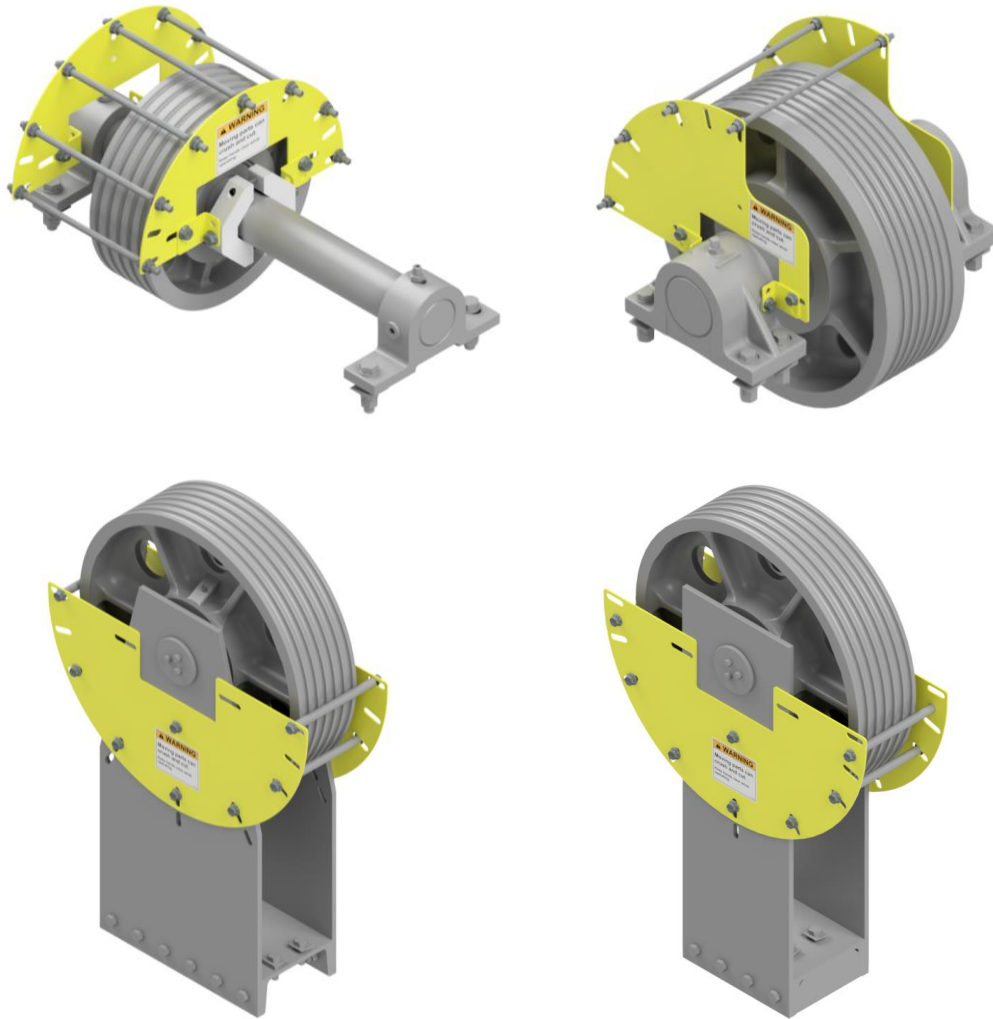

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# Hollister-Whitney Elevator Co. LLC

## Installation & User Guide Rope Retainers



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## 1. Cautions and Warnings



***BEFORE PERFORMING GUARD INSTALLATION TAKE ALL NECESSARY SAFETY PRECAUTIONS TO IMMOBILIZE THE CAR AND COUNTERWEIGHT DURING THE MAINTENANCE PERIOD TO PREVENT ANY UNINTENDED MOVEMENT THAT MAY RESULT IN INJURY OR DEATH!***

***READ THE ENTIRE INSTALLATION PROCEDURE BEFORE BEGINNING ANY OF THE STEPS OUTLINED BELOW. IF THERE ARE ANY QUESTIONS, PLEASE CONTACT HOLLISTER-WHITNEY PRIOR TO BEGINNING THE ROPE RETAINER INSTALLATION.***

## 2. Introduction

- Thank You for choosing Hollister-Whitney Rope Retainers. Hollister-Whitney Rope Retainers are designed to supply restraints for suspension members (ropes) within the full arc of contact of a sheave. Restraints are placed at 30° intervals around the arc of contact of the sheave and provisions have been made within these instructions to place restraints at the end of the arc of contact for varying pull-off angles.

## 3. Verification

### 3.1. Verification of Installation


- Verify that the system is ready for the installation of rope retainers.
- Observe all applicable safety precautions for taking the car out of service and preventing the machine from running during installation.

### 3.2. Verify Rope Retainer Assembly

- Verify the rope retainer kit provided corresponds to the sheave assembly series that is planned for it to be installed on.
- Verify the angle of the rope retainer corresponds to the angle of wrap needed for the installation. 90 degree and 180 degree angle of wrap rope retainer versions are available. For angle of wraps between 180 degree and 91 degree use the 180 degree version. For angle of wraps 90 degree and less use the 90 degree version.
- Verify the sheave diameter corresponds to the proper rope retainer diameter.
- Reference Table 1 as a rope retainer version guide. Sample assemble drawings are included at the end of this guide for reference
- If 331 series rope retainers are to be installed proceed to Section 4. If 341 series rope retainer are to be installed proceed to Section 5.

