WIRE ROPE — CABLE CLIPS

IDENTIFY

There's only one right way to install cable clips when you want to get the maximum efficiency (up to 85 per cent) out of a prepared loop or thimble-eye termination. Otherwise the capacity of the termination can be severely reduced, risking the lives of workers and others nearby.

Because cable clips are often installed incorrectly, double saddle clips (i.e., J-clip or fist grip clips) are preferable. Never use cable clips when working with suspended access equipment.

COMMUNICATE AND CONTROL

Here's how to install cable clips correctly:
(Demonstrate these points with rope and clips as you talk.)

- Most cable clips have two sections. There's a saddle part and a U-shaped part.
- You need the right sized clip for the wire rope diameter.
- You need to know the number of clips required, the amount of rope to turn back from the thimble, and the torque needed to tighten the nuts. There are tables that spell out all of this information. (See sample below.)
- At least three clips should be used when making any prepared loop or thimble-eye termination for wire rope, especially for hoisting.
- All three clips must be installed with the saddle part on the live end of the rope. This lets the live end rest in the saddle so it's not crushed by the U-part of the clip.
- The U-part goes on the dead end of the rope where crushing will not affect the breaking strength of the hoist line.

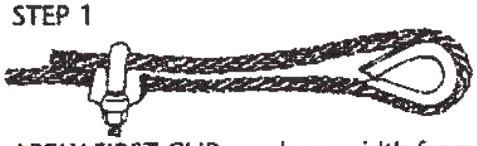
Definitions

- **Live end** – the longer portion of the cable that extends to the other connection point
- **Dead end** – the shorter portion of the cable that the U-bolt sits on which terminates

Demonstrate proper installation step-by-step with your crew by following the diagram.

Rope diameter (inches)	Minimum number of clips	Amount of rope turn-back from thimble	Torque in foot-pounds for unlubricated bolts
5/16	2	5 1/2	30
3/8	2	6 1/2	45
7/16	2	7	65
1/2	3	11 1/2	65
9/16	3	12	95
5/8	3	12	95
3/4	4	18	130
7/8	4	19	225

STEP 1

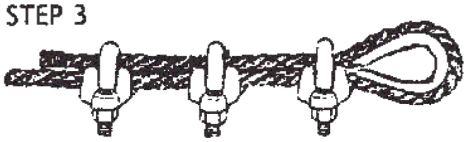


APPLY FIRST CLIP one base width from dead end of wire rope. U-Bolt over dead end. Live end rests in clip saddle. Tighten nuts evenly to recommended torque.

STEP 2

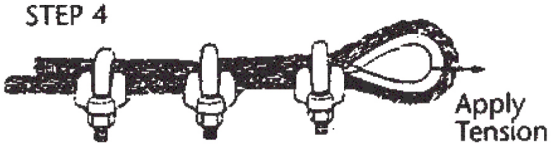
APPLY SECOND CLIP as close to loop as possible. U-Bolt over dead end. Turn nuts firmly but DO NOT TIGHTEN.

STEP 3



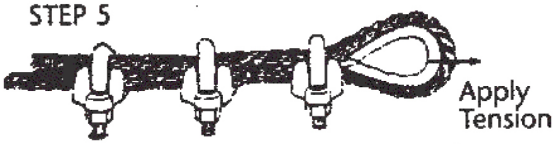
APPLY ALL OTHER CLIPS. Space evenly between first two and 6-7 rope diameters apart.

STEP 4



APPLY TENSION and tighten all nuts to recommended torque.

STEP 5



CHECK NUT TORQUE after rope has been in operation.

THE QUIZ

1. List the right way to install cable clips when you want to get the maximum efficiency (up to 85 per cent).

_____

2. When should you not use cable clips?
   a) When using suspended access equipment
   b) When working around other workers
   c) You should always use cable clips

3. Most cable clips have two sections — list them:
   a) _____
   b) _____

4. At least three clips should be used when making any prepared loop or thimble-eye termination for wire rope:
   TRUE_____ FALSE_____

5. What is the benefit of having all three clips installed with the saddle part on the live end of the rope?

_____

6. Which part is required on the dead end of the rope where crushing will not affect the breaking strength of the hoist line?
   a) First clip
   b) Second clip
   c) U-part

ANSWERS:

1. Prepared loop; **2.** a; **3.** Saddle and u-shape; **4.** TRUE; **5.** Not crushing the live end; **6.** a