

Universal Rope Lock

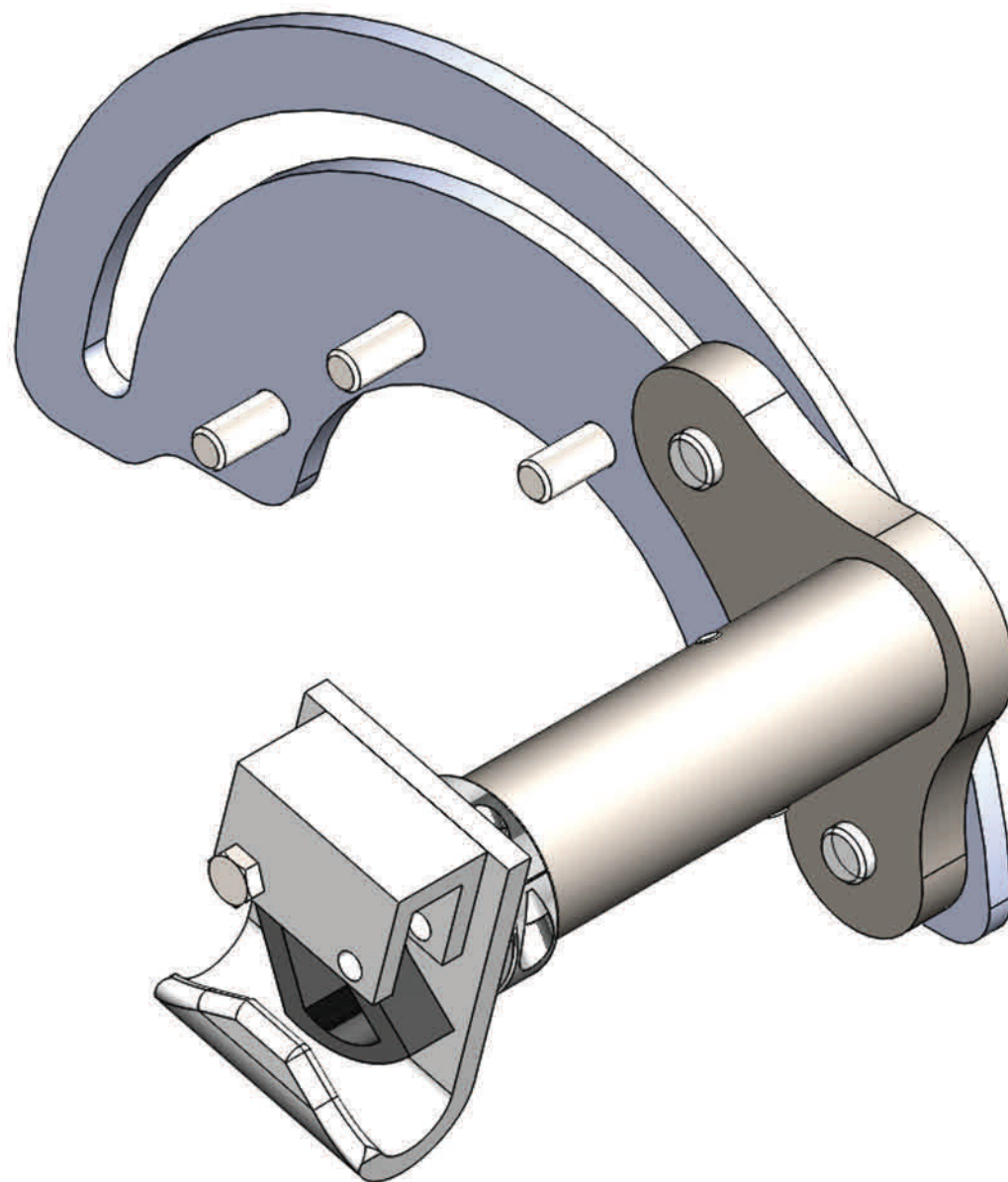


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Overview

The purpose of this manual is to provide the user with detailed instructions on the proper installation and use of the Universal Rope Lock. This includes:

- Hazards associated with the use of this product;
- Explanations of the Features and Functions of this product;
- Installation and Operation instructions;
- Daily Inspection & Maintenance

After reading this manual, the reader will be able to install the Universal Rope Lock onto a Capstan hoist, and use it to provide a safe means for controlling the lift rope while hoisting materials.



