

Extremely adaptable

The 53 K fast-erecting crane

Technical data

Max. lifting capacity	4,200 kg
Max. radius	40.0 m
Max. lifting capacity at the jib head	1,100 kg



LIEBHERR

The 53 K at a glance

Rope erection

Low maintenance
erection kinematics
using rope

**Semi-automatic
ballasting device**
with centring device

**Compact
slewing radius**
2.50 m

Jib rod guying

Safe and easy erection
and dismantling

Rigid connections

Fully automatic,
play-free tower connection

Current collector

Free slewing
without turning off the cables

Efficient FC drive units

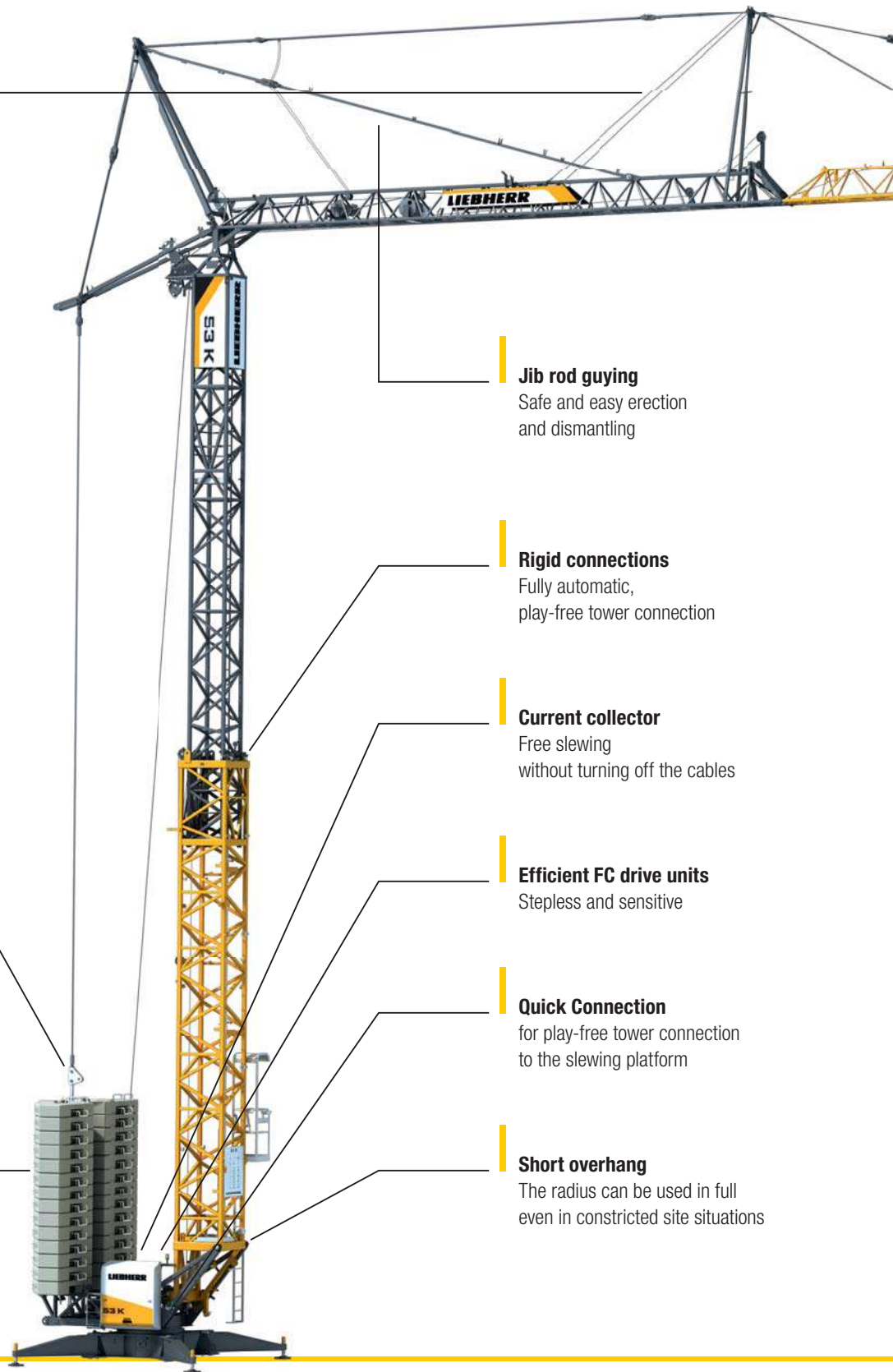
Stepless and sensitive

Quick Connection

for play-free tower connection
to the slewing platform

Short overhang

The radius can be used in full
even in constricted site situations



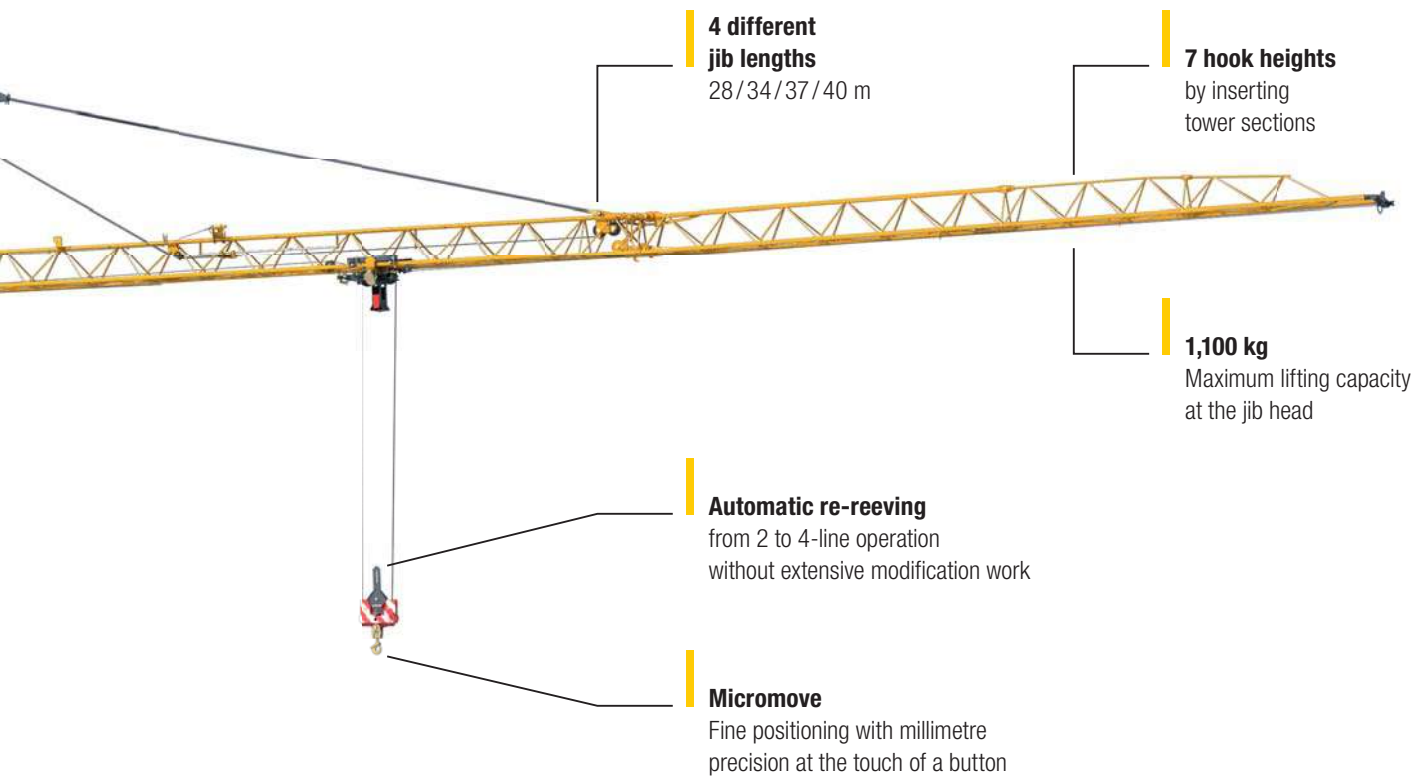


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Work quickly and safely



Protect your material with Micromove

With Micromove, at the push of a button on the control lever, lowering speed is reduced to micro levels. Even the heaviest loads can be precisely suspended and positioned without engaging the hoist gear brake.



