

**Truck
Mounted
Crane
Type LT 1100.
Technical
Data.**



LIEBHERR

Know to build truck cranes



Lifting capacities at telescopic boom.

Working lengths of boom (metres)
on outriggers, 360°

Radii m	13,8 m		24,2 m ¹⁾		24,2 m ²⁾		34,6 m		45 m	
	75 %	85 %	75 %	85 %	75 %	85 %	75 %	85 %	75 %	85 %
3,2	100	100								
3,5	90	90								
4	79	79	50	50	30	30				
5	64	64	45	45	30	30	30	30		
6	54,5	54,5	41	41	30	30	28	28		
7	47	47	37	37	30	30	26	26		
8	41	41	33,5	33,5	30	30	24	24	13	13
9	35	35,5	30	30	30	30	22	22	12,5	12,5
10	29	30,5	26,5	26,5	27	27	20,5	20,5	12,2	12,2
11	24	26,5	23	23	24	24	18,5	18,5	11,7	11,7
12			19,5	19,5	21,5	21,5	17	17	11,3	11,3
13			16,8	16,8	19	19	15,2	15,2	10,9	10,9
14			14,3	15	16,5	17	14	14	10,5	10,5
15			12,2	13	14,5	15,2	12,6	12,6	10	10
16			10,3	11,3	12,5	13,4	11,5	11,5	9,6	9,6
17			9	10	11,3	12,1	10,6	10,6	9,2	9,2
18			7,5	8,5	10	11	9,5	9,7	8,7	8,7
19			6,3	7,2	8,8	9,8	8,6	8,8	8,2	8,2
20			5,3	6,2	7,5	8,8	7,5	8	7,6	7,7
22			3,5	4,3	6	6,8	5,8	6,5	6,5	6,8
24							4,5	5,2	5,4	5,9
26							3,4	4	4,4	5
28							2,4	3	3,5	4,1
30							1,6	2,1	2,7	3,2
32							0,9	1,4	2	2,5
34									1,4	1,9

¹⁾ Telescope section 1 fully extended, telescope sections 2 + 3 retracted.

²⁾ Each telescope section extended % of its individual length.

Working lengths of boom (metres)
without outriggers, over rear

Radii m	13,8 m		24,2 m ²⁾	
	75 %	85 %	75 %	85 %
4	45	45		
5	33	36	30	30
6	25	28	24	26
7	19,5	22,5	19	20,6
8	16	18	15	16,5
9	13	14,8	12	13,3
10	10,5	12	9,5	10,7
11	8,5	9,5	7,5	9,6
12			6	7,2
13			4,8	5,8
14			3,5	4,6
15			2,5	3,8
16			1,8	2,7

Its maximum load moment is 32

Lifting capacities at fly jib.

Main boom fully extended to 45 m height + fly jib 9 m long
on outriggers, 360°

Radii m	Position of fly jib to main boom	
	15°	40°
14	6	
15	5	
16	5	3,4
17	4,75	3,35
18	4,5	3,3
19	4,3	3,25
20	4,1	3,2
21	3,9	3,15
22	3,7	3,1
23	3,52	3,05
24	3,35	3
25	3,18	2,9
26	3	2,8
27	2,85	2,7
28	2,7	2,6
29	2,6	2,5
30	2,5	2,4
31	2,4	2,3
32	2,3	2,25
33	2,2	2,17
34	2,1	2,1
35	1,95	1,95
36	1,8	1,8
37	1,65	1,65
38	1,5	1,5

