

Radius	Hoist rope length l_0 at 0 m hook height
24.4 m	45.4 m

Tab. 36: Hoist rope length for 0 m hook height

Calculation of the hoist rope length

Hook height: x

Calculation of the optimum hoist rope length in 2-fall operation: Overall hoist rope length = $l_0 + 2 \cdot X$

Example:

Hoist rope length at 53.2 m hook height and 62.5 m radius: $83.5 \text{ m} + (2 \times 53.2 \text{ m}) = 189.9 \text{ m}$

Use	Designation	\emptyset	Length	End fitting	ID No.
Hoist rope	PDD 1315 CZ zZ bk Nominal strength 1960 N/mm ² Minimum breaking load F_{min} = 238 kN	16.0 ^{+3.5%} mm	Define length	None (2 ends welded)	1162 0736
Trolley travel rope, short	PN 116/7 sZ zn Nominal strength 1960 N/mm ² Minimum breaking load F_{min} = 45 kN	8.0 mm	75.5 m	1 thimble \emptyset 20 mm DIN 6899 BF rope clamp DIN 3093 1 end welded	1162 0755
Trolley travel rope, long	PN 116/7 sZ zn Nominal strength 1960 N/mm ² Minimum breaking load F_{min} = 45 kN	8.0 mm	125 m	None (2 ends welded)	1162 0756
Assembly rope (4 x)	PDS 505 sZ Nominal strength 1960 N/mm ² Minimum breaking load F_{min} = 86 kN	10.0 mm	0.75 m	2 thimbles \emptyset 30 mm DIN 6899 BF	7755 795 01

Tab. 37: Rope list for crane with 8 t lifting capacity