Precision in the wind

Wind influences the movement of the jib. The wind force moment control automatically holds the jib in position. No counter- ing is required. Large area loads (for example shuttering panels) can therefore be moved and held precisely even in wind. That enables you to avoid unsafe situations.

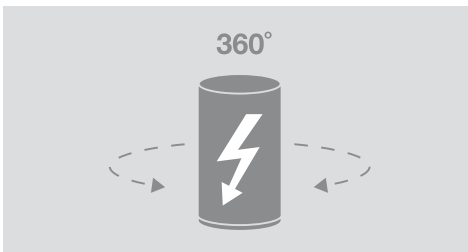


Keep your load under control

High-speed slewing movements can cause loads to swing. The integral oscillation damping system automatically compensates. A major step to enhancing safety on site.

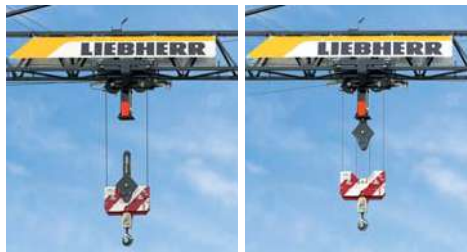
Current collector

No restriction for slewing (for example with a second crane) and no turned down cables



High-speed automatic re-reeving device

Switch from 2 to 4-line operation without extensive modification work for the perfect hoist speed



Multi voltage

Adjustment of operating voltage to suit local conditions (380 – 500 V / 50 – 60 Hz)



Flexible is economical



The success of your site

The areas of use for the 53 K extend from multi-occupancy housebuilding to use for industrial projects. Due to its enormous adaptability with 7 different hook heights, its 20° raised jib position and its 45° position to avoid obstacles, the 53 K is ready for any site. Jobs under high-voltage cables or inside buildings are also possible due to its telescoping tower. Ensure the success of your site yourself!



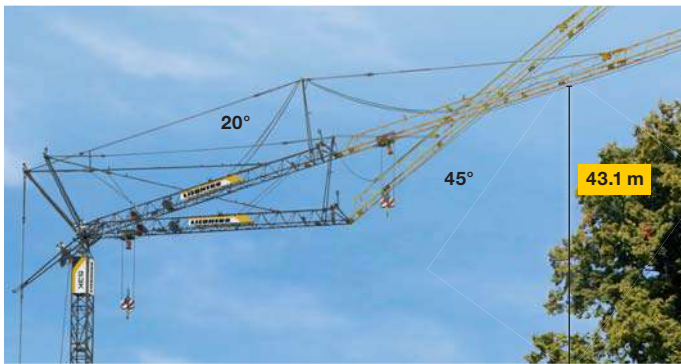
Range with carry

The jib can be adjusted individually in 4 lengths between 28.0 and 40.0 metres. Benefit from the adjusted lifting capacity curves.



The right hook height

Your crane will adjust perfectly to your project with its variable hook heights. High building projects, multiple slewing cranes or obstacles such as high voltage cables – with its 7 hook heights between 15.8 and 31.0 m, the 53 K will tackle any situation.



Obstacles or high destinations

Using the 20° raised jib position you can increase the hook height as high as 43.1 m. The 53 K can easily avoid obstacles using its 45° position.

Maximum lifting capacity

4,200 kg



Simple length reduction

As it is a pure rope erection crane, the jib can be adjusted quickly and easily



Rapid climbing

You can insert up to 3 tower sections and reach hook heights of up to 43.1 metres



Peerless drive units and control systems



Powerful and sensitive

The powerful yet sensitively controllable hoist unit is the main requirement for high handling capacity and safe operation. We designed and developed it ourselves specially for this construction crane. For the very first time in a fast-erecting crane in this class, the hoist unit will raise and lower all loads at infinitely adjustable speeds. Whether you require the precision positioning of loads at micro-speed or maximum hoist speeds of up to 89 m/min, the intelligent ventilation system cools the drive unit to keep it at perfect operating temperature at all times – regardless of the speed of the hoist unit.