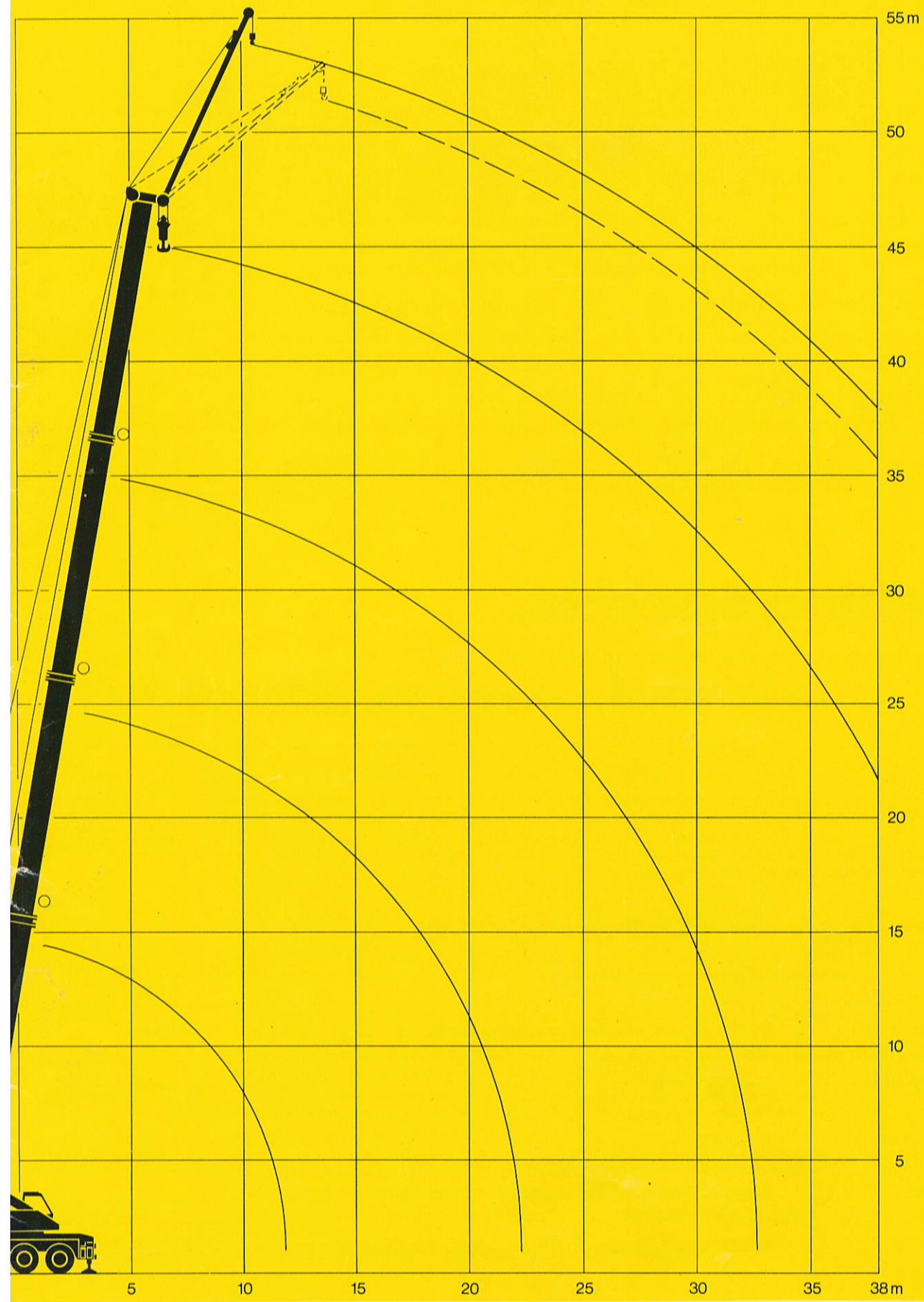
Please observe the following remarks referring
to load charts:

1. Tabulated load ratings do not exceed 75 or 85 %
of the tipping load.
2. The tabulated 75 % ratings are in accordance with DIN
15019, sheet 2, edition of March 1973 and F.E.M standards.
3. The following wind strength has been considered:
 $8 - 9 = 0,025 \text{ mp/m}^2$. Crane operation up to wind strength 7
is permissible.
4. Load capacities are given in metric tonnes.
5. The weight of hook blocks and hook are included
in the tabulated ratings.
6. The tabulated ratings are applicable with the counter
weight of 8 tonnes fully extended.
7. Working radii are counted from slewing centre.
8. The tabulated load ratings for the main boom are
valid when fly jib (lattice-type head section) is dis-
assembled. The ratings are to be reduced by 600 kg
when fly jib (lattice-type head section) is placed
underneath (beside) pivot section.
9. The load ratings are to be reduced by 1250 kg when
fly jib is assembled, but if working with main boom.



28 MPM.

Height of Lift.



put

y

ns

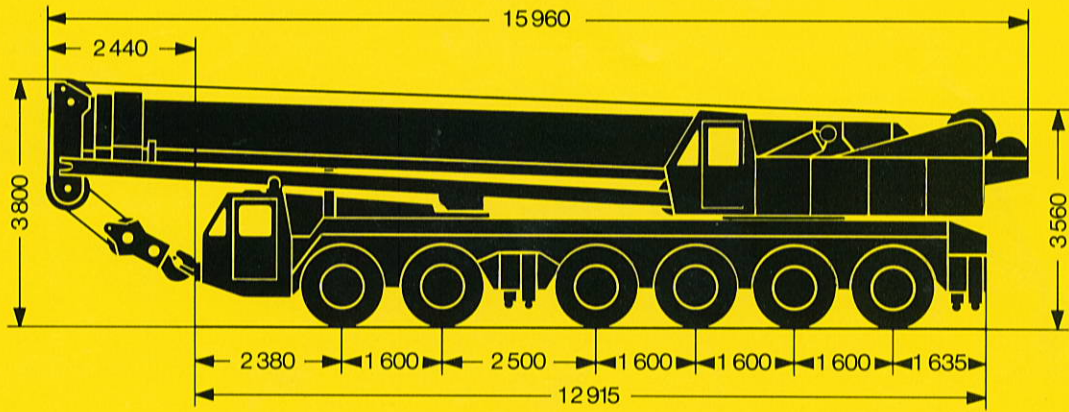
h

m.
ke

Lif Dimensions and weights.

at

Main b
on outri



Axle loads (tonnes) (from front to rear)

Axle	1	2	3	4	5	6
t	12	12	12	12	12	12

Hook blocks and hooks

Load tonnes	no. of sheaves	no. of lines	weight kg
100	6	12	1400
72	4	9	1060
40	2	5	520
25	1	3	350
8	-	1	250

Total weight: 72 tonnes incl. ballast
A special equipment condition allows to reduce axle loads.
Turning radius: 16,2 m.

