

# Successful with innovative crane concepts.



The patented internal interlocking system of the telescopes.

The oviform boom profile.

The telescoping system „Telematik“.

The LICCON system, proven reliability.

The forward-oriented data bus technique.

# LIEBHERR

The better crane.

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# Progress fosters success.

With innovative crane concepts, Liebherr increases the performance, efficiency and functionality of the mobile cranes. The successful boom technology, the forward-oriented data bus technique and the thousand-fold proved LICCON system, the most modern computer system world-wide for cranes, emphasize Liebherr's leading position as manufacturer of mobile cranes.





# Outstanding boom technology and data bus technique.

## The successful boom technology.

The focal points in respect to technology of the successful boom generation for the LTM mobile cranes are the oviform boom profile, the internal interlocking system of the telescopes and the telescoping system "Telematik".

### The oviform boom profile.

It features a particular inherent stability against deflection and torsion. In steep boom position as well as at large radii, the oval boom profile offers optimal lifting capacities. With the 7-section, 84 m long telescopic boom of the LTM 1500, the successful boom technology of Liebherr attains its interim zenith.

### The patented internal interlocking system of the telescopes.

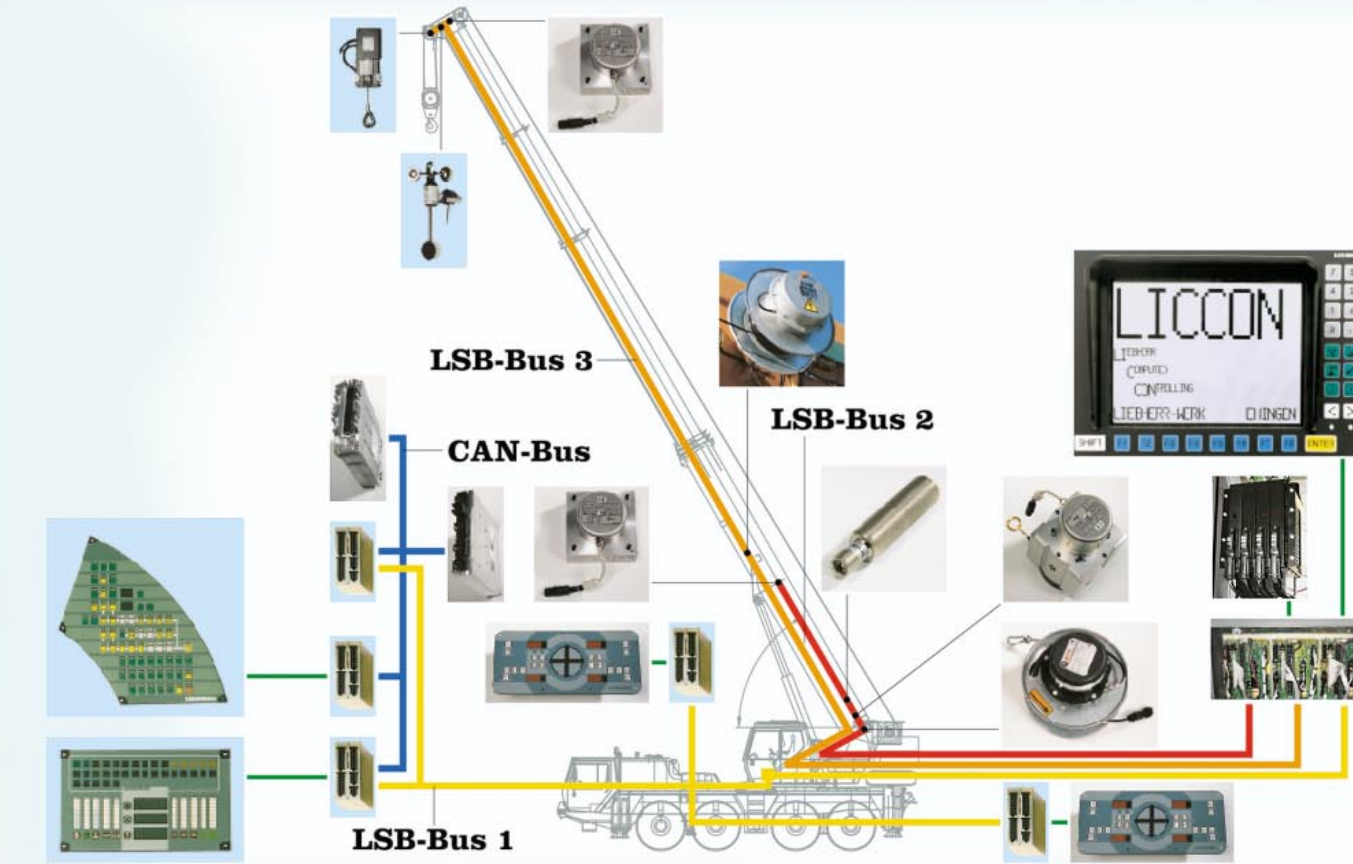
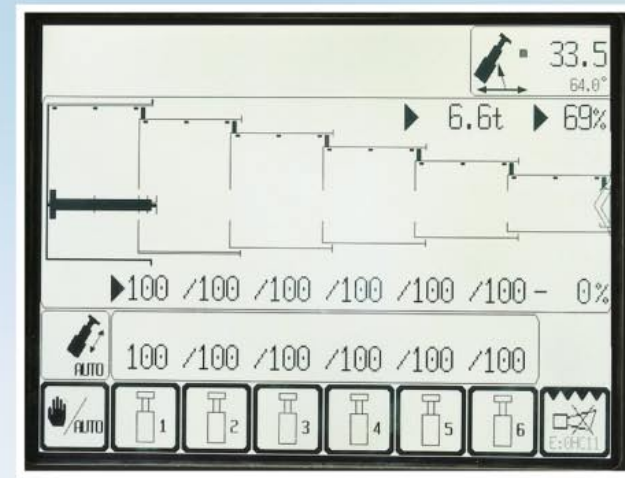
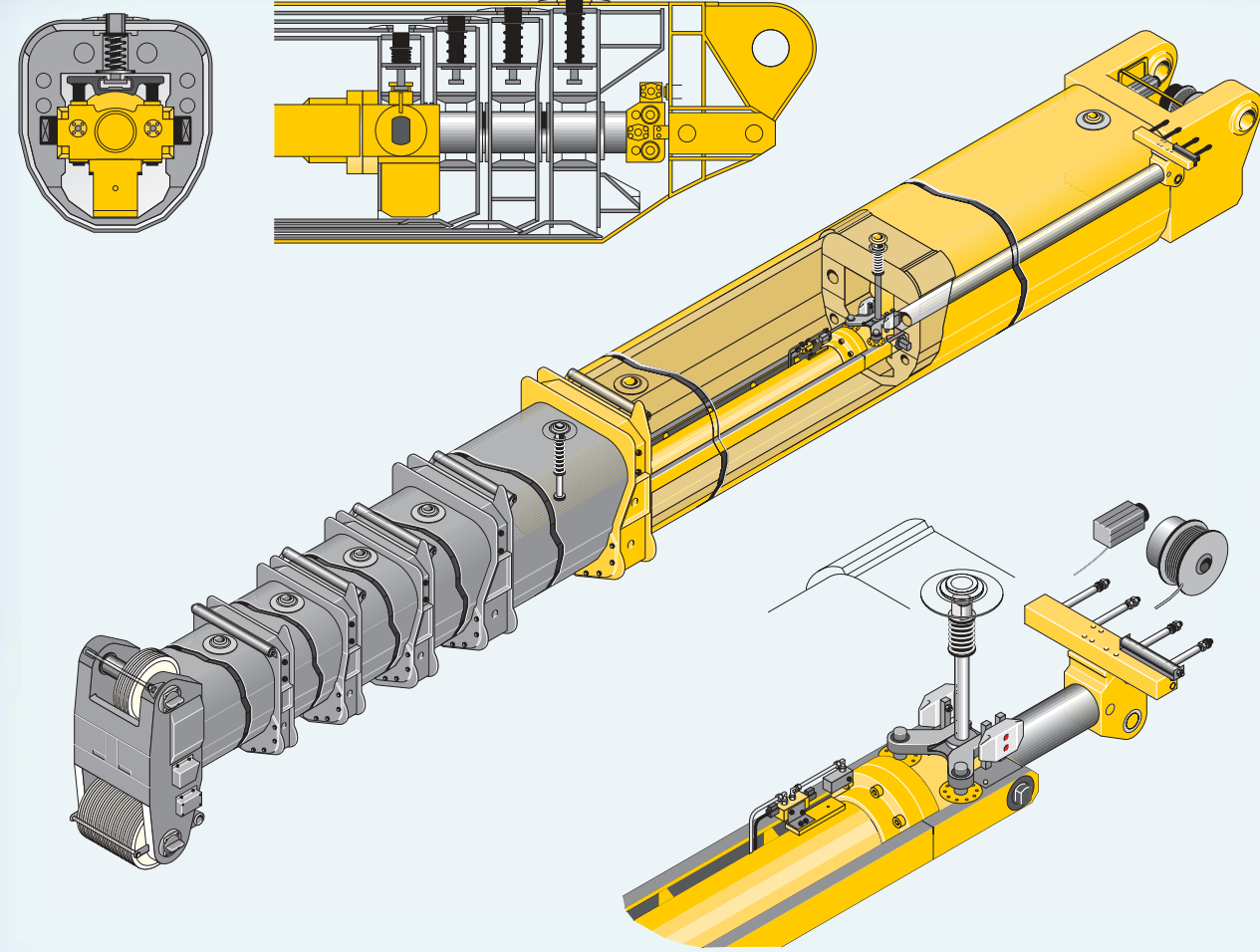
The interlocking process of the telescoping ram with a boom section is performed successively by spring-loaded pins, and followed by the mechanical release of the same section of the telescopic boom. This method guarantees that a telescope release can only take place if the telescopic section is interlocked with the hydraulic ram.

