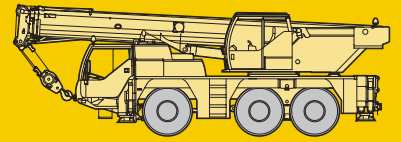


Product advantages

Mobile crane LTM 1045/1



Max. lifting capacity: 45 t

Max. height under hook: 50 m with biparted swing-way jib

Max. radius: 42 m with biparted swing-away jib



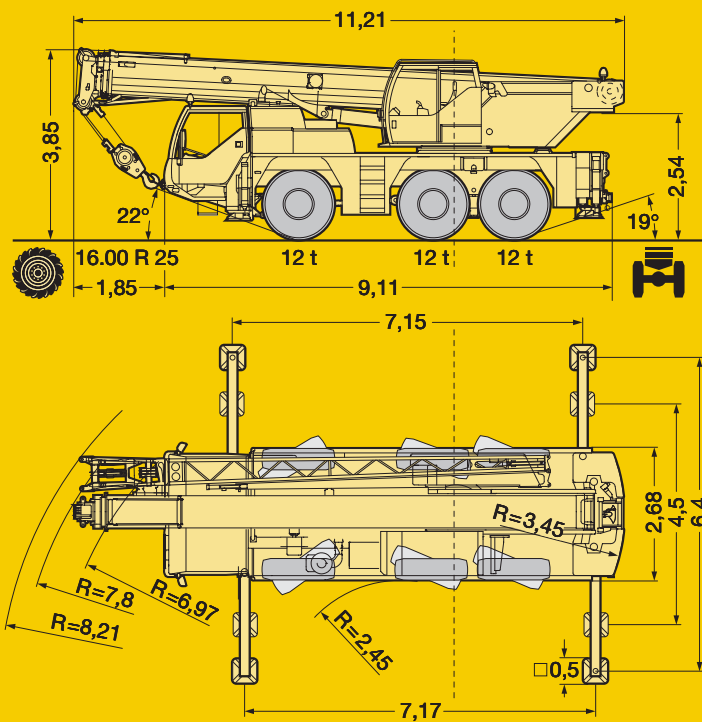
Performance profile of the LTM 1045/1 at a glance.

- Outstanding lifting capacities within the entire working range
- Operative weight 36 t, incl. 7 t counterweight, biparted swing-away jib, drive 6 x 6, tyre 16.00 R 25
- Liebherr turbo-charged Diesel engine type D 926 TI-E A5 of 270 kW/367 hp, exhaust gas emission acc. to Euro 3, fully electronic engine management, hydraulic pump activatable for crane drive
- ZF power shift gear AS-TRONIC with automatic or manual 12-speed selection
- Data bus technique with CAN bus and Liebherr System Bus (LSB) for carrier, crane superstructure and telescopic boom
- Hydraulic load sensing crane control, 4 working motions controllable simultaneously
- Compact 4-section telescopic boom 10.3 m – 34 m long, with oviform profile for high lateral stability
- Reliable hydromechanic telescoping system with hydraulic ram and double block and tackle
- 9,2 m – 16 m long biparted swing-away jib, mountable at 0°, 20° and 40°, integrated erection jib, hydraulic mounting aid
- LICCON, the most modern crane computer system world-wide, with comprehensive monitoring and control functions
- The LTM 1045/1 is manufactured by Liebherr within the frame of a quality assurance system according to DIN ISO 9001

LIEBHERR

The better crane.