Working Speeds.

Travelling speeds at max. engine speed of 2500 rpm.

Gear	1	2	3	4	5	R
On road (km/h)	12,7	20,5	31,7	46,8	65,6	14,6
Off road (km/h)	5	12,8	19,8	29,3	41	9,15

The data apply to automatic gear changing.

Speed of crane movements at max. engine speed of 2500 rpm.

	infinitely variable	max. single line pull kp
Main winch	0-120 m/min. single line without load	8000
Auxiliary winch	0- 70 m/min.	5700
Slewing gear	0-1,7 rpm	
Derricking	approx. 60 seconds to reach 80° boom angle	
Telescoping	approx. 180 seconds for boom extension from 13,8 to 45 m	

Please to load

1. The t
2. The t
3. The f
4. Load
5. The v
6. The t
7. Work
8. The t
9. The l

Upper machinery.

Frame:	Liebherr-made, torsion-resistant welded construction made of high-tensile structural steel. Connection to crane carrier by triple roller slewing ring, make Rothe Erde, designed for 360° continuous rotation.
Crane Engine:	Diesel, 6 cylinder, watercooled, make Daimler-Benz, type OM 360, Output 185 HP (DIN) at 2500 rpm. Max. torque 59 kpm at 1300 rpm. Fuel supply: 270 litres.
Crane Drive:	Diesel-hydraulic with 4 axial piston swivelling pumps with servo control and automatic output regulation. One auxiliary double pump for feeder circuit.
Crane Control:	By self-centring control lever, operationable in 4 directions (cross-control arrangement).
Main winch and aux. winch:	Axial piston motor, full hydraulic power up and down. Hoist drum with integrated planetary gear and spring loaded brake.
Derricking:	Twin double-acting hydraulic cylinders with integral safety locking valves.
Slewing:	Worm-and-planetary-gear with flange connected hydraulic motor and spring loaded brake.
Crane Cab:	All-steel construction, safety glazing, heater, full instrumentation.
Safety Devices:	Hoist limit switch, radius indicator, safety valves to protect hydraulic system against pipe and hose fracture. Overload protection.
Telescopic main boom:	1 boom pivot section and 3 telescope sections. All sections hydraulically under load extendable. Extension of sections 2 and 3 synchronous. Boom length: 45 m.
Fly jib:	9 metres long, welded box-type construction. Inclination to main boom optionally 15° or 40°.
Lattice-type head section:	11-33,5 metres long, fixed or luffing, only in conjunction with auxiliary winch.
Electrical equipment:	24 volts d. c., 2 batteries.

The truck crane chassis.

Frame:	Torsionally rigid structure, welded from high-strength fine grain steel in our own assembly shops. Width of chassis: 2,75 m, alternatively 3 m.
Engine:	Daimler-Benz Type OM 404 12-cylinder water-cooled diesel, output 430 bhp (DIN) at 2500 rev/min; max. torque: 138 kpm at 1600 rev/min. Fuel tank capacity: 375 litres.
Transmission:	Allison Type CLBT 750 automatic transmission with torque converter, planetary gear trains and hydrodynamic retarder brake. 5 forward speeds, 1 reverse. Splitter gearbox with differential and off-road range.
Axles:	Heavy duty crane truck axles, all 6 axles sprung. Axles 1 to 4 steered. Axles 1, 2, 5 and 6 have planetary reduction gears and inter-axle differentials.
Suspension:	Axles 1 and 2 and 5 and 6 coil-sprung and mounted on tandem compensating beams. Axles 3 and 4 hydraulically sprung, with variable axle load facility. All axles provided with hydraulic locking without sacrificing balance-beam action between the above-mentioned axle pairs.
Tyres:	16 tyres: axles 1 to 4 with single tyres, axles 5 and 6 with twin tyres. Tyre size: 14.00 × 24, 22 PR, Conti-Titan.
Steering:	ZF semi-unitary hydraulic power steering with 2 pump circuits. Main pump circuit driven from engine, auxiliary pump circuit from final drive.
Brakes:	Service brake: servo assisted air brakes acting on all wheels. Twin pipe, dual circuit system. Handbrake: spring-action, acting on all wheels of axles 2-6. Retarder: hydrodynamic brake in transmission, not subject to wear.
Outriggers:	4 sliding beams with hydraulic extension cylinders and hydraulic support pad jacks; support base area: 7,5 × 7,25 m. Front outriggers mounted between axles 2 and 3, rear outriggers at rear of truck chassis.
Driver's cab:	Large-area, all-steel cab with resilient mountings, safety glass windows and full range of instruments.
Electrical system:	24 Volt DC; lighting to German road vehicle regulations.