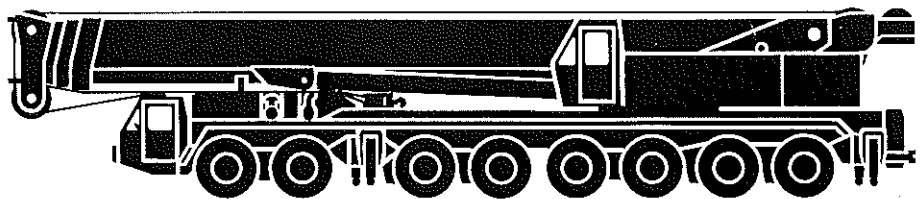


LT 1200

Hydraulic Crane – Technical Data



LIEBHERR

Lifting capacities (in lbs.) at the telescopic boom.

Working lengths of boom (feet). Outriggers fully extended, 360°. Counterweight: 72,730 lbs.

Radius in feet	Boom lengths in feet					
	54 ft.	96 ft.*	96 ft.**	138 ft.	160 ft.	180 ft.
10	452,000					
13	375,000	242,000				
20	277,000	215,000		121,000		
23	242,000	193,000	169,000	116,000		
26	213,000	173,000	157,000	114,000	88,200	
30	187,000	148,000	142,000	111,000	83,300	
33	172,000	134,000	133,000	110,000	79,000	72,000
40	143,000	111,000	112,000	99,000	71,000	67,000
45		98,000	100,000	92,000	67,000	64,400
50		85,000	90,000	82,000	62,800	61,700
55		76,000	81,000	75,000	57,300	57,800
60		68,300	72,000	68,000	54,000	54,000
65		61,700	65,000	60,600	50,700	50,700
70		54,000	59,500	52,900	48,900	48,700
80		39,600	46,300	41,900	43,000	43,000
90				34,170	35,270	34,200
100				27,560	28,660	28,700
110				22,490	24,250	22,500
120				18,740	18,740	19,800
130					15,430	15,430
137					13,230	13,230
140						12,130
150						9,920
157						9,480

* Telescope section 1 fully extended, telescope sections 2 and 3 retracted.

** Each telescope section extended 1/3 of its individual length.

Working lengths of boom (feet). Outriggers fully extended, 360°. Counterweight: 57,300 lbs.

Radius in feet	Boom lengths in feet					
	54 ft.	96 ft.*	96 ft.**	138 ft.	160 ft.	180 ft.
10	452,000					
13	375,000	242,000				
20	277,000	215,000		121,000		
23	242,000	193,000	169,000	116,000		
26	213,000	173,000	157,000	114,000	88,200	
30	187,000	148,000	142,000	111,000	83,300	
33	168,000	134,000	133,000	110,000	79,000	72,000
40	139,000	108,000	112,000	99,000	71,000	67,000
45		94,000	100,000	92,000	67,000	64,400
50		83,000	90,000	82,000	62,800	61,700
55		73,000	81,000	75,000	57,300	57,800
60		63,900	72,000	68,000	54,000	54,000
65		57,300	63,900	60,600	50,700	50,700
70		50,700	57,300	52,900	48,900	48,700
80		37,500	44,100	41,900	43,000	43,000
90				33,700	34,200	34,200
100				26,500	26,900	28,700
110				20,900	22,000	22,500
120				16,000	17,600	19,800
130					14,300	15,900
137					11,700	13,200
140						12,100
150						8,800
157						7,300

* Telescope section 1 fully extended, telescope sections 2 and 3 retracted.

** Each telescope section extended 1/3 of its individual length.

Working lengths of boom (feet). Outriggers fully extended, 360°. Counterweight: 32,000 lbs.

