

# MK 100/110 mobile construction crane



Lifting capacity (max.): 8,000 kg
Reach (max.): 52.0 m
Lifting capacity at jib head: 1,800 kg

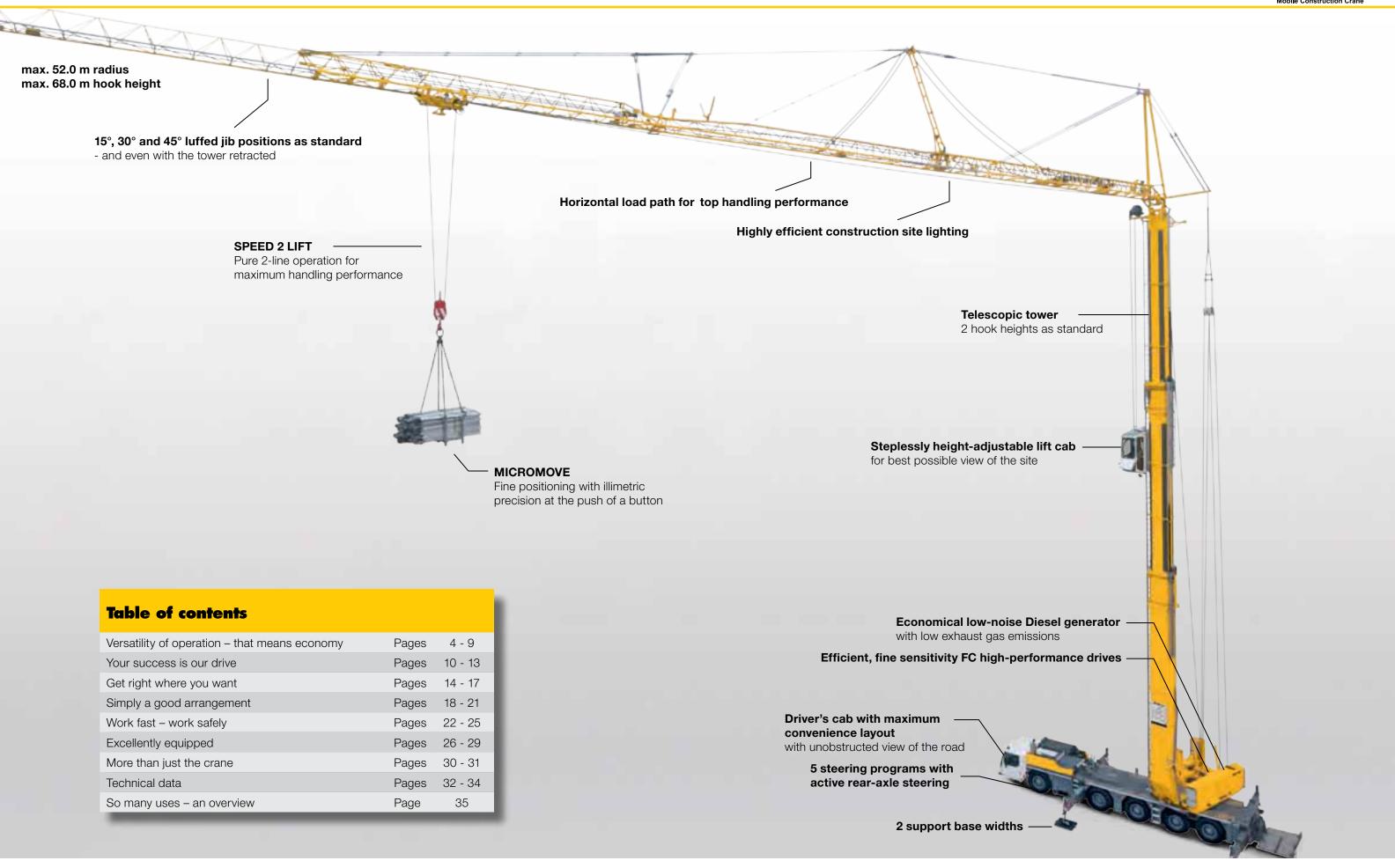


# LIEBHERR



# MK 100/110 mobile construction crane





# Versatility of operation - that means economy



### Just some of the possible operational situations

- Inner city and night-time sites
- Timber, steel, and hall construction
- Refineries and chemical plants
- Antenna construction
- Roof refurbishment and greenery
- Placement of solar panels
- Window and facade construction
- High-level storage bay units
- Bridge and highway construction
- Maintenance and repair work
- Prefabricated component and prefabricated building construction
- Demolition and installation work
- Site preparation work
- and much more besides.