### The telescoping system "Telematik".

An outstanding flexibility in controlling the various telescoping lengths of the boom is achieved by the rapid-cycle telescoping system. The most suitable boom configuration can be preselected dependent on the job requirements. The telescoping of the boom is practicable either by manual or fully automatic control. The saving of time during the automatic telescoping procedure and the combinatorial variety of the telescoping paths determine the functionality of the new telescopic booms.

## The advantages of the boom technology at a glance:

- Considerable increase in lifting height and reach due to extraordinarily long telescopic booms.
- Telescopic booms of inherent and lateral stability for maximum lifting capacity requirements.
- Outstanding functionality due to the automatic telescoping system "Telematik".
- High working speeds due to the fully automatic telescoping procedure.
- Outstandingly easy operation - control of the telescoping procedure by means of telescoping images on the LICCON display screen.
- Maintenance-free telescoping system.



## Data bus technique revolutionizes the crane electric system.

The most LTM mobile cranes are entirely equipped with data bus transfer systems. The digital system is the basis for the data bus. It permits the transfer of a multitude of information almost parallel and faultless via one only cable. Liebherr has developed its own system bus (LSB) which corresponds to the manifold requirements in respect to all possible mobile crane operations. All important electrical and electronic components on the superstructure, such as length sensors, angle sensors, load cells, proximity switches, master switches and hoist limit switch are equipped with their own microprocessors and communicate via various data bus networks. The keyboard and display units, the outrigger control as well as the engine and transmission control on the vehicle are intelligent function blocks and equipped with bus interfaces. A continuous self-test of the sensors during operation guarantees a high functional reliability. The internetworking of the LICCON computer system with the system bus establishes entirely new and comprehensive diagnostic facilities in respect to the crane.

## The advantage of the data bus technique at a glance:

- Reduction of the operating costs due to a modern engine and transmission management (CAN bus system); increased economy due to improved endurance of the individual units.
- Improved reliability due to a considerably reduced number of electrical cables and contacts.
- A continuous self-test of the "intelligent sensors" guarantees a maximum of reliability.
- Comprehensive diagnostic facilities - quick error detection.
- Self-manufactured bus systems, specially adapted to the requirements of a mobile crane.
- The data bus technique increases the comfort and safety during driving and crane operation.





# The mobile cranes with safe working loads of up to 800 tons.

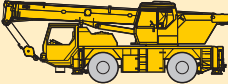
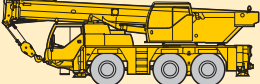

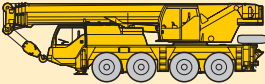

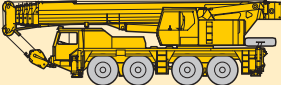
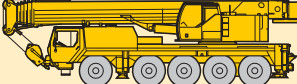


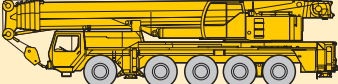
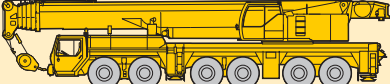
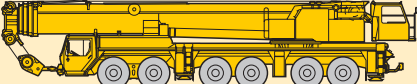
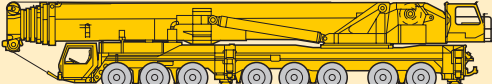
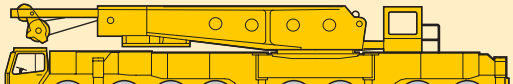
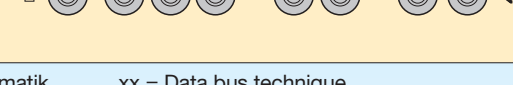


t

m

x

xx

	<b>LTM 1030/2</b>	<b>35</b>	<b>3</b>		●
	<b>LTM 1045/1</b>	<b>45</b>	<b>3</b>		●
	<b>LTM 1055/1</b>	<b>55</b>	<b>2,5</b>	●	●
	<b>LTM 1060/2</b>	<b>60</b>	<b>2,5</b>	●	●
	<b>LTM 1080/1</b>	<b>80</b>	<b>2,5</b>	●	●
	<b>LTM 1090/2</b>	<b>90</b>	<b>3</b>	●	
	<b>LTM 1100/2</b>	<b>100</b>	<b>2,7</b>	●	●
	<b>LTM 1150/1</b>	<b>150</b>	<b>3</b>	●	●
	<b>LTM 1160/2</b>	<b>160</b>	<b>3</b>	●	
	<b>LTM 1200/1</b>	<b>200</b>	<b>3</b>	●	●
	<b>LTM 1250/1</b>	<b>250</b>	<b>3</b>	●	●
	<b>LTM 1300/1</b>	<b>300</b>	<b>3</b>	●	●
	<b>LTM 1500</b>	<b>500</b>	<b>3</b>	●	●
	<b>LTM 1800</b>	<b>800</b>	<b>3</b>		
	<b>LG 1550</b>	<b>550</b>	<b>4,5</b>		

x = Telematik

xx = Data bus technique

Subject to modification.

TP 281c.3.02

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