Radius in feet	Boom lengths in feet					
	54 ft.	96 ft.*	96 ft.**	138 ft.	160 ft.	180 ft.
10' 6"	436,000					
13	353,000	242,000				
20	234,000	215,000		121,000		
23	200,000	193,000	169,000	114,000		
26	172,000	165,000	156,000	112,000	88,200	
30	146,000	135,000	142,000	110,000	83,300	
33	130,000	122,000	131,000	108,000	79,300	72,000
40	100,000	93,000	100,000	95,000	71,000	69,400
45		78,000	83,000	87,000	67,000	65,000
50		67,200	72,000	76,000	62,800	61,700
55		56,200	62,800	65,000	58,400	57,300
60		47,400	55,100	55,500	54,000	54,000
65		39,680	47,400	48,500	50,700	50,700
70		34,170	41,800	41,800	46,300	46,300
80		22,050	30,800	31,900	37,480	37,480
90				23,100	28,600	28,600
100				16,500	21,600	21,600
110				12,100	16,500	16,300
120				7,700	12,500	11,460
130					7,700	8,160
137					5,200	5,950
140						5,510
145						4,190

* Telescope section 1 fully extended, telescope sections 2 and 3 retracted.

** Each telescope section extended $\frac{1}{3}$ of its individual length.

Working lengths of boom (feet). Outriggers fully extended, 360°. Without counterweight*.**

Radius in feet	Boom lengths in feet					
	54 ft.	96 ft.*	96 ft.**	138 ft.	160 ft.	180 ft.
10	388,000					
13	308,000	238,000				
20	198,000	196,000		121,000		
23	166,000	163,000	169,000	116,000		
26	145,000	138,000	145,000	114,000	88,200	
30	121,000	116,000	123,000	110,000	82,600	
33	108,000	100,000	108,000	105,000	74,900	72,000
40	81,000	73,000	81,000	83,000	67,200	67,000
45		58,000	68,300	69,000	61,730	61,200
50		46,300	57,300	57,300	55,100	55,100
55		36,300	46,300	47,400	48,500	47,400
60		26,400	36,300	38,580	41,800	38,500
65		19,400	27,500	30,860	35,270	31,900
70		13,200	20,940	24,250	29,900	26,900
80		5,070	13,230	14,330	20,900	17,640
90				7,720	12,700	12,130
100				3,310	7,700	7,720
110					3,090	3,750

* Telescope section 1 fully extended, telescope sections 2 and 3 retracted.

** Each telescope section extended $\frac{1}{3}$ of its individual length.

*** The lifting capacities without counterweight also apply to the equipment modes: 57,300 lbs. or 72,730 lbs. counterweight retracted, support base width 21' 4".

Lifting capacities (in lbs.) at the fold in jib.