CD-



Compact, manoeuvrable and weight-optimized

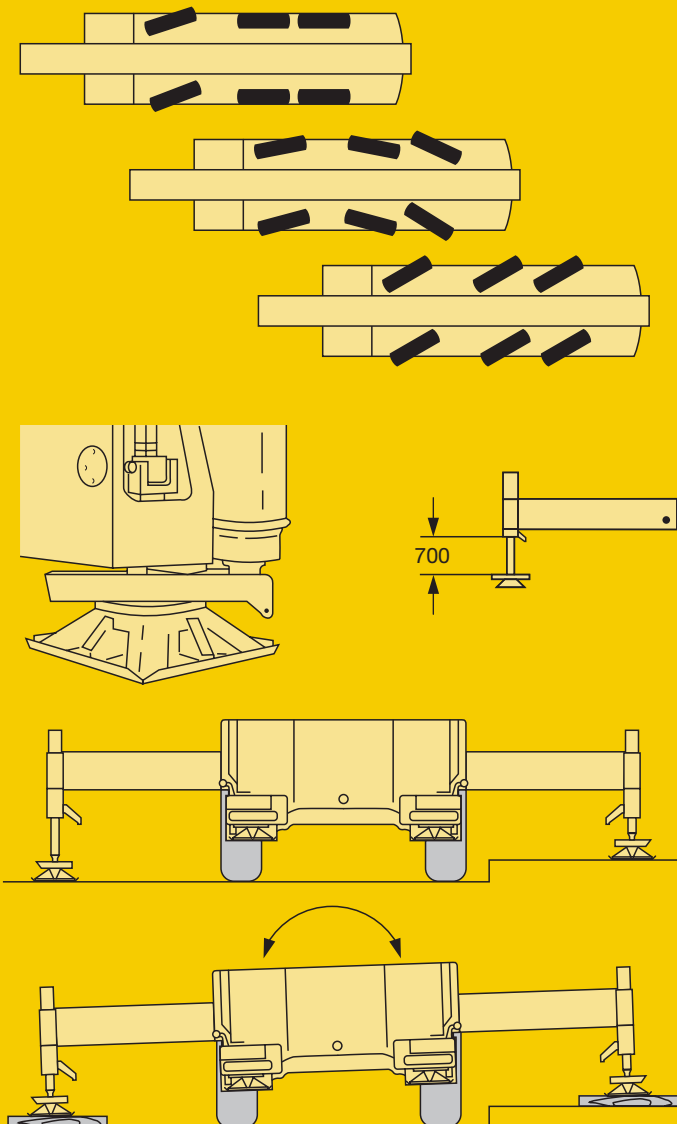
- Overall length only 11.2 m, length of carrier only 9.1 m
- Large overhang angles of up to 22°
- Smallest turning radius of 6.97 m with all-wheel steering
- 36 t total weight, incl. 7 t counterweight, drive 6 x 6, 16.00 tyres, 13 t hook block, biparted swing-away jib, (axle load 3 x 12 t)
- 2 optional tyre sizes
 - 14.00 R 25 carrier width 2.54 m
 - 16.00 R 25 carrier width 2.68 m

Variable drive and steering concept.

- Drive 6 x 4, axles 2 and 3 driven
- Drive 6 x 6 (option), axles 1, 2 and 3 driven, 1st axle activatable for off-road drive, max. speed for displacement with off-road ratio: 20 km/h
- All-wheel steering, 2nd and 3rd axle steerable also independent of axle 1 (crab steering)
- ABV (antilocking system) in conjunction with ASR (antislipping device) standard equipment
- All displacement motions can also be controlled from the crane cab

Setting crane on outriggers – quick, convenient and safe.

- Variable supporting basis
 - Outriggers retracted supporting basis 4.5 m x 7.17 m longitudinal, partially extended
 - supporting basis 6.4 m x 7.17 m longitudinal, entirely extended
- Fixed mounted supporting pads protected by splash guards
- Travel of supporting rams of up to 700 mm
- 4 projectors for the illumination of the supporting area
- Inclination indicators on outrigger control panels and in crane cab
- 2 x 7.5° lateral inclination of carrier and superstructure
- Control of the outrigger system from both sides of the carrier and from the crane cab
- Control panels with membrane keyboard incl. keys for ENGINE/START/STOP and speed control are illuminated and lockable
- Operation of the outrigger system in accordance with the rules for the prevention of accidents



The LTM 1045/1. More benefits through advanced technology.

Torsion-resistant telescopic boom.

- Oviform boom profile of particular dimensional stability
- Maintenance-free boom polyamide slide pads
- Reliable hydromechanic telescoping system
- First-rate lifting capacities, e.g.
 - 12.1 t at 10 m radius
 - 3.9 t at 20 m radius
 - 1.8 t at 30 m radius
 - 0.6 t at 42 m radius
- Telescoping within approx. 80 s for boom length of 10.3 m – 34 m

Modern and powerful carrier and crane drive.