CAUTION!

The equipment covered in this manual should only be installed, used, and serviced by qualified personnel trained in proper work and safety procedures. This manual is intended to assist such trained individuals in the installation and use of this equipment and is not intended as a substitute for proper training and experience.

This document or any other information regarding this equipment is not intended to cover all of the possible situations which may be encountered while using the equipment described herein. Should specific situations arise which are not covered by the information provided, or should the user desire further details, the specifics should be directed to Wurtec, Inc.

Note: In the effort of continuous product improvement, Wurtec, Inc. reserves the right to modify the design and specifications of this product at any time without notice.



WARNING!

Never stand under or in the path of the load. Failure to align the guide flange or improper cam orientation can accelerate rope fraying, which may result in serious injury or death! Always wear proper safety equipment. Only authorized, properly trained, and physically fit personnel shall install the equipment. Inspect before each use.

Description:

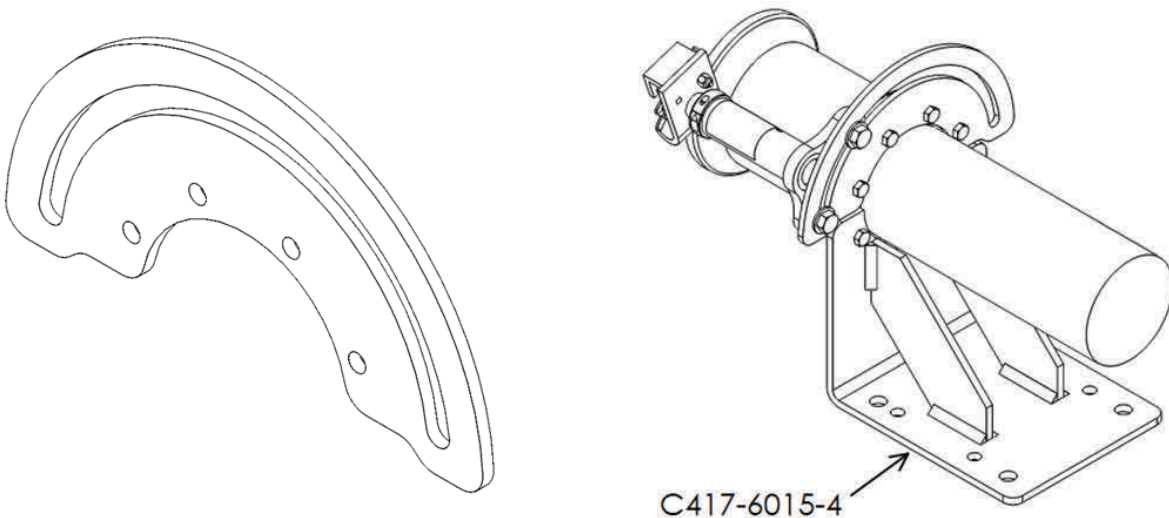
The Universal Rope Lock provides a safe and secure means to hoist materials with a Capstan Hoist. The Universal Rope Lock allows the lifting rope to be pulled in the desired direction freely, and lock the rope in place if it travels in the opposite direction. Pulling the release rope allows the rope to travel in the opposite direction. The Universal Rope Lock can be adjusted to be properly oriented with any mounting position in the hoistway. The Universal Rope Lock can be used with either Synthetic or Manilla Rope, from $\frac{1}{2}$ " to $\frac{3}{4}$ " in diameter.

Features and Functions:

Mounting Ring

The Mounting Ring provides an attachment point to the Capstan Hoist. It contains four (4) mounting holes which correspond to a circular bolt pattern on the Capstan Hoist. The bolt pattern on the Capstan Hoist has eight (8) bolts, so by only occupying half of the bolts it allows you to use the other four bolts to mount to the Capstan Hoist Bracket (C417-6015-4).

The round slot provides an adjustable mounting location for the Rope Lock Mounting Tube.

