## WIRE ROPE Cable clips

There's only **one** right way to install cable clips to get a maximum efficiency (up to 85%) out of a prepared loop or thimble-eye termination – otherwise, the termination can be severely reduced in capacity.

Most cable clips have two sections: a saddle part and a U-shaped part.

[Instructor to identify parts for crew.]

You need the right size of clip for the wire rope diameter.

You also 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 detail all of this information. (See sample of cable clip installation table below.)

At least three clips should be used, in making any prepared loop or thimbleeye termination for wire rope (especially for overhead lifting.)

All three clips must be installed with the saddle part on the **live** end of the rope. This allows the live end to rest in the saddle, and to not be crushed by the U-shaped part of the clip.

The rule is simple: "Never saddle a dead horse."

The U goes on the **dead** end of the rope – where crushing will not affect the breaking strength of the hoist line.



Let's follow the installation procedure step by step.

[Demonstrate proper installation by following diagram below.]

STEP 1 12.181 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 APPLY TENSION and tighten all nuts to recommended torque. STEP 5 Apply Tension  $\Xi$ Ç, CHECK NUT TORQUE after rope has been in operation.

## Cable clip installation table

| Rope Diameter<br>(inches) | Minimum Number<br>of Clips | Amount of Rope Turn-back<br>from Thimble (inches) | Torque in Foot-Pounds<br>for Unlubricated Bolts |
|---------------------------|----------------------------|---|---|
| 5/16                      | 2                          | 51/2  | 30  |
| 3/8                       | 2                          | 61/2  | 45  |
| 7/16                      | 2                          | 7   | 65  |
| 1/2                       | 3                          | 111/2   | 65  |
| 9/16                      | 3                          | 12  | 95  |
| 5/8                       | 3                          | 12  | 95  |
| 3/4                       | 4                          | 18  | 130   |
| 7/8                       | 4                          | 19  | 225   |

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