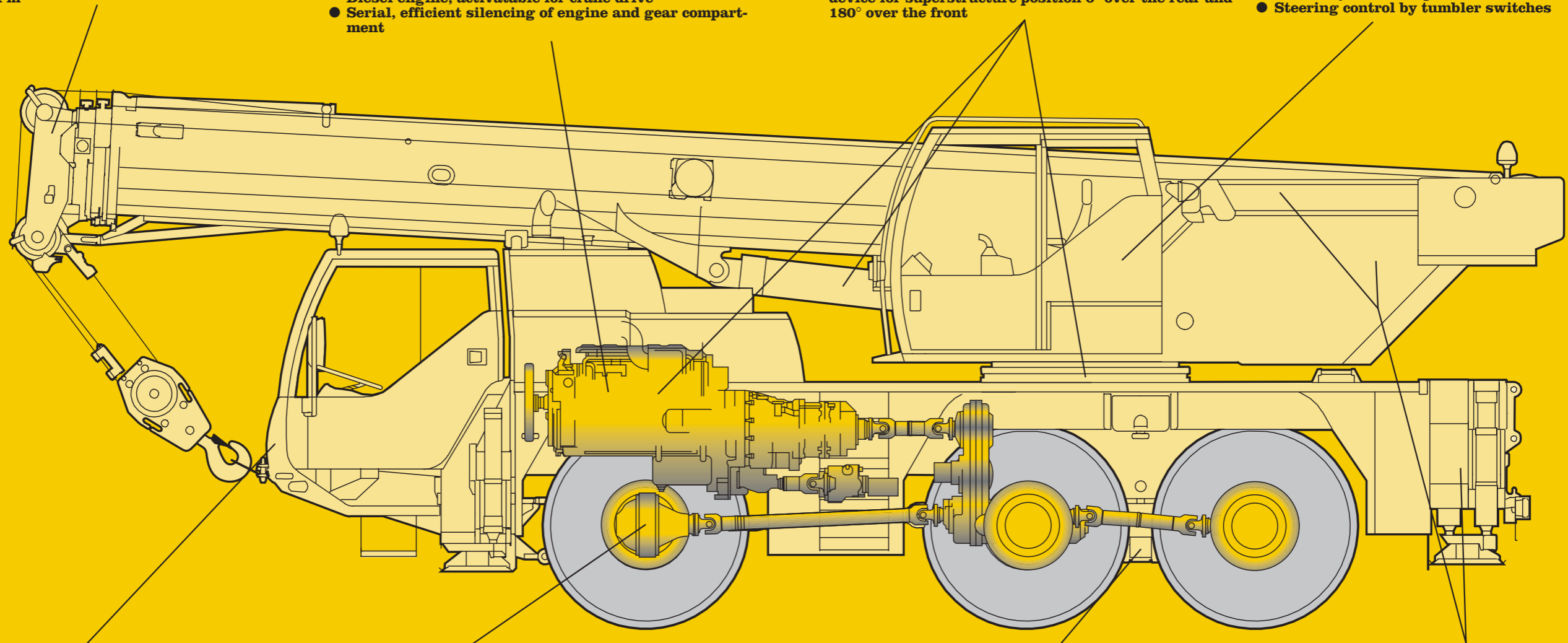
- 6-cylinder Liebherr turbo-charged Diesel engine of 270 kW/367 hp (Euro 3), robust and reliable, with electronic engine management, optimized fuel consumption
- Exhaust gas system completely of stainless steel
- ZF power shift gear with control system AS-TRONIC, electronic gear management, 12 forward speeds, 1 reverse speed, integrated off-road ratio
- Max. driving speed 80 km/h, max. gradability 60 %
- Liebherr axial variable displacement pump driven by Diesel engine, activatable for crane drive
- Serial, efficient silencing of engine and gear compartment

Liebherr components – reliable and easy to service

- Diesel engine, slewing rim and luffing ram are self-manufactured Liebherr components, specially matched for the application on mobile cranes
- The reliability of the components was been evidenced by tough endurance tests
- The standard equipment comprises a centralized lubricating system for slewing rim, boom bearing arrangement, luffing ram and winch bearings
- Mechanical control of the superstructure interlocking device for superstructure position 0° over the rear and 180° over the front

Crane cab of modern design

- Steel-fabricated, galvanized crane cab, entirely powder-coated, with internal sound and heat insulating paneling, tinted panes all-round, front knock-out window with large windscreen wiper, skylight of bullet-proof glass with parallel windscreen wiper, roller blinds on front window and skylight, space saving sliding door
- Crane operator's seat with pneumatic lumbar support and headrest
- Operator-friendly, armrest-integrated controls, vertically adjustable master switch consoles and armrests, ergonomically inclined operator's consoles
- Steering control by tumbler switches



Wide and comfortable driving cab.

- Driving cab over carrier width, corrosion resistant sheet steel design, cataphoretic dip-primed, front section mounted on rubber shock absorbers, rear section on hydraulic dampers, modern interior design of outstanding functionality
- Safety glass all-round, tinted panes for heat absorption
- Standardised digital operating and control elements arranged in an operator-friendly half-round shape

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 and rubber-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 due to 70° diagonal toothing and 4 fixing screws

Niveaumatik suspension – preserving crane and roads.

- Maintenance-free suspension rams, free from lateral forces, protected against damage by synthetic tubes
- Level position (suspension on “travelling mode”) can be adjusted automatically by push-button control from the driving cab at any position
- Stable cornering ability due to cross-mounting of the hydraulic suspension
- Axle locking system (locking of the suspension for displacement with loads) controllable from the driving cab
- Suspension travel +/- 100 mm

Weight-optimized steel structure.

