



KRØLL CRANES



**The Wind
Turbine Range**



KRØLL CRANES



F.E.M 1.001-HC1/A3/E3






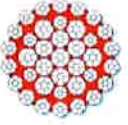





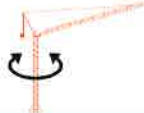


**LUFFING BOOM
TOWER CRANE**

K1650L

135 tonnes Max

LOAD CHARTS

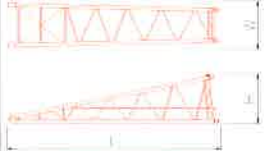
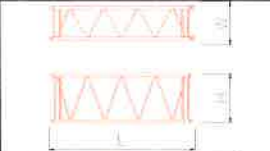
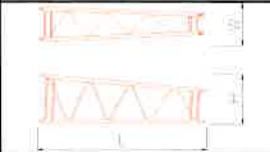

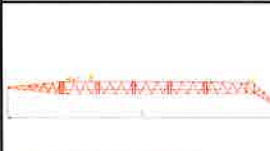
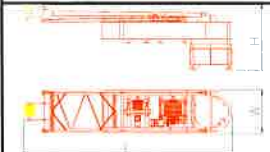


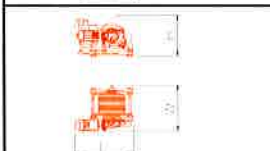
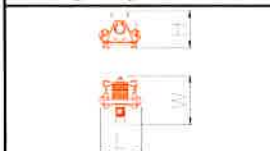
| Radius | Boom Length | |
|--------|-------------|---------|
| | 69.0 m | |
| | Boom Angle | 4 parts |
| [m] | [Degrees] | [Kg] |
| 9.0 | 87.0 | 135,000 |
| 10.0 | 86.2 | 135,000 |
| 12.5 | 84.1 | 135,000 |
| 15.0 | 82.0 | 108,800 |
| 17.5 | 79.9 | 89,100 |
| 20.0 | 77.7 | 74,300 |
| 22.5 | 75.5 | 62,800 |
| 25.0 | 73.4 | 53,600 |
| 27.5 | 71.1 | 46,100 |
| 30.0 | 68.9 | 39,800 |
| 32.5 | 66.6 | 34,500 |
| 35.0 | 64.2 | 30,000 |
| 37.5 | 61.8 | 26,100 |
| 40.0 | 59.3 | 22,700 |
| 42.5 | 56.7 | 19,700 |
| 45.0 | 54.1 | 17,100 |
| 47.5 | 51.3 | 14,700 |
| 50.0 | 48.4 | 12,600 |
| 52.5 | 45.4 | 10,700 |
| 55.0 | 42.2 | 9,000 |
| 57.5 | 38.7 | 7,400 |
| 60.0 | 34.8 | 5,900 |
| 62.5 | 30.5 | 4,600 |
| 65.0 | 25.4 | 3,400 |
| 67.5 | 18.6 | 2,400 |
| 68.5 | 15.0 | 2,000 |

| | | | | | |
|---|--|---------------|--|---|---|
| HOIST WINCH MOTOR 154 kW | 4-PARTS  | |  | HOIST DRUM CAPACITY 720 m / 7 layers | |
| |  | Load | | Max. Speed |  |
| 0 - 10 t | | 21 m/min | Diameter | 40 mm | |
| 10 - 60 t | 11 m/min | Safety Factor | 4.6 | | |
| 60 - 135 t | 6 m/min | MBL | 1560 kN | | |
|  | LUFFING WINCH MOTOR 90 kW | |  | LUFFING DRUM CAPACITY 242 m / 5 Layer | |
| | LUFFING SPEEDS | | | LUFFING WIRE | |
|  | Average | 4:00 min | Diameter | 32 mm | |
| | | | Safety Factor | 4.7 | |
| | | | MBL | 930 kN | |
| AUXILIARY WINCH MOTOR 85 kW | 1-PART  | |  | SLEW DRIVE Motor 2 x 11 kW | |
| | | | | SLEW SPEEDS | |
| | Load | Max. Speed |  | 9 - 68.5 m | 0 - 0.5 rpm |
| | 0 - 2 t | 100 m/min | | | |
| | 2 - 6 t | 60 m/min | | | |
| | 6 - 16 t | 28 m/min | | | |
|  | POWER SUPPLY 400 - 480 V, 50/60 Hz | |  | SUPPLY CABLE | |
| | Consumption | 320 kVA | | Cable Length | Cable Type |
| Main Fuse | 400 A | | 0 - 120 m | 4 x 185 mm ² | |
| Recommended Generator Size | 400 kVA | | | | |