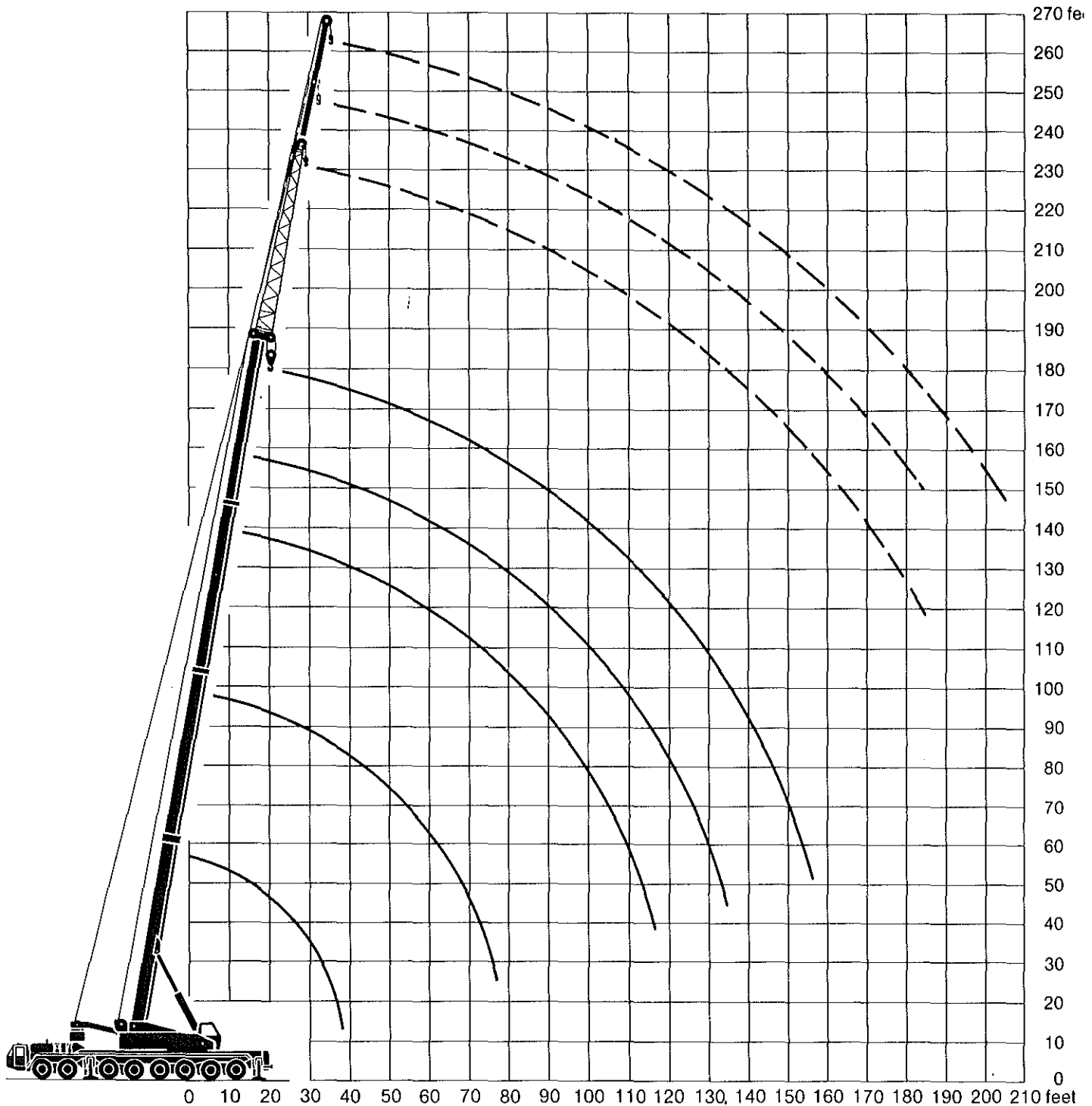
Telescopic boom: 160 ft. — 180 ft. Folding jib: 49 ft. — 75 ft.
Outriggers fully extended, 360°. Counterweight: 57,300 lbs.

Radius in feet	Boom lengths in feet		
	160 ft.	180 ft.	
	Fold in jib 49 ft.	Fold in jib 49 ft.	Fold in jib 75 ft.
30	38,800	30,420	
35	37,400	29,760	18,520
40	36,160	29,100	18,080
50	32,400	27,230	16,980
60	28,800	25,350	15,870
70	25,800	23,590	15,210
80	22,900	21,830	14,330
90	20,700	20,060	13,450
100	18,500	18,520	12,790
110	16,900	16,980	11,900
120	15,400	15,430	11,240
130	14,100	13,890	10,470
140	12,570	13,450	9,810
150	10,580	10,360	9,040
160	8,600	7,720	8,160
170	5,900	5,290	7,280
180	3,970	3,310	6,170
184	3,090	2,430	5,730
190			4,630
200			2,870
203			2,200

Remarks referring to load charts.

1. The tabulated load ratings do not exceed 85 % of the tipping load.
2. The 85 % overturning limit values take into account wind force.
3. Load capacities are given in pounds (lbs.).
4. The weight of the hook, respectively of the hook block is included in the tabulated ratings.
5. Working radii are counted from slewing centre.
6. The tabulated load ratings for the main boom are valid when lattice-type head section is disassembled. The ratings are to be reduced by 3,748 lbs. when lattice-type head section is placed beside pivot section.
The load ratings are to be reduced by 13,230 lbs. when lattice-type head section is assembled, but if working with main boom.

Lifting heights at the telescopic boom and at the fold in jib.