<b>Rope Retainer Guide</b>			
<b>Sheave Assembly Series</b>	<b>Sheave Pitch Diameter</b>	<b>Rope Retainer Kit Part Number</b>	
		<b>90 Degree Version</b>	<b>180 Degree Version</b>
322 & 331	15.75"	331-177-001	331-178-001
	20.00"	331-177-002	331-178-002
	25.00" & 26.00"	331-177-003	331-178-003
	30.00"	331-177-004	331-178-004
	36.00"	331-177-005	331-178-005
341 & 342	15.75"	341-177-001	341-178-001
	20.00"	341-177-002	341-178-002
	25.00" & 26.00"	341-177-003	341-178-003
	30.00"	341-177-004	341-178-004

**Table 1: Rope Retainer Guide**

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## 4. 331 Series Rope Retainer Kit Installation

### 4.1. Determine Rope Retainer Mounting Scheme

- 331 series rope retainers can be mounted directly to the shaft with the provide split clamp components or to the pillow blocks.
- If the rope retainers are to be mounted to the pillow blocks please verify that the appropriate 1/2 - 13 UNC tapped holes are located on the sides of the pillow blocks as shown below in Figure 1.
- If the appropriate 1/2 - 13 UNC tapped holes are not located on the pillow blocks, replacement pillow blocks are available from Hollister-Whitney. Contact your Hollister-Whitney sales representative for further details.
- Alternatively, if the appropriate 1/2 - 13 UNC tapped holes are not present, the pillow blocks may be drilled/tapped, or fitted with a threaded insert as necessary to achieve an 1/2 - 13 UNC thread size for the rope retainer mounting bolts.

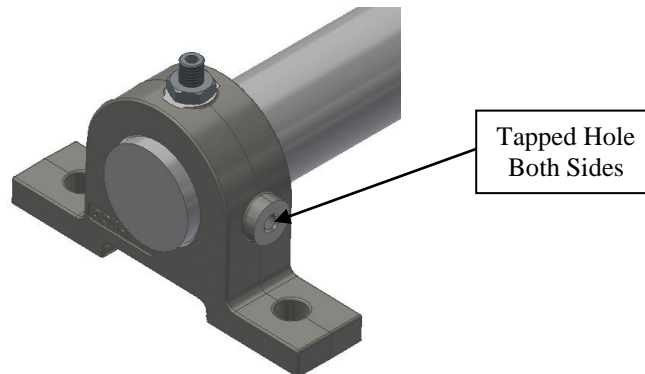


Figure 1: Pillow Block Mounting Provision


- The threaded rod provided is 24 inches long. If the pillow blocks center to center measurement is such that the threaded rod will not span the distance between the rope retainer side plates when mounted to the pillow blocks, then the provided split clamps will need to be used on one or both sides of the sheave as required. Two (2), One (1), or No split clamps may be required.
- As an alternative to mounting to the pillow blocks the two (2) provided split clamp mounting provisions may be used in some cases.

### 4.2. Verify Rope Retainer Clearances

- Verify that the rope retainers including split clamps will fit within the space constraints of the installation and have adequate clearances with any adjacent components.
- Verify that the travel of the car will not greatly affect the arc of contact.

### 4.3. Assemble Shaft Split Clamp Mounting Provisions (If Applicable)

- If the determined rope retainer mounting arrangement utilizes the shaft split clamp mounting provisions continue with this step. Otherwise proceed to the next step.
- Select the proper length 5/16 – 18 UNC socket head cap screw for adequate thread engagement to secure the split clamp to the shaft. Several 5/16 – 18 UNC socket head cap screw lengths are provided to accommodate various shaft sizes. Not all 5/16 – 18 UNC socket head cap screws will be used.
- Position the split clamp halves on the shaft at the desired location. The split clamp halves are identical. Insure that a threaded connection aligns with a clearance hole connection.
- Ensure that the rope retainer mounting features of the split clamps are parallel with each and/or to the pillow blocks and loosely tighten the 5/16 – 18 UNC socket head cap screws.

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- An assembled view of the split clamp mounting provisions is shown below in Figure 2.

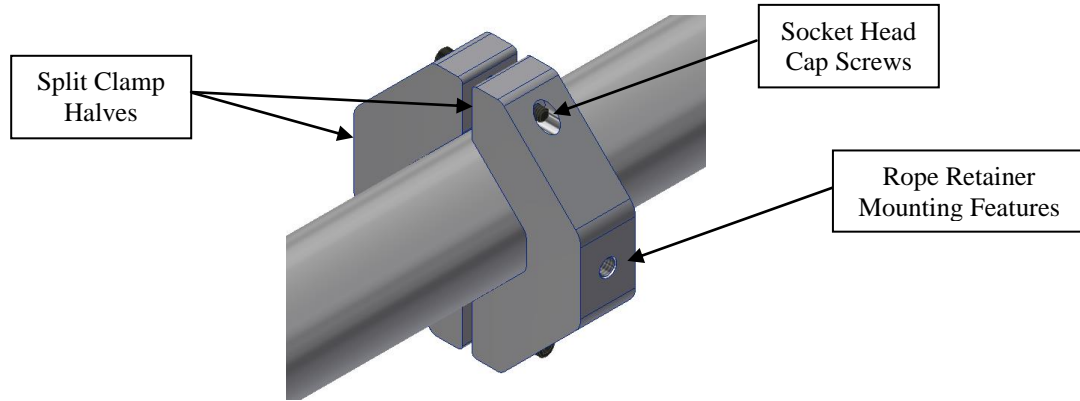


Figure 2: Shaft Split Clamp Mounting Provision

#### 4.4. Assemble Rope Retainer Side Plate Mounting Brackets

- Position the rope retainer side plate mounting brackets as shown below in Figure 3.
- It is recommended that the tab side of the rope retainer side plate mounting brackets be positioned on the side closest to the sheave.
- Loosely secure the rope retainer side plate mounting brackets to the pillow blocks or split clamp shaft mounting provisions with the provided 1/2-13 UNC x 1 inch serrated flange head cap screws.

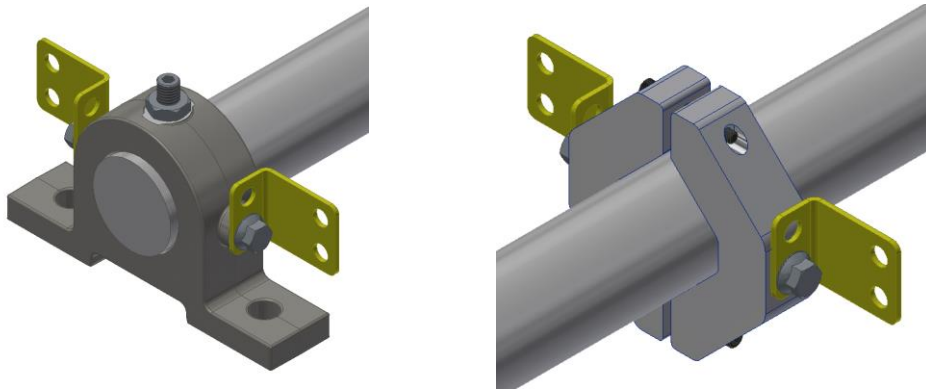



Figure 3: Rope Retainer Side Plate Mounting Brackets

#### 4.5. Assemble Rope Retainer Side Plates

- Position the rope retainer side plates as shown below in Figure 4 on the sheave side of the rope retainer side plate mounting brackets.
- Ensure that the rope retainer side plates are centered on the shaft and oriented correctly to restrain the ropes over the arc of contact with the sheave.
- Loosely secure the rope retainer side plates to the rope retainer side plate mounting brackets with the provided 1/2-13 UNC x 1 inch serrated flange head cap screws and 1/2-13 UNC serrated flange lock nuts.