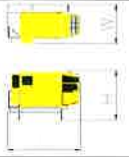


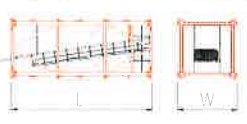
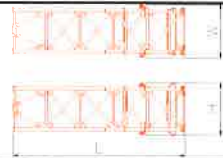

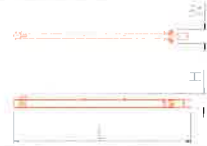


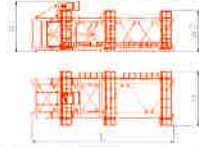
All motion controls are completely stepless ensuring smooth and jerk-free operation.
Creeping speed down to 0.5% of maximum speed.

All specifications shown in the tables are for the standard version of K1500L. For special requirements regarding load charts or drive speeds, please contact Kröll Cranes A/S.


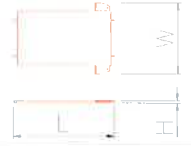
WEIGHTS & DIMENSIONS

| Component | | Transportation Dimensions | | | |
|---|--|------------------------------------|---------|--------|--------|
| | | Weight | Length | Width | Height |
|  | Boom Bottom Section | 6,500 kg | 14.3 m | 3.2 m | 3.3 m |
|  | Boom Extension Section - 4 pcs | 4,000 kg | 9.4 m | 2.8 m | 3.2 m |
|  | Boom Top Section | 5,000 kg | 11.0 m | 2.8 m | 3.25 m |
|  | Boom Tip Section | 5,000 kg | 10.75 m | 1.45 m | 3.3 m |
|  | Boom Assembly c/w Pendants | 32,500 kg | 70.1 m | | |
|  | Assembly Option 1 Deck, Slew Mount, Mast and Winches | 90,000 kg | 14.7 m | 3.3 m | 5.0 m |
|  | Assembly Option 2 Deck, Slew Mount and Winches | 75,000 kg | 9.95 m | 3.3 m | 4.5 m |
|  | Slew Mount | 9,500 kg | 3.3 m | 3.3 m | 1.72 m |
|  | Hoist Winch + 800m Hoist Rope Total | 11,500 kg 6,400 kg 17,900 kg | 3.97 m | 3.15 m | 2.76 m |
|  | Luffing Winch + 200m Luffing Rope Total | 5,000 kg 1,000 kg 6,000 kg | 2.4 m | 2.05 m | 1.8 m |

