The successful boom technology of Liebherr.

LIEBHERR

The better crane.

The new boom technology.

Liebherr has developed entirely new 5/6/7-section telescopic booms for the LTM mobile cranes of the 60, 80, 90, 100, 120, 160, 300 and 500 t class. The technology's focal points are the new oviform boom profile and the automatic telescoping system "Telematik".

The oviform boom profile.

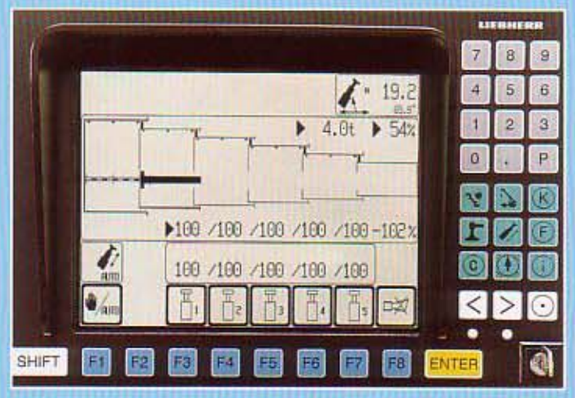
It provides particular inherent stability against deflection and torsion. Since the telescopes do no longer need to be equipped with buckling resistance gussets nor with material doublings, a considerable cross-section enlargement of the structural components can be realized by reducing the distance between the individual telescopes. At steep boom position as well as at wider radii, the new oviform boom profile offers optimal lifting capacities.

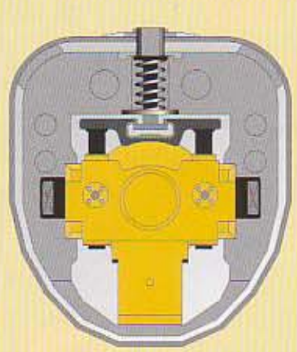
The automatic rapid-cycle telescoping system "Telematik".

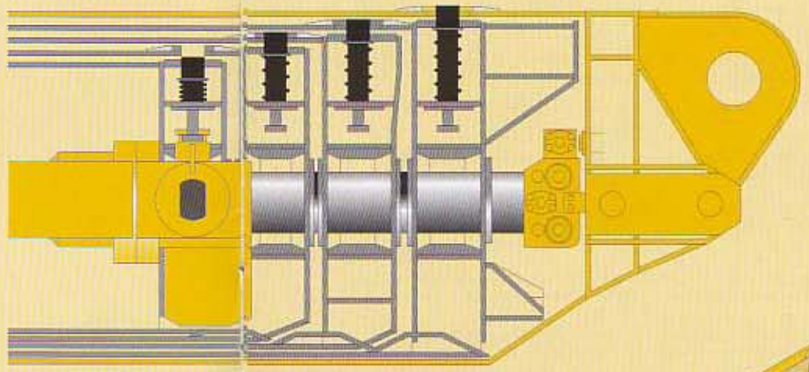
In essence, it consists of the following:

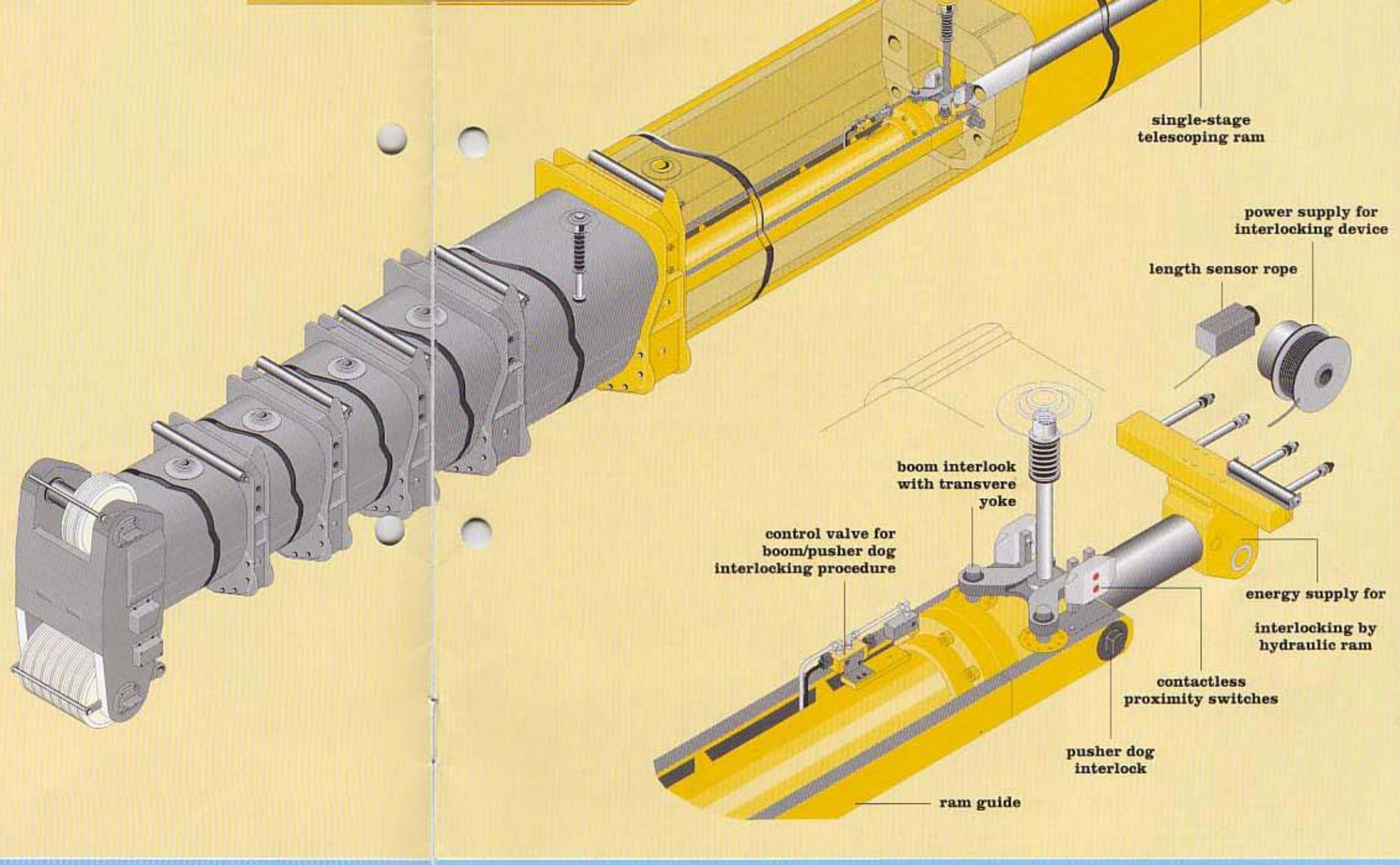
- the double-action telescoping ram
- the hydraulic gripper interlocking system at the base of the hydraulic ram
- the hydraulic boom pins for interlocking the boom sections with one another, and
- the electric/electronic sensorial system, an additional module of the LICCON crane control.

The gripper and boom interlocking systems are coupled with one another, i.e. a boom section can only be released at the upper shell if the gripper is interlocked with this particular boom section at the same time. This also guarantees mechanical reliability of the telescoping system. With the exception of the electrical supply line to the hoist limit switch, no electric, hydraulic nor pneumatic components are located in or on the telescopic boom. The automatic telescope control – part of the LICCON crane control – offers more than 1000 different extension conditions of the telescopic boom. The saving of time during telescoping due to the automatic operation and thus the combinatorial variety determine the outstanding functionality of the new boom technology. With their long telescopic booms, the Liebherr mobile cranes of the 60, 80, 90, 100, 120, 160, 300 and 500 t class offer entirely new application facilities.