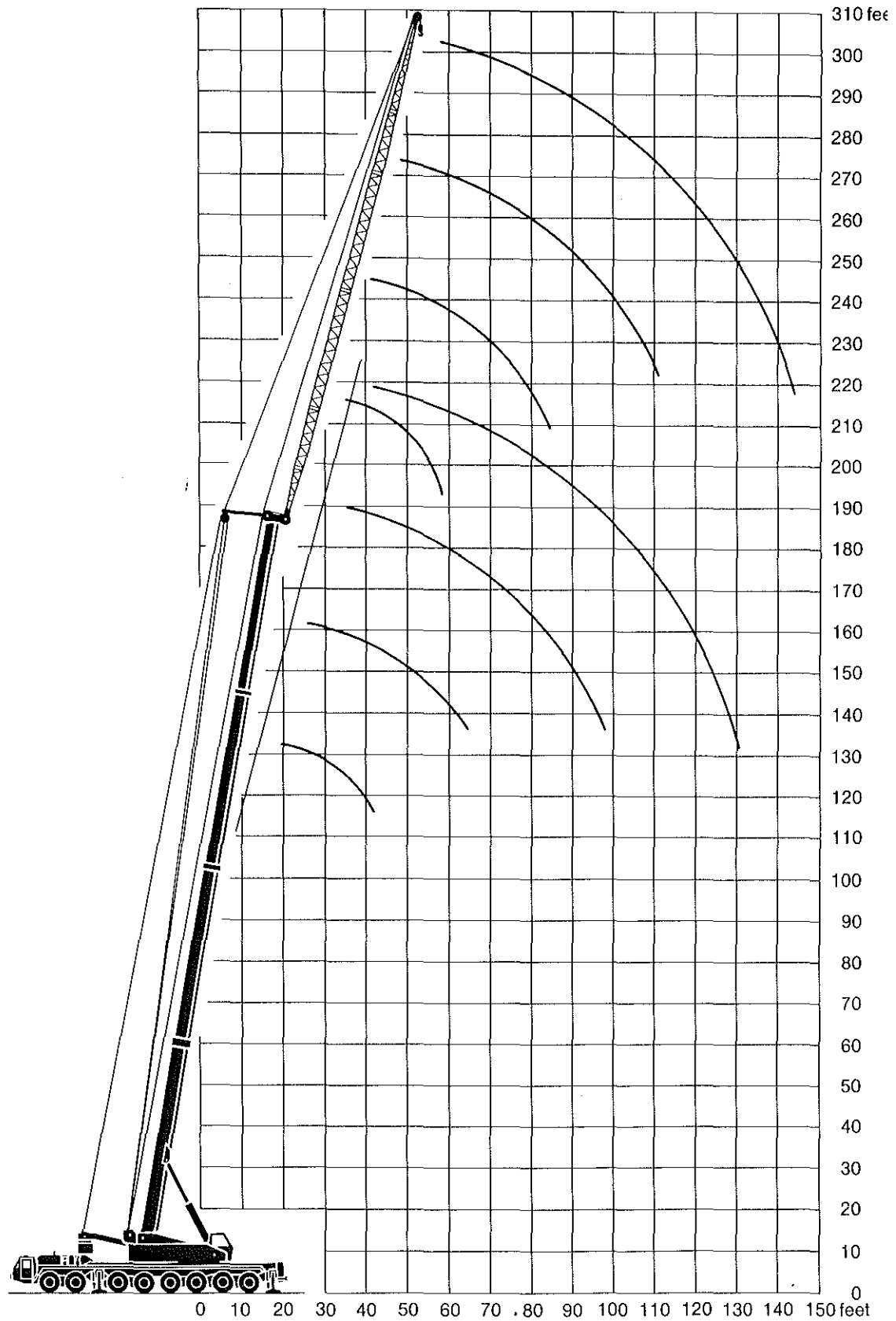
Lifting capacities (in lbs.) at the luffing fly jib.

Luffing fly jib: 36 ft. – 124 ft. Outriggers fully extended, 360°.
Counterweight: 57,300 lbs. extended or retracted.

