

Wire Rope Tips

Wire rope in stock

Honnen Equipment stocks an extensive inventory of wire rope, and our prices are unbeatable. We have hundreds of choices in our warehouse, ready to install. Ask our experts to help you find the best wire rope for your particular needs!

Daily visual inspection

Any rope that will be used during the day's operations requires a visual inspection by the equipment operator before starting operation. The inspection should focus on gross damage that presents an immediate hazard, such as:

- **Rope distortion**—kinking, crushing, unstranding, birdcaging, main strand displacement, or core protrusion
- **Corrosion**
- **Broken or cut strands**

Periodic inspections by a qualified inspector

A thorough examination of the wire rope is part of the annual OSHA inspection. In addition, a qualified inspector should conduct a visual inspection of running ropes periodically to identify any condition that might result in an appreciable loss of strength and could be considered a safety hazard. Documentation of these inspections should be retained. Periodic inspections do not require a breakdown of the crane, but the hook block(s) should be lowered to the floor, or lowest attainable position, to inspect the rope.

Proper maintenance extends rope life

Proper maintenance of the drums and sheaves over which ropes operate is important in maximizing rope life. For example, worn grooves or poorly aligned sheaves can shorten service life for wire rope. Include the drums and sheaves in your daily inspection to look for maintenance issues.



Inspection Tips

- **Inspect the rope's entire length**
 - There may be damage in just one spot.
- **Signs of wear**
 - Broken or cut strands
 - Distortion—kinking, crushed parts, birdcaging, displacement of main strand
 - Corrosion
 - Broken wires
 - Stiffness and decreased elasticity
 - Increase or decrease in rope diameter
 - Uneven strands
 - Heat damage
- **Fine, brown powder**
 - Powder between the strands indicates wear.
- **Areas to check**
 - Contact points at saddles, sheaves, pulleys, and the block
 - Sections that pass through reverse bends
 - Flange points and crossover points
 - Repetitive pickup points on drums
 - Ends and areas near the ends
 - Parts hidden from routine visual inspection, like parts passing over sheaves
- **Rotation resistant rope and spin-resistant rope**
 - These types of rope often wear, especially on equipment with small sheaves or reverse bends.
 - Beware of deterioration from the inside out!



Wire Rope Characteristics

- Strength
- Fatigue resistance
- Crushing resistance
- Resistance to metal loss and deformation
- Resistance to rotation