode product read its Operation and Safety manual.

TABLE OF CONTENTS	Page
General Safety Instructions	2
Introduction	3
Specifications	4
Major Components	4
Loading & Threading	5
Threading Diagram	9
Brake Adjustment	10
Parts List & Exploded Views	12
Recommended Spare Parts	13
Troubleshooting	18

**DF-2D
Dual Coil Dispenser**

Right-Hand Version
Part No. 593041

Left-Hand Version
Part No. 593100



INTRODUCTION

The DF-2D Dispenser’s unique dual coil design allows the operator to load coils at his convenience while having minimal downtime to switch from one strap coil to another. Loading strap is easy and fast, potentially eliminating any machine downtime to reload. The DF-2D’s braking system allows for a “non-shock” payoff and accumulation reducing the potential for strap to tangle or jam. Approximately five to six feet of strap is accumulated by the DF-2D as it operates. This dispenser is available as a left-hand and right-hand version to suit any application with improved convenience.

This dispenser can also be converted from a right-hand to a left-hand configuration after being purchased. Contact your local Signode Sales or Service Representative for assistance.

SPECIFICATIONS

MODEL	STRAP		
DF-2D	TYPE	WIDTH	COIL DIMENSIONS
	Polyester or Polypropylene	Up to 16mm.	24" OD x 16" ID x 6" W

NOTE: Use proper lifting techniques when placing strap coil in dispenser

MAJOR COMPONENTS



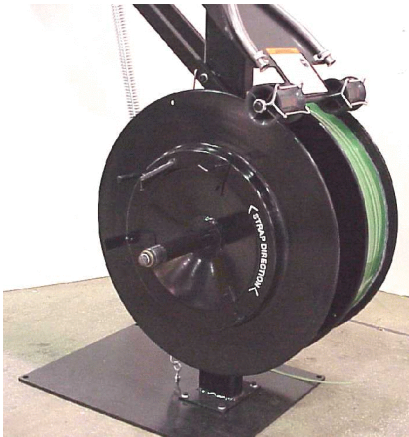
DF-2D LOADING AND THREADING INSTRUCTIONS

The DF-2D dispenser's design allows for strap coils to be loaded independently of each other. However the instructions are the same for loading either side. Use the threading diagram shown on page 8 for reference. To load (or reload) a coil of plastic strap follow the steps below:

⚠ WARNING

Strap coils can be heavy. To prevent back or other bodily injuries, your employer may also contact the National Safety Council, Itaska, IL 60143 U.S.A. for additional information on lifting techniques. Failure to follow the above could result in serious injury.

1. Remove the wing nut by turning it counterclockwise. Remove the outer reel disc assembly. If applicable, remove the paper core and any plastic shrink film residue left over from the previous strap coil.



Pay-off rotation must towards the rear of the dispenser from the bottom of the coil.

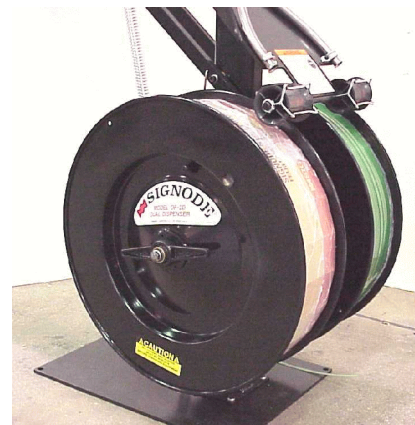
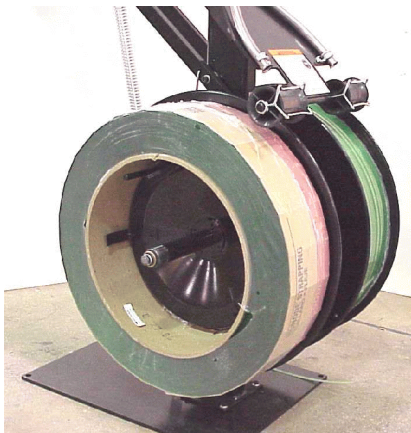
3. Reinstall the outer reel disc assembly. Install and securely tighten the wing nut.

⚠ WARNING

Hand tighten the wing nut as much as possible.

Failure to snug the wing nut tightly against the outer disk could result in the disk and strap coil falling to the ground or the wraps of the strap becoming entangled.

2. Position the new coil of strap on the back disk so that the arrows printed on the corrugated belly-band point in the same direction as the arrow decal on the inner reel disk.



