

New rope install checklist

Use one for every new or replacement rope. Follow the crane and rope manufacturers' instructions and the standard; where they differ, ask a qualified person (CRS practice). "Standard says": shall = required, should = recommended, record = write it down.

Crane make and model	Serial / unit number	Winch number	Winch duty	Date installed
Installed by (person / company)	Crane hours	Certificate no.	Rope maker / supplier	Nominal diameter d (mm)
Length (m / ft)	Construction	Core	Lay (type and direction)	Grade / finish
OEM specified breaking force (crane manual)	Minimum breaking force (mill cert)			

Check	Standard says	Clause	✓ / X / N/A	Notes
Rope				
Type, size, length, grade, strength and construction the crane maker specifies (or a rope maker who knows mobile cranes)	shall	4.7.2.1		
Rope and connections at least as strong as the original; any change of size, grade or construction specified by a rope maker, the crane maker or a qualified person (write who)	should	5.5.4.3		
Design factor (boom, attachments and rated loads) at least: running rope over sheaves 3.5, standing rope 3.0, rotation-resistant rope on a drum or over a sheave 5.0	shall	4.7.1.2		
No rotation-resistant rope as a pendant, or for boom hoist unless the crane maker specifies it and 4.7.2.3 is met (18 d sheaves and drum first layer, design factor 5)	shall	4.7.2.2, 4.7.2.3		
Ambient temperature above 82 °C (180 °F): rope maker consulted	shall	4.7.2.6		
Handling				
Stored to prevent damage or deterioration	should	5.5.5.1		
Unreeled or uncoiled as the rope maker recommends, no kinks or twist	should	5.5.5.2		
Seizing on each side of any cut (most important on rotation-resistant and non-rotating rope)	should	5.5.5.3		
Not dragged in dirt or around objects that scrape, nick, crush or sharply bend it	shall	5.5.5.4		
Sheaves, before the new rope goes on				
Every sheave inspected: general wear, uneven wear, groove radius, flat spots	shall	5.5.6.1.1 a)		
Grooves measured against the manufacturer's limits; if none, the rope manufacturer's or applicable standards'	shall	5.5.6.1.2		
Flange not broken or deformed and no crack (else remove the sheave); bearings free, no excessive play	shall	5.5.6.3, 5.5.6.1.5		
Sheaves compatible with the rope; no aluminum sheave with steel rope	shall	5.5.6.1.3, 4.7.5.3		
Pitch diameter at least 15 d boom hoist, 18 d load hoist, 16 d load block	shall	4.7.6		
Reeving, checks and records				
Reeving inspected for compliance with the crane and wire rope manufacturer's recommendations; tension equalized where the load hangs on more than one part	shall	5.3.3.1 a), 4.7.2.5		
Rope long enough to leave the crane maker's minimum on the drum	shall	5.5.4.2 i)		
After the work: affected parts inspected, operator does an operational check, guards back on	shall	5.4.2 g)		
dref measured after break-in, on a section not bent, worn or deformed: _____ mm (copy to the inspection sheet)	record	Table 4 Note		
dref and rope length recorded in the logbook	shall	5.5.1		

Break in the rope as the crane or rope maker instructs (CRS practice), then measure dref (Table 4 Note). Then start a new inspection sheet for this rope.

Date	Checked by (name and signature)	Crane hours	Logbook / file entry made (where)
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