Sensitive slewing

The FC slewing gear on the 53 K features a particularly sensitive control system. You can only achieve a high handling capacity if you can move loads quickly and precisely to the destination.

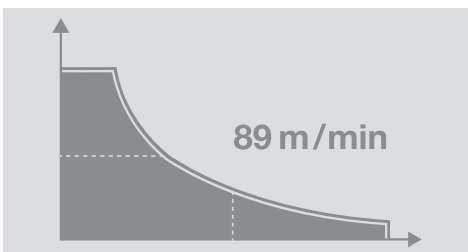


High trolley travelling speed

The progressive, stepless control system moves the load without swinging. Combine sensitive positioning with high trolley travelling speeds of up to 52 m/min.

Hoist speed

Hoist speeds of up to 89 m/min make high handling capacities possible



Electrical power connection

Energy supply using an easily accessible connection on the undercarriage



Switchgear cabinet

Easy access, simple to reach and everything in view at all times



The workplace



The external cabin

Not every site needs a cabin. Its external cabin makes the 53 K even more flexible. The cabin can be installed quickly and easily when required. Its position makes it easy and safe to access. The cabin also provides a perfect view of the site. That enables you to increase capacity and safety on site.



Clear view

The new cabin with its ergonomic controls provides the crane driver with space and enables him to work efficiently without fatigue. The external cabin provides an unrestricted clear view of the site.



Everything safely under control

You can control the crane easily from the cabin using the integral control desk. The full control lever deflection distance is available at all times to provide safe and precise control.

Remote control

Compact, lightweight remote control for the crane



Mounting the cabin

Safely and easily by the crane itself



Raised control stand

for a better view







Have a good trip



Dream dimensions

Despite its unique initial hook height of 23.8 metres, the 53 K is compact and highly manoeuvrable to transport. It is moved as a complete, ready-to-erect unit and can therefore be quickly readied for use. Its small wheelbase of 5.7 m makes the 53 K very manoeuvrable and easy to drive even over uneven surfaces.



The choice is yours

The modular axle system of high speed and low speed axles or in the form of a semi-trailer provides the ideal transport system for every site. Existing axles can also be used.

Transport speeds of up to 80 km/h are possible.



High embankment angle

The folding erection frame enables the 53 K to achieve an embankment angle of 16°, which means around 1.7 metres of ground clearance.



Variable slewing radius

Simple, fast reduction of ballast volume to 24 t with a slewing radius of 3.2 m.

Tower sections on truck

Easy to transport on a truck due to its ideal packing dimensions of 2.5 m x 0.8 m



