



Railway Association
of Canada

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CIRCULAR NO. M-2

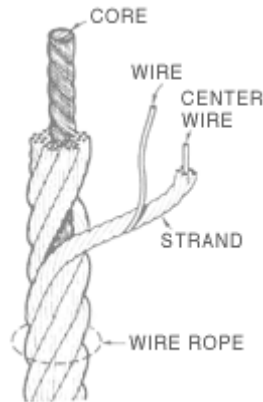
Centre-Beam Cable Condemning Limits and Replacement Procedures

Effective: March 30, 2011



Every wire rope has three basic components:

1. The wires which form the strands and collectively provide rope strength;
2. The strands, which are helically around the core; and,
3. The core, which forms a foundation for the strands.



1. Any cable depicting one or more of the following defects should be replaced on sight:

- a) Frayed cables with more than thirteen wires broken at any one location or one broken strand:



- b) Broken cables:



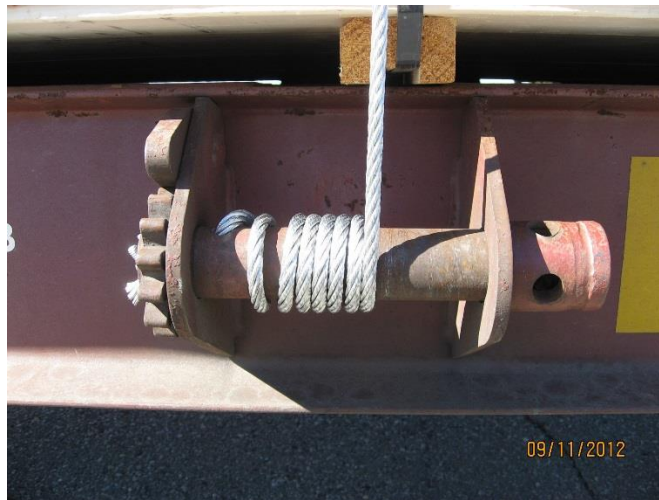
c) Flattened cross-section (crush cable)/ Kinks greater than 60°



d) When knots cannot be removed and interfere with proper winding of cable (improperly wound cable)



Properly wound cable



- e) Cable chain is worn or corroded more than 25%
- f) If cable size is reduced by (0.4mm) 1/64 of an inch per each (8mm) 1/4 inch diameter of cable (i.e. if a 1 in. cable is worn down more than 1/16 of an inch)
- g) If loose clamp bolts cannot be tightened, they must be replaced with a 3/16 clamp



2. Cable replacement on centre-beam cars:

- a) Cable tail must not protrude more than 6 inches outside of ratchet barrel
- b) Bolted clamp must be properly fitted inside the ratchet barrel and tight against the hole on the barrel

Cable U-Bolt Clamp improperly installed (clamp too large)



Cable U-Bolt Clamp properly installed





- c) All cables must be properly tied down as per manufacturer recommendation before railcar is released.



The above applications are based on safe working procedures and are aimed at preventing incidents/accidents to employees while loading rail cars.