### Liebherr mobile construction cranes - so many advantages

**Operation with interfering edges:** The vertical tower allows for Liebherr mobile construction cranes to be erected and operated directly at the building. Take advantage of the full jib length, with high lifting performance at maximum radius.

**Taxi crane concept:** High mobility without any major logistical effort needed – arrive, lift, move on, without any extra transport involved.

**Incredible manoeuvrability:** Thanks to the active rear axle steering, Liebherr mobile construction cranes can slip into any gap between buildings.

**One-man operation:** Transport, erection, and the entire operation of the crane – and only one person required. No need for expensive extra transport or additional erection and assembly personnel.

**Small space requirement:** When things get tight - that's when the mobile construction crane really shows off its strengths. The crane needs only a very small amount of space for erection and operation.

# Versatility of operation - that means economy

- Large outreach thanks to horizontal jib
- Flexible jib settings and impressive hook heights
- Several operational engagements per day no problem at all
- One-man operation no extra equipment needed

# Versatility of operation - that means economy



#### Turn night into day

Thanks to the quiet, low-emission electrical drive units, the MK 100/110 is ideally suited for night-time operations in inner-city situations.

And thanks to the lighting system integrated in the jib, the area of operations is excellently illuminated.



#### Half height with full load capacity

In areas with restricted height clearances, or under high-voltage cables, the MK 100/110 can still be used with full outreach and full lifting capacity.



#### **Autonomous operation**

The Diesel generator is economical, but very powerful too, and that makes the mobile crane independent in operation, with low noise, and minimal effect on the environment. Operation with the site power supply is possible as well. And there's enough electrical energy to power other consuming components as well.



#### Arrive, lift, move on

With the taxi crane concept, you can handle multiple operations in a single day.