- Steel structure of the carrier, superstructure and telescopic boom in light-gauge design, calculated by the F.E.M. method, weight-optimized and of outstanding torsional rigidity
- Tensile property of the material with high safety factors through the application of STE 960 (960 N/mm²) for all supporting elements, telescopic boom partially of ultra-highstrength steel S 1100 QL (1100 N/mm²)
- Welds of the highest quality are guaranteed by the application of computer-aided welding machines
- The quality of welds is documented by ultrasonic test

Comfortable driving cab of outstanding functionality.

- Modern and comfortable driving cab of high functionality and convincing design
- Ergonomically arranged operating and display elements for safe and convenient handling at continuous operation
- Digital display and keyboard units interconnected with the function blocks by data bus technique
- Air-cushioned driver's seat with pneumatic lumbar support
- Headrests and safety belts for driver's and co-driver's seats
- Height and inclination adjustable steering wheel
- Heated and electrically adjustable rear mirrors
- Automatic windscreen wipers/washers with with intermittent control
- Delayed disconnection of the interior lighting
- Radio preparation

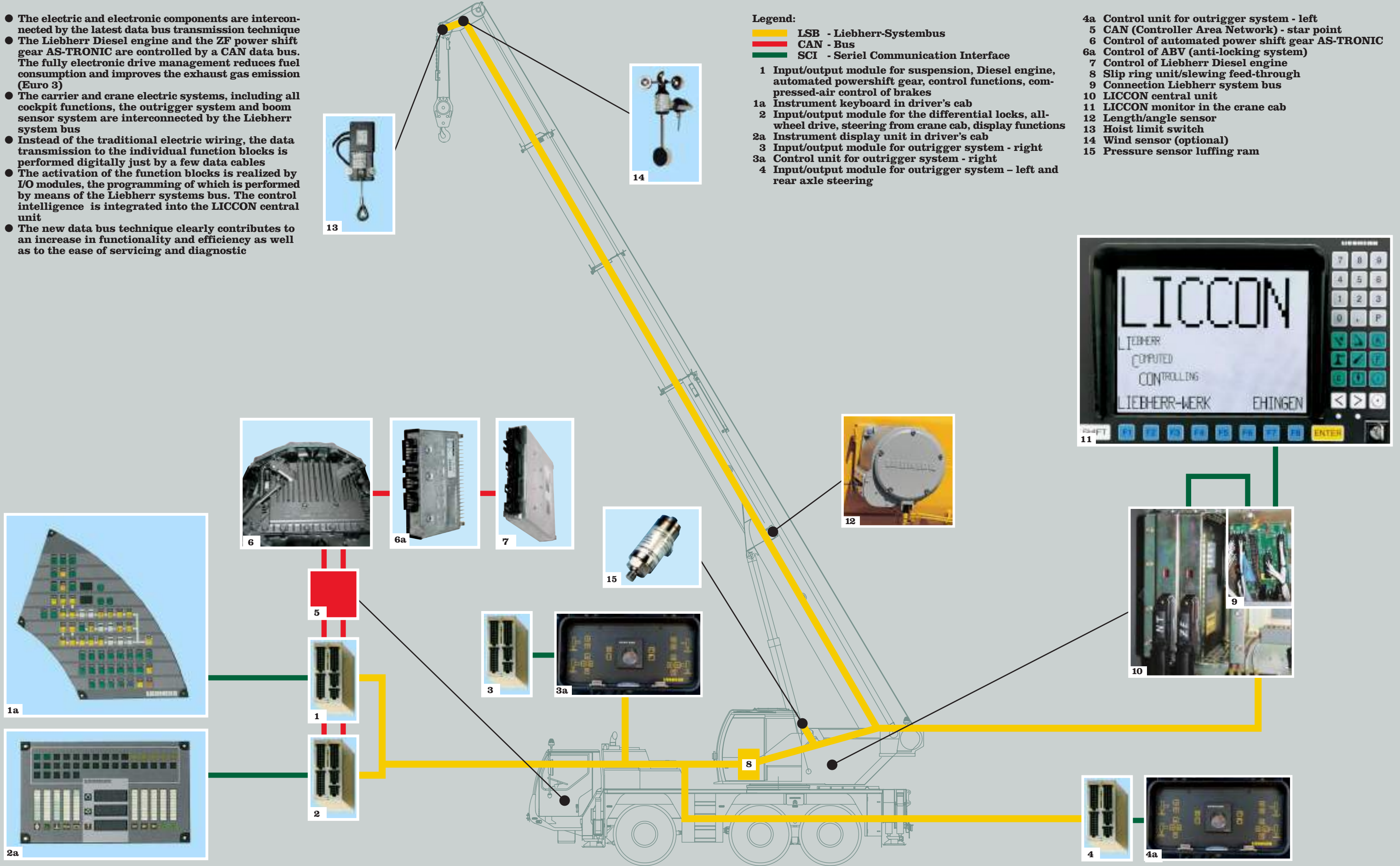


Comfortable crane cab of outstanding functionality.