WEIGHTS & DIMENSIONS

| Component | | Transportation Dimensions | | | |
|---|--|---------------------------|---------|----------------------------|---------|
| | | Weight | Length | Width | Height |
|  | Operator's Cabin Assembly | 3,100 kg | 4.6 m | 2.395 m | 3.15 m |
|  | Mast Assembly incl. access ladder & platform | 13,500 kg | 15.0 m | 3.4 m | 3.4 m |
|  | Hook Block | 3,500 kg | 2.4 m | 1.25 m | 0.7 m |
|  | M33 Tower Assembly | 15,000 kg | 7.8 m | 3.3 m | 3.3 m |
|  | B33 Bottom Mast | 22,000 kg | 11.9 m | 3.67 m | 3.67 m |
|  | B33 Support Legs - 4 pcs | 3,000 kg | 12.43 m | 0.508 m | 0.630 m |
|  | Bottom Cross Beams - 4 pcs | 3,000 kg | 11.07 m | 0.9 m | 0.9 m |
|  | Bottom Cross Side Beams - 2 pcs | 700 kg | 15.41 m | 0.415 m | 0.19 m |
|  | Pyramid Base - 4 pcs | 3,000 kg | 2.3 m | 2.3 m | 1.0 m |
|  | CT33 Climbing System | 33,000 kg | 16.15 m | W1 = 5.76 m W2 = 4.74 m | 6.23 m |

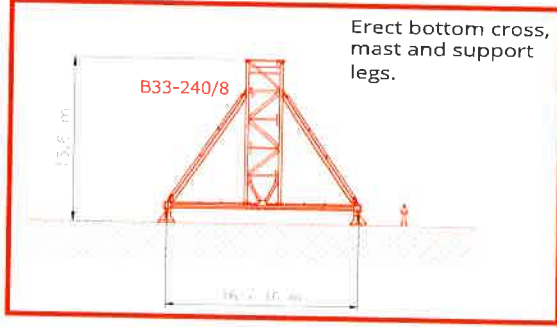
WEIGHTS & DIMENSIONS

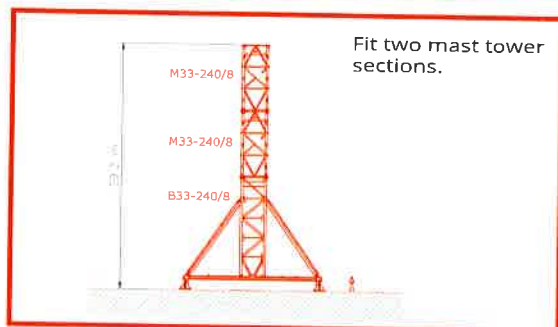
| Component | | Transportation Dimensions | | | |
|---|------------------------|---------------------------|--------|--------|--------|
| | | Weight | Length | Width | Height |
|  | Erection Beam & Winch | 6,000 kg | 9.1 m | 2.32 m | 2.2 m |
|  | Counterweight - 11 pcs | 9,100 kg | 5.04 m | 3.06 m | 0.1 m |

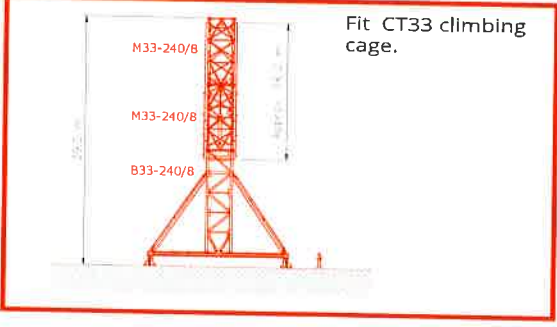
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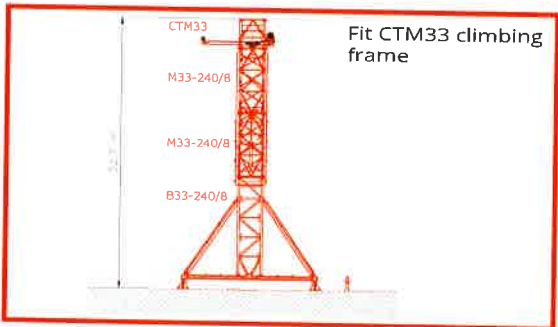


