

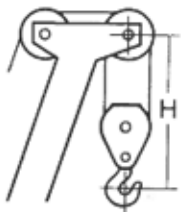
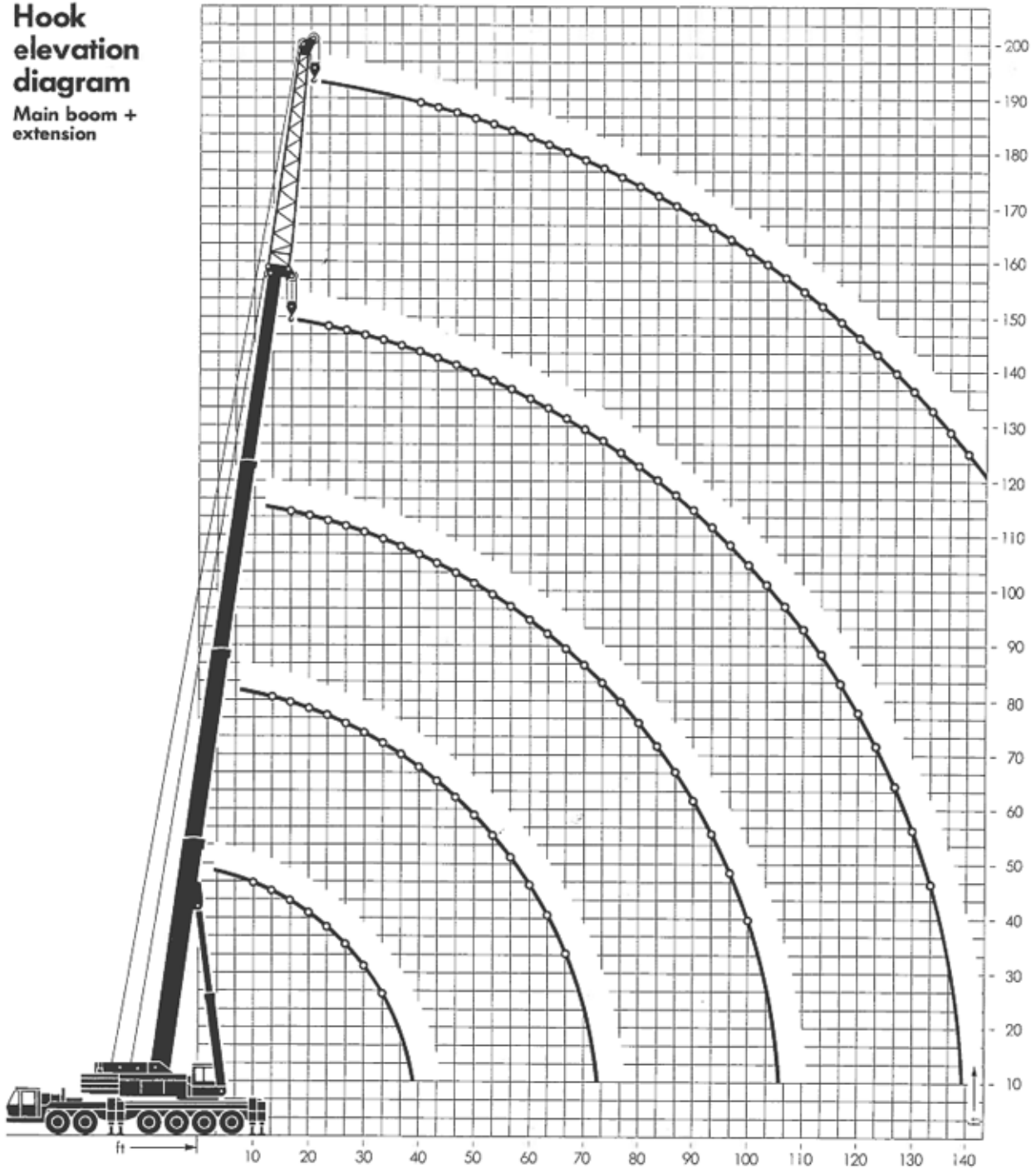
STERLING CRANE



