

Telescopic Crawler Crane LTR 1100

Max. lifting capacity: 100 t
Max. lifting height: 83 m
Max. working radius: 60 m



LIEBHERR

Telescopic Crawler Crane LTR 1100

Outstanding off-road capabilities and maneuverability



A long telescopic boom, high capacities, an outstanding maneuverability as well as an extensive comfort and safety configuration distinguish the telescopic crawler crane LTR 1100 from Liebherr. The 100-ton crane offers state of the art technology for more convenience for the practical operation.

- **Sensitive driving under full load**
- **Short erection times**
- **Variable and long boom system**
 - 52 m telescopic boom
 - 2 x 7 m telescopic boom extension
 - 10.8 m - 19 m double swing away jib
 - 2.9 m assembly jib
- **Swing away jib hydraulically adjustable under full load from 0° to 40° (optional)**
- **High telescopable capacities**
- **Assembly of prefabricated modules in 2-hook operation with second winch and assembly jib**





①

Transport without crawlers



①

Self assembly of the crawlers

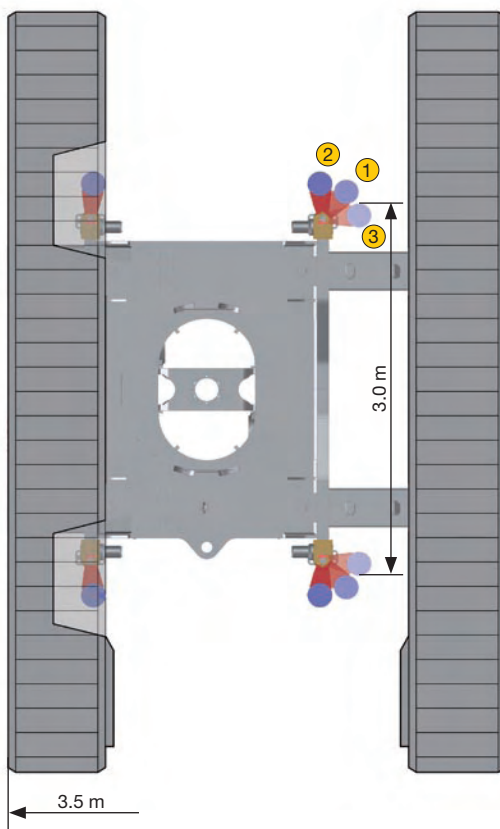
Economical transportation and simple erection

Optimized weights and dimensions

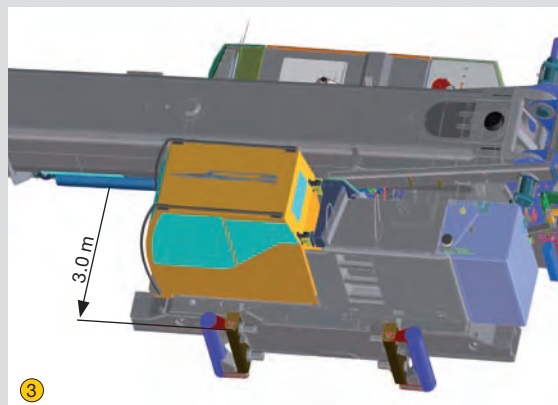
The LTR 1100 can be transported with a weight of approx. 53 tons complete with the crawlers on a low bed trailer within a transport width of 3.5 m. To reduce the weight to below 37 tons the crawlers are detached. This is performed optionally in self assembly mode by means of support cylinders (jack-up system), which are pinned to the crawler centre section. Two standard low bed trailers are sufficient for hauling the LTR 1100.

