

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 and wire rope report				
Type, size, length, grade, strength and construction the crane maker specifies (or a rope maker who knows tower cranes)	shall	4.11.1		
Design factor at least: load hoist and trolley 5, boom hoist 3.5, pendants, stay and guy ropes 3	shall	4.11.1 a) to c)		
Rotation-resistant rope: not for boom hoist (unless the crane maker specifies) or as a pendant, and only with 15 or more outer strands (Category 1) or a plastic-coated inner core	shall	4.11.1 d)		
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 competent person (write who)	shall	6.5.2.3		
Wire rope report for this rope, kept with the crane log: diameter, length, wire strength and finish, construction and lay, outer strands, core, MBF, WLL, end fittings and proof loads, swivel permitted, maker, issued by	shall	6.5.2.4		
Handling				
Stored to minimize damage	should	6.5.3.1		
Unreeled or uncoiled as the rope maker recommends, no kinks or twist	shall	6.5.3.2		
Seizings on each side of any cut (most important on rotation-resistant rope)	shall	6.5.3.3		
Not dragged in dirt or around objects that scrape, nick, crush or sharply bend it	should	6.5.3.4		
Any lubricant applied does not hinder visual inspection	shall	6.5.3.5		
Terminations				
End fittings of the type and size the crane or rope maker or a competent person specifies; no hand splices; eye splices made as the rope or fitting maker recommends, mechanical, with a thimble	shall	4.11.2 a) to d)		
Wedge socket installed as the maker specifies, one of the Figure 2 methods	shall	4.11.2 e)		
Swaged, poured and loop-back ends proof tested after installation, as the rope or fitting maker recommends, never more than 50% of the rope's nominal or minimum rated breaking strength: load _____ date _____	shall	4.11.2 g)		
Clips never the only termination; on a wedge socket, on the unloaded dead end only	shall	4.11.2 h)		
Swivel: not on Category 2 or 3 rotation-resistant or regular rope without approval of the crane manufacturer, rope manufacturer or a competent person	shall	4.11.2 i)		
Sheaves and drum				
Every sheave inspected before the new rope: general wear, uneven wear, grooving, flat spots	shall	6.5.4.1 a)		
Grooves measured against the manufacturer's limits; flanges and bearings checked	shall	6.5.4.2		
Drum end attached as the crane maker specifies; at least the minimum complete wraps with the hook at its lowest working position (boom hoist: minimum boom angle), never fewer than 3, or as the drum maker specifies	shall	4.13.1, 4.13.2		
Tension equalized where the load hangs on more than one part	shall	4.11.1 g)		
Logs				
Rope installation date in the owner's crane log	shall	6.2.2 e)		
Installer (person / company), date and crane total hours in the operator's crane log	shall	6.2.3 c), e)		
Actual diameter of an unused part measured for later comparison: _____ mm (copy to the inspection sheet; CRS practice)	record	6.5.2.2 e)		

Ask a competent person (CRS practice) whether 6.4.8.2 (testing and approval by an engineer or designate for replaced hoisting parts) or 6.4.8.3 (load test) applies to this rope change. 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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