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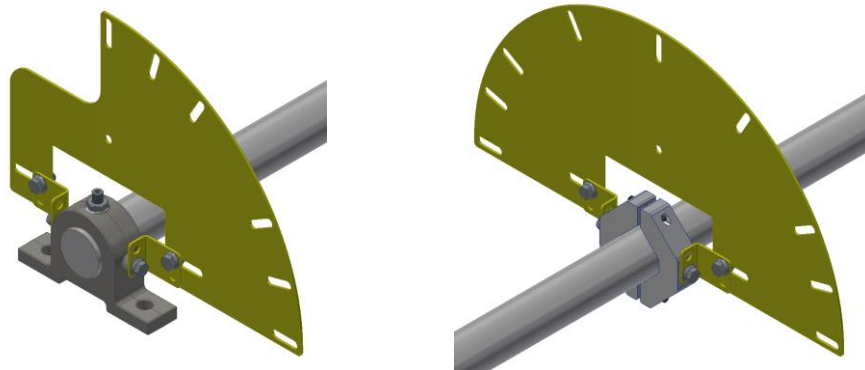


Figure 4: Rope Retainer Side Plates

#### 4.6. Assemble Threaded Rods

- Slots have been provided at 30° intervals around the side plates, with two additional slots at 15° up from each end.
- It is recognized that the angle of wrap may fall between these standard positions as in the example below of 145° illustrated in Figure 5. A17.1/B44 code (8.4.3.1.4 (b)) states that "... a restraint is located at each end of the arc of contact."
- As necessary, drill 9/16" (0.5625") holes at the ends of the arc of contact (in the example given 145°) as shown below in Figure 5. Make sure that the hole position allows running clearance between the rope and the retaining rod.

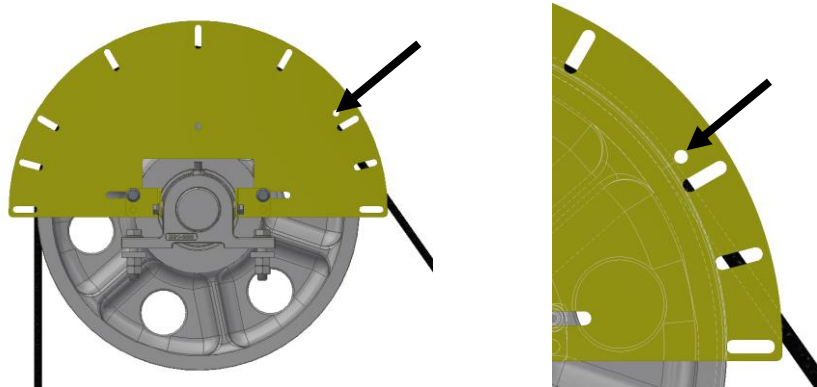



Figure 5: Rope Retainer Arc of Contact Tangency

**NOTE: Running Clearance Rule of Thumb:** Rope to retaining rod clearance should never be greater ½ (50%) of the rope diameter.

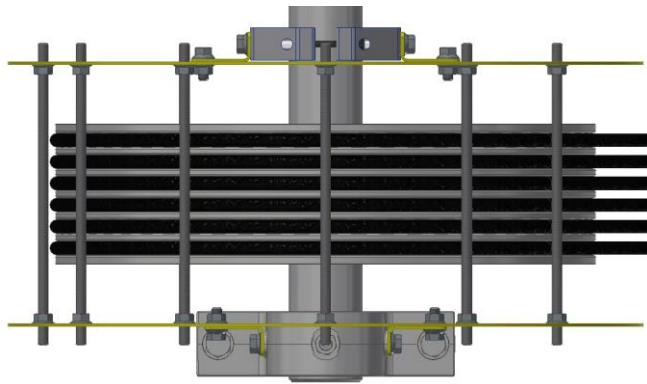
- Pre-assemble all rope retaining threaded rods. Thread two opposing 1/2-13 UNC flange nuts onto each rod as shown below in Figure 6. Thread them on far enough so that the rods can be inserted into the side plates.

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**Figure 6: Rope Retainer Threaded Rod Pre-Assembly**


- Insert these assembled rods into the side plates. Run the nuts out to contact the side plates. Make sure the rods extend an equal distance out of each side plate as shown below in Figure 7. Take care to maintain the parallelism (squareness) of the plates with each other.

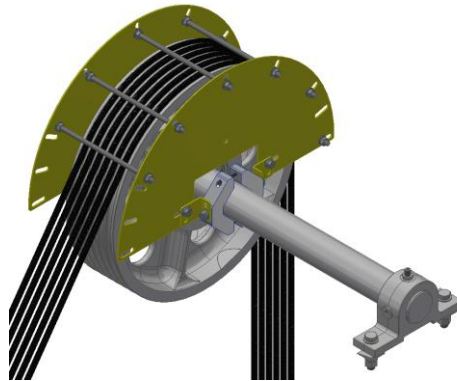


**Figure 7: Rope Retainer Threaded Rod Placement**

**Note:** Threaded rods can be trimmed as necessary to remove excess rod protruding past the rope retainer side plates.

- Thread the outside 1/2 – 13 UNC flange nuts onto the rods and snug them finger tight. If an extra hole was added at the end of the arc of contact as in the 145° example above, the nuts on this rod can be fully tightened. Good Practice is to hold the inside flange nut while tightening the outside flange nut.
- When all nuts are in place, use a convenient shim material to set rope to retaining rod running clearance per the **NOTE** above.
- An assembled view of the rope retainer rods is shown below in Figure 8.