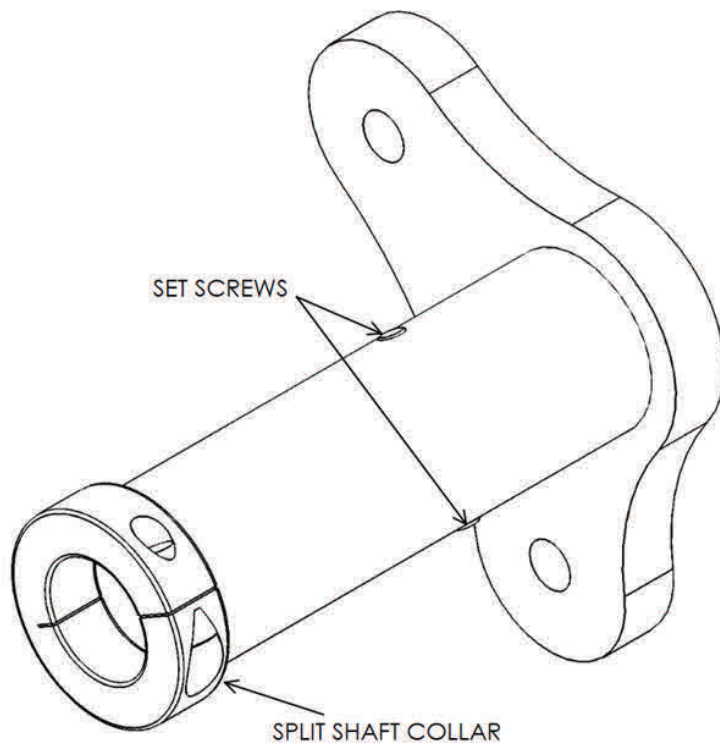


Mounting Tube

The Mounting Tube contains two (2) holes for attaching it to the slot in the Mounting Ring. It can be mounted anywhere along the slot, and should be placed in a position where it will be aligned with the lifting rope.

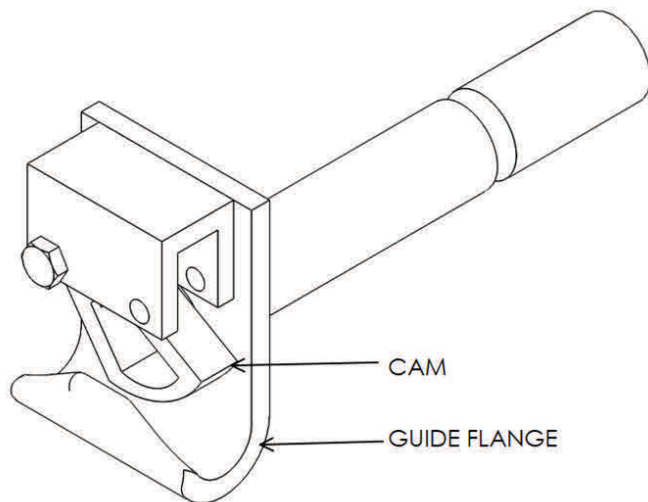
The set screws in the tube keeps the shaft of the Rope Lock Assembly from moving axially by engaging a groove in the Rope Lock Assembly shaft.

At the end of the Mounting Tube is a split shaft collar which prevents the Rope Lock Assembly from rotating after it has been aligned with the lifting rope.

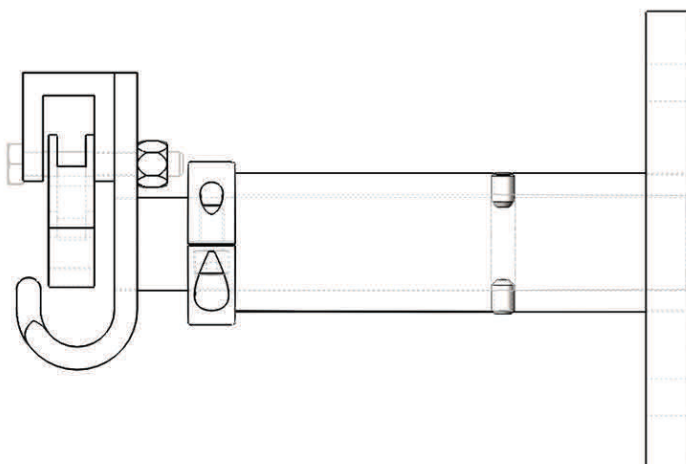


Rope Lock Assembly

The Rope Lock Assembly includes a weldment comprised of a shaft, guide flange, and a mounting block for the locking Cam & Trigger mechanism. It mounts inside of the Mounting Tube.