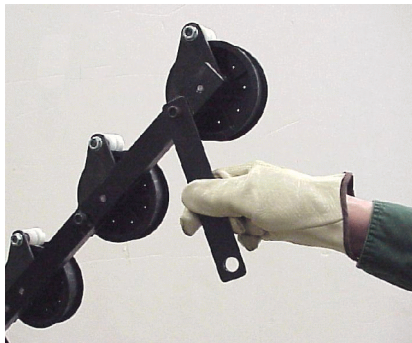
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LOADING AND THREADING, Continued

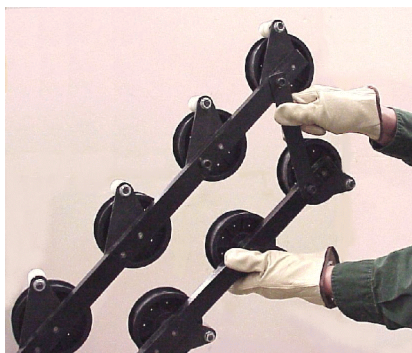
4. Confirm payoff direction by making sure the that arrows printed on the corrugated belly-band point towards the strap guide roller and wire keeper.



5. Unhook the loading latch from the end of the upper arm assembly.



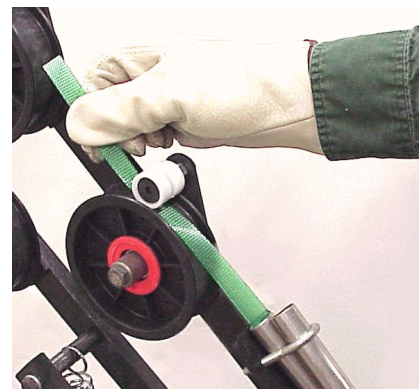
6. Raise the lower arm up and secure it in place by hooking it to the loading latch using the head of the cap screw from the lower arm assembly.



7. Remove the plastic film from the coil, remove the corrugated belly-band and remove the tape that secures the lead end. Thread the lead end of the strap through the brake arm roller and keeper. Refer to threading diagram shown on page 9 of this manual. Continue to thread the strap into the strap guide tube.

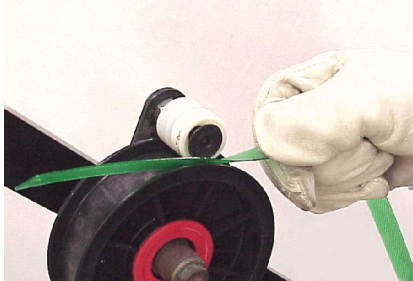


8. Continue to thread the strap from the strap guide over the first upper idler wheel. Make sure to thread the strap through the roller assembly as shown.

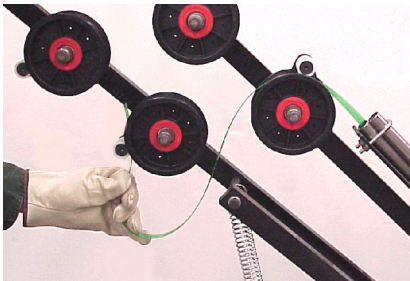


LOADING AND THREADING, Continued

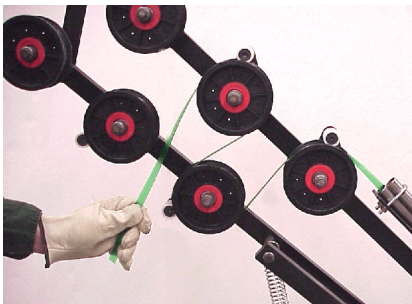
NOTE: The strap can also be threaded over the idler wheels by inserting the strap from the side by pushing the spring loaded keeper roller back allowing the strap to pass under as shown.



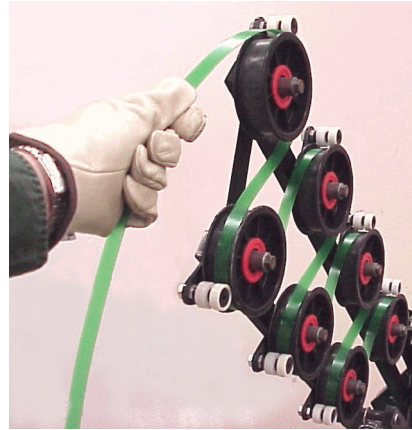
9. Continue to thread the strap under the first lower idler wheel.



10. Continue threading the strap up to the next idler wheel. Continue threading the strap through all idler wheels. Refer to the threading diagram on page 8 if necessary.



11. Once all idler wheels have been threaded properly, hold the strap end taut to keep the strap from unthreading from the idler wheels.