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**Figure 8: Assembled Rope Retainer Rods**

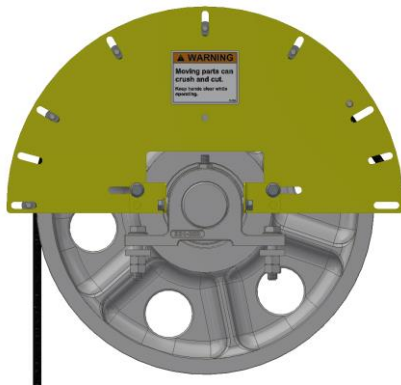
- Tighten all hardware. All hardware is grade 5 and should be tightened to grade 5 specifications per Table 2 below.

Size	ft-lbs
5/16"	17-18
3/8"	31-33
1/2"	75-80
5/8"	150-160

**Table 2: Typical Grade 5 Hardware Torque Values**

#### 4.7. Place Warning Label

- Affix warning label to rope retainer side plate in a location and orientation similar to the depiction in Figure 9 below. Ensure that the orientation and location allow for the warning label to be easily legible.




**Figure 9: Warning Label Placement**

#### 4.8. Verify Operation

- Verify appropriate clearance between all ropes and all threaded rods.



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- Verify the rope retainers do not interfere with the operation of the elevator.
- Verify all hardware is securely tightened when done.
- Observe all applicable safety precautions for returning the car to service after installation of the rope retainers.

## 5. 341 Series Rope Retainer Kit Installation

### 5.1. Verify Rope Retainer Compatibility

- 341 series rope retainers mount directly to hanger sheave assembly side plates. Verify that the side plates of the sheave hanger assembly the rope retainer is to be mounted to has slots to allow for the installation of the rope retainer as indicated below in Figure 10.

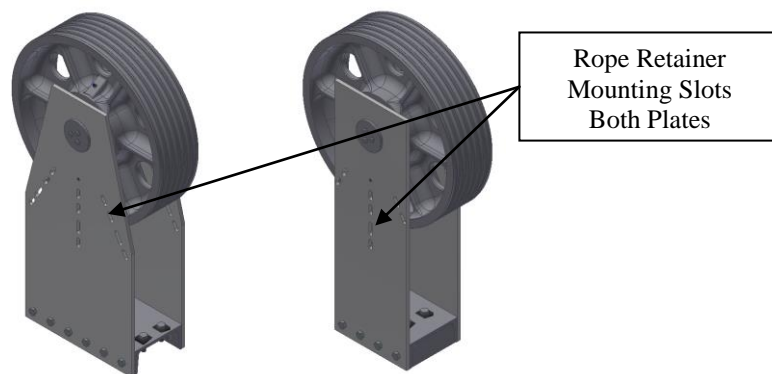


Figure 10: Hanger Sheave Assembly Mounting Provision


- If no slots are present the side plates may be able to be replaced with new side plates from Hollister-Whitney. Contact your Hollister-Whitney sales representative for further details.
- Alternatively holes or slots can be added to the side plates where needed to mount the rope retainers per the instructions below.

### 5.2. Verify Rope Retainer Clearances

- Verify that the rope retainers will fit within the space constraints of the installation and have adequate clearances with any adjacent components.
- Verify that the travel of the car will not greatly affect the arc of contact.

### 5.3. Assemble Rope Retainer Side Plates

- Position rope retainer side plates as shown below in Figure 11 on the outside of the hanger sheave side plates.
- Ensure that the rope retainer side plate slots are aligned with the slots of the hanger sheave side plates.
- Loosely secure the rope retainer side plates to the hanger sheave side plates with the provided 1/2-13 UNC x 1-1/4 inch serrated flange head cap screw in the center of the plate.

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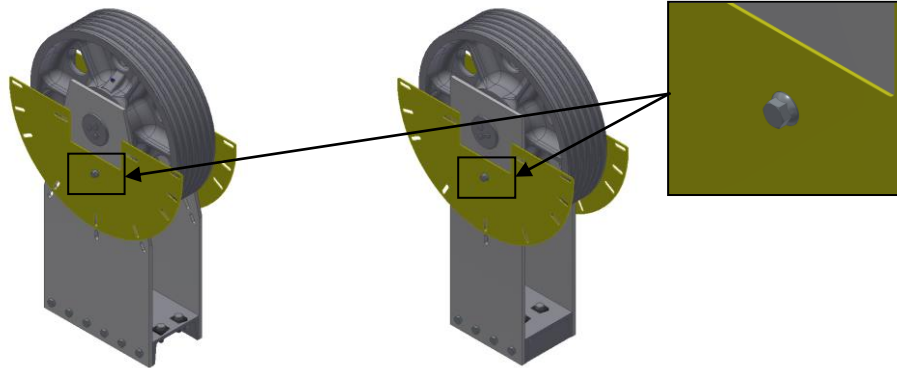


Figure 11: Rope Retainer Side Plates

#### 5.4. Assemble Threaded Rods

- Slots have been provided at 30° intervals around the side plates, with two additional slots at 15° up from each end.
- It is recognized that the angle of wrap may fall between these standard positions as in the example below of 165° illustrated in Figure 12. A17.1/B44 code (8.4.3.1.4 (b)) states that "... a restraint is located at each end of the arc of contact."
- As necessary, drill 9/16" (0.5625") holes at the end of the arc of contact (in the example given 165°) as shown below in Figure 12. Make sure that the hole position allows running clearance between the rope and the retaining rod.