- Spring-mounted and hydraulically cushioned crane operator's seat with pneumatic lumbar support and headrest
- Operator-friendly armrest-integrated controls, vertically and horizontally adjustable master switch consoles and armrests, ergonomically inclined operating consoles
- Display of the essential operating data on the LICCON monitor
- Screen wipers/washers for front window and skylight
- Engine-independent additional warm water heater "Thermo 90 S"
- Radio preparation
- 70 W work projector
- Cabin "bipartite" for reducing the clearance height



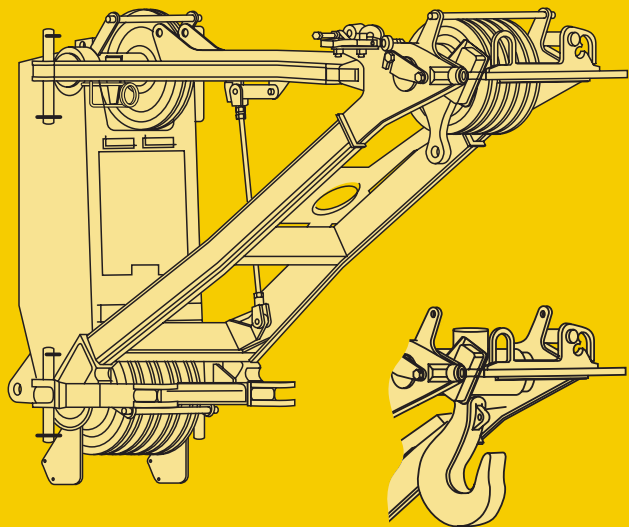
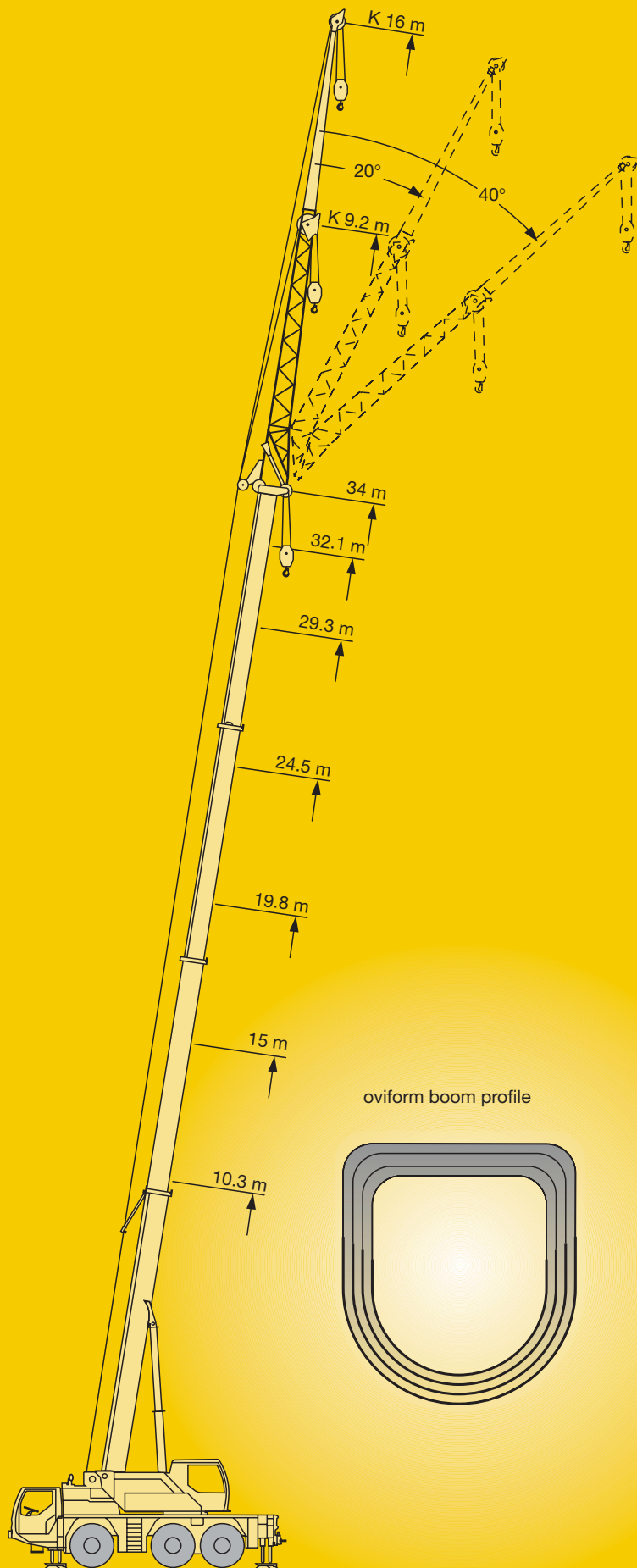
- The electric and electronic components are interconnected by the latest data bus transmission technique
- The Liebherr Diesel engine and the ZF power shift gear AS-TRONIC are controlled by a CAN data bus. The fully electronic drive management reduces fuel consumption and improves the exhaust gas emission (Euro 3)
- The carrier and crane electric systems, including all cockpit functions, the outrigger system and boom sensor system are interconnected by the Liebherr system bus
- Instead of the traditional electric wiring, the data transmission to the individual function blocks is performed digitally just by a few data cables
- The activation of the function blocks is realized by I/O modules, the programming of which is performed by means of the Liebherr systems bus. The control intelligence is integrated into the LICCON central unit
- The new data bus technique clearly contributes to an increase in functionality and efficiency as well as to the ease of servicing and diagnostic