Radius in feet	Working lengths of telescopic boom							
	96 ft.				138 ft.			
	Fly jib				Fly jib			
	36 ft.	65 ft.	95 ft.	124 ft.	36 ft.	65 ft.	95 ft.	124 ft.
20	127,000							
26	115,000	97,000			84,800			
30	109,000	92,000			82,000			
33	103,000	87,000			79,150			
36	97,000	83,500	66,100		76,500	68,300		
40	91,000	79,100	62,300		73,850	65,900		
43	84,900	75,600	59,700	34,100	71,430	63,200	50,700	
46		71,800	56,900	32,850	68,340	61,000	48,900	
49		68,300	54,900	32,630	65,700	58,800	47,600	33,000
53		64,600	52,400	31,900	63,050	56,400	46,000	32,400
56		61,000	50,270	30,800		54,200	44,300	31,700
59		57,300	48,500	29,900		52,000	42,700	30,600
65		50,000	44,100	28,200		47,600	39,600	29,100
72			39,900	26,600		42,900	36,300	27,100
79			36,300	24,900		38,800	33,000	25,300
85			32,600	23,150			30,200	23,300
92			29,100	21,830			27,500	22,050
98			25,790	20,060			25,100	20,060
105				18,520			22,900	18,520
111				17,200				16,310
118				15,650				14,900
125				14,110				13,670
131				12,790				12,350
138								11,020

Radius in feet	Working lengths of telescopic boom							
	160 ft.				180 ft.			
	Fly jib				Fly jib			
	36 ft.	65 ft.	95 ft.	124 ft.	36 ft.	65 ft.	95 ft.	124 ft.
33	60,600							
36	58,800				41,800			
40	57,100	47,400			41,400			
43	55,300	45,640			40,800	30,800		
46	53,500	44,500	36,300		40,100	30,400		
49	51,800	42,700	35,000		39,200	29,700	22,050	
53	50,000	41,600	33,900		38,300	29,100	21,160	
56	48,500	40,100	32,600	20,900	37,700	28,200	20,720	
59		38,800	31,500	20,500	37,000	27,700	20,280	12,130
65		35,900	29,500	19,400		26,600	19,400	11,460
72		33,000	27,100	18,080		25,300	18,080	11,020
79		30,400	25,300	17,200		24,250	17,200	10,580
85			23,500	16,090		22,930	16,090	10,140
92			20,900	14,990			15,210	9,700
98			19,400	14,550			13,890	9,040
105			17,400	13,230			13,010	8,600
111				12,130			11,020	8,160
118				11,020				7,940
125				10,140				7,720
131				9,700				7,500
138				8,600				7,280
144								7,050

Lifting heights at the luffing fly jib.



Lifting capacities (in lbs.) at the fixed fly jib.

