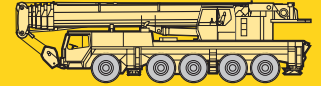


# Product advantages

## Mobile crane LTM 1120/1



**Max. lifting capacity: 120 t at 3 m radius**  
**Max. height under hook: 84 m with swing-away jib**  
**Max. radius: 64 m with swing-away jib**

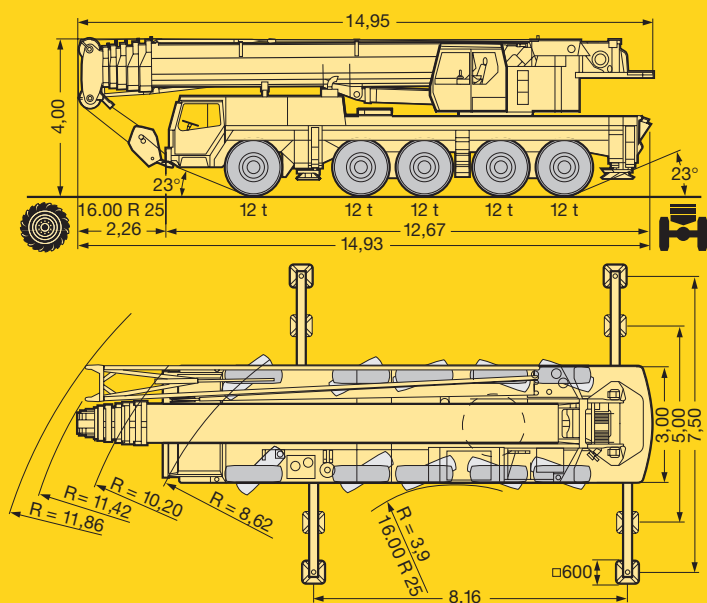


### Performance profile of the LTM 1120/1 at a glance.

- Outstanding range of lifting capacities, counterweight variants 7 t, 15 t, 25 t and 35 t
- Robust 400 kW/544 h.p. turbo-charged Diesel engine (Euro II)
- 5-axle carrier, compact and manoeuvrable due to all-wheel steering, smallest turning radius 10.2 m over vehicle
- Electric/electronic crane control with integrated LICCON system, convenient control
- 6-section telescopic boom with a new oviform cross-section of outstanding torsional resistance, length 11,2 m - 56 m
- 3-section, 12,5 - 28 m long swing-away jib, to be rigged at offset angles of 0°, 15°, 30° or 45°
- New rapid-cycle telescoping system „Telematik“ with a hydraulic ram, interlocking laterally with the telescope end sections. The interlocking of the telescopes with one another is performed by one pin each in the cross-section upper chords. Automatic or manual telescoping practicable
- LICCON, the most modern computer system worldwide, for informative, monitoring and control functions
- Diesel engines, slewing rim, slewing gear, winches and hydraulic pump are self-manufactured, quality checked components
- The LTM 1120/1 is manufactured by Liebherr within the scope of a quality assurance system according to DIN ISO 9001

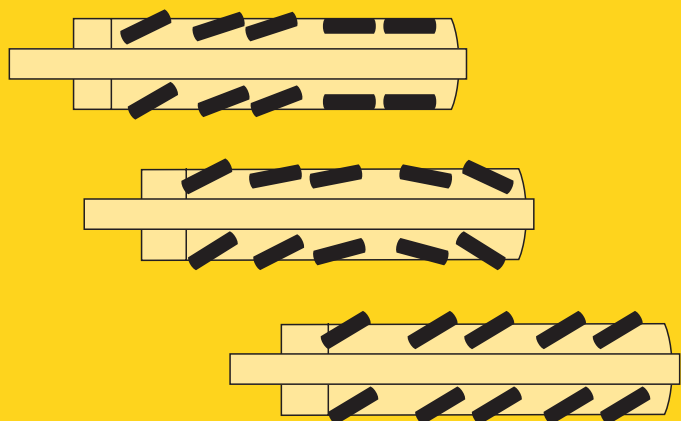
# LIEBHERR

The better crane.



