

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, do = direct instruction (no shall or should), 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 selection				
Selected by the crane maker, rope maker or a qualified person; any change of size, grade, type or construction specified by them	shall	30-1.4.1, 30-1.5.4(a)		
No metric rope for inch rope (or the reverse) without approval of the crane (LHE) manufacturer, rope manufacturer or a qualified person	shall	30-1.5.4(b)		
Certificate shows the minimum breaking force	shall	30-1.4.3		
Reel documents checked against the rope specified before installing	should	30-1.5.1(b)		
Design factor at least Table 30-1.4.4-1; sheave and drum D/d at least Table 30-1.4.7-1	shall	30-1.4.4, 30-1.4.7		
No rotation-resistant rope for boom support, boom hoist or extension (except 30-1.4.2(f)); Category 2 or 3 not on a single-layer drum unless approved by the crane (LHE) manufacturer or a qualified person; no rotation-resistant rope for hoisting on ASME B30.14 equipment	shall	30-1.4.2		
Standing rope: new, regular lay or structural strand, not rotation-resistant; ropes in series of the same lay direction	shall	30-1.4.6		
Swivel: Category 1 rotation-resistant only, others only with approval (certificate item (I))	shall	30-1.7.1		
Handling				
Stored away from moisture, chemicals, steam and other contaminants	should	30-1.5.1(a)		
Unreeled with care as recommended, no kink or twist	should	30-1.5.1(c)		
Seizing each side of any cut as the rope maker recommends; if none, each at least 1 d long: preformed rope 1 each side, rotation-resistant or non-preformed 3 each side, about 2 d apart	should	30-1.5.1(d)		
Avoid dragging in dirt or around objects that scrape, nick, crush or sharply bend it	do	30-1.5.1(e)		
Wound top of reel to top of drum, or bottom to bottom	should	30-1.5.1(f)		
Multi-layer drum: installed under tension of 2.5% to 5% of MBF, unless otherwise specified by the crane maker, rope maker or a qualified person: _____ to _____ kN	should	30-1.5.1(h)		
Terminations				
Drum end connection as specified; working end applied to the crane maker's, fitting maker's or qualified person's procedure	shall	30-1.7.4(a), (b)		
No hand-tucked eye at the working end; no swaged socket on Lang lay or Category 3 rope unless approved by a qualified person	shall	30-1.7.4(d), (g)		
Lubrication removed while terminating is replaced	shall	30-1.7.4(f)		
Swaged or poured end proof loaded: shop 40% to 50% of MBF; field on running rope at least 95% of max rated line pull: load _____	shall	30-1.7.4(k)		
Sheaves and drum				
Sheave grooves smooth, no defects; sides tapered and rounded at the rim; rims run true	shall	30-1.7.2(a), (b)		
Worn grooves not less than d + 2.5% (else replace or recondition)	should	30-1.7.2(d)		
At least 2 dead wraps at each drum termination during normal operation (unless otherwise specified by the applicable volume, crane maker, rope maker or a qualified person); flanges at least 1/2 d (min 13 mm) above the top layer	shall	30-1.7.3(g), (c)		
Break-in and records				
Cycled with increasing loads and speeds, as specified, before normal operation	should	30-1.5.1(g)		
dref recorded after break-in on the certificate, periodic report or other document: _____ mm (copy to the inspection sheet)	shall	30-1.5.1(i), 30-1.8.4(d)		
Record that the rope was replaced	record	30-1.8.4(b)		
Rope exposed above 82 °C (180 °F): IWRC, WSC or other temperature-resistant core (shall); not above 204 °C (400 °F) or below -40 °C unless approved by the crane (LHE) manufacturer, rope manufacturer or a qualified person	shall	30-1.6.1		

Break in the rope as specified (30-1.5.1(g), should), then record dref (30-1.5.1(i), shall). 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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