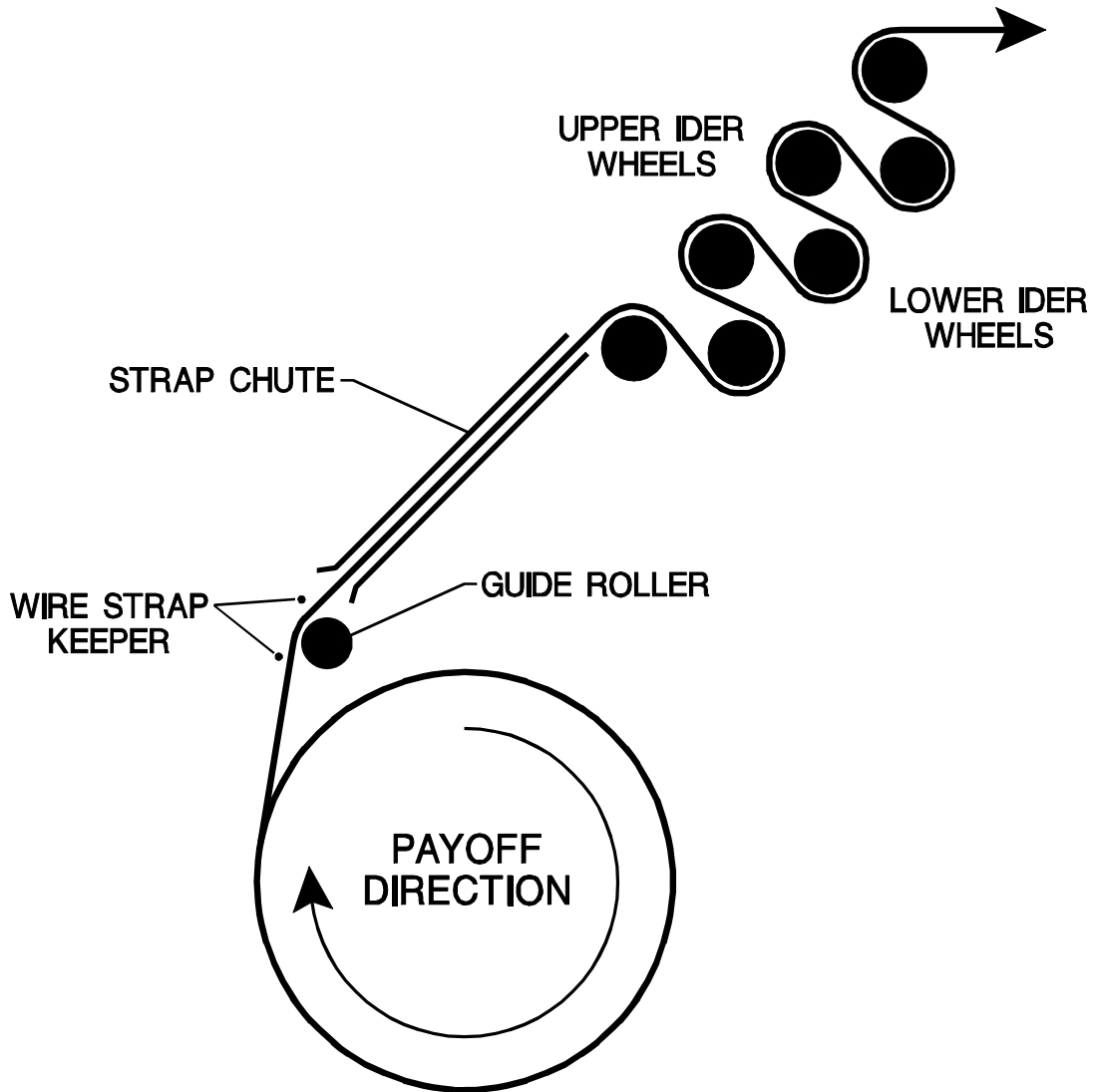
12. Release the lower arm from the loading latch. Return the loading latch back up to its resting position. The lower arm will begin to slowly drop. As the arm drops, strap will begin to payoff from the coil.



NOTES: Once the arm has dropped the brake will engage stopping the coil of strap from spinning. Not placing the loading latch back to its resting position could interfere with the operation of the dispenser.

DF-2D THREADING DIAGRAM

NOTE: The threading pattern is the same for both strap coils of the dispenser.



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DISPENSER ADJUSTMENTS

⚠ WARNING

WEAR SAFETY GLASSES WITH SIDE SHIELDS WHICH CONFORM TO ANSI STANDARD Z87.1 OR EN 166. FAILURE TO WEAR SAFETY GLASSES COULD RESULT IN SEVERE PERSONAL INJURY. PROTECT YOUR EYES.

- ! Only trained people should service this dispenser.
- ! Unless specified, shutoff and lock out all electrical power.
- ! Follow all service instructions.
- ! Never adjust, repair or oil moving machinery.

READ THE GENERAL SAFETY INSTRUCTIONS IN THE FRONT OF THIS MANUAL.