Data bus technique revolutionizes crane electric system.

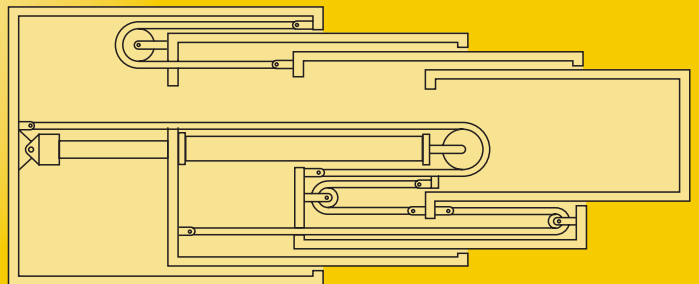
Lifting loads - precise and safe.

- 4-section, 34 m long telescopic boom and biparted swing-away jib of 9.2 m - 16 m for 50 m height under hook and 42 m radius
- Telescopic boom with rounded, oviform bottom shell, telescopic sections of ultra-high strength S 1100 QL tensile steel, thus maximum lateral stability
- Master switches with winch rotation indicator
- Swing-away jib mountable at 0°, 20° and 40°, integrated mounting jib, remote control with control panel for the swinging rams of the swing-away jib
- Easy and quick re-reeving of the hoist rope due to self-locking rope dead end connection
- Load hook with integrated self-locking dead end connection, cylindrically shaped hook block for easy displacement by rolling on hard surface
- Adapter of swing-away jib with pulley set or hook cross-beam mountable to erection jib



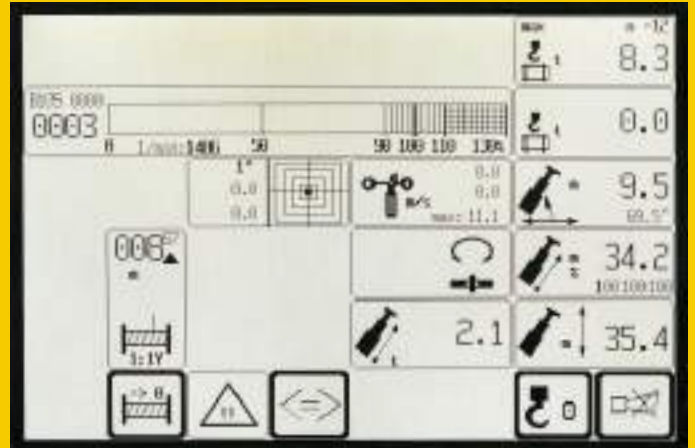
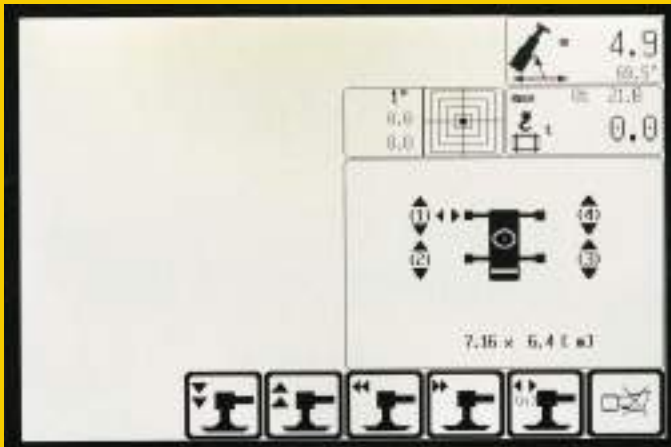
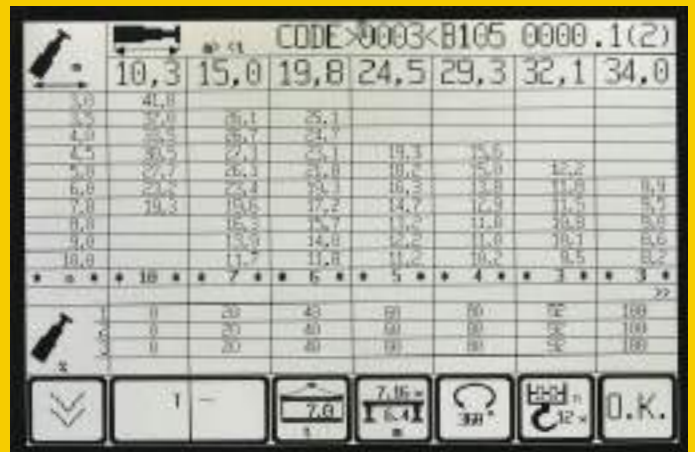
Proved hydromechanic telescoping system.