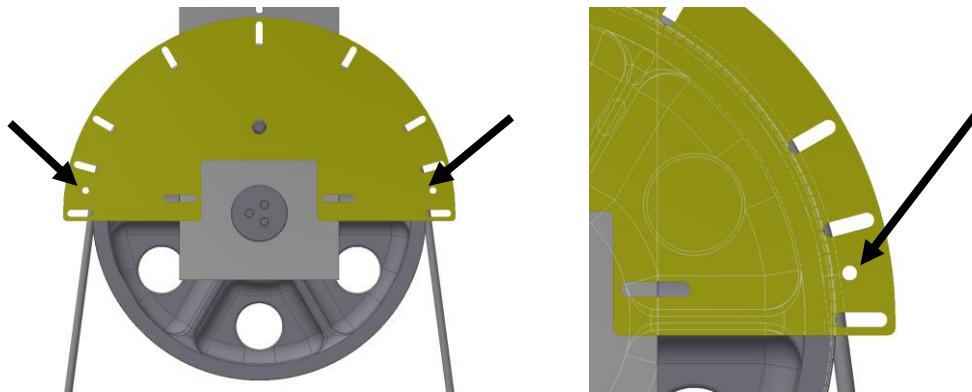



Figure 12: Rope Retainer Arc of Contact Tangency

**NOTE: Running Clearance Rule of Thumb:** Rope to retaining rod clearance should never be greater ½ (50%) of the rope diameter.

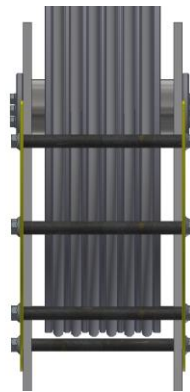
- Two different lengths of tapped rods have been provided in the kit. The tapped rod lengths required will depend on the model of hanger sheave assembly and/or the pitch diameter of the sheave. All tapped rods provided may not be needed. A general guide of the appropriate rod length is shown below in Table 3.

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ROD LENGTH CONFIGURATION TABLE								
6"	7"	8"	9"	9.25"	10.25"	11.25"	12.25"	"L" LENGTH
				SHORT	LONG			345 ASSY WITH 6.5" OR 5.5" WIDE SHEAVE
					SHORT	LONG		345 ASSY WITH 8.5" WIDE SHEAVE
					SHORT	LONG		345 ASSY WITH 6.5" OR 5.5" WIDE SHEAVE AND 10" FILLER WEIGHTS
						SHORT	LONG	345 ASSY WITH 8.5" WIDE SHEAVE AND 10" FILLER WEIGHTS
SHORT	LONG							341 & 342 ASSY WITH 6" WIDE HITCH CHANNEL
	SHORT	LONG						341 & 342 ASSY WITH 7" WIDE HITCH CHANNEL
		SHORT	LONG					341 & 342 ASSY WITH 8" WIDE HITCH CHANNEL

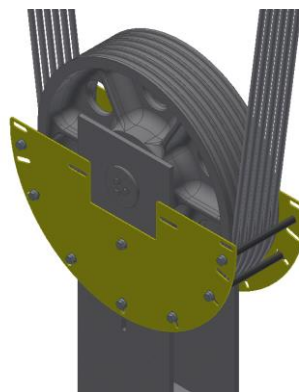
**Table 3: Rod Length Guide**

- Position the rods in the side plates. The short rods will fit between the hanger assembly side plates. The longer rods fit between the rope retainer side plates.
- Thread the provided 1/2-13 UNC x 1-1/4 inch serrated flange head cap screw into each end of the tapped rods and snug them finger tight as shown below in Figure 13. If an extra hole was added at the end of the arc of contact as in the 165° example above, the bolts on this tapped rod can be fully tightened. It may be necessary to hold the bolt on the opposite end of the rod while tightening.




**Figure 13: Rope Retainer Rod Placement**

- When all bolts and rods are in place, use a convenient shim material to set rope to retaining rod running clearance per the **NOTE** above. An assembled view of the rope retainer rods is shown below in Figure 14.



**Figure 14: Assembled Rope Retainer Rods**

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- Tighten all hardware. All hardware is grade 5 and should be tightened to grade 5 specifications per Table 2 above.

### 5.5. Place Warning Label

- Affix warning label to rope retainer side plate in a location and orientation similar to the depiction in Figure 15 below. Ensure that the orientation and location allow for the warning label to be easily legible.



Figure 15: Warning Label Placement

### 5.6. Verify Operation

- Verify appropriate clearance between all ropes and all rods.
- Verify the rope retainers do not interfere with the operation of the elevator.
- Verify all hardware is securely tightened when done.
- Observe all applicable safety precautions for returning the car to service after installation of the rope retainers.

## 6. Warnings

### 6.1. Warning - Moving Part Can Crush And Cut

A Moving Parts Can Crush And Cut warning label is located on the rope retainer side plates. See Figure 16 below.

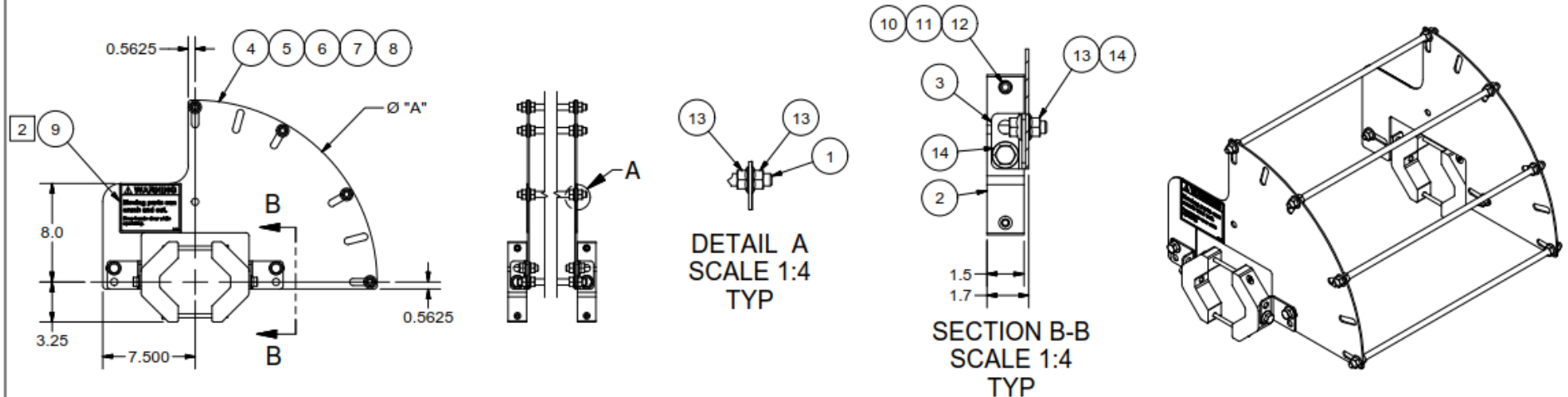
**IMPORTANT:** Keep personnel clear during operation to reduce the risk of personal injury.