COIL BRAKE

The DF-2D brake engages when the brake rods which are connected to the lower arm are lowered as the arm swings down. As the brake rods lower the brake pad arms pivot downward to engage the brake pad against the inner contact surface of the disk flanges. The amount of brake pretravel is adjusted by moving the hex nut (two per brake rod) positions.

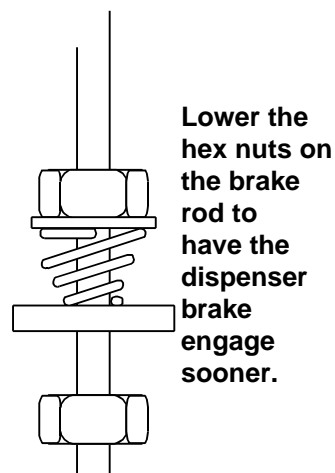
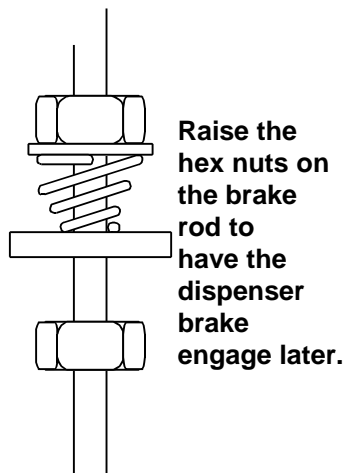
The amount of strap accumulated from the strapping machine by the dispenser is dependent upon the position of the lower arm when the brake is engaged. If the brake engages too late, as the arm descends, very little strap can be retracted and accumulated. If the brake engages too soon the arm may not lower to the full bottom position.

NOTE: Since proper strap accumulation also depends on the application, the factory setting must be considered nominal and some fine tuning may be required.



DF-2D BRAKE PAD ASSEMBLY

To adjust the brake engagement point, rotate the two sets of hex nuts (four hex nuts total) up or down the brake rods as required. Turn the nuts even amounts of turns to keep the distance from one nut to the other from changing.



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PARTS LIST & EXPLODED VIEWS

<u>KEY</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	2	593043	Chute, Dual Coil Dispenser
2	2	422294	Roller
3	2	593047	Keeper, Strap Guide
4	2	593046	Weldment, Back Disc
5	7	593050	Flat Belt Idler
6	7	593051	Clevis Adapter, Flat Belt Idler
7	1	593052	Weldment, Dispenser Post
8	1	593104	U-Bolt, 1" center to center x 2 1/4" rod size
9	2	593103	Clamp, Appleton #503154001, 1 hole, 1/2" Conduit
10	7	593165	Wave Spring
11	1	593044	Arm, Half
12	1	593073	Plate, Floor Mount
13	1	593075	Bracket, Brake Mounting
14	7	593166	Spacer, Tubular
15	2	593077	Arm, Brake Mounting
16	2	593078	Rod, Brake Lever
17	2	422295	Brake Pad
18	1	593081	Arm, Dancer
19	1	593082	Arm, Upper
20	7	593163	Keeper Roll, Outer
21	7	593164	Keeper Roll, Inner
22	1	593085	Shaft, Dancer Arm
23	1	593087	Bar, Lacing Latch
24	1	593088	Arm, Upper Stop
25	2	593089	Bearing, Duralon
26	1	593090	Shaft
27	1	964200028	Extension Spring, 1 1/8 O.D. x 16" LG.
28	2	062951	Compression Spring, LEE Spring #LC-055J-5
29	1	232160201	Eye Bolt
30	2	593045	Weldment, Front Disc
31	2	067222	Hub Nut
32	7	231163201	Keeper Plate
33	1	593093	Spacer, Tubular
34	1	593094	Spacer, Plate
35	1	593095	Instillation, Signs & Decals
36	4	009174	Snap Ring, TRUARC #5100-59
48	2	009041	SHCS 1 1/4-20 UNC x 3/4" LG.
49	2	294170	SHSS 1/4-20 UNC x 1/4" LG., Self Locking
50	7	070537	HHCS 3/8-16 UNC x 3/4 LG.
51	14	009037	SHCS #10-32 UNF x 1/2 LG.
52	14	004238	Split Lockwasher #10
53	2	009094	HHCS 1/2-13 UNC x 1 LG.
54	2	002434	Split Lockwasher 1/2" Dia.
55	2	024382	Flat Washer 7/16 Dia.
56	6	024352	Bushing
57	2	002164	Cotter Pin 1/16" Dia. X 1/2" L.G.
58	5	004225	Hex Nut 1/4-20 UNC
59	4	954120008	Flat Washer 5/16" Dia., SAE Plated
60	4	291541	HHCS 5/16-24 UNF x 3/4 LG.
61	4	002188	Split Lockwasher 5/16 Dia.