Twin tyres

If the road doesn't reach to the site, the twin tyres prevent the crane sinking



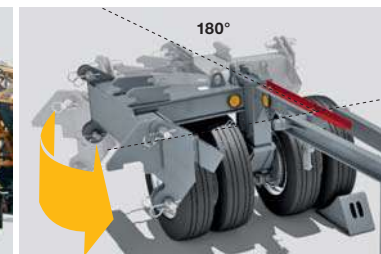
Crane transport on a semi-trailer

The required ballast (24 t) can be carried on just one truck

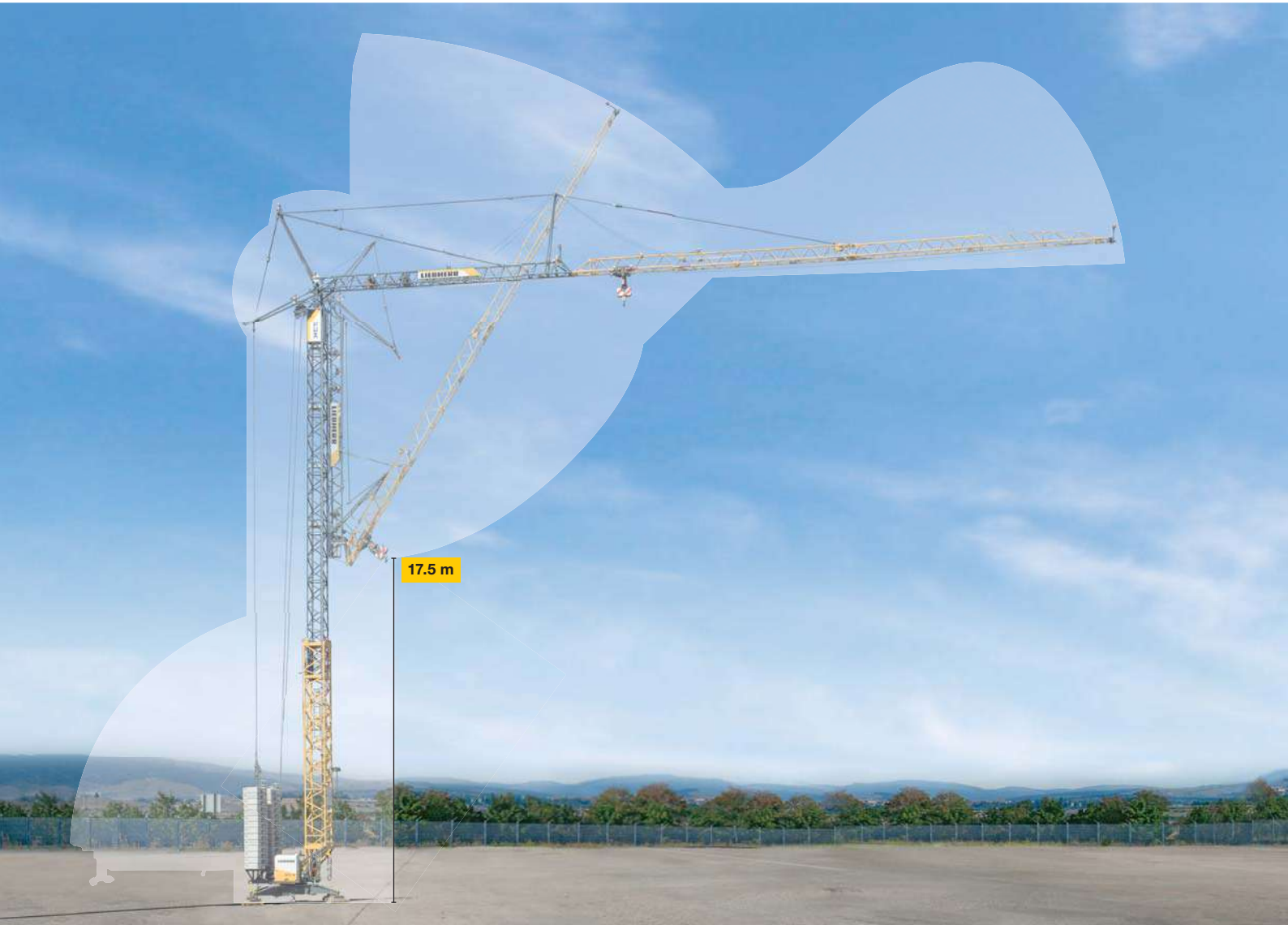


Always easily manoeuvrable

The 180° angle lock of the steering axle ensures outstanding manoeuvrability on site



Simply well set up



Quickly ready to start work

Sites are becoming smaller and smaller with less and less space. Constricted jib assembly in the air requires very little erection space and can take place above obstacles up to 17.5 metres in height. The complete erection process is carried out by a sophisticated erection kinematic system using rope. It is even possible in extremely low temperatures.



One-person erection

The 53 K features self-ballasting and is also available with a semi-automatic ballasting device as an option. That allows you to use an efficient, fast one-person erection process.



Short overhang

Even if there are obstacles, you can use the full radius as a result of the short overhang. That gains you valuable range.



Compact on the ground

With a support base measuring 4.2 x 4.2 m together with a perfectly coordinated slewing radius of 2.5 m, the crane will fit into the smallest of sites.