Figure 16: Warning - Moving Part Can Crush And Cut

TABLE	
PART NUMBER	"A"
331-177-001	19.25
331-177-002	23.50
331-177-003	29.50
331-177-004	33.50
331-177-005	39.50

						PARTS LIST	
ITEM	QTY 331-177-001	QTY 331-177-002	QTY 331-177-003	QTY 331-177-004	QTY 331-177-005	PART NUMBER	DESCRIPTION
1	4	4	4	4	4	331-125-024	ROD, THREADED, 1/2-13 UNC - 2A x 24"
2	4	4	4	4	4	331-173	ROPE RETAINER SPLIT CLAMP
3	4	4	4	4	4	331-174	ROPE RETAINER SIDE PLATE MOUNTING BRACKET
4	2	0	0	0	0	331-175-001	ROPE RETAINER SIDE PLATE, 15.75" DIAMETER SHEAVE
5	0	2	0	0	0	331-175-002	ROPE RETAINER SIDE PLATE, 20" DIAMETER SHEAVE
6	0	0	2	0	0	331-175-003	ROPE RETAINER SIDE PLATE, 25" & 26" DIAMETER SHEAVE
7	0	0	0	2	0	331-175-004	ROPE RETAINER SIDE PLATE, 30" DIAMETER SHEAVE
8	0	0	0	0	2	331-175-005	ROPE RETAINER SIDE PLATE, 36" DIAMETER SHEAVE
9	2	2	2	2	2	P-184	WARNING LABEL, MOVING PARTS CAN CRUSH AND CUT
10	4	4	4	4	4	5/16" - 18 UNC x 2-1/2"	SOCKET CAP SCREW
11	4	4	4	4	4	5/16" - 18 UNC x 4"	SOCKET CAP SCREW
12	4	4	4	4	4	5/16" - 18 UNC x 5"	SOCKET CAP SCREW
13	20	20	20	20	20	1/2" - 13 UNC	SERRATED FLANGE LOCKNUT
14	8	8	8	8	8	1/2" - 13 UNC x 1"	SERRATED FLANGE HEAD CAP SCREW



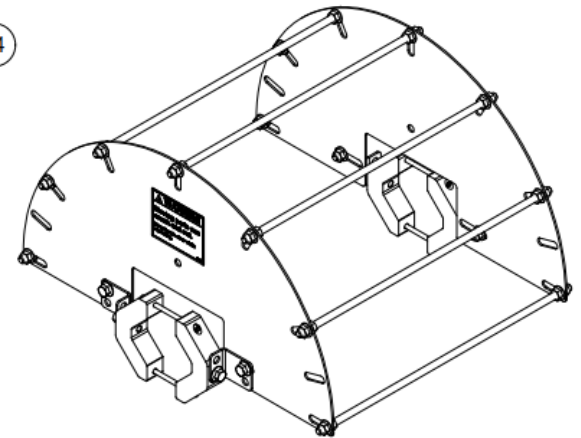
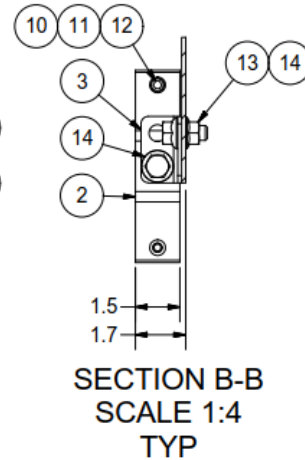
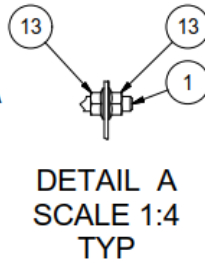
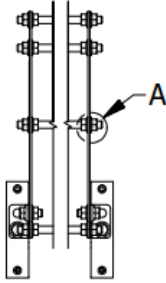
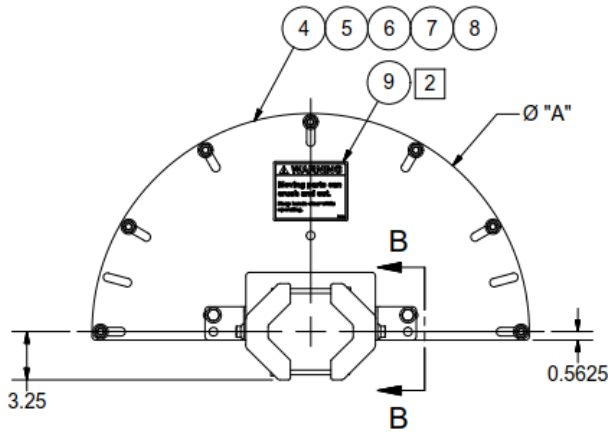
- NOTES:**
- VIEWS ARE FOR REFERENCE ONLY. ACTUAL CONFIGURATION MAY VARY PER INSTALLATION.
  - PLACE LABEL IN THIS GENERAL LOCATION DURING ASSEMBLY. LABEL SHIPPED LOOSE.
  - THREADED ROD CAN BE SHORTENED AS NEEDED.
  - SIDE PLATE CAN BE MOUNTED TO PILLOW BLOCKS IF APPLICABLE. 0, 1, OR 2 SPLIT CLAMPS MAY BE REQUIRED.
  - SELECT 5/16-18 SOCKET HEAD CAP SCREW LENGTH APPROPRIATE FOR SHAFT DIAMETER. NOT ALL WILL BE USED.
  - SEE BULLETIN 1180 FOR INSTALLATION INSTRUCTIONS.