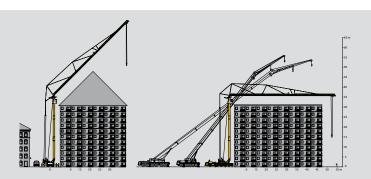


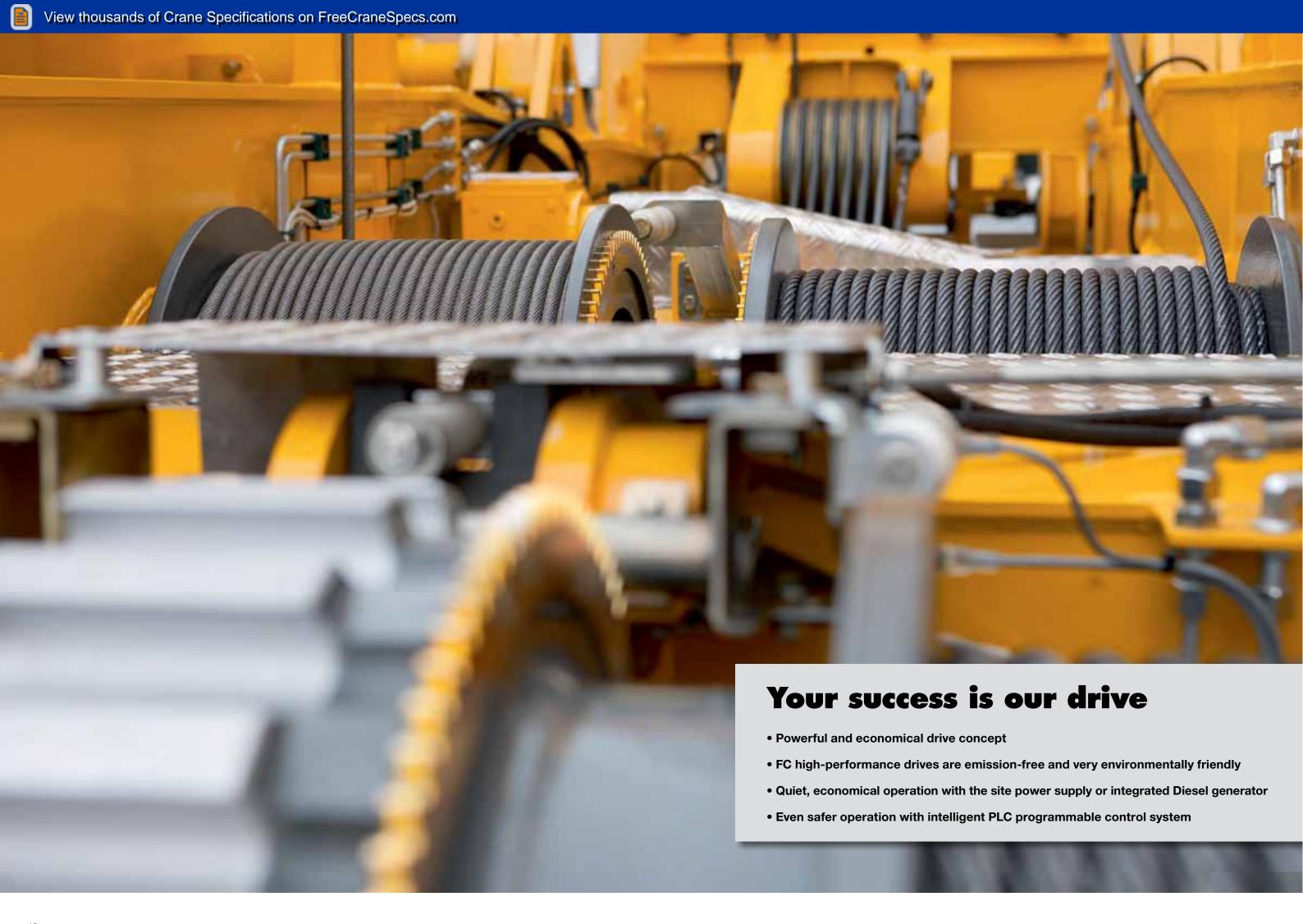
#### One man, one crane

No need for extra personnel or extra transport.

#### Get in close

The crane can be positioned directly at the building itself.





### Your success is our drive

The high-performance electric drives developed and manufactured by Liebherr are specially matched to the requirements of crane operation. The integrated Diesel generator in the superstructure makes completely independent operation possible, while the engine in the undercarriage is not needed for erection and site operations. This saves you fuel and helps safeguard the environment.



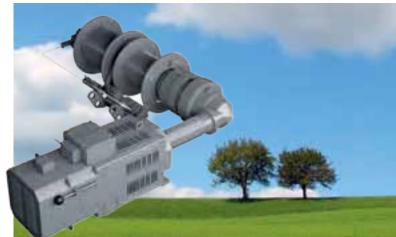
### Integrated Diesel generator

The compact and powerful generator, producing 48 kVA, provides current for the electric drives and, if necessary, for other machinery as well. The Diesel engine always runs in the optimum range, which makes it extremely economical in consumption.



#### **Stepless FC high-performance drives**

Liebherr high-performance drives produce no emissions, provide fine sensitivity and precision, use little current, and at the same time are particularly high performers. The slewing gear can be adjusted to suit the needs of the crane driver.



#### Programmable controller system - PLC

Easier and more convenient operation, greater safety in erection and operation.

Features such as work area limitation, load moment limitation, or lowering level limitation, all contribute to even safer crane operation.

And Teleservice increases crane availability.



#### Quiet

Low noise emission for nighttime working or in noise-sensitive locations.



#### **Horizontal load path**

The horizontal movement of the load means that high working speeds can be reached, which means high handling performance.



#### Distribute electric power

Power takeoff connections provide current for other machinery as well.



#### **Easy overview**

Easy crane operation, easy overview, and rapid information for the driver.





# Get right where you want

#### **Unobstructed view**

A good view is essential for being safe on the road and on site as well. With mobile construction cranes from Liebherr there is nothing to obstruct the view. Short projections and compact transport dimensions mean safe arrival at the destination. The modern cab is ergonomically designed and provides the driver with maximum comfort even on long journeys.





**Tyres** 

Tyres size 14.00 R 25 ensures low wear and high traction.



Intarder

Wear-free braking with standard Intarder.

#### Mobility off the road as well

The high ground clearance and the modern drive concept mean safe driving even under difficult off-road conditions.