<u>KEY</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
62	4	945133012	Self Locking Nut, #10-32 ESNA 29NM02
63	7	150722	FHCS 3/8-16 UNC x 2 LG.
64	8	002187	Split Lockwasher 1/4" Dia.
65	2	593096	SHCS 3/8-16 UNC x 4 1/4" LG.
66	11	006243	Split Lockwasher 3/8" Dia.
67	19	024353	Hex Jam Nut 3/8-16 UNC
68	2	013565	SHCS 3/8-16 UNC 1 1/2" LG.
69	1	282928	SHCS 3/8-16 UNC x 3 3/4 LG.
70	7	023892	SHCS 3/8-16 UNC x 3 3/4 LG.
71	3	013628	SHCS 3/8-16 UNC x 1 1/4 LG.
72	2	093955	Flat Washer 1/4 Dia. - 3/4 O.D.
73	1	593147	Shoulder Screw, 3/8 x 3 3/4 LG.
74	1	034976	Lock, Nut, 5/16 x 18
75	1	024729	Washer .381 ID x .750 OD x .109 W
76	2	004693	Flexloc Nut, Thin 5/8-18

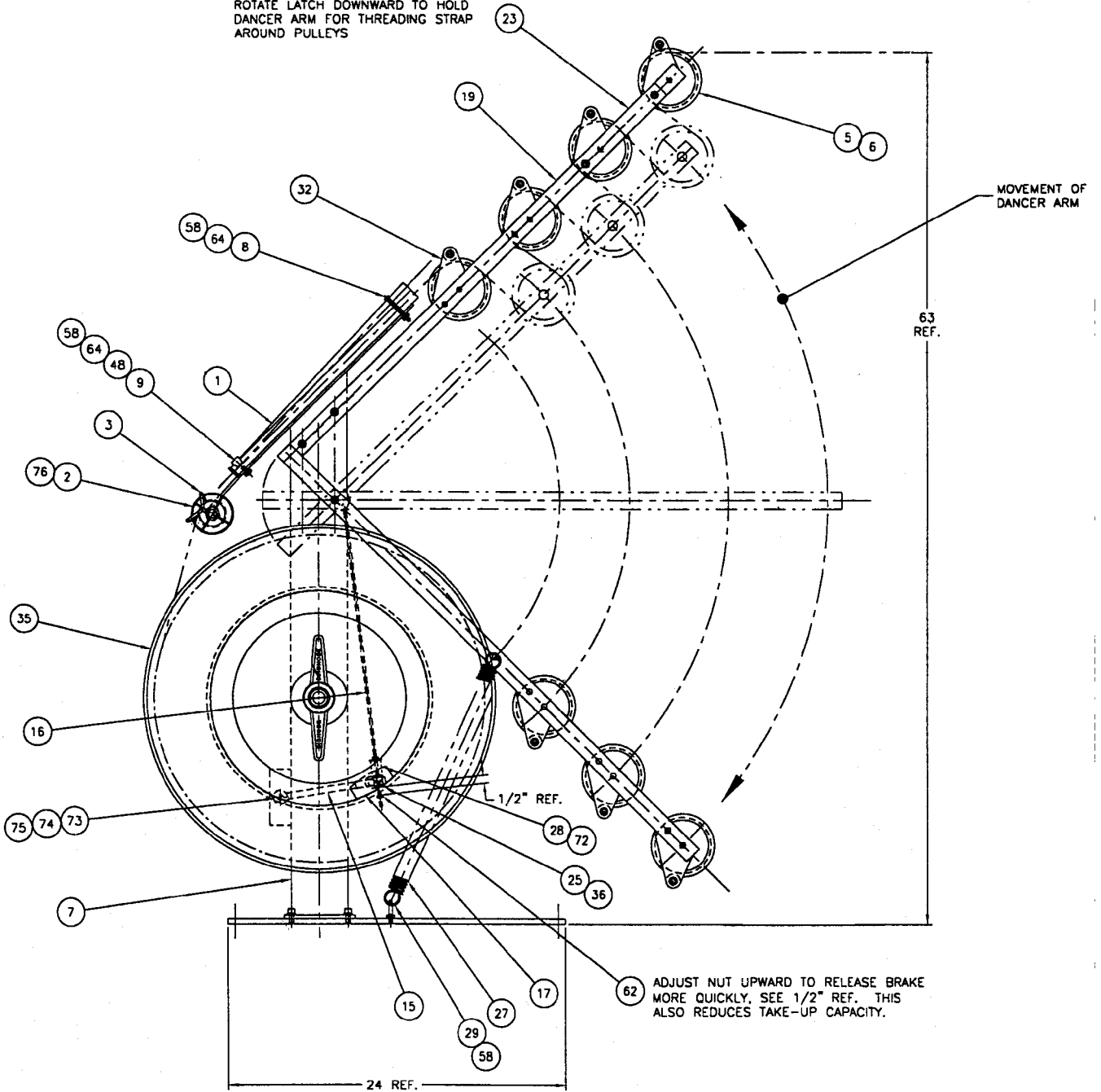
⚠ WARNING

Inspect all parts daily and replace them if they are worn or broken. Failure to do this can affect a product's operation and could result in serious personal injury.