WEIGHT: VARIES

						<b>HOLLISTER-WHITNEY</b>	
						ELEVATOR CO. LLC	
						TITLE	
						ROPE RETAINER KIT, 90 DEGREE	
		DRAWN BY		SCALE		MATERIAL	
		DRO		1:8			
		SHEET SIZE		DATE		REFERENCE TOL.	
		B		9/6/2017		ALL DIMENSIONS REFERENCE UNLESS OTHERWISE SPECIFIED	
		A		9/22/17		<b>331-177</b>	
		B				SHEET 1 OF 1	

TABLE	
PART NUMBER	"A"
331-178-001	19.25
331-178-002	23.50
331-178-003	29.50
331-178-004	33.50
331-178-005	39.50

						PARTS LIST	
ITEM	QTY 331-178-001	QTY 331-178-002	QTY 331-178-003	QTY 331-178-004	QTY 331-178-005	PART NUMBER	DESCRIPTION
1	7	7	7	7	7	331-125-024	ROD, THREADED, 1/2-13 UNC - 2A x 24"
2	4	4	4	4	4	331-173	ROPE RETAINER SPLIT CLAMP
3	4	4	4	4	4	331-174	ROPE RETAINER SIDE PLATE MOUNTING BRACKET
4	2	0	0	0	0	331-176-001	ROPE RETAINER SIDE PLATE, 15.75" DIAMETER SHEAVE
5	0	2	0	0	0	331-176-002	ROPE RETAINER SIDE PLATE, 20" DIAMETER SHEAVE
6	0	0	2	0	0	331-176-003	ROPE RETAINER SIDE PLATE, 25" & 26" DIAMETER SHEAVE
7	0	0	0	2	0	331-176-004	ROPE RETAINER SIDE PLATE, 30" DIAMETER SHEAVE
8	0	0	0	0	2	331-176-005	ROPE RETAINER SIDE PLATE, 36" DIAMETER SHEAVE
9	2	2	2	2	2	P-184	WARNING LABEL, MOVING PARTS CAN CRUSH AND CUT
10	4	4	4	4	4	5/16" - 18 UNC x 2-1/2"	SOCKET CAP SCREW
11	4	4	4	4	4	5/16" - 18 UNC x 4"	SOCKET CAP SCREW
12	4	4	4	4	4	5/16" - 18 UNC x 5"	SOCKET CAP SCREW
13	32	32	32	32	32	1/2" - 13 UNC	SERRATED FLANGE LOCKNUT
14	8	8	8	8	8	1/2" - 13 UNC x 1"	SERRATED FLANGE HEAD CAP SCREW



**NOTES:**

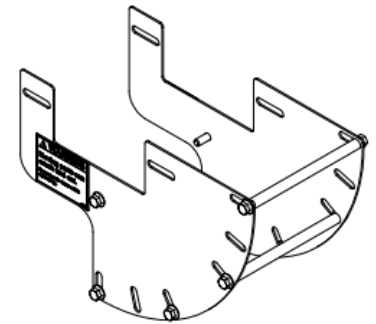
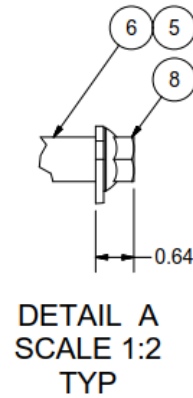
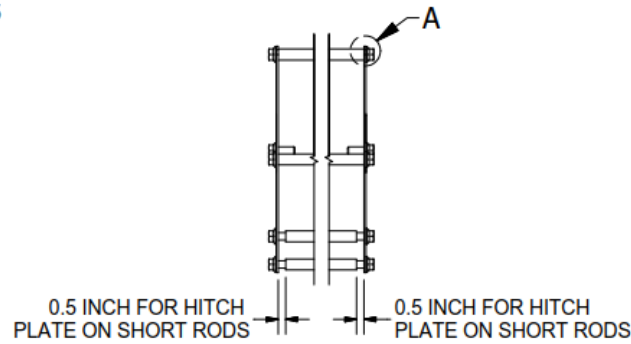
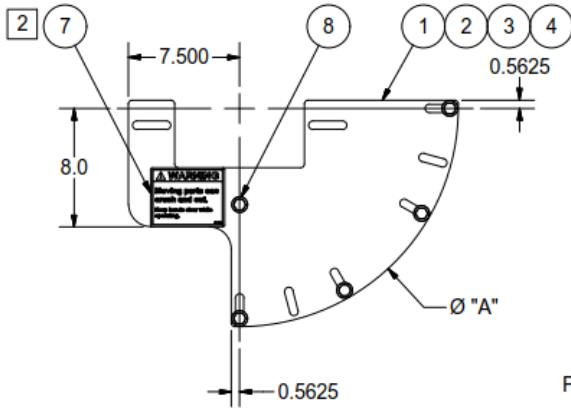
- VIEWS ARE FOR REFERENCE ONLY. ACTUAL CONFIGURATION MAY VARY PER INSTALLATION.
- PLACE LABEL IN THIS GENERAL LOCATION DURING ASSEMBLY. LABEL SHIPPED LOOSE.
- THREADED ROD CAN BE SHORTENED AS NEEDED.
- SIDE PLATE CAN BE MOUNTED TO PILLOW BLOCKS IF APPLICABLE. 0, 1, OR 2 SPLIT CLAMPS MAY BE REQUIRED.
- SELECT 5/16-18 SOCKET HEAD CAP SCREW LENGTH APPROPRIATE FOR SHAFT DIAMETER. NOT ALL WILL BE USED.
- SEE BULLETIN 1180 FOR INSTALLATION INSTRUCTIONS.

WEIGHT: VARIES

								<b>HOLLISTER-WHITNEY</b> ELEVATOR CO. LLC	
								ROPE RETAINER KIT, 180 DEGREE	
								TITLE	
								DRAWN BY DRO	
								SCALE 1:8	
								MATERIAL SEE PARTS LIST	
								REFERENCE TOL. ALL DIMENSIONS REFERENCE UNLESS OTHERWISE SPECIFIED	
								DATE 9/6/2017	
								331-178	
								SHEET 1 OF 1	
								B	
								A	
								UPDATED VIEWS & TABLE, PUR #904	
								DRO 09/28/17	
								DRO 09/22/17	
								SHEET SIZE B	
								DATE 9/6/2017	
								331-178	
								SHEET 1 OF 1	