Attachment points for mobile crane

The crane can be hoisted into sites where access is very difficult



Quick Connection

Simple interlock between the tower and slewing platform with just one strike of a hammer



Rod guying

Guying the jib using rods for safe erection and high stability in action



Superbly equipped



Lights

3 x 1000 W halogen lamps – the site lamps enable you to decide when your working day is finished. They are immediately ready for use and remain on the crane during transport.



Rail travel gear

If you have a large project, the crane can also be used with rail travel gear. This even allows the crane to be moved under the load.



Operating range limiting system

The slewing and trolley travel limiting system enables you to prevent over-slewing safety-critical areas (for example rail tracks). This increases operational safety and relieves the strain on the crane driver.



Special paint finish

You can finish the crane in your own corporate livery to provide publicity and raise awareness of your company.



Control desk

As an alternative to the remote control, the crane can also be controlled using the cable control desk with a 10-metre cable.



Central lubrication system

Easy maintenance of the ball slewing ring using the central lubrication system to ensure a long crane life.



Anemometer

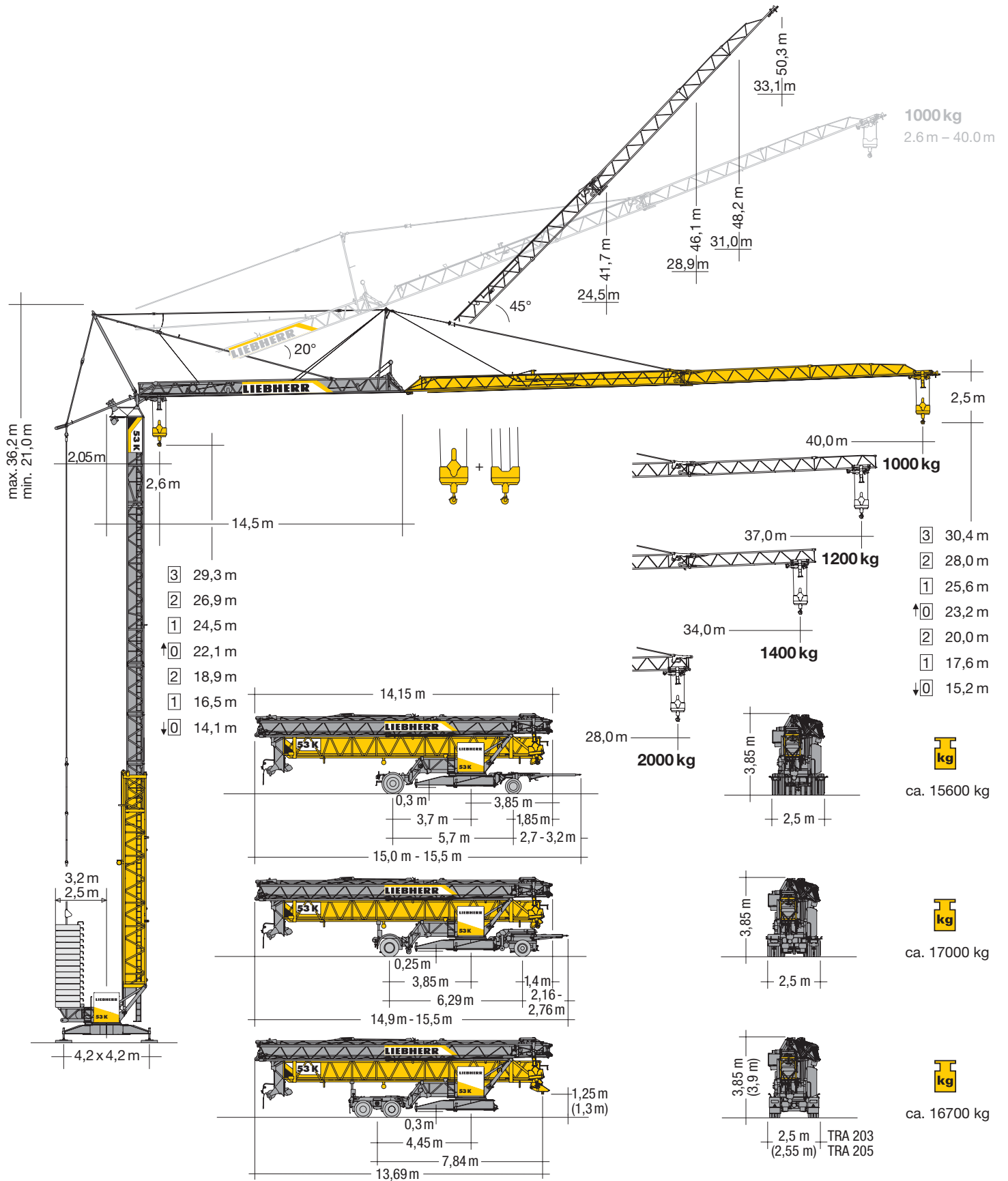
To enable you to see when stormy weather is approaching.