RECOMMENDED SPARE PARTS LIST

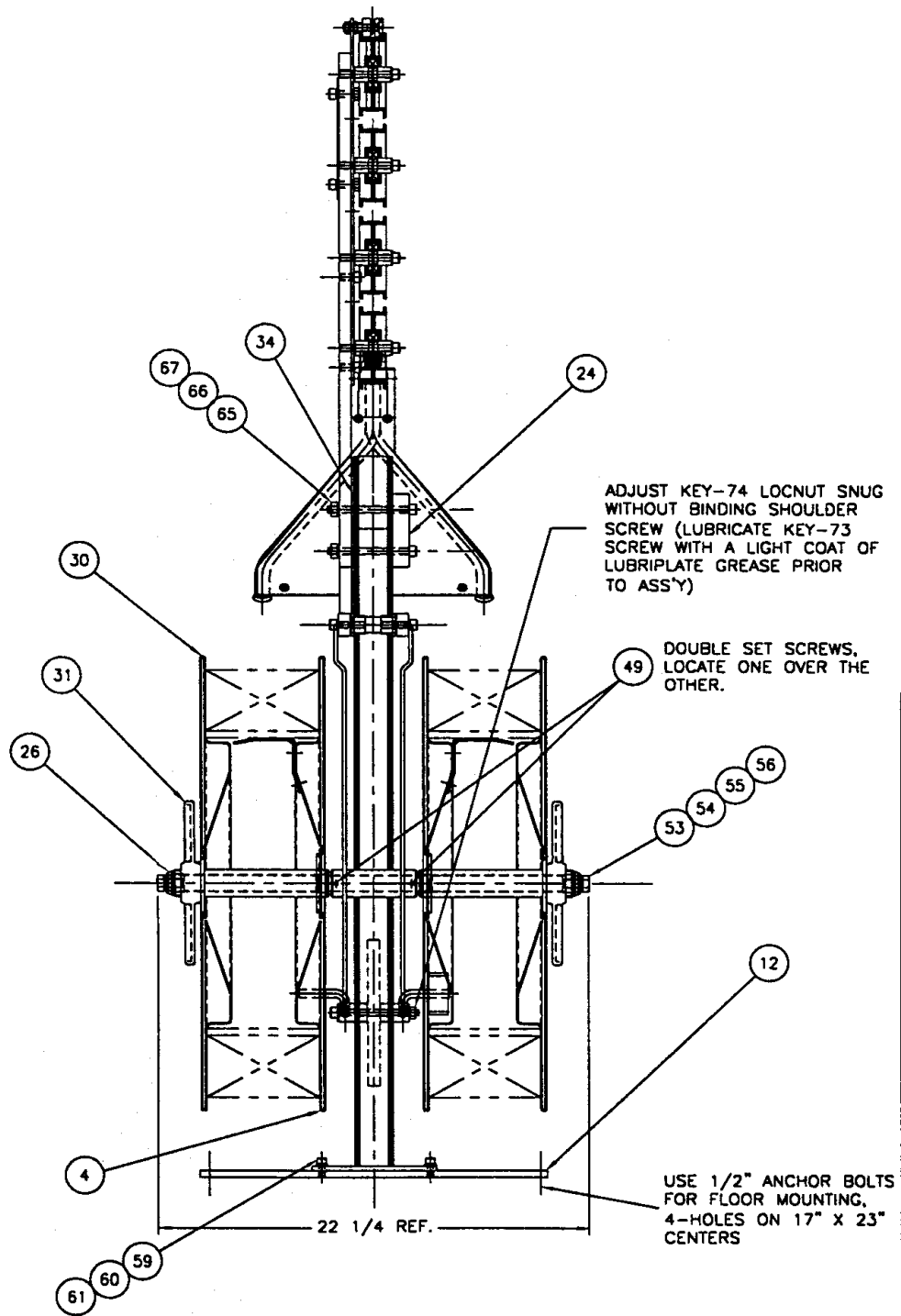
<u>KEY</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
10	2	593165	Wave Spring
17	2	422295	Brake pad
20	2	593163	Keeper Roll, Outer
21	2	593164	Keeper Roll, Inner
25	2	593089	Bearing, Duralon
56	6	024352	Bushing