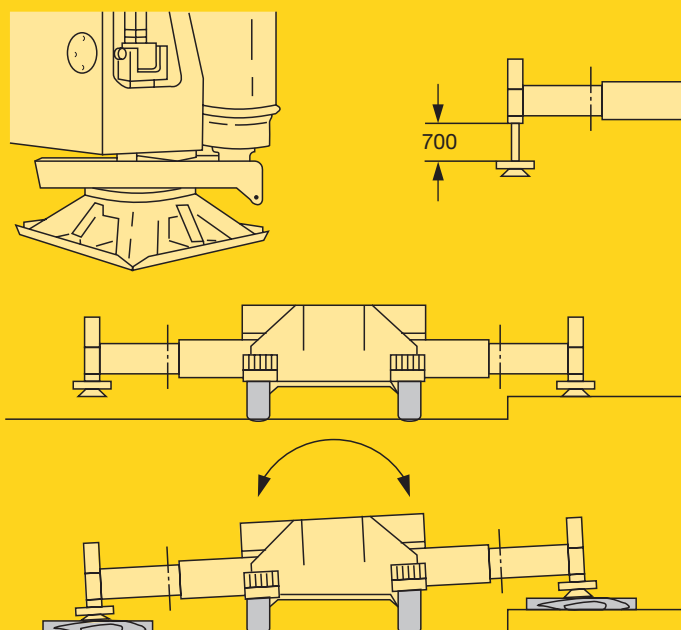
## Compact, manoeuvrable and weight-optimized.

- Overall length 14,95 m, length of carrier just 12,67 m
- Large overhang angles up to 23° at vehicle front and rear
- Small turning radius of 10,2 m over vehicle at all-wheel steering
- 60 t total weight, incl. 7 t counterweight, drive 10 x 8, TELMA type eddy current brake, tyre size 16,00, 50 t hook block (axle load 5 x 12 t)
- 2 optional tyre sizes
  - 14,00 R 25 - vehicle width 3 m
  - 16,00 R 25 - vehicle width 3 m



## Variable drive and steering concept.

- Drive 10 x 6, axles 1, 4 and 5 driven, at road travel 4th and 5th axle driven, 1st axle activatable for off-road operation
- Drive 10 x 8 (optional), axles 1, 2, 4 and 5 driven, axles 4 and 5 driven at road travel, 1st and 2nd axle activatable for off-road operation
- Standard all-wheel steering, 4th and 5th axle steerable independent of axles 1, 2 and 3 (crab steering). The additional hydraulic steering is locked automatically at road travel
- ZF-semi-integral power steering with 3 hydraulic pumps (dual circuit system)



## Setting crane on outriggers - quick, convenient and safe.

- Variable supporting basis
  - Outrigger retracted
  - Supporting basis 5 m x 8,16 m
  - Supporting basis 7,50 m x 8,16 m
- Supporting pads remain fixed to the rams and are protected by splash guards
- Travel of supporting rams 700 mm
- 2 x 9° lateral inclination of chassis and crane superstructure
- Electronic inclination display
- Supporting pressure control within the cab and at the carrier (optional)
- Illuminated and dirt-protected reflecting levels
- Operation of outrigger system in accordance with the rules for the prevention of accidents

# The LTM 1120/1 - more efficient through advanced technology.

## Torsional rigid telescopic boom.

- New oviform boom cross-section of particular inherent stability
- Maintenance-free polyamide slide pads of telescopes
- First-rate lifting capacities, e.g.
  - 36.5 t at 10 m radius
  - 14.2 t at 20 m radius
  - 7.0 t at 30 m radius
  - 4.1 t at 40 m radius
  - 1.7 t at 50 m radius
  - 1.1 t at 60 m radius
- Telescoping practicable with approx. 50 % of rated load
- Telescoping by rapid cycle approx. 350 s for a boom length from 12.6 to 56 m