#### **Engine capacity**

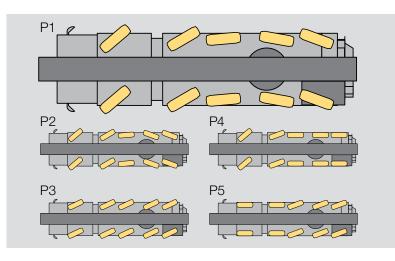
A powerful 6-cylinder turbo-Diesel engine from Liebherr, producing 370 kW (503 h.p.) guarantees top drive performance. The 12-speed ZF transmission with the AS-TRONIC automated gear change system makes operation even more economical and driving even more convenient.



### Really manoeuvrable

The turning radius is only 11.28 metres, which means that the MK 100/110 needs less room to manoeuvre than a conventional mid-range vehicle. And with the five steering programs you are best equipped to deal with any situation.

P1 Road steering
P2 All-wheel steering
P3 Crab steering
P4 Reduced swing-out
P5 Independent rear-axle steering



#### **Reversing camera**

Safe manoeuvring on the construction site.



- Highly adaptable thanks to two different set-up curves
- Erected complete in 17 minutes from the supported state
- Safety-monitored erection by one man alone

# Simply a good arrangement



#### **Wireless movement**

Radio remote control with check-back allows for all the erection and operational functions of the MK 100/MK 110 to be carried out. The crane driver has all the information needed, at his fingertips. Crane, site, and load are always in view.



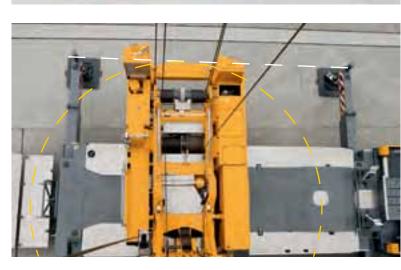
#### Flexible support

The standard support width is 8.2 metres and can be reduced to 5.95 metres if required – and still with low corner pressures.



#### Safe

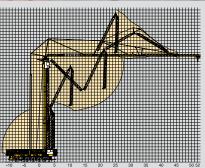
The slewing radius remains within the supports. No parts of the crane overlap the outriggers on the ground – an essential advantage when it comes to operational safety.





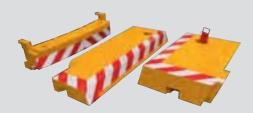
Rapid erection

Ready for operation in only 17 minutes from the supported state.



Genuine jib erection in the air

Can be erected even over obstacles up to 17 metres high.



#### **Additional ballast**

With an additional ballast of 3.8 t, the MK 110 has a lifting capacity of 1,800 kg at the jib head.



Simply flexible

Erection switch for the 0°, 15°, 30°, 45° jib positions.



## Work fast - work safely

#### Cabin on a level with the load





**Operating-range limiting system** 

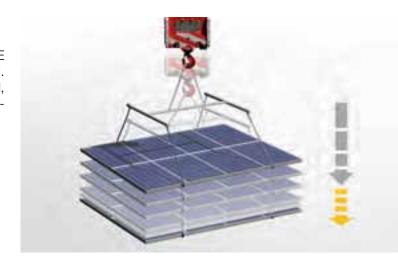
#### Keep the load calm

With the wind load control the jib is automatically held in place if the wind gets up. No need to counter-steer. This means that loads which present large surface areas (such as formwork panels) can be moved, held, and positioned with absolute precision.

Rapid slewing movements can lead to loads starting to swing; the integrated load oscillation damping compensates for this automatically.

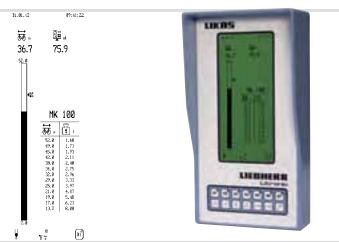
#### Position loads with millimetric precision

At the press of a button on the control lever, MICROMOVE comes into action, and reduces lowering to micro-speed. This means that even the heaviest loads can be floated, held, and positioned with extremely fine sensitivity, and without engaging the hoist gear brake.



#### Information

With the EMS electronic monitor system in the lift cab of the crane, the driver has all the crane functions fully in view.



### Mobile - and everything in view

rational data on a easily readable display.