Jack-up cylinders with folding brackets for attaching/detaching of the crawlers (optional), 3 folding positions:

- ① Supporting on the jack-up cylinders for attaching/detaching of the crawlers
- ② Transport width 3.5 m with retracted crawlers
- ③ Transport width 3 m without crawlers



② Jack-up cylinders with retracted crawlers



③ Transport width 3 m without crawlers



The crane cab

- Corrosion resistant, galvanized steel plate execution, powder-coated
- All around safety glazing
- Tinted windows, front screen can be opened
- Skylight with bullet proof glass
- Crane driver's seat with lumbar support
- Sidewise extendable running board
- 20° tiltable to the rear

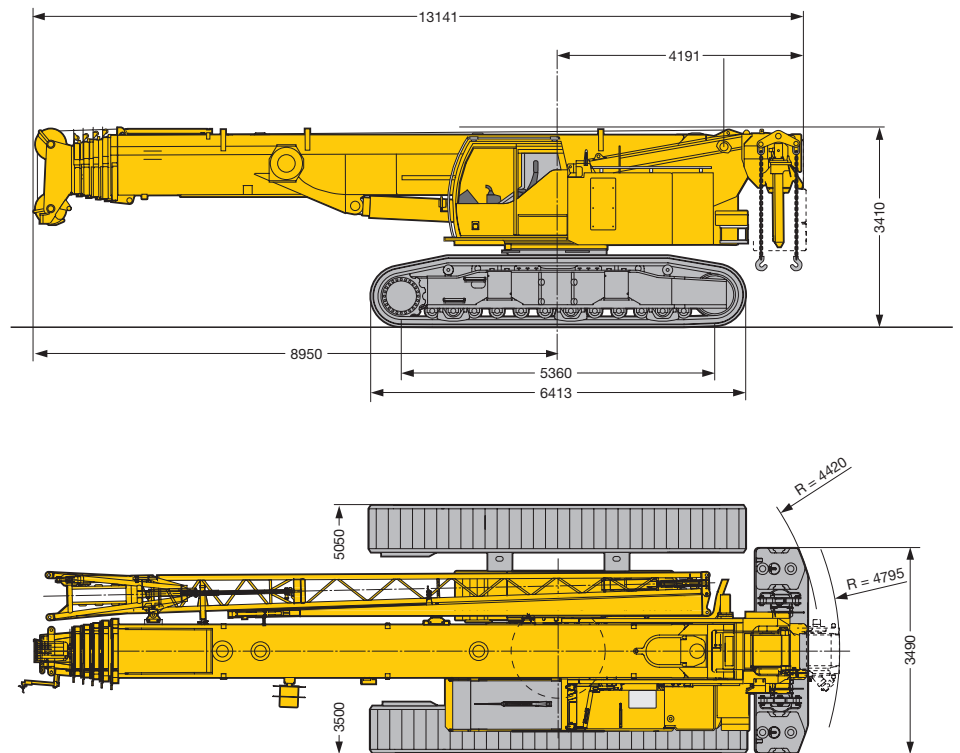
Comfort and functionality

Modern crane cab

The backwards tiltable crane cab offer a comfortable and functional working place. The control elements and displays are arranged according to ergonomic factors. Thus a safe and fatigue-proof working is assured.

Fast and safe erection

The mounting of the additional equipment and the counterweight are designed for speed, safety and comfort. For the safety of the operators pedestals and hand holds are provided.



Fast and economical ballasting of the central ballast and slewing platform ballast by self assembly.

- Max ballast of slewing platform 32 tons
- Central ballast 15 t



4°
2.5°
1.5°
0°



3-bar crawler shoes
Width 900 mm



Option:
Flat crawler shoes
Width 900 mm

Great operational diversity

High flexibility

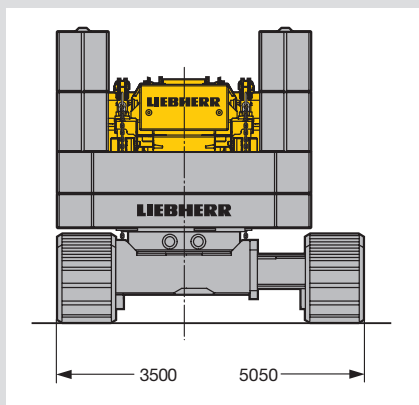
Based on its outstanding off road performance and the possibility to drive sensitively under full load the LTR 1100 offers a tremendous operational flexibility for e. g. erection of prefabricated sections, at pipeline construction or as auxiliary crane for the erection of wind power plants.