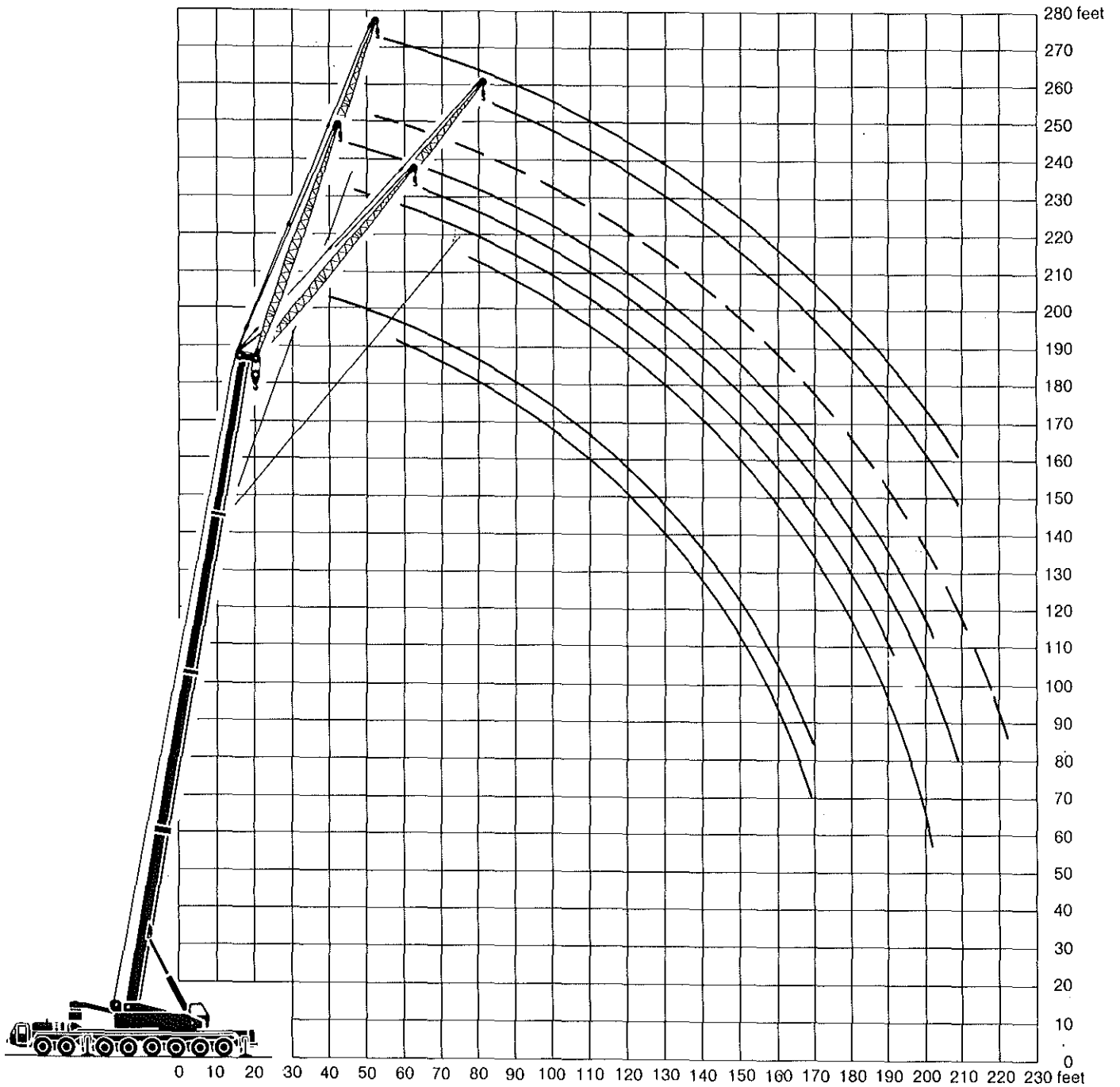
Fixed fly jib: 65 ft. — 95 ft. Outriggers fully extended, 360°.

Counterweight: 57,300 lbs. or 72,750 lbs. fully extended.