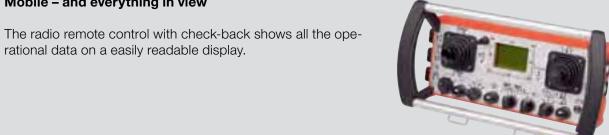






Pure 2-line operation for maximum performance at full speed.





# **Excellently equipped**



#### **Everything in view**

The lift cab provides a perfect view of the load and the site, at any height. With the EMS and the trolley camera, you have all the information needed, at a glance. And that means fatigue-free and efficient working – guaranteed, day in, day out.



#### **Good access**

The safe and easy entry to the cab quarantees the safety of the crane driver. Cumbersome climbing is not necessary.



#### Mattrasses always where they're needed

Tough, strong strut plates made of top quality materials are easy to access in the stowage compartments provided, with pull-out shelf elements.



And a light comes on

A site lighting system integrated into the jib makes it possible to work even after dark.



Access

The integrated ladder provides the driver with safe access to the slewing platform and the lift cab.



Simple levelling

Easy operation and easy overview of the undercarriage supports.



Easy to work means efficient work

All operating elements are arranged ergonomically and designed for easy overview.



### **Excellently equipped**



#### **Trolley camera**

Thanks to autofocus and zoom, the load is constantly in view on the screen in the lift cab. The batteries are charged automatically, which means that the camera system is always available.

#### **Equipment carrier**

So that you always have the most important things close at hand. The large storage space means that crane accessories can be carried safely on board. The equipment carrier is raised and lowered hydraulically, and can be tilted up when on site.





#### Tool / stowage locker

The spacious locker has plenty of room for personal items and tools.

### Combi-box

The Combi-box is the easy way to stow guying cables, straps, Diesel canisters, and underlay timbers, and have them immediately available whenever they are needed, protected against the weather and theft.





#### Climate control system

The climate control system on the lift cab ensures that the cab always has pleasantly fresh air, even when the temperature outside gets high.

#### Safety equipment

The safety package in the lift cab means that in an emergency the crane driver can lower himself out of the cab.





Hand-operated spotlight

Mobile light for all situations.



Cable control console

As an alternative to remote radio control, operation is also possible by way of the cable control console.



#### Engine shutoff with Emergency Stop

Engine overspeed protection and Emergency Stop switch for the undercarriage engine and the Diesel generator.



Teleservice

Easy evaluation of the machine data and remote maintenance on the office PC, to increase the crane availability even further.

### More than just a crane



#### **Training**

Experienced instructors to provide training in theory and practice, comprehensive training resources, and a training centre with the highest technical standards, guarantee that basic and advanced training can be provided in all matters associated with the crane. Our aim is to prepare well-trained service technicians and crane drivers, who will contribute to ensuring that con-

struction sites run smoothly, economically, and safely.



#### **Original spare parts**

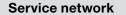
Our original spare parts are ideally matched to every Liebherr crane, and meet the very highest standards with regard to quality and functional performance. And whenever our products are optimized even further, we pass the benefits on to our spare parts as well.



#### Service and guarantee

Consistent maintenance contributes to a long and successful service life for your crane. Repairs, maintenance, and overhaul of used machines are carried out by experts at the Liebherr repair centre.





Take advantage of the universal Liebherr Service network, worldwide.



