## CROSBY® THIMBLE EYE BUNDLE CLIPS

## **WARNING & APPLICATION INSTRUCTIONS**



G-461

The Bundle Clip is utilized in a choker hitch application to maintain the shape of bundled packages after a load is placed. The Bundle Clip is attached to live line of choker hitch, but it is never to be used as a button or ferrule to carry a load in the primary load path.

Certain conditions (such as extreme variation of the choke size) or improper installation may cause the eye of the choke hitch to disengage from the Bundle Clip and allow the eye to seat away from or below the Bundle Clip (see Figure 3). If this occurs, the Bundle Clip must be removed and installed in the proper position.

The Bundle Clip is sized to provide a grip to the live rope without reducing the efficiency of a choker hitch. This grip is adequate to keep the bundle clip in position.

These instructions are for use with thimble eyes formed with RRL or RLL wire rope, 6 x 19 or 6 x 36 Class, FC or IWRC; IPS or XIP, XXIP, and a Crosby Thimble. For other classes of wire rope not mentioned above, we recommend contacting Crosby Engineering.

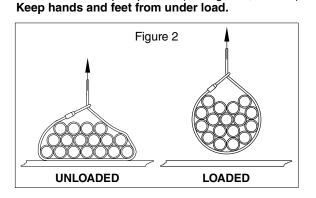
For Soft Eye applications see the Crosby G-460 Soft Eye Bundle Clip.

## For OSHA (Construction) applications, see OSHA 1926.251.

CHOKE ANGLE

- 1. The eye of the sling must be in the choked position (around live line). Choker hitch applications should comply with the requirements of ASME B30.9 Slings. Install the choker hitch to provide a minimum choke angle of 120 degrees (See Figure 1). Refer to ASME B30.9 for required de-rating of the sling if choke angle is less than 120 degrees.
- than 120 degrees.

  2. Before installing Bundle Clip, apply initial load by lifting the bundle and clearing the support, producing a tight choke. Repeat as necessary until the bundle package is in the most compact position (See figure 2, Loaded).



## **A** WARNING

- Failure to read, understand, and follow these instructions may cause death or serious injury.
- · A falling load may seriously injure or kill.
- Read and understand these instructions before using clips.
- Failure to properly position the Bundle Clip may allow the load to slip and fall.
- Match the same size clip to the same size wire rope.
- Install Bundle Clip only as instructed.
- Do not use with plastic coated wire rope.
- · Do not use for lifting personnel.
- 3. After initial loading, install the Bundle Clip. The orientation of the Bundle Clip on the live line is not an important consideration, as the assembly is of adequate size to prevent passage through proper size Crosby Thimble and next larger size Thimble. Insert U-bolt through the Bundle Clip. Properly position the clip base over the U-bolt and install nuts (See Figure 3). Use torque wrench to tighten evenly, alternating from one nut to the other until the bundle stop bottoms out on the clip base, and the recommended torque is reached (See Table 1).

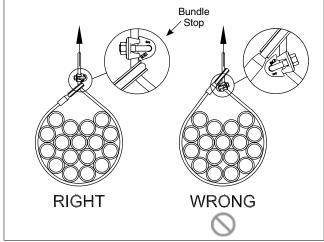


Figure 3

| Table 1 – Recommended Torque |           |         |
|------------------------------|-----------|---------|
|                              | Rope Size | Torque  |
| Clip Size                    | (in)      | (FtLb.) |
| 5/8                          | 5/8       | 95      |
| 3/4                          | 3/4       | 130     |
| 7/8                          | 7/8       | 225     |

- 4. Before each lift, check to ensure that the choke eye has not slipped from the Bundle Clip. Repeat Step 3 if necessary.
- When disconnecting, the load should be clear of the stable support (See figure 2, Loaded). Remove Bundle Clip. Stay clear of the load as the bundle is lowered and the load is removed from the sling.

In accordance with good rigging and maintenance, the wire rope sling should be inspected periodically for wear, abuse, and general adequacy.