LIFTING CHARTS - All Terrain Cranes

KRUPP MODEL 180 GMT - 250 TON CAPACITY

Hook elevation diagram
Main boom + extension

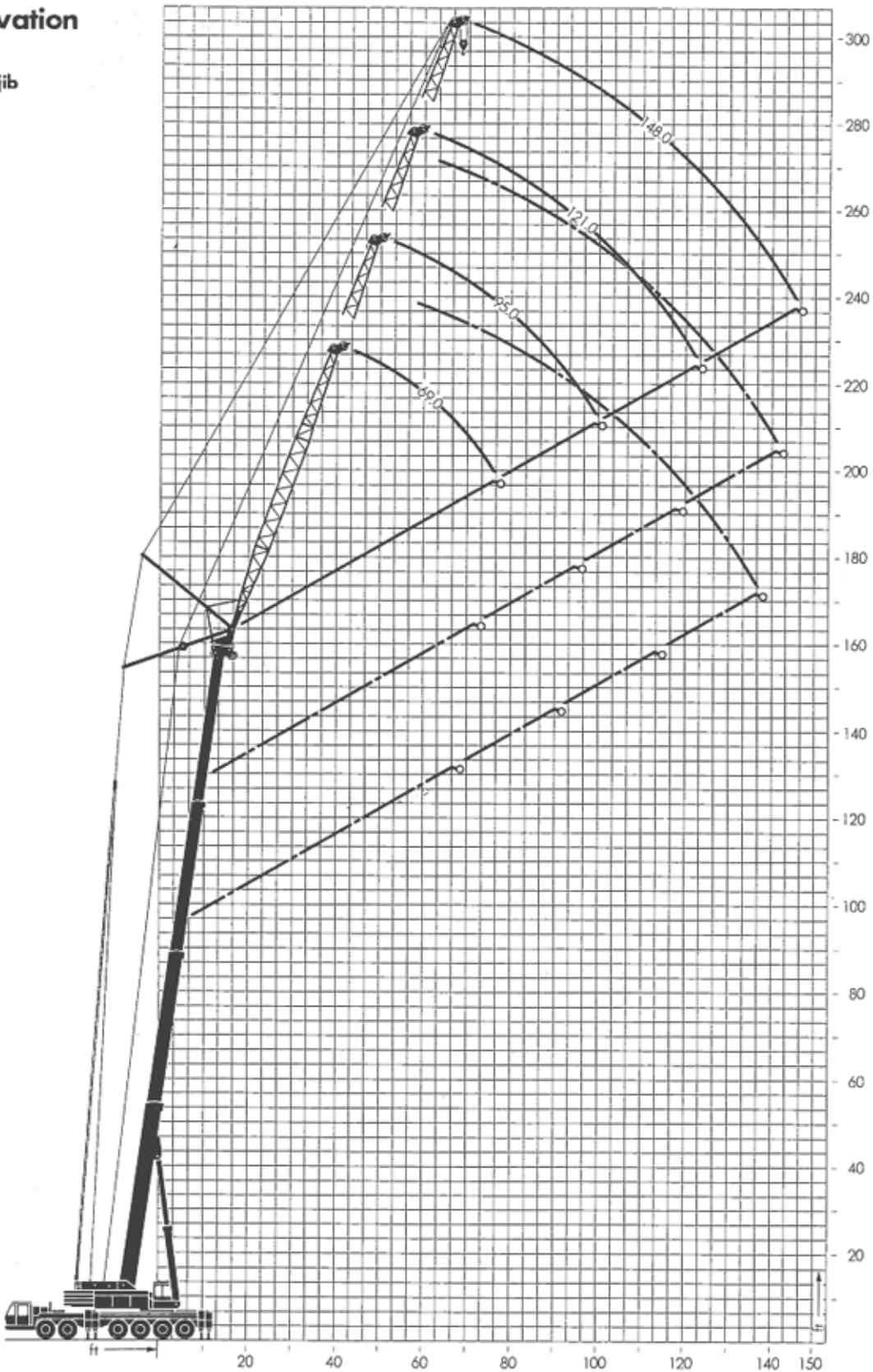


Hooks

Capacity	ton	175	120	65	35	20	9
Sheaves		12	6	4	2	1	0
Distance H	ft	9'6"	9'6"	8'10"	7'7"	7'7"	8'10"
Weight	ton	2.2	1.8	1.1	0.66	0.55	0.3

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Hook elevation diagram
Power luffing jib



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Lifting capacities in 1000 lbs on outriggers

360° Main boom + swing-away extension

Radius (ft)	Boom length (ft)													
	46.0			79.0*1					111.0					
	48.0			80.0					112.0					
	Counterweight in 1000 lbs													
	77.1	33.