## Modern and powerful carrier drive.

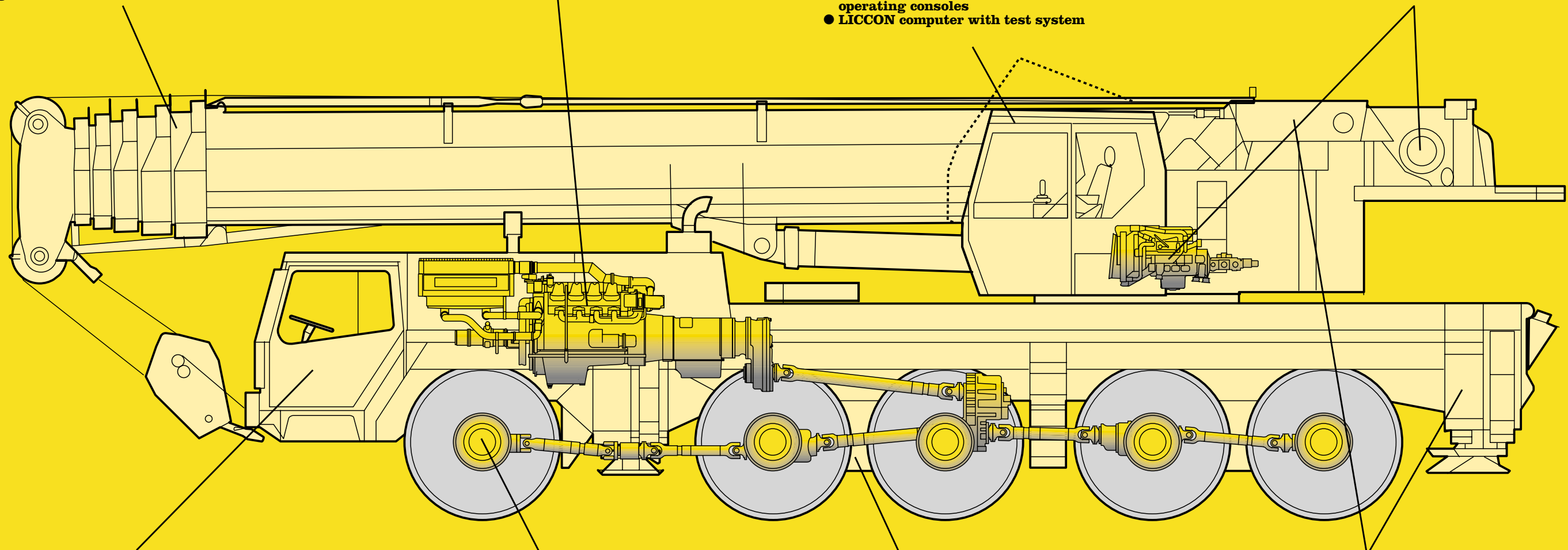
- 8-cylinder Liebherr turbo-charged Diesel engine type D 9408 TI of 400 kW/544 h.p. (Euro II), max. torque 2220 Nm at 1500 min<sup>-1</sup>, robust and reliable
- Exhaust gas system of stainless steel
- Allison automatic transmission with torque converter, hydrodynamic retarder and electronic control, proved and well tested serial transmission, 5 forward and 1 reverse speed, rough-terrain ratio
- Abrasionproof TELMA type eddy current brake (optional)
- Max. driving speed 76 km/h, max. gradability 50 %

## Spacious crane cab with convenient armrest-integrated control levers.

- Galvanized crane cab with sound absorbing and insulating inside sheeting, tinted panes all-round, front knockout window with large parallel windscreen wiper, large skylight of bullet-proof glass with large parallel windscreen wiper, roller blinds on front window and skylight, space saving sliding door
- Cab tiltable backwards by 20°
- Crane operator's seat with pneumatic lumbar support
- Convenient armrest-integrated controls, vertically and horizontally adjustable and inclinable master switch consoles and armrests, ergonomically inclined operating consoles
- LICCON computer with test system

## Liebherr components - reliable and easy-to service.

- Crane engine: 4-cylinder Liebherr turbo-charged Diesel engine type D 924 TE of 120 kW/163 h.p., max. torque 710 Nm at 1400 min<sup>-1</sup>, robust and reliable, located adjacent to crane cab, thus less noise pollution; exhaust gas system of stainless steel
- Slewing rim, slewing gear, the winches and the axial piston variable displacement twin pump are self-manufactured Liebherr components and specifically matched for the application on mobile cranes
- Standard centralized lubricating system for slewing rim, boom bearing application and bearings of winches and luffing ram



## Highly comfortable driving cab.

- Galvanized driving cab over width of vehicle with internal sound absorbing and thermal panelling, comfortably equipped
- Air-cushioned driver's seat with pneumatic lumbar support
- Steering wheel adjustable in height and inclination
- Heatable exterior mirrors
- Electric window lifters
- Standardized and ergonomically located operating and control elements

## Outstanding carrier technology for on-road and off-road application.

- Weight-optimized axles, almost maintenance-free, made of high-tensile steel, perfect track keeping and lateral stability due to special control linkage arrangement
- The maintenance-free steering knuckles are steel mounted
- The perfected and robust axles are manufactured in large series and are troublefree components
- The cardan shafts are maintenance-free; easy and quick fitting of the cardan shafts due to 70° diagonal toothing and 4 fixing screws