The groove in the shaft allows the set screws to prevent axial movement relative to the Mounting Tube.



The locking cam has a small string attached to it which allows you to release the rope by pulling the cam away.

Installation

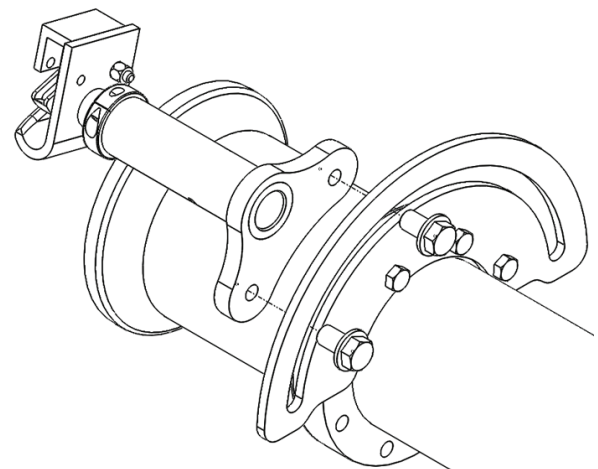
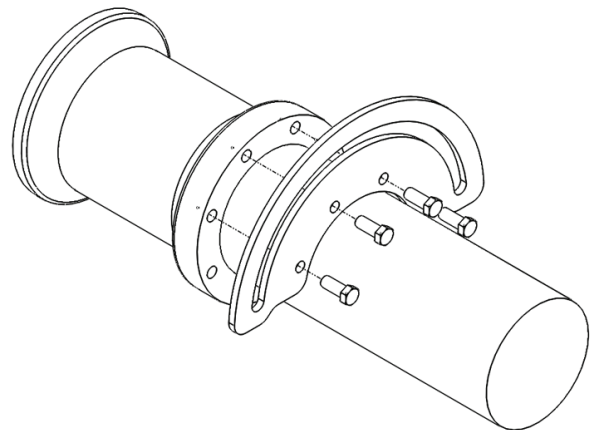
The following tool list is the minimum required for installing and performing the daily checks on the Wurtec Universal Rope Lock. The Universal Rope Lock can be installed by one person who should have all of these tools.

Tools Needed

- 1/8" Hex Key
- 3/16" Hex Key
- 3/8" Drive Ratchet
- 7/16" X 3/8" Drive 6 Pt. Socket
- 7/16" Wrench
- 9/16" X 3/8" Drive 6 Pt. Socket (or 9/16" Wrench)
- 3/4" X 3/8" Drive 6 Pt. Socket (or 3/4" Wrench)

Set-up

1. Attach the Mounting Ring to the Capstan Hoist with the (4) 3/8-16 X 1" Hex Bolts.
2. Attach the Mounting Tube and Rope Lock Assembly to the Mounting Ring with the 1/2-13 X 1" Hex Bolts and 1/2" Flat Washers.
 - a. Locate the Mounting Tube in a position along the slot in the Mounting Ring where it will be close to the desired path of the lifting rope. This can be adjusted later as needed.
 - b. Tighten the Hex Bolts with a 3/4" Socket or Wrench.



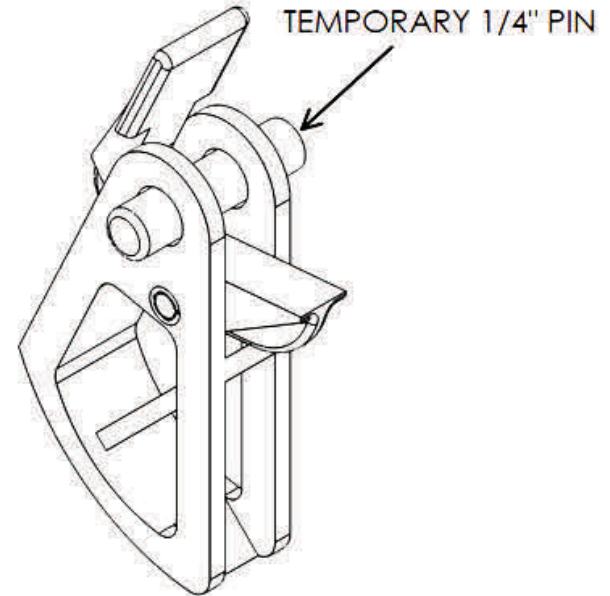
Cam Orientation

The Cam mechanism can be flipped to a reversed orientation if necessary.