ROTATE LATCH DOWNWARD TO HOLD DANCER ARM FOR THREADING STRAP AROUND PULLEYS



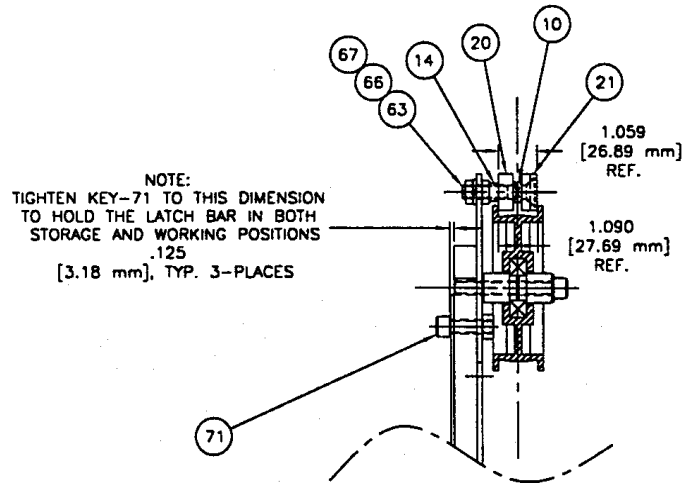
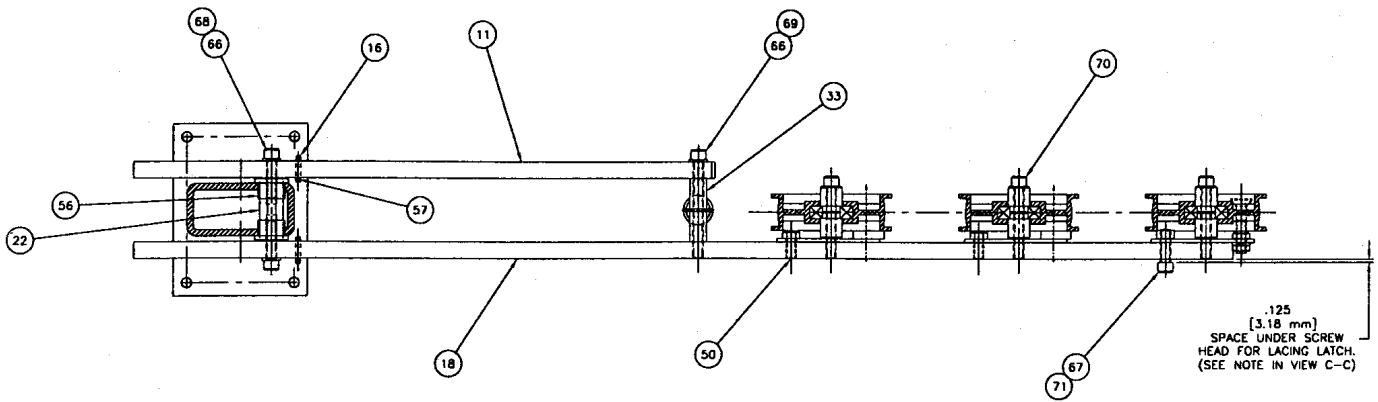
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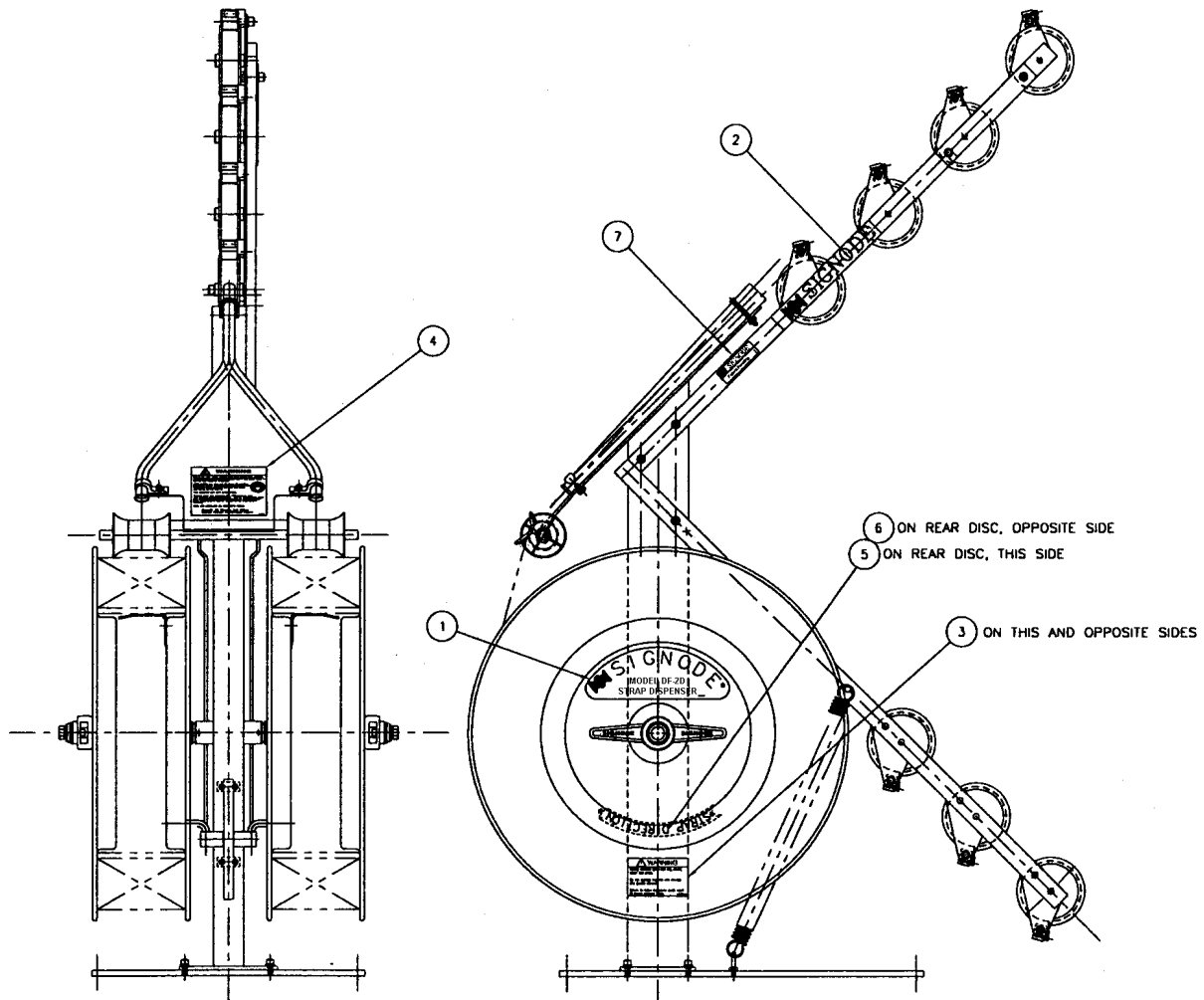


