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OEM Product Support Bulletin

No. 30

DATE: September 17, 2013 (revision date)

SUBJECT: WIRE ROPE MAINTENANCE

RATING: **DIRECTIVE** (Action is required) **ALERT** (Potential Problem)
 INFORMATION **PRODUCT IMPROVEMENT** (Enhance Product)

Machine Model (s): All American & Ohio Locomotive Cranes

Serial Numbers: All

Summary: Rope Inspection and Maintenance

Operational Impact:

1) Rope Sizes:

- Use only the correct size and type of rope recommended for your machine and lift duty.
- Incorrect ropes will not run properly in sheaves and drum grooves, and will affect the life of the rope. Your operator's manual and rating chart will specify the correct rope sizes.

2) General Care:

- Inspect rope daily and particularly before making important (heavy) lifts. There are a number of critical points which should be checked carefully. (See figure 1.)
 - A) **Pick-up Points:** Sections of rope which are repeatedly placed under stress when the initial load of each lift is applied such as those sections in contact with the sheaves.
 - B) **End Attachments:** At each end of the rope, two areas must be inspected. The fitting that is attached to the rope and the condition of the rope where it enters the attachment
 - C) **Drum:** The general condition of the drum and the grooves of the drum, if grooved, should be inspected carefully.

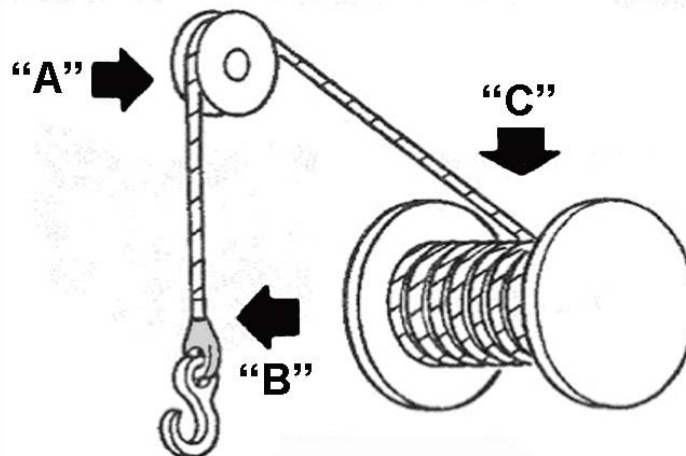
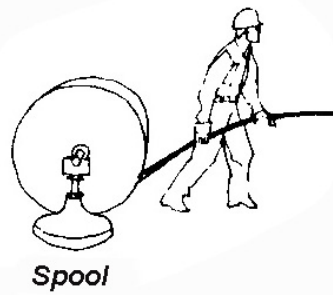


Figure 1.

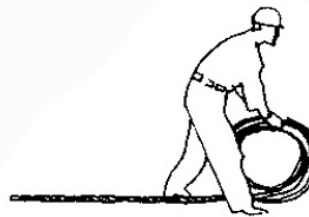
3) Installing Wire Rope onto a Drum

- The reel should be placed as far from the drum as possible in order to avoid putting any turn into the rope.
- Rope should be wound from top-to-top or bottom-to bottom to avoid reverse bends, which tend to make a rope harder to handle. Use enough tension to avoid kinking.
- Figure 2 illustrates the correct and incorrect methods of installing wire rope onto a drum. When removing rope from a coil, roll the coil along the floor like a hoop. Coils should never be laid flat and the free end pulled out. This will create kinking in the rope and possibly damaging it.



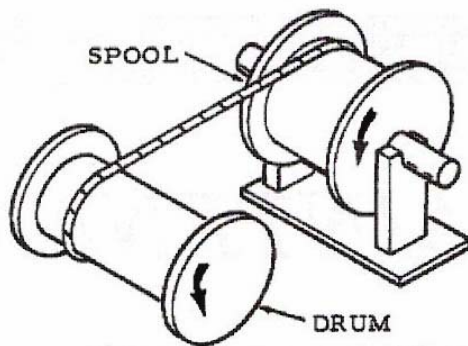
Spool

Wire Rope on a Spool or Reel

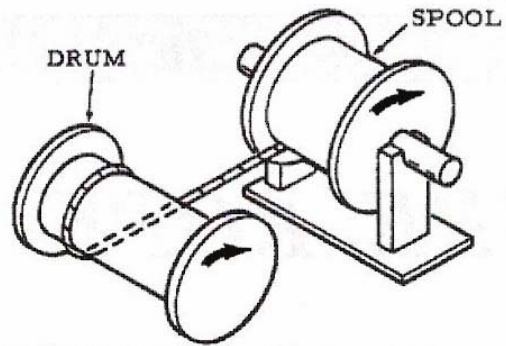


Coil

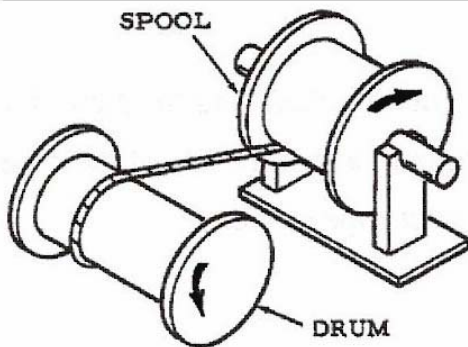
Wire Rope Rolled up in a Coil



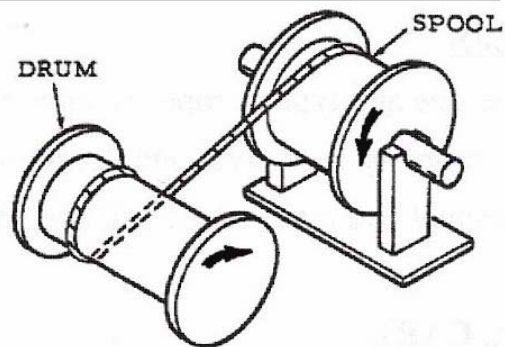
OVERWIND DRUM-CORRECT



UNDERWIND DRUM-CORRECT



OVERWIND DRUM-INCORRECT



UNDERWIND DRUM-INCORRECT

Figure 2.

When un-spooling wire rope it is imperative that the spool rotates as the rope unspools. If the spool does not rotate, the rope will loop as it is unspooled and kinking could result. Kinking is a condition where a loop is formed in the rope and when the rope is pulled straight the rope kinks.

A kinked rope is damaged beyond use and must be discarded.