TABLE	
PART NUMBER	"A"
341-177-001	19.50
341-177-002	23.50
341-177-003	29.50
341-177-004	33.50

					PARTS LIST	
ITEM	QTY 341-177-001	QTY 341-177-002	QTY 341-177-003	QTY 341-177-004	PART NUMBER	DESCRIPTION
1	2	0	0	0	331-175-001	ROPE RETAINER SIDE PLATE, 15.75" DIAMETER SHEAVE
2	0	2	0	0	331-175-002	ROPE RETAINER SIDE PLATE, 20" DIAMETER SHEAVE
3	0	0	2	0	331-175-003	ROPE RETAINER SIDE PLATE, 25" & 26" DIAMETER SHEAVE
4	0	0	0	2	331-175-004	ROPE RETAINER SIDE PLATE, 30" DIAMETER SHEAVE
5	2	2	2	2	345-003-	ROD, JUMP GUARD (SHORT VERSION)
6	2	2	3	3	345-003-	ROD, JUMP GUARD (LONG VERSION)
7	2	2	2	2	P-184	WARNING LABEL, MOVING PARTS CAN CRUSH AND CUT
8	10	10	10	10	1/2" - 13 UNC x 1-1/4"	SERRATED FLANGE HEAD CAP SCREW



**NOTES:**

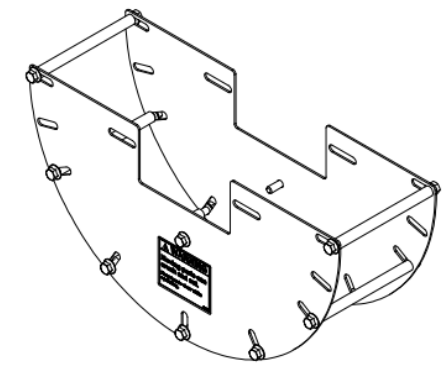
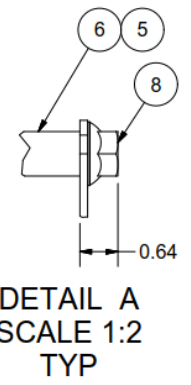
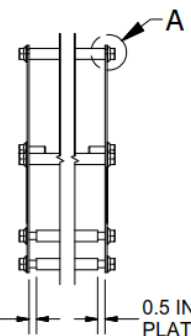
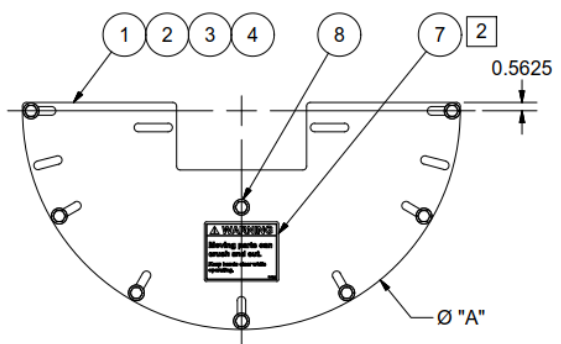
- VIEWS ARE FOR REFERENCE ONLY. ACTUAL CONFIGUARTION MAY VARY PER INSTALLATION.
- PLACE LABEL IN THIS GENERAL LOCATION DURING ASSEMBLY. LABEL SHIPPED LOOSE.
- SELECT CORRECT ROD LENGTHS FOR THE APPLICATION. NOT ALL RODS WILL BE USED.
- SEE BULLETIN 1180 FOR INSTALLATION INSTRUCTIONS.

WEIGHT: VARIES

				<b>HOLLISTER-WHITNEY</b> ELEVATOR CO. LLC			
				TITLE ROPE RETAINER KIT, 90 DEGREE			
				DRAWN BY DRO	SCALE 1:8	MATERIAL SEE PARTS LIST	REFERENCE TOL. ALL DIMENSIONS REFERENCE UNLESS OTHERWISE SPECIFIED
				SHEET SIZE B	DATE 9/6/2017	<b>341-177</b> SHEET 1 OF 1	
		B	UPDATED VIEWS & TABLE, PUR #904	DRO 09/28/17			
		A	PRODUCTION RELEASE, PUR #895	DRO 09/22/17			

TABLE	
PART NUMBER	"A"
341-178-001	19.50
341-178-002	23.50
341-178-003	29.50
341-178-004	33.50

					PARTS LIST	
ITEM	QTY 341-178-001	QTY 341-178-002	QTY 341-178-003	QTY 341-178-004	PART NUMBER	DESCRIPTION
1	2	0	0	0	331-176-001	ROPE RETAINER SIDE PLATE, 15.75" DIAMETER SHEAVE
2	0	2	0	0	331-176-002	ROPE RETAINER SIDE PLATE, 20" DIAMETER SHEAVE
3	0	0	2	0	331-176-003	ROPE RETAINER SIDE PLATE, 25" & 26" DIAMETER SHEAVE
4	0	0	0	2	331-176-004	ROPE RETAINER SIDE PLATE, 30" DIAMETER SHEAVE
5	3	3	3	3	345-003-	ROD, JUMP GUARD (SHORT VERSION)
6	4	4	6	6	345-003-	ROD, JUMP GUARD (LONG VERSION)
7	2	2	2	2	P-184	WARNING LABEL, MOVING PARTS CAN CRUSH AND CUT
8	16	16	16	16	1/2" - 13 UNC x 1-1/4"	SERRATED FLANGE HEAD CAP SCREW



- NOTES:
- VIEWS ARE FOR REFERENCE ONLY. ACTUAL CONFIGURATION MAY VARY PER INSTALLATION.
  - PLACE LABEL IN THIS GENERAL LOCATION DURING ASSEMBLY. LABEL SHIPPED LOOSE.
  - SELECT CORRECT ROD LENGTHS FOR THE APPLICATION. NOT ALL RODS WILL BE USED.
  - SEE BULLETIN 1180 FOR INSTALLATION INSTRUCTIONS.

				WEIGHT: VARIES						
				<b>HOLLISTER-WHITNEY</b>						
				ELEVATOR CO. LLC						
				TITLE ROPE RETAINER KIT, 180 DEGREE <span style="float: right;">△ C</span>						
				C	CORRECTED TITLE, PUR #925	DRO 01/10/18	DRAWN BY DRO	SCALE 1:8	MATERIAL SEE PARTS LIST	REFERENCE TOL. ALL DIMENSIONS REFERENCE UNLESS OTHERWISE SPECIFIED
				B	UPDATED VIEWS & TABLE, PUR #904	DRO 09/28/17	SHEET SIZE B	DATE 9/6/2017		341-178
				A	PRODUCTION RELEASE, PUR #895	DRO 09/22/17				SHEET 1 OF 1