1. Loosen and remove the 1/4-20 X 1-3/4" hex bolt and hex nut at the pivot point of the Cam mechanism with a 7/16" wrench or socket on both the bolt and the nut.

TIP: For ease of reassembly, temporarily place a 1/4" dowel pin or set screw (or any other suitable $\varnothing 1/4"$ cylindrical object) through the 1/4" clearance hole in the Cam & Trigger to keep the spring-loaded mechanism intact. The 1/4" set screws (item 11 on the BOM) will work.

2. Move the Cam & Trigger mechanism (including the spring) to the desired location.
3. Push out the temporary pin with the hex bolt and replace the hex nut. Make sure that the spring is in place and the mechanism maintains spring force after making the orientation switch.

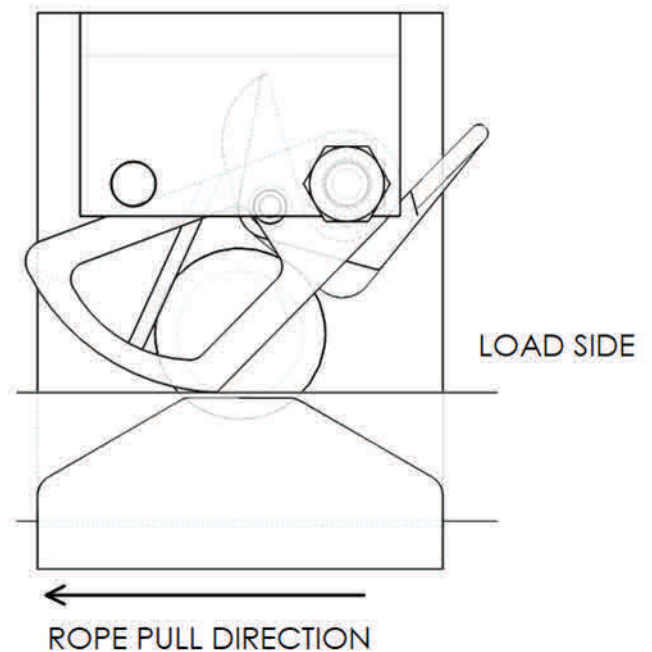
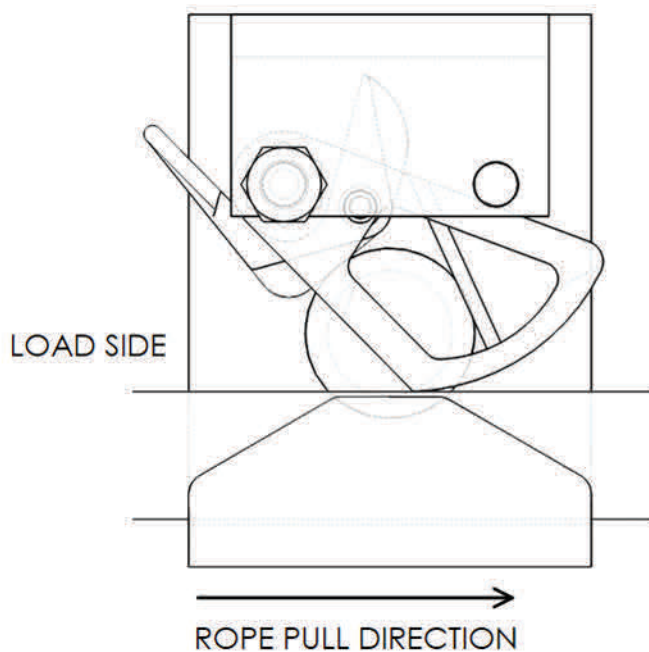