- Reliable single-stage, double-acting hydraulic ram
- Low boom pivoting point through double pulley block for 3rd and 4th boom step
- Telescopic section 1 is extended/retracted by a hydraulic ram; telescopic sections 2 and 3 are extended/retracted by a hydraulic ram in conjunction with a double pulley block system by ropes
- High telescopable loads



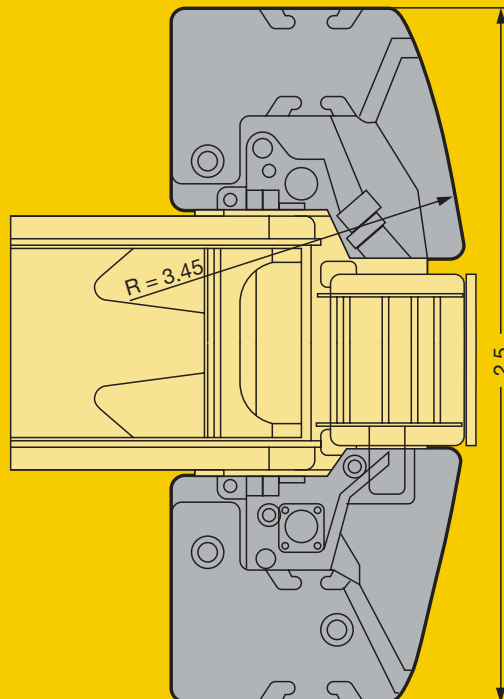
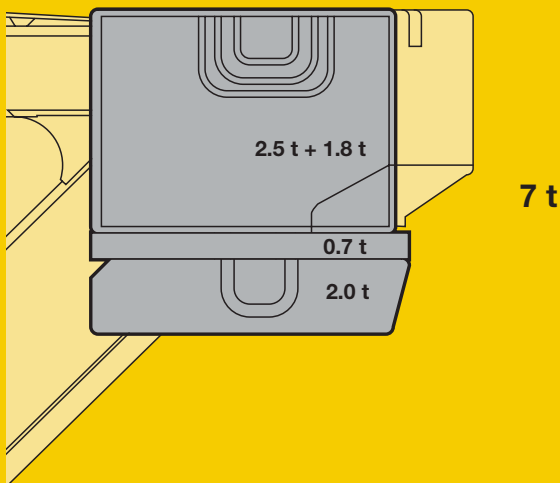
LICCON computer system with safe load indicator and test system.

- Setting of crane configuration by convenient interactive functions
- Safe and reliable acknowledgement of the crane configuration set
- Representation of all essential data by graphic symbols on the operating image
- With integrated wind speed control (optional)
- Reliable cut-off device in the event of exceeding the permissible load moments
- Indication of safe working loads for any intermediate boom length
- Winch indications for ultra-precise lifting and lowering of the load
- Test system for servicing, providing the facility of checking all sensors within the system on the monitor