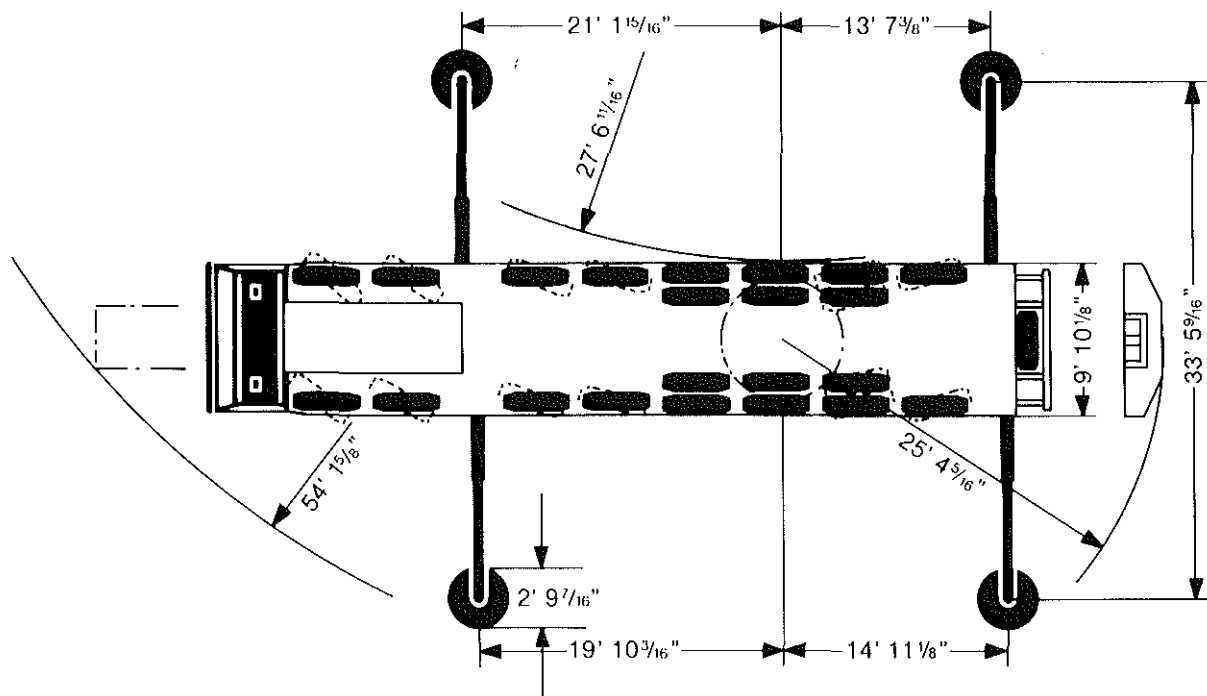
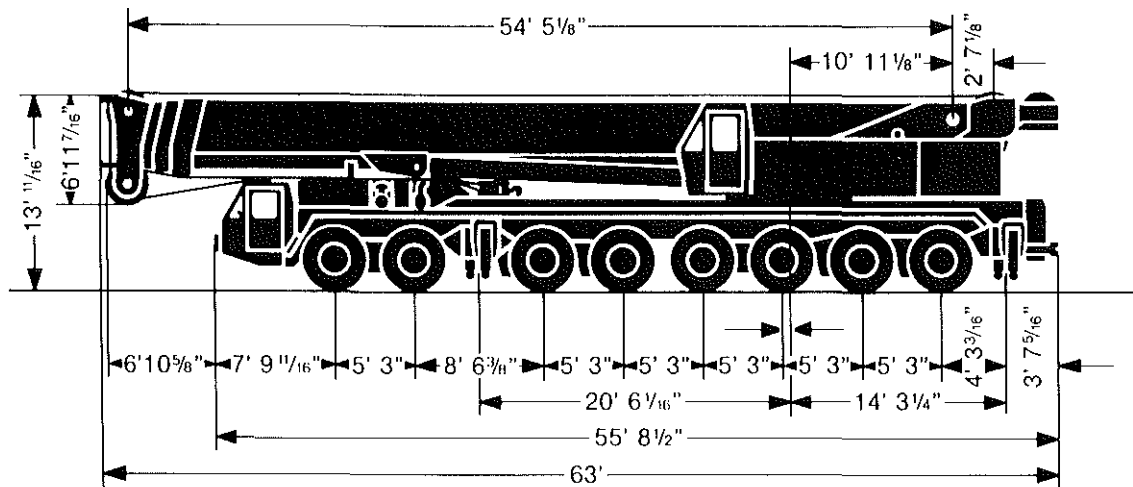
Radius in feet	Working lengths of telescopic boom							
	138 ft.				160 ft.			
	Fly jib				Fly jib			
	65 ft.		95 ft.		65 ft.		95 ft.	
	10°	30°	10°	30°	10°	30°	10°	30°
53	21,800							
60	20,710		11,300		17,980			
65	19,980	16,970	10,960		16,870		11,490	
72	19,090	16,270	10,670		15,550	14,080	11,040	
78	18,060	15,600	10,450		14,660	13,430	10,710	
80	17,760	15,330	10,300		14,360	13,150	10,620	
92	16,000	13,810	9,450	8,100	12,830	11,620	9,930	9,930
98	15,300	13,140	9,120	7,780	11,940	10,960	9,480	9,480
110	13,750	11,810	8,360	7,120	10,840	9,840	8,720	8,720
120	12,570	10,700	7,950	6,470	9,800	9,040	8,140	8,140
130	11,290	9,790	7,120	5,900	8,860	8,110	7,580	7,580
140	10,340	8,890	6,540	5,410	8,080	7,510	6,950	6,950
150	9,420	8,070	6,000	4,950	7,340	6,850	6,300	6,300
160	8,500	7,400	5,400	4,510	6,600	6,160	5,680	5,680
170	7,700	6,910	4,880	4,140	5,860	5,610	5,120	5,120
180			3,110	3,770	5,120	4,970	4,570	4,570
190			2,880	3,520	4,610	4,380	3,960	3,960
195				3,420	4,430	4,100	3,630	3,630
203				3,300	3,600		3,170	3,170
210							2,780	2,780
215							2,510	2,510
223								2,020