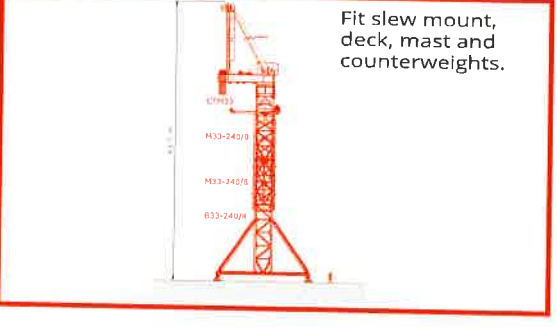
ERECTION SEQUENCE

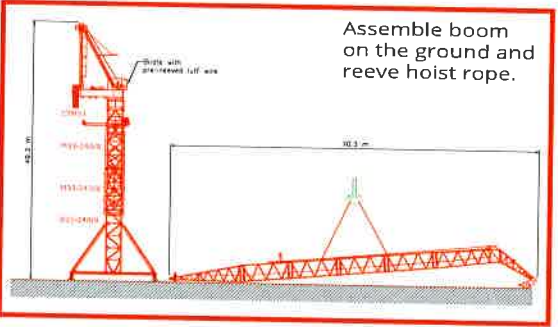
- 1 

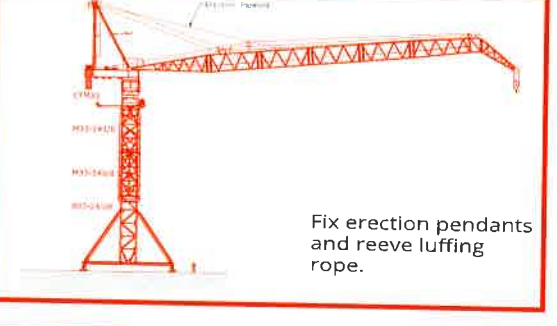
Erect bottom cross, mast and support legs.
- 2 

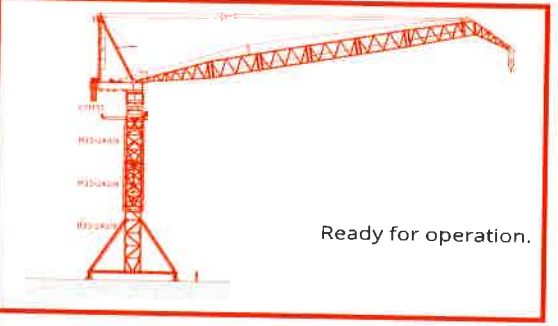
Fit two mast tower sections.
- 3 

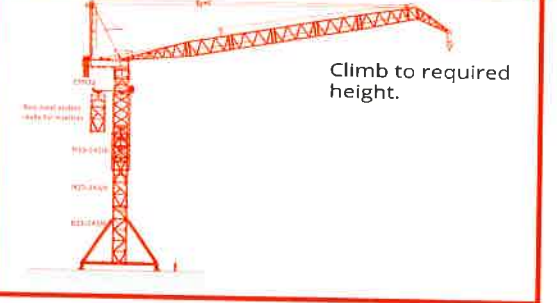
Fit CT33 climbing cage.
- 4 

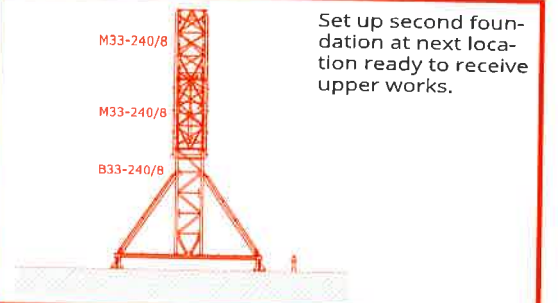
Fit CTM33 climbing frame.
- 5 

Fit slew mount, deck, mast and counterweights.
- 6 

Assemble boom on the ground and Reeve hoist rope.
- 7 

Fix erection pendants and Reeve luffing rope.
- 8 

Ready for operation.
- 9 

Climb to required height.
- 10 

Set up second foundation at next location ready to receive upper works.