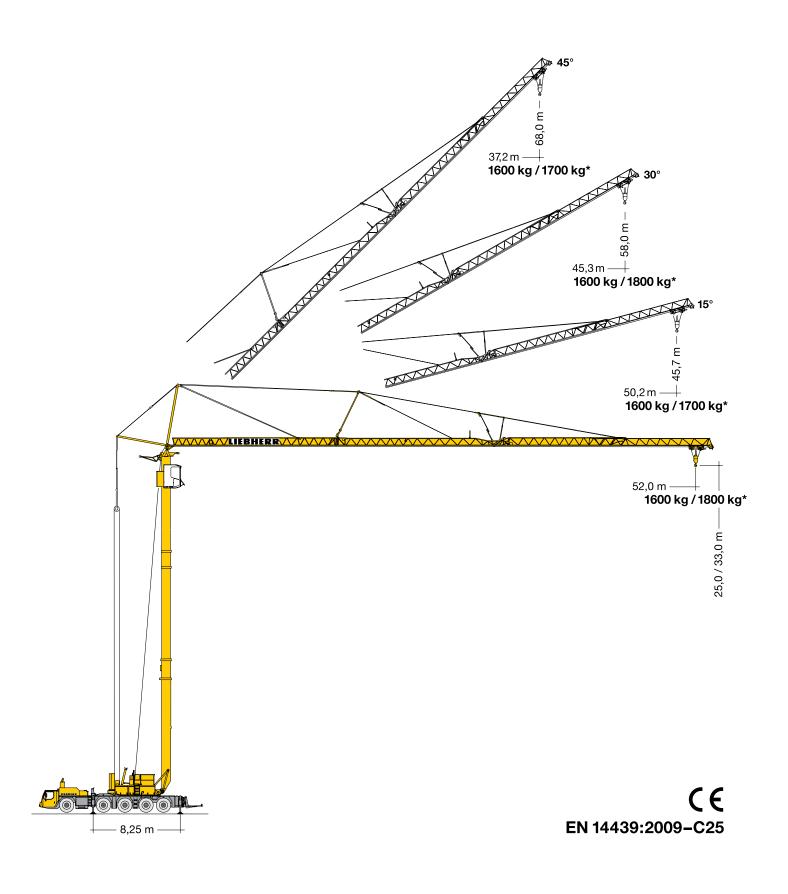
### Transport

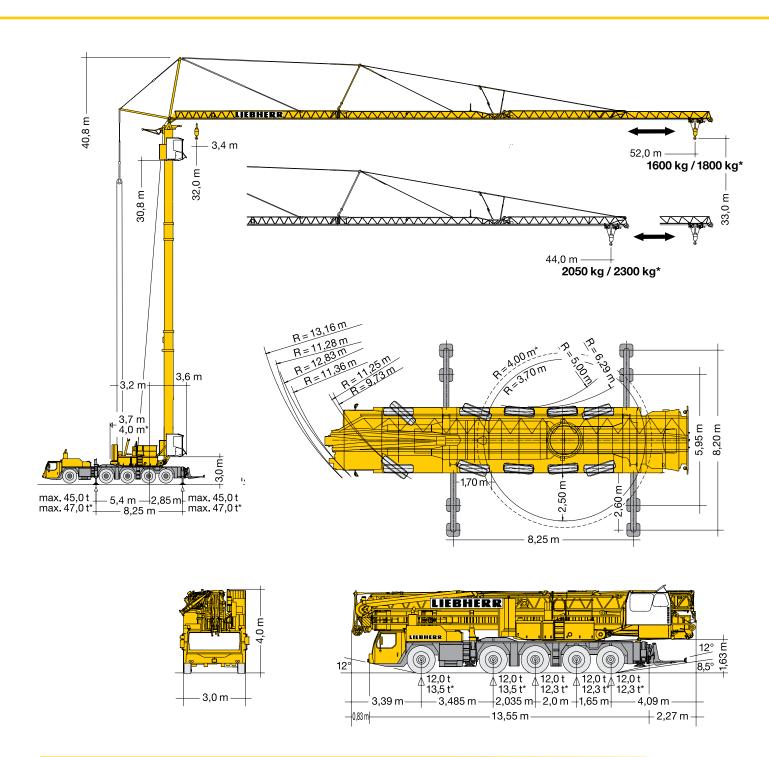
A broad network of well-known forwarding companies guarantees fast and reliable transport.

### Why mobile construction cranes from Liebherr?

Liebherr have more than 60 years experience in the construction of cranes, and provide you with development, production, and service all from one source. The unique depth of manufacturing skill, combined with features such as the in-house production of winches and electric motors, guarantees that all the components of the crane are matched perfectly to one another. Every equipment unit is a creation of top quality, with extremely long service life. And after you have bought your crane, Liebherr will always still be there to offer you best possible after-sales service with fast spare parts supply.

# Technical data MK 100/110





### Gewicht Weight / Poids / Peso / Peso / Gewicht / Macca

#### Gesamtgewicht 60 000 kg Total weight Poids total

Poids total Peso totale Peso total Totaalgewicht Общая масса \* MK 110 mit 3,8 t Zusatzballast / MK 110 with 3.8 t additional ballast / MK 110 avec lest additionnel de 3,8 t / MK 110 con zavorra addizionale da 3,8 t / con contrapeso adicional de 3,8 t / MK 110 met 3,8 t extra ballast / с дополнительным балластом 3,8 т

### 60 000 kg + 3 800 kg

> 12,0 t

#### Achslasten

Loads per axle / Charges par essieu / Carichi per asse / Peso por eje / Aslasten / Нагрузка на мосты **Zusatzballast für Straßentransport demontieren, Ländervorschriften beachten.**Remove additional ballast for road transport, observe country-specific regulations.
Démonter le lest additionnel pour le transport sur route, respecter les spécifications des pays individuels.