## "Niveaumatik" suspension - preserving crane and roads.

- Maintenance-free suspension rams, free of lateral forces, protected by synthetic tubes
- Level adjustment (suspension on „travelling mode“) can be activated automatically by push-button control from any position
- Stable cornering ability due to cross mounting of the hydropneumatic suspension
- Axle locking system (locking of the suspension for travelling with load) controlled from the driving cab
- Travel of suspension system +/- 150 mm

## Weight-optimized steel structure.

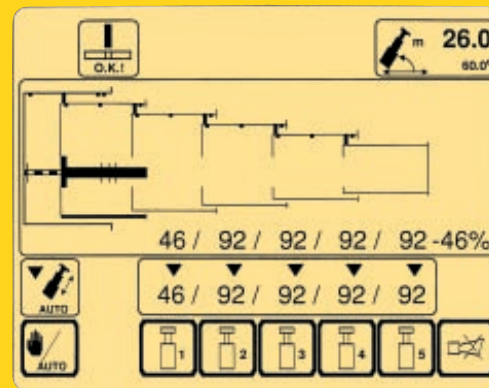
- Steel structure of carrier, crane superstructure and telescopic boom in light-gauge design, calculated by the FEM method, weight-optimized and of outstanding torsional rigidity
- Tensile property of material with high safety factors through the application of STE 960 N/mm<sup>2</sup>) for all supporting members
- Trim and covering panels of aluminium

## Lifting loads - precise and safe.

- 6-section, 56 m long telescopic boom and 11,2 m to 28 m swing-away jib for 84 m height under hook and 64 m radius
- Optimal utilization of telescopic boom through variable telescoping options
- Swing-away jib to be mounted at offset angles of 0°, 15°, 30° or 45°, hydraulic rigging aid
- The LICCON system always calculates the optimal load capacity values at any length of boom
- Easy and quick rereveing of the hoist rope through modern self-locking rope dead end connection

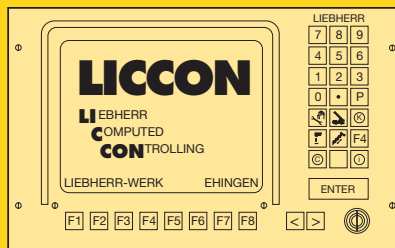
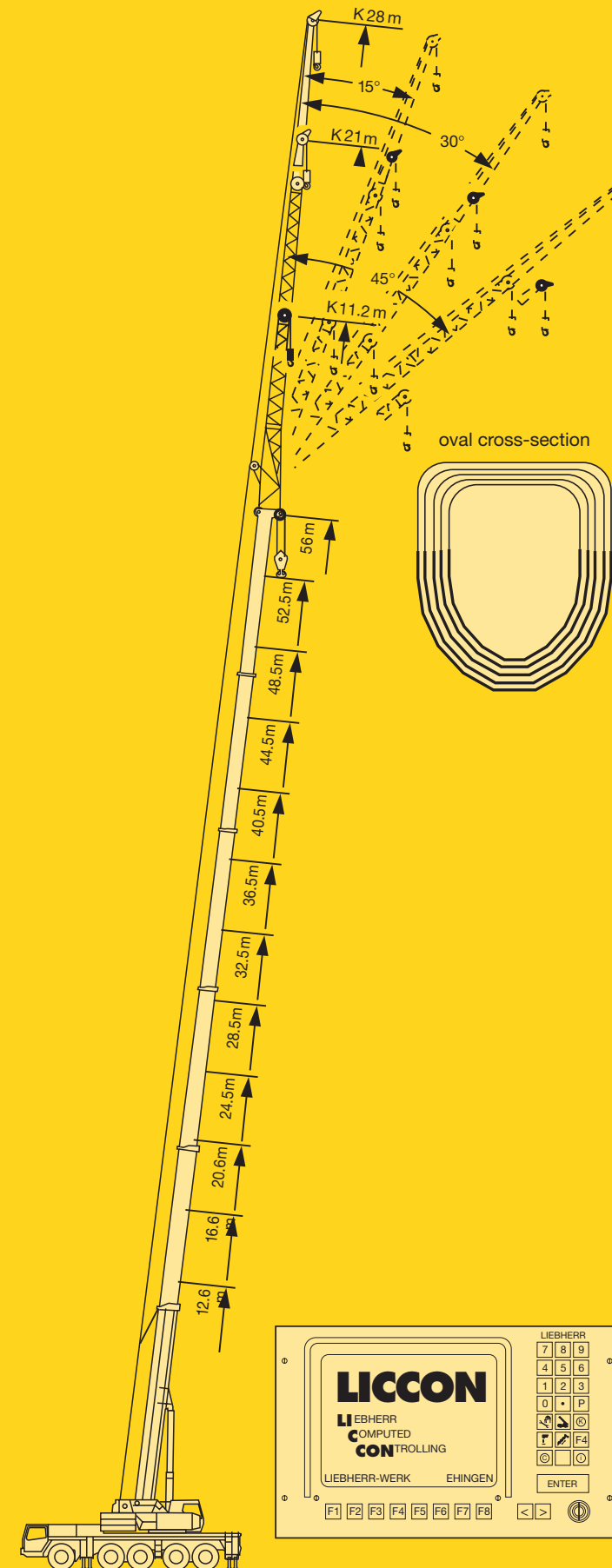
## LICCON-assisted telescoping system.