⚠ WARNING

Inspect all parts daily and replace them if they are worn or broken. Failure to do this can affect a product's operation and could result in serious personal injury.

SIGNS & DECALS

KEY	QTY	PART#	DESCRIPTION
1	2	593099	Identification Label
2	1	593113	Sign, Signode Label
3	2	172611	Warning Sign
4	1	286200	Warning Label
5	1	127188201	Strap Direction Decal (CW) Directional Arrow
6	1	12718202	Strap Direction Decal (CCW) Directional Arrow
7	1	280573	Sign- Patent Label



WARNING

Inspect all parts daily and replace them if they are worn or broken. Failure to do this can affect a product's operation and could result in serious personal injury.

TROUBLESHOOTING

The following items are the most common dispenser symptoms if problems occur. For symptoms or remedies not shown, contact your Signode service representative for additional information and details. The following dispenser symptoms are shown in this manual:

#1 SYMPTOM - Loose strap between idler wheels.

#2 SYMPTOM - Strap between dispenser and machine too loose following strapping cycle.

#3 SYMPTOM - Loose wraps on strap coil.

#4 SYMPTOM - Dispenser "Jerk" Stops.

#5 SYMPTOM - Dispenser "Jerk" Starts.

#6 SYMPTOM - Dancer arm swings upward with little or no resistance.

#1 SYMPTOM: Loose strap between idler wheels.	
CAUSE	REMEDY
Dispenser brake improperly adjusted.	Adjust brake as required.

#2 SYMPTOM: Strap between dispenser and machine too loose following strapping cycle.	
CAUSE	REMEDY
Dispenser brake improperly adjusted.	Adjust brake as required.

#3 SYMPTOM: Loose wraps on strap coil.	
CAUSE	REMEDY
1. Brake block pressure too low.	1. Increase brake block pressure, See brake adjustment procedure.
2. Brake block friction surface worn out.	2. Rotate brake block 180° to new friction surface.

#4 SYMPTOM: Dispenser "Jerk" Stops.	
CAUSE	REMEDY
Brake block pressure too high.	Reduce brake block pressure. See brake adjustment procedure.

#5 SYMPTOM: Dispenser "Jerk" Starts.	
CAUSE	REMEDY
The lower arm is traveling up too high before the brake is released.	The lower hex nut(s) and/or the distance from one hex nut to the other is too excessive. Adjust the brake spring to release the brake sooner. See brake adjustment procedure.

#6 SYMPTOM: Dancer arm swings upward with little or no resistance.	
CAUSE	REMEDY
Check for broken or worn lower arm extension spring.	Replace parts as needed.