WARNING



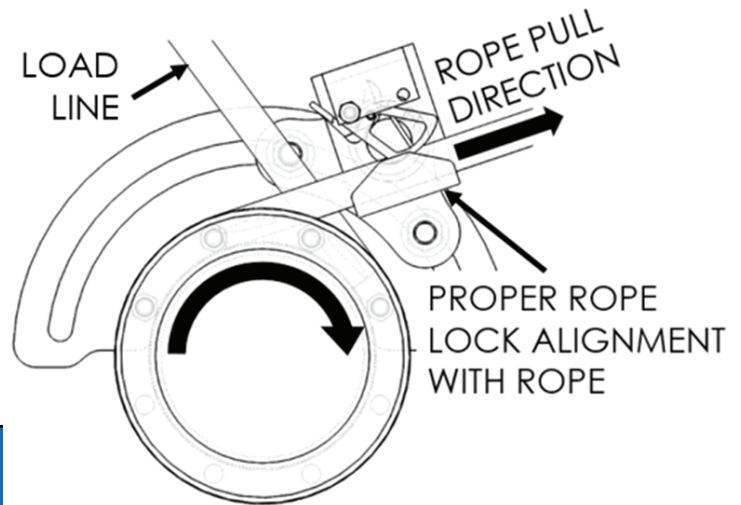
The Cam mechanism should only be mounted as shown in the images below. Any other mounting orientation may cause loss of control of the load, which may result in serious injury or death!

Proper Cam Mounting Orientations



Operation

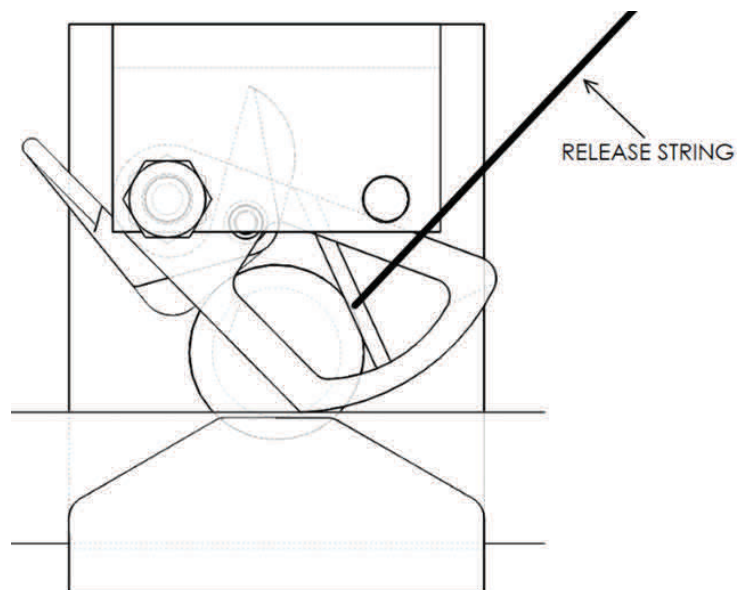
1. Rotate the Rope Lock Assembly to a position where the guide flange is aligned with the lifting rope.
Tighten the split shaft collar with a 3/16" Hex Key.



NOTICE

Proper alignment of the Rope Lock is key to safely operating the hoist. The round rope guide portion of the Rope Lock should be positioned in such a way that when the operator is pulling the rope off the drum the rope runs smoothly through the rope lock. The Rope Lock Cam should be above the rope and the set screw should be tightened such that the Rope Lock cannot rotate. The rope should pull smoothly through the Rope Lock away from the drum and must catch on the Cam when the tension on the rope is released.

2. Open the Cam part way, then push the black plastic Trigger until the Cam is open far enough to allow up to 3/4" rope in the guide flange.
3. Insert the rope into the guide flange, and release the black plastic Trigger. Ensure that the Cam mechanism prevents the rope from travelling back towards the drum.
4. Pull the release string at the angle shown to verify that the Cam mechanism properly releases the rope. The rope should be able to slide freely back and forth in the guide flange while the Cam is released.