- Telescoping by means of a single action hydraulic ram with pneumatic operated driving pin
- Telescoping procedure controllable on the LICCON monitor, convenient operator's guide, precise approach of interlocking positions
- Telescopable loads (up to 50 % of the rated load) are displayed in the LICCON operating image
- Rapid-action telescoping system „Telematik“ for automatic telescoping to the desired boom length
- Particularly light telescoping system, thus increase of lifting capacities, especially with long booms and at large radii
- Automatic cushioning in end positions during telescoping and retracting for preserving structural members



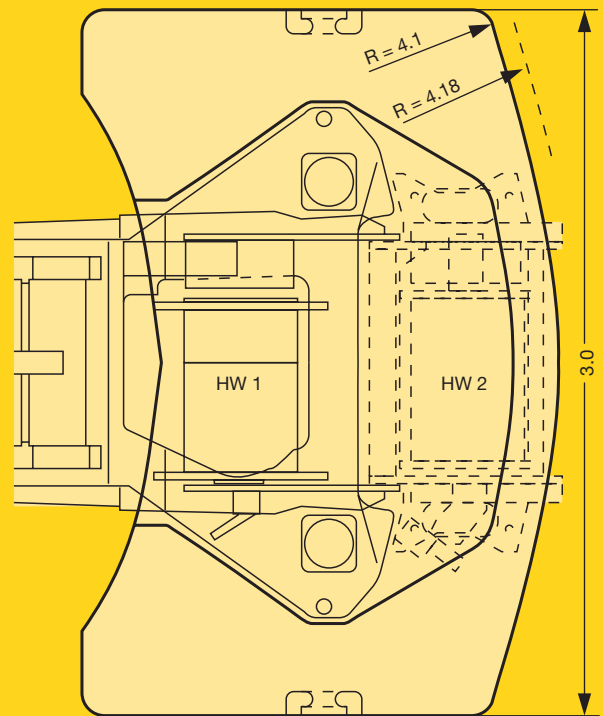
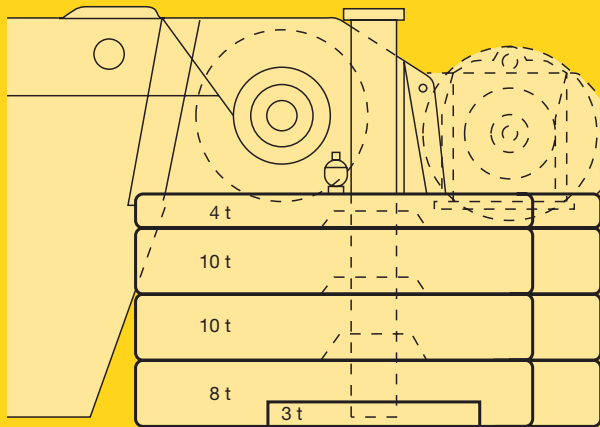
## LICCON computer with SLI, test system and PLC control.