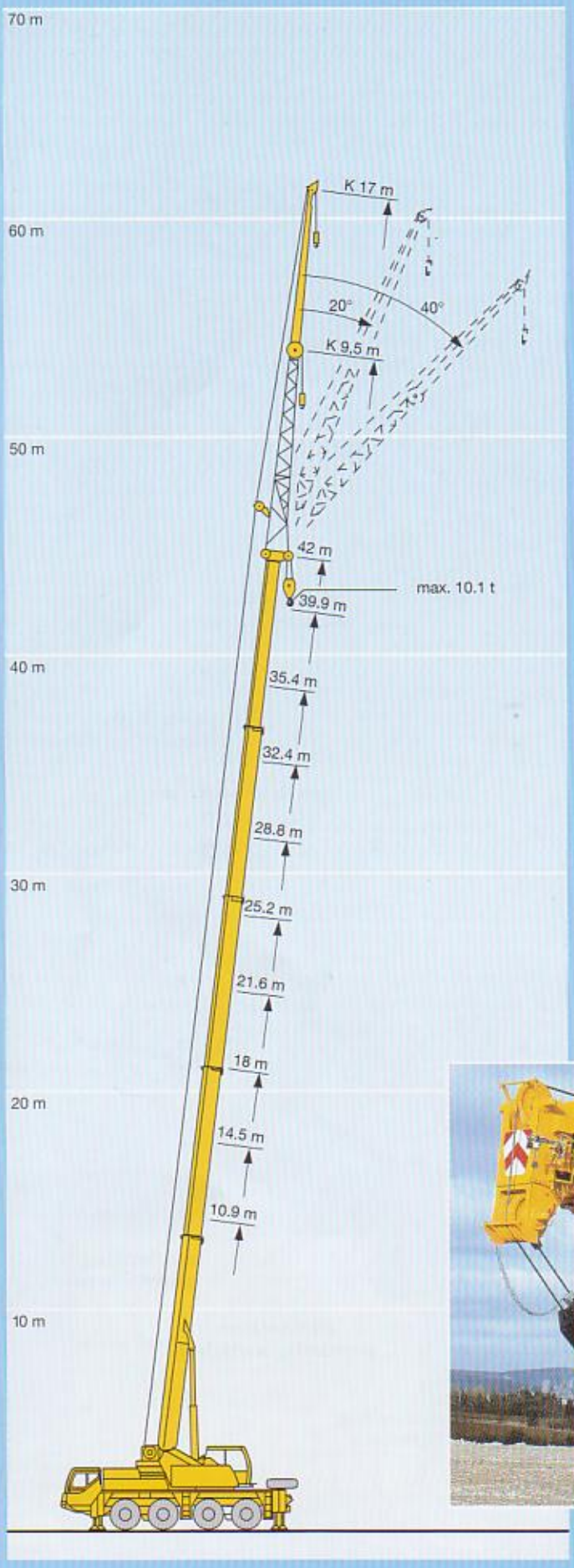








A redefinition of boom length through the new oviform boom profile and the new rapid-cycle telescoping system "Telematik".