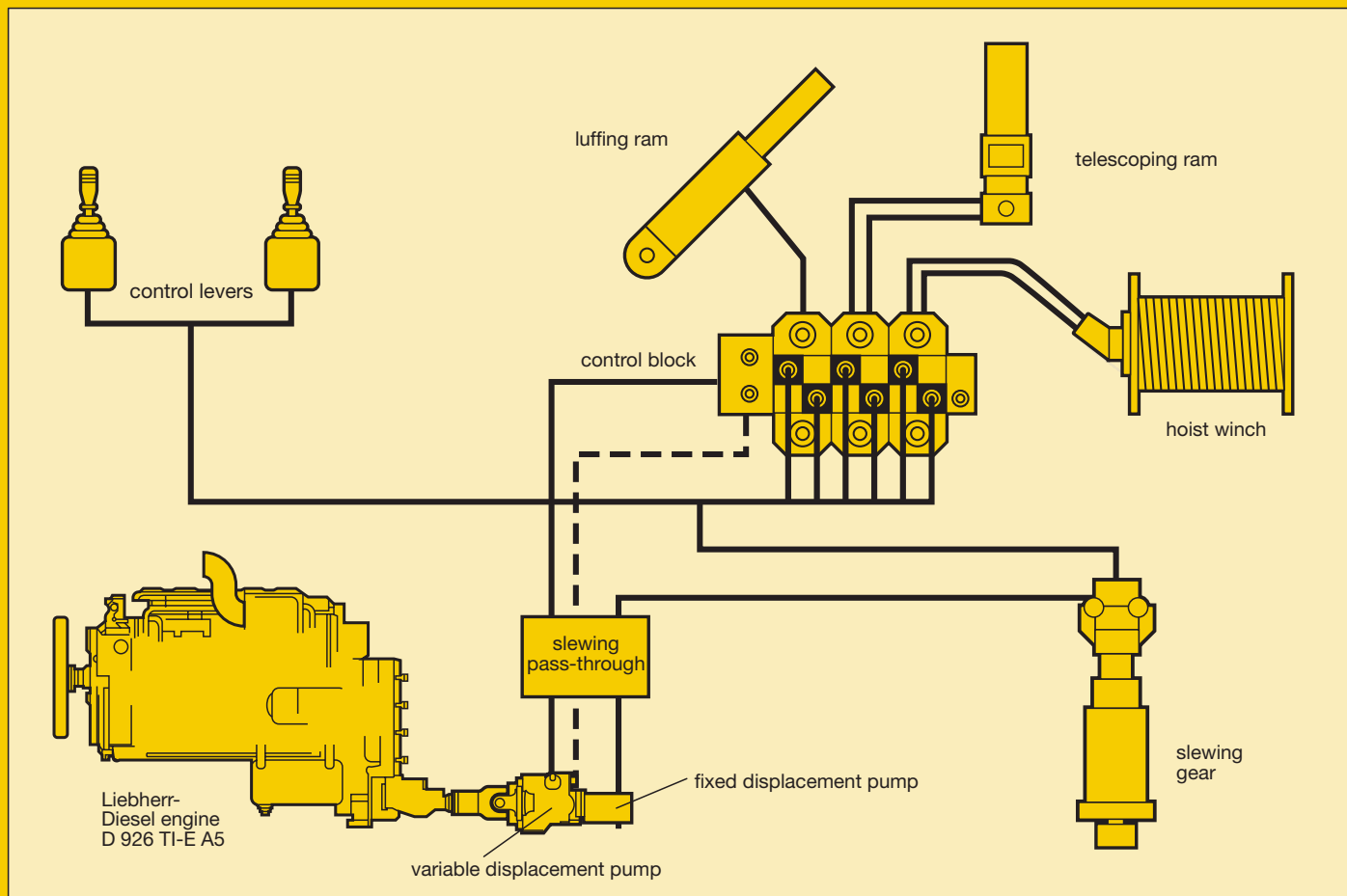
Mounting of counterweight - just a matter of minutes.

- Total counterweight 7 t
- Ballasting - lifting of 2 t counterweight from the carrier - controlled from the crane cab
- Quick ballasting due to proved "keyhole" system
- Compact counterweight dimensions, tail radius just 3.45 m



Crane control with hydraulic load sensing system.

- 4 working motions can be controlled sensitively and independent from one another
- Energy saving as the variable displacement pump delivers only the oil volume absolutely required
- Without high-speed activation, the entire oil volume can be directed to one single consumer, e.g. to increase the working speed
- The hydraulic system is perfectly accessible and easy to service due to its modular design
- The all-hydraulic control provides utmost sensitive and precise handling of the load



Optional features extend the application spectrum and increase comfort and safety.

On the carrier

- Additional heater Thermo 90 S with engine pre-heating
- Eddy-current-brake
- Stow-away box for sling gear
- Stow-away box for underlay blocks
- Air-conditioning system
- Trailer coupling "normal" or "heavy-duty"
- Radio preparation
- Seat heating for driver's and co-driver's seats
- Cassette radio
- Battery charger
- Reversing warning
- Fog lights

On superstructure

- Cab "partite" for reduction of the clearance height
- Air-conditioning system
- Seat heating
- Wind warning on telescopic boom/swing-away jib
- Aircraft warning light
- Work projector on cabine roof, 70 W
- Cassette radio
- Radio remote control
- Twist absorber
- Master switches with winch rotation indicator

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