Telescopic crawlers

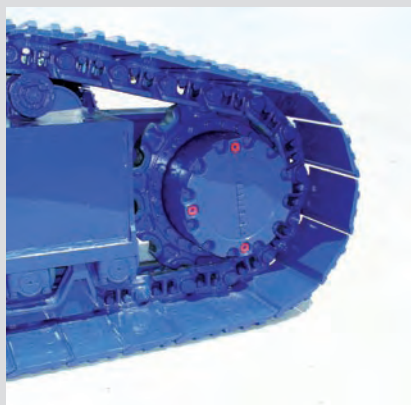
In cramped conditions the crawlers can be retracted hydraulically to a chassis width of 3.5 m. Also on this narrow crawler track the LTR 1100 can conduct crane operations, which are safeguarded by the LICCON safe load indicator. The extending and retracting can be performed in assembled condition.

Crane operation with side inclination

Additional operational possibilities are offered by the load charts programmed as standard for working with main boom and assembly jib on surfaces with an inclination up to 4°. To ensure high capacities also under these conditions the sheaves at the boom head and the assembly jib are manufactured from steel.

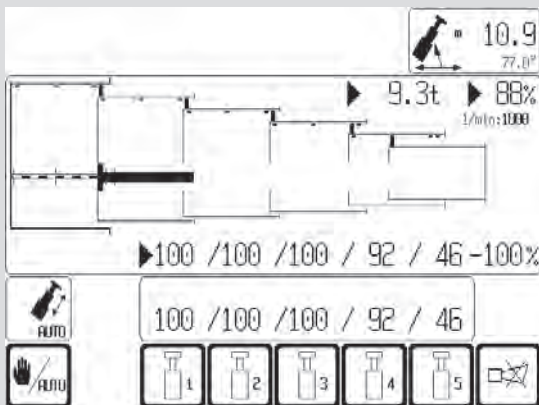
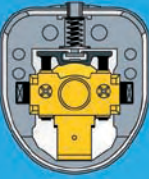


Telescopic crawlers



Hydrostatic drive from Liebherr

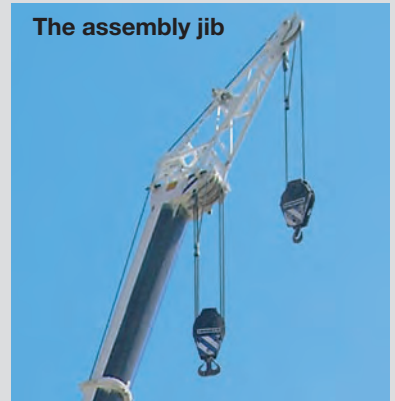
- Drive by engine in superstructure
- Stepless control of the driving speed
- Normal gear 0 – 1.0 km/h
Fast gear 0 – 2.8 km/h
- Crawlers synchronically as well as independently counter directionally controllable
- Drive force 660 kN



The fully automatic telescoping system „TELEMATIK“

- Improvement of capacities at long booms and large radii due to “lightweight” telescoping system
- 1-stage hydraulic cylinder with hydraulically operated drive pin
- Maintenance free telescoping system
- Telescoping fully automatic
- Simple operation, supervision of telescoping at the LICCON monitor