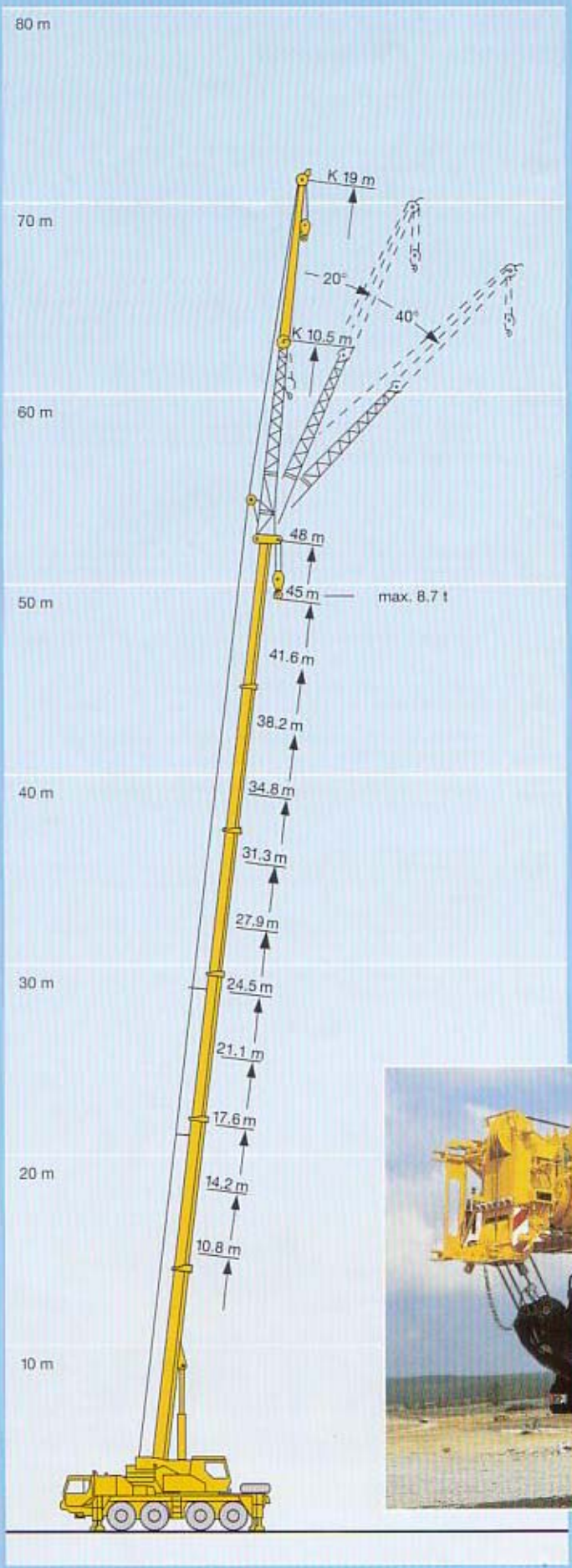


The new 60-tonner with highlights offered by Liebherr.

- 5-section, 42 m long telescopic boom for 42 m height under hook
- biparted, 9.5 - 17 m long swing-away jib for 60 m height under hook, mountable at 0°, 20° or 40°
- 10.1 t safe working load on the 42 m long telescopic boom
- oviform, extremely rigid boom profile for high lifting capacities
- proved rapid-cycle telescoping system "Telematik" for the automatic extension of the boom to the desired length
- high lifting capacities with 12 t total counterweight, rapid ballasting procedure with "keyhole" system
- electrically pilot-controlled load sensing system, 4 superimposable working motions, working speeds preselectable by steps
- comfortable crane cab of modern design, steering and outrigger actuation from the crane cab is part of the standard equipment
- self-manufactured hoist winches with 57 kN line pull and 130 m/min line speed
- LICCON system – a Liebherr design – the most modern programmable computer system world-wide for the control and monitoring of mobile cranes
- outstandingly compact, 4-axle carrier with 8 x 6 drive (optional) and all wheel-steering included in the standard equipment
- operative weight 48 t (4 x 12 t axle load), incl. 12 t total counterweight and biparted swing-away jib
- "Niveaumatik", the crane and road preserving suspension
- electric and electronic components interlinked by the most modern data bus transmission technique which distinctively contributes to an increase in functionality and efficiency (LSB = Liebherr System Bus)
- Liebherr turbo-charged Diesel engine of 270 kW, exhaust emission acc. to EURO 2, fully electronic engine management, single-engine concept
- driving cab with ergonomical cockpit and functional design

Mobile crane type LTM 1060/2

Data bus technique revolutionizes cra



The new 80-tonner with highlights offered by Liebherr.

- 6-section, 48 m long telescopic boom for 48 m height under hook
- biparted, 10.5 - 19 m long swing-away jib for 68 m height under hook, mountable at 0°, 20° or 40°
- 8.7 t safe working load on the 48 m long telescopic boom
- oviform, extremely rigid boom profile for high lifting capacities
- proved rapid-cycle telescoping system "Telematik" for the automatic extension of the boom to the desired length
- high lifting capacities with 16 t total counterweight, rapid ballasting procedure with "keyhole" system
- electrically pilot-controlled load sensing system, 4 superimposable working motions, working speeds preselectable by steps
- comfortable crane cab, tiltable backwards by 20°, steering and outrigger actuation from the crane cab is part of the standard equipment
- self-manufactured hoist winches with 57 kN line pull and 130 m/min line speed
- LICCON system – a Liebherr design – the most modern programmable computer system world-wide for the control and monitoring of mobile cranes
- outstandingly compact, 4-axle carrier with 8 x 8 drive (optional) and all wheel-steering included in the standard equipment
- operative weight 48 t (4 x 12 t axle load), incl. 6.6 t counterweight and biparted swing-away jib
- "Niveaumatik", the crane and road preserving suspension system
- linkage of the electric and electronic components by most modern data bus transfer technique, distinctive increase of functionality and efficiency (LSB = Liebherr System Bus)
- Liebherr turbo-charged Diesel engine of 320 kW output, exhaust emission acc. to EURO 2, fully electronic engine management, single-engine concept
- driving cab with ergonomical cockpit and functional design