Radius in feet	Working lengths of telescopic boom			
	180 ft.			
	Fly jib			
	65 ft.		95 ft.	
	10°	30°	10°	30°
60	15,120			
65	14,290		8,730	
72	13,360		8,370	
78	12,580	11,470	8,040	
80	12,320	11,310	7,950	
92	10,770	9,680	7,340	
98	10,000	9,020	7,050	7,050
110	8,650	7,780	6,390	6,390
120	7,550	6,890	5,830	5,830
130	6,440	6,150	5,380	5,380
140	5,650	5,490	4,840	4,840
150	4,920	4,840	4,290	4,290
160	4,220	4,220	3,760	3,760
170	3,670	3,670	3,300	3,300
180	3,200	3,110	2,750	2,750
190	2,740	2,560	2,250	2,250
195	2,510	2,280	2,020	2,020
203	2,230	1,950	1,600	1,600
210		1,690	1,210	1,210

Lifting heights at the fixed fly jib.



Dimensions.



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, 8 cylinder, watercooled, make Daimler-Benz, type OM 402, output 181 kW DIN (246 HP) at 2300 min ⁻¹ . Max. torque 620 lbs. ft. at 1400 min ⁻¹ . Fuel supply: 93 gal.
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-centering 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: 180 ft.
Lattice-type head section:	36 ft. — 124 ft. long, fixed or luffing, only in conjunction with auxiliary winch.
Fold in jib:	From 49 ft. — 75 ft. extendable, straight line extension of main boom.
Electrical system:	24 volts d. c., 2 batteries.

Truck chassis.

Frame:	Liebherr designed and manufactured, box type, torsion resistant, all-welded construction made of high-tensile structural steel.
Outriggers:	4 sliding beams with hydraulic extension cylinders and hydraulic support pad jacks. Front outriggers mounted between axles 2 and 3, rear outriggers at rear of truck chassis.
Engine:	Diesel, 12 cylinder, watercooled, make Daimler-Benz, type OM 404 A, output 386 kW DIN (525 HP) at 2500 min ⁻¹ . Max. torque 1400 lbs. ft. at 1600 min ⁻¹ . Fuel supply: 238 gal.
Gearbox:	Allison Type CLBT 750 automatic transmission with torque converter and hydrodynamic retarder brake. 5 forward speeds, 1 reverse. Splitter gearbox with differential.
Axles:	Heavy duty crane truck axles, all 8 axles sprung. Axles 1 to 4 and 7 and 8 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, 4, 7 and 8 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:	22 tyres: axles 1 to 4 and 8 with single tyres, axles 5 to 7 with twin tyres. Tyre size: 14.00-24, 22 PR.
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 to 7.
Driver's cab:	Large-area, all-steel cab with resilient mountings, safety glass windows and full range of instruments.
Electrical system:	24 volts d. c., 2 batteries, lighting to German road vehicle regulations.