Aircraft warning control light

If, for example, your crane is near an airport, you need an aircraft warning control light. The aircraft warning control light can stay on the crane at all times and is always ready for use.

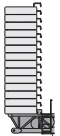

Technical data



Radius and lifting capacity

m	m/kg	m/kg																			
		14,0	16,0	18,0	20,0	22,0	24,0	26,0	28,0	29,0	30,0	31,0	32,0	33,0	34,0	35,0	36,0	37,0	38,0	39,0	40,0
40,0	2,6 - 24,4 2000	2000	2000	2000	2000	2000	2000	1850	1700	1630	1560	1500	1450	1390	1340	1300	1250	1210	1170	1140	1100
37,0	2,6 - 25,8 2000	2000	2000	2000	2000	2000	2000	1980	1820	1740	1670	1610	1550	1490	1440	1390	1340	1300			
34,0	2,6 - 26,7 2000	2000	2000	2000	2000	2000	2000	2000	1890	1810	1740	1680	1610	1550	1500						
28,0	2,6 - 28,0 2000	2000	2000	2000	2000	2000	2000	2000	2000												
m	m/kg	m/kg																			
		14,0	16,0	18,0	20,0	22,0	24,0	26,0	28,0	29,0	30,0	31,0	32,0	33,0	34,0	35,0	36,0	37,0	38,0	39,0	40,0
40,0	2,6 - 23,6 2000	2000	2000	2000	2000	2000	1960	1770	1610	1540	1470	1410	1350	1300	1250	1200	1160	1110	1070	1040	1000
37,0	2,6 - 24,9 2000	2000	2000	2000	2000	2000	2000	1900	1730	1650	1580	1520	1450	1400	1340	1290	1250	1200			
34,0	2,6 - 25,7 2000	2000	2000	2000	2000	2000	2000	1970	1800	1720	1650	1580	1520	1460	1400						
28,0	2,6 - 28,0 2000	2000	2000	2000	2000	2000	2000	2000	2000												
m	m/kg	m/kg																			
		14,0	16,0	18,0	20,0	22,0	24,0	26,0	28,0	29,0	30,0	31,0	32,0	33,0	34,0	35,0	36,0	37,0	38,0	39,0	40,0
40,0	2,6 - 13,1 4200	3850	3270	2830	2480	2200	1970	1780	1620	1550	1480	1420	1360	1300	1250	1200	1160	1120	1080	1040	1000
37,0	2,6 - 13,7 4200	4090	3480	3010	2640	2350	2110	1900	1730	1660	1590	1520	1460	1400	1340	1290	1250	1200			
34,0	2,6 - 14,1 4200	4200	3600	3120	2740	2440	2190	1980	1800	1720	1650	1580	1520	1460	1400						
28,0	2,6 - 15,3 4200	4200	3970	3440	3030	2690	2420	2190	2000												

Weight

 <p>r = 3,2 m r = 2,5 m</p>	<p>24000 kg* 28000 kg*</p>	 <p>13300 kg</p>
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* see instruction manual.

Erecting procedure

- ① Standard erection curves from 0 to 3 tower sections
- ② Raised erection curve (+4.5 m) using the example of 3 tower sections