The assembly jib



High capacities and flexible boom system

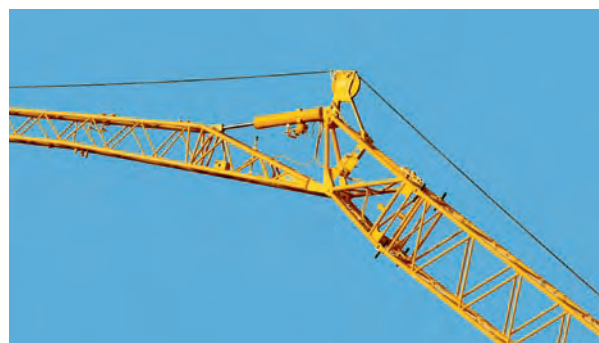
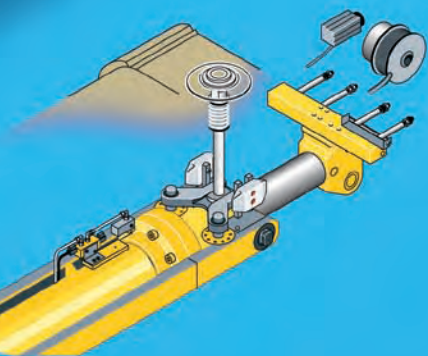
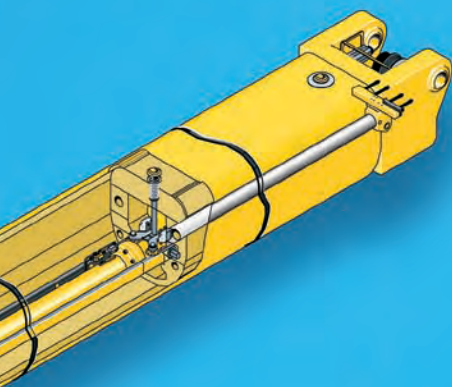
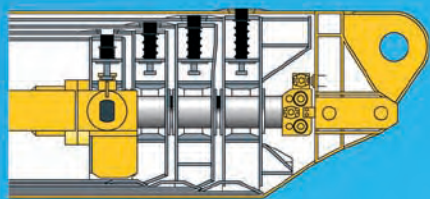
Powerful, long telescopic boom and functional lattice extensions

The telescopic boom consists of the base section and 5 telescopic sections, which can be comfortably and automatically extended and pinned to the requested length by the thousand fold proven single cylinder telescoping system TELEMATIK.

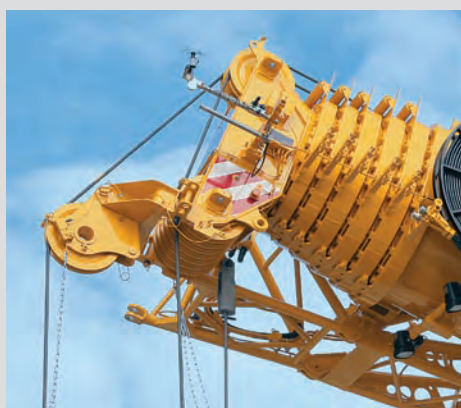
- 52 m long telescopic boom
- 10.8 m – 19 m long double swing-away jib, attachable at 0°, 20° and 40°
- Hydraulic adjustment of the swing-away jib at full load from 0° to 40° (optional), interpolation of capacities
- Hydraulic assistance for assembly of the swing-away jib
- 2 intermediate sections 7 m each for extension of the telescopic boom for operation with swing-away jib
- 2.9 m long assembly jib
- Rooster sheave, foldable sidewise

High capacities with full counterweight as well as with partial counterweight offer a wide application of operations

- High lateral stability due to the oval boom profile
- Optimized capacities due to the numerous extension variations
- Telescoping under load
- Capacity 10.6 t at 50 m hoisting height
- Maximum hook height 83 m
- Maximum radius 60 m