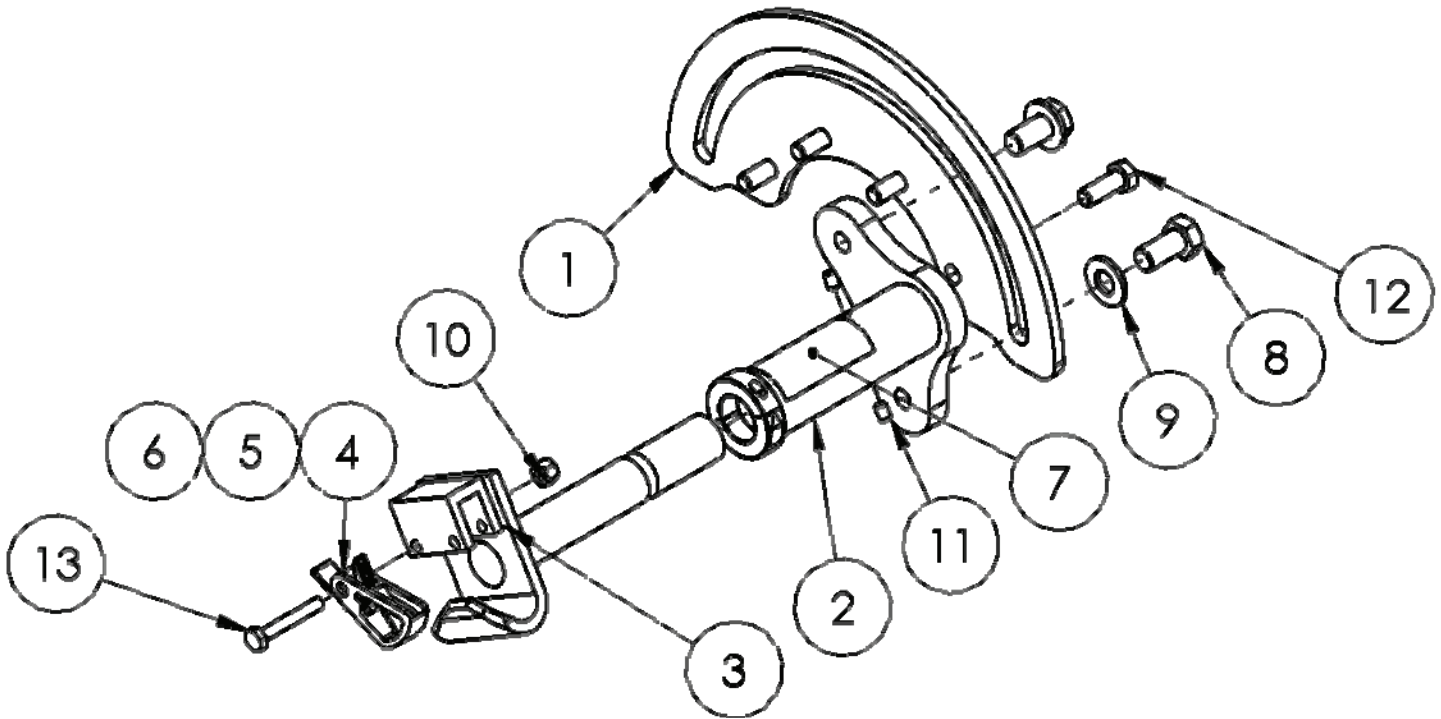
Daily Inspection

Before each use, inspect the Universal Rope Lock to ensure its safe operation.

At a minimum, look for the following critical items:

- Check the spring-loaded plastic trigger to ensure that it is in place and it forces the Cam into the correct rope-locking position;
- Inspect the rope for fraying or any other damage;
- Ensure that the split shaft collar is properly tightened and prevents the rotation of the Rock Lock Assembly;
- Check the alignment of the guide flange with the lifting rope;
- Check the orientation of the locking cam mechanism;
- Make sure that the release string is in place;
- Inspect and tighten any loose hardware.

Bill of Materials—EXPLODED VIEW



ITEM	QTY	Part No	Description	Size	Length
1	1	15-308-01	ROPE LOCK MTG RING	-	-
2	1	15-308-02	ROPE LOCK MTG TUBE	-	-
3	1	15-308-03	ROPE LOCK		
4	1	P308-0583P	CAM & TRIGGER		
5	1	P308-0854P	SPRING		
6	1	70-10016780	ROPE LOCK RELEASE STRING	-	-
7	1	70-10018707	WARNING STICKER	-	-
8	2	13205	HEX HEAD CAP SCREW	1/2-13	1"
9	2	33086	FLATWASHER	1/2"	-
10	1	37018	HEX NUT NYLON INSERT Z	1/4-20	
11	2	85398	SOCKET HEAD SET SCREW, CUP POINT	1/4-28	3/8"
12	4	13105	HEX HEAD CAP SCREW	3/8-16	1"
13	1	13010	HEX HEAD CAP SCREW	1/4-20	1 3/4"