Mobile crane type LTM 1080/1

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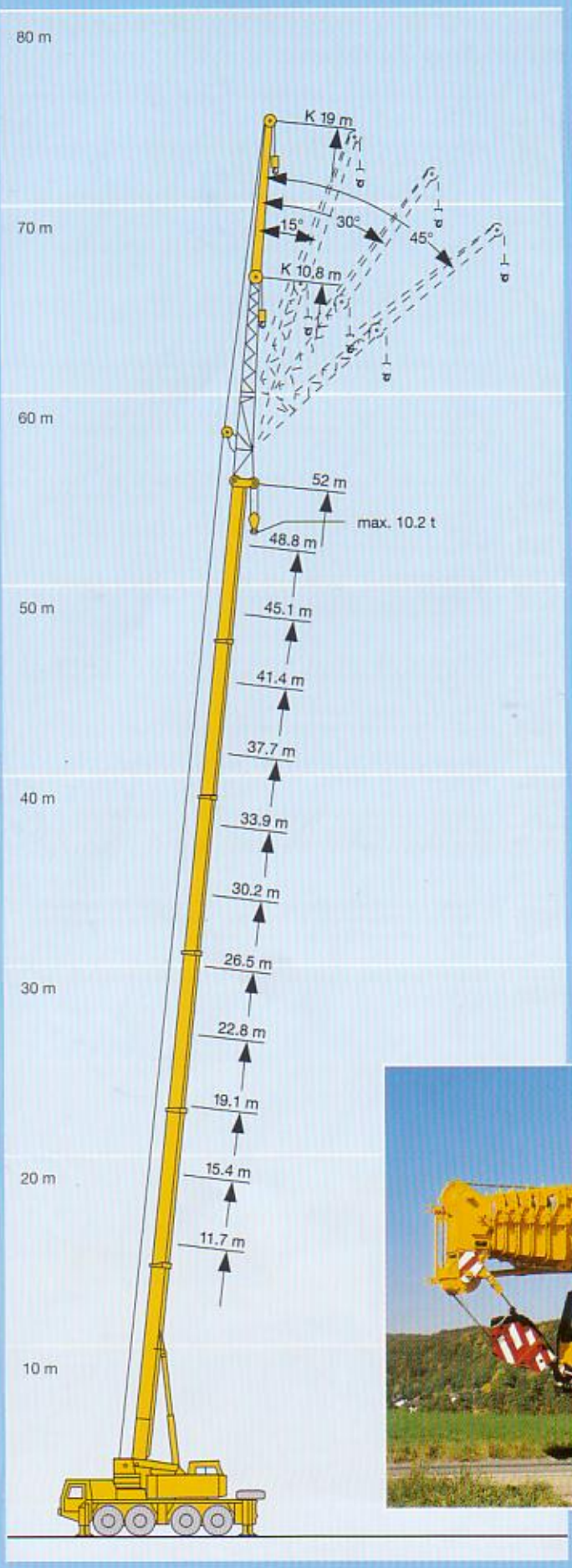

The 90-tonner with highlights offered by Liebherr.

- 6-section, 52 m long telescopic boom for 52 m height under hook
- biparted, 10.8 - 19 m long swing-away jib for 72 m height under hook, mountable at 0°, 15°, 30° or 45°
- 10.2 t or 8.8 t safe working load on the 52 m long telescopic boom (with 20 t / 1.2 t counterweight)
- oviform, extremely rigid boom profile for high lifting capacities
- proved rapid-cycle telescoping system "Telematik" for the automatic extension of the boom to the desired length
- variable application spectrum with 20 t, 12.2 t, 7 t, 3 t or 1.2 t counterweight
- electrically pilot-controlled load sensing system, 4 superimposable working motions, working speeds preselectable by steps
- comfortable crane cab, tiltable backwards by 20°
- LICCON system – a Liebherr design – the most modern, programmable computer system world-wide for the control and monitoring of mobile cranes
- extremely compact, 4-axle carrier with all-wheel steering
- operative weight 48 t (4 x 12 t axle load), incl. 1.2 t counterweight
- "Niveaumatik", the crane and road preserving suspension system
- variable supporting basis with LICCON supporting force indication and inclinometer (optional)
- for the carrier drive:
  Liebherr turbo-charged Diesel engine of 300 kW output, exhaust emission acc. to EURO 2, Allison automatic transmission
  for the crane drive:
  Liebherr turbo-charged Diesel engine of 120 kW output
- driving cab with ergonomical cockpit and functional design

Mobile crane type LTM 1090/2

Internal interlocking system of the tele
Liebherr boom technology.