- Setting of crane configuration by convenient conversational mode functions
- Reliable acknowledgement of crane configuration set
- Representation of all essential data by graphic symbols in the operating image
- Integrated wind speed control (optional)
- Reliable cut-off device in the event of exceeding the permissible load moments
- Load capacity values for any intermediate boom length
- Winch indications for load hook course with zero adjuster for ultra-precise hoisting/lowering
- Test system for servicing, offering the facility to check all sensors within the system on the monitor
- Convenient programmable logical control (PLC) for hoisting/lowering, slewing, luffing and telescoping



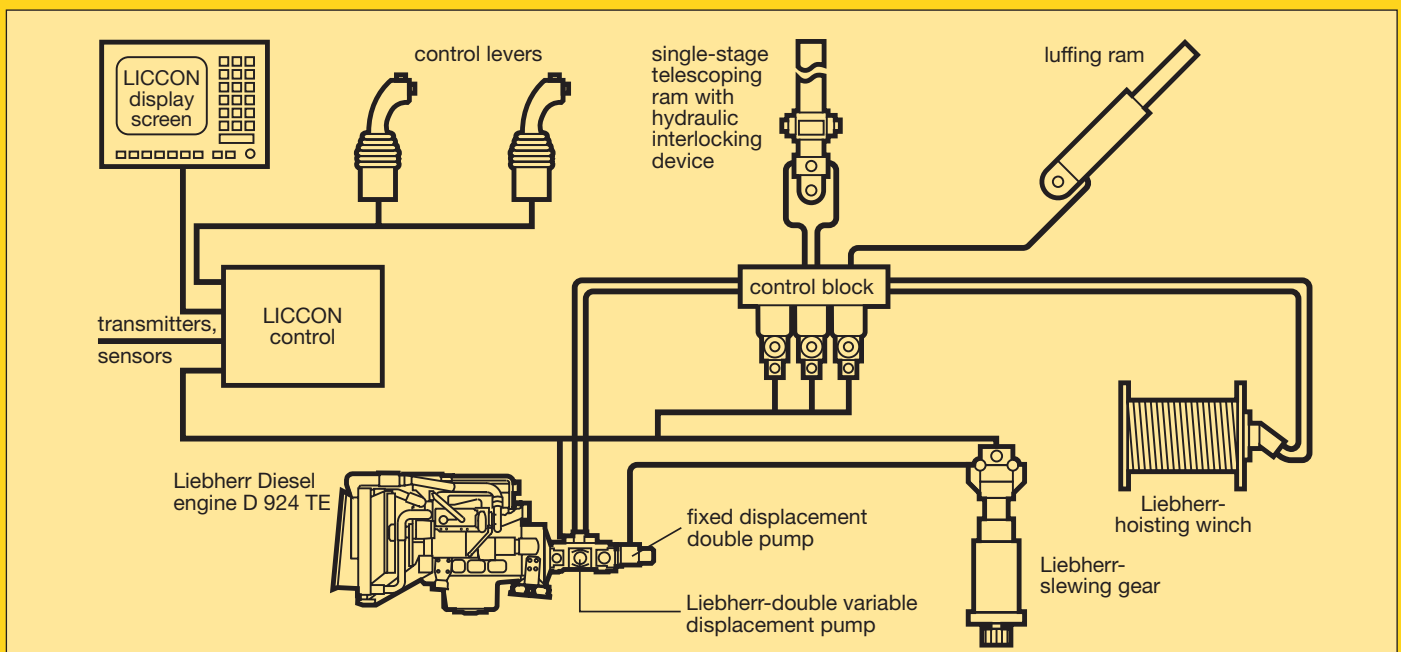
## The counterweight system for more flexibility.

- Counterweight variants 4 t, 7 t, 15 t, 25 t and 35 t offer a wide range of application facilities
- Control of ballasting from the crane cab without the assistance of an auxiliary crane
- Compact counterweight dimensions, e.g. 35 t counterweight have a width of 3 m only



## Electric/electronic crane control with integrated safe load indicator.

- Control of winches, slewing gear as well as luffing and telescoping motions via LICCON system (PLC control)
- Summation regulated control, i.e. both pumps can be switched to one consumer
- Load sensing control with electric selection, four working motions can be controlled independent of one another
- High-speed activation also possible during a working motion
- Speeds of hoisting/lowering, luffing and slewing are preselectable in 6 steps
- Extremely short reaction times at the selection of working motions
- Functional test of all essential components by means of the test system



Subject to modifications.

TP 249a. 1.97

Please contact  
**LIEBHERR-WERK EHINGEN GMBH, Postfach 1361, D-89582 Ehingen**  
 Phone (073 91) 502-0, Telefax (073 91) 502-399, Telex 71763-0