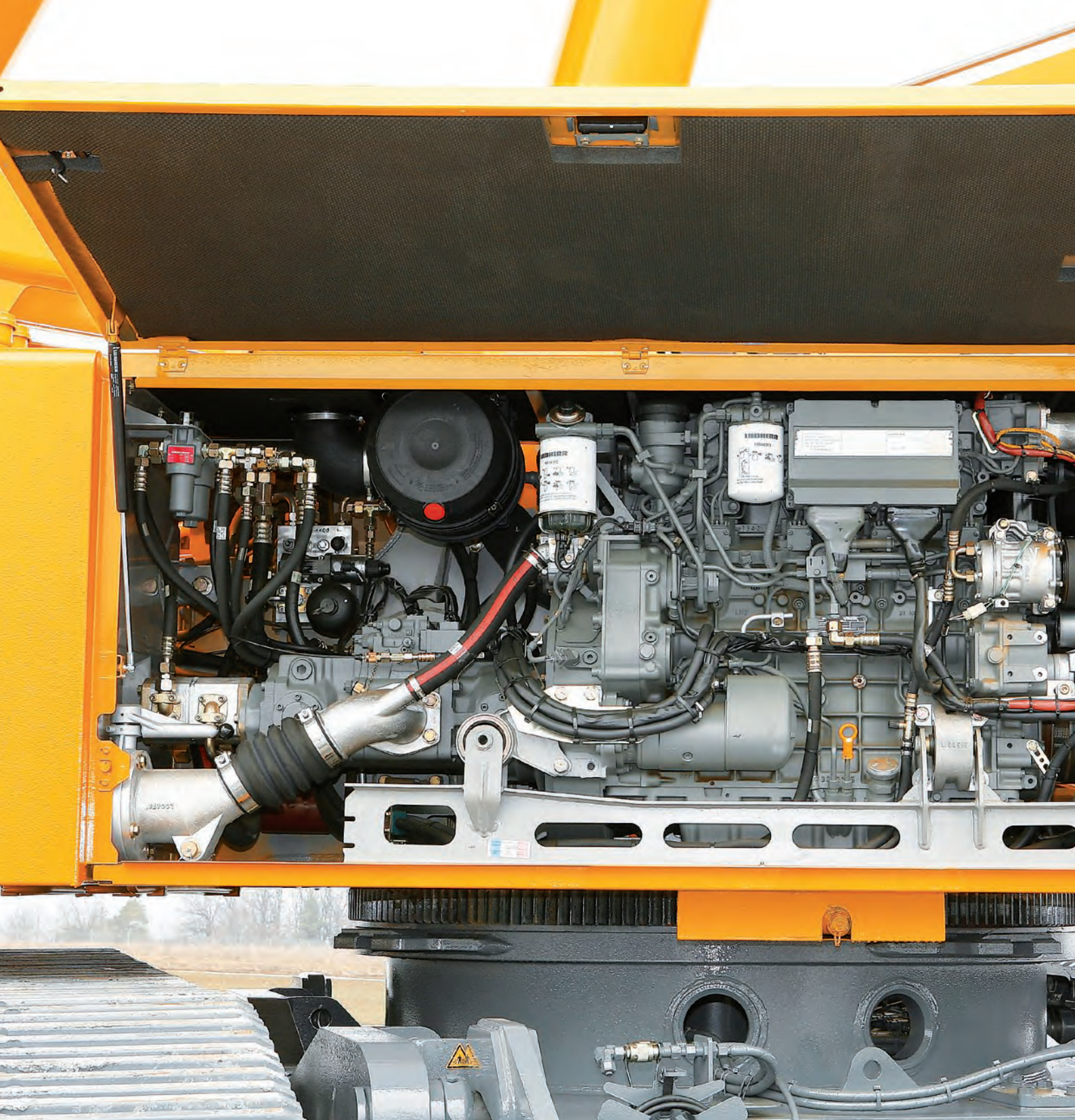
Hydraulic adjustment of swing-away jib



The rooster sheave

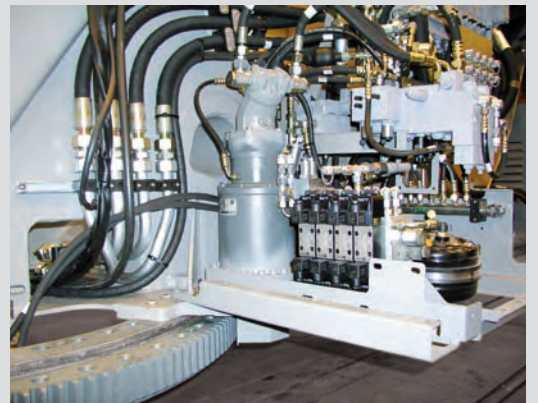


Hydraulic assistance for assembly of swing-away jib



The hoist gear

- Liebherr hoist winch with internal planetary gear and spring loaded multi disk brake
- Rope pull 88 kN at the outer layer
- Max. rope speed 110 m/min
- 2. hoist gear optional



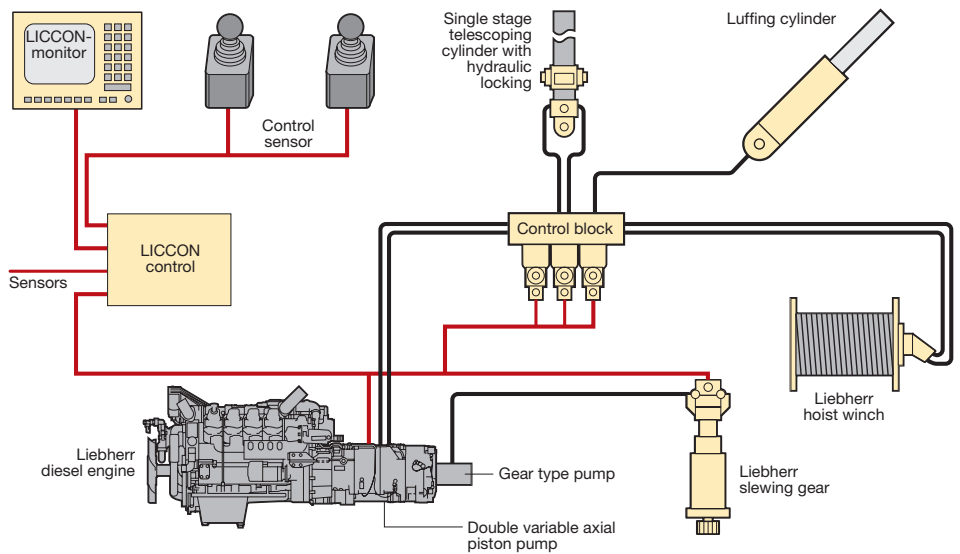
Powerful crane drive



With proven components

The drive components for the crane operation are designed for high performance and provide for sensitive and precise handling of the load. They are specially tuned for the crane operation and proved in severe long-term tests.

- Crane engine: 4-cylinder Liebherr turbo diesel engine, 129 kW/175 HP at 1800 rpm, max. torque 815 Nm at 1100 – 1500 rpm, optimized fuel consumption by electronic engine management
- Diesel-hydraulic crane drive, open hydraulic circuits with electric „LOAD SENSING“-control, 4 working motions simultaneously possible.
- Electric/electronic SPS-crane control via the LICCON-computer system
- Slewing gear reversible from open to hydraulically locked, so the slewing motion can be optimal adapted for the different operation conditions, e. g. sensitive for installation work or fast for cycle work
- In-house fabricated Liebherr winches, 88 kN rope pull at the outer layer, less reeving necessary due to high line pull



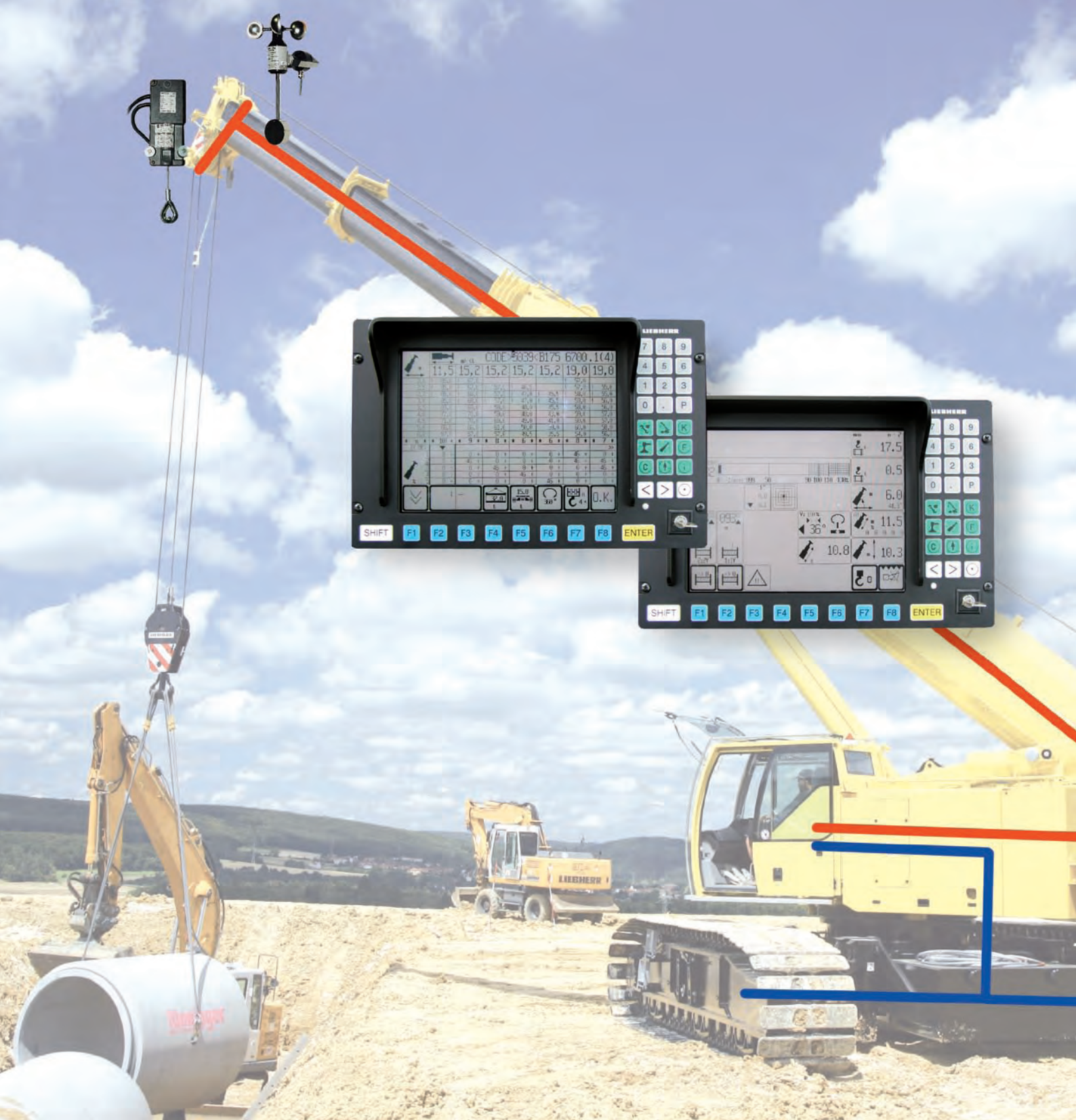
The slewing gear

- Liebherr planetary gearbox, spring loaded multi disk brake
- Reversible open or hydraulically locked as standard
- Slewing speed from 0 – 1.8 min⁻¹ infinitely variable
- 5 stages between 10 % and 100 % preselectable



The central greasing

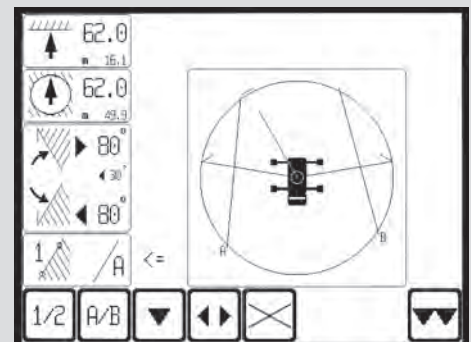
- Standard central greasing device for slewing bearing, boom bearing, luffing cylinder and winch bearing
- Even supply of grease
- Filling quantity visible at any time in transparent reservoir



SYSTEM-FUNKTION:		RUSBIG		GRUPPE	0
Q.n	DOKUMENTATION	D	I=SOIL	I=EST	Z
0.0 :	UIS Abschaltung (D)	1	1000	500	mA
0.1 :	UIS Verschiebung (Capt. 2/D)	0	0	20	mA
0.2 :	Vorspannung Ringflaube (Zut./EIN/D)	0	0	20	mA
0.3 :	Drehen Freilauf / Freidrehend (D)	1	1000	000	mA
0.4 :	Klappspitze kippen (Capt. 3/D)	0	0	0	mA
0.5 :	Drehen Bremse / Feststellbremse (D)	1	1150	000	mA
0.6 :	Drehen rechts (A)	0	0	0	mA
0.7 :	Drehen links (A)	0	0	0	mA

The LICCON test system

- Fast locating of failures at the computer screen without measuring equipment
- Display of failure codes and failure descriptions
- Comfortable dialog functions for supervision of all in and out terminals
- Display of functions and allocation of sensors and actors



Intelligent crane control

For functional and safe crane operation, the LICCON computer system

The soft- and hardware of the mobile crane control is developed by Liebherr in-house. The central point is the LICCON computer system (Liebherr Computed Controlling). The system undertakes extensive information, control and supervision tasks. The control components have proved themselves in the diverse climate conditions worldwide.

LICCON erection and operation program

- Operation programs:
 - Overload limiter (LMB)
 - Erection program with erection display
 - Operation program with operation display
 - Telescoping program with telescoping display
- Setting up of the erection status by comfortable dialog functions
- Display of all important data with graphic symbols
- Reliable cut-off at exceeding of the permissible load moments
- Winch display for exact hoisting/lowering of the load within centimetres

The data bus technology

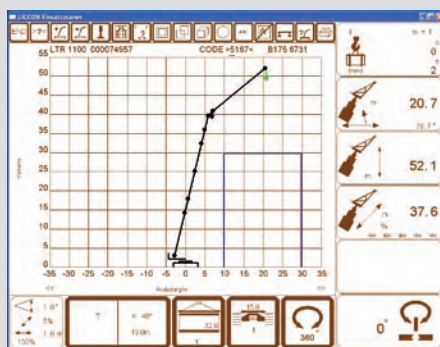
Liebherr telescopic cranes completely linked through the data bus system. All important electric and electronic components are equipped with own microprocessors and communicate over only a few data cables. For the special requirements of the telescopic cranes Liebherr has developed its own bus systems. The data bus system technology improves the reliability, the comfort and the safety of the drive and crane operation:

- Higher reliability due to much less electric cables and contacts
- Continuous self testing of the „intelligent sensors“
- Extensive diagnosis possibilities, fast fault finding



The LICCON working range limiting system (optional)

- Relief for the crane driver by automatic supervision of the working range boundaries like bridges, roofs etc.
- Simple programming
- Four different limiting functions:
 - Boom head height limiting
 - Radius limiting
 - Slewing angle limiting
 - Border limiting



The LICCON working planner (optional)

- Computer program for planning, simulation and documentation of crane operations at the PC
- Display of all load charts belonging to a specific crane
- Automatic search of a suitable crane by input of the load case parameters load, radius and hoisting height
- Simulation of crane operations with drawing functions and display of support forces