Smontare la zavorra aggiuntiva per il trasporto su strada, rispettare le norme nazionali.

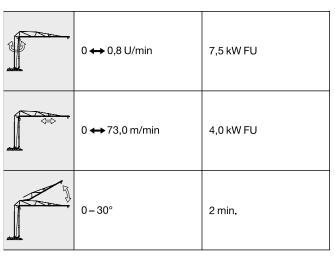
Desmontar contrapesos adicionales para tránsito en carretera, véase condiciones en cada país.

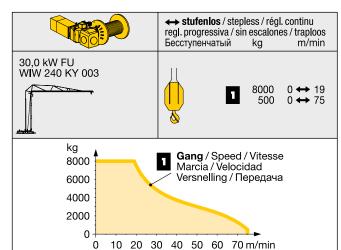
Extra ballast dient voor wegtransport gedemonteerd te worden, landvoorschriften navolgen.

Для транспортировки по дорогам демонтировать дополнительный балласт, учитывать предписания, действующие для данной страны.

# Technical data MK 100/110

### Antriebe Driving units / Mécanismes d'entraînement / Meccanismi / Mecanismos / Aandrijvingen / Приводы



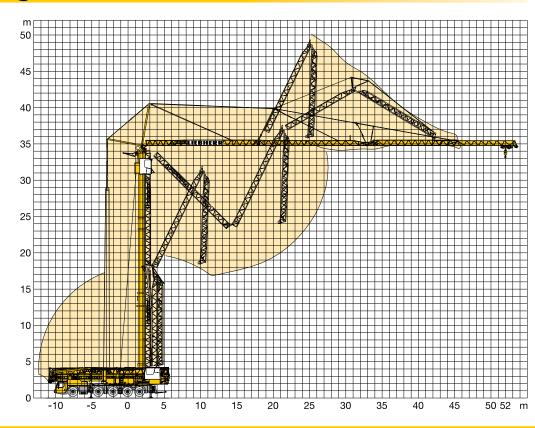


	2	1	2	3	4	5	6	7	8	9	10	11	12	R1	R2	<b>***</b> %
20-0000	(km/h)	5,2	6,7	8,6	11,1	14,0	18,0	23,7	30,5	39,2	50,4	63,9	75,0	5,6	7,2	54%
	km/h)	2,3	3,0	3,8	5,0	6,3	8,1	10,6	13,6	17,6	22,5	28,6	36,7	2,5	3,2	> 60%

	14.00 R 25	BGL		C.0.08.0100 C.0.08.0112*
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<b>\</b> 40	00 V	Hz	kVA
96,0 m 5	x 16 mm²	50	43,0

### Aufstellvorgang Erection procedure / Déroulement de montage / Procedimento di montaggio Procedimiento de montaje / Opstelling van de mobiele torenkraan / Процесс развертывания



## The advantages – at a glance



#### **Pure 2-line operation**

Maximum performance at full speed – always.



#### **MICROMOVE**

Fine positioning with millimetric precision at the push of a button.



#### Extra ballast

for even more lifting capacity over the entire moment range.



#### Wind load control

The control system reacts automatically to the counter-moment on the jib.



#### One man, one crane

No extra personnel or transport needed.



#### **Electronic load moment limitation**

Move the load safely right to the stop.



#### Taxi crane concept

Deal with multiple operations in one day.



#### Load oscillation damping

Automatic compensation for jib movements, to keep the load steady.



#### Low noise emission

for working at night or in noise-sensitive areas.



### Operating-range limiting system

Work areas are limited by simple teach-in techniques on the EMS display



Ready to go into action – in only 17 minutes from the supported state.



The horizontal load path of the crane allows for high working speeds, and that means high handling capacities.



#### Operating data acquisition and evaluation

Acquisition of all operating and performance data from the crane, for evaluation and optimum maintenance and repair.



# Don't hang on...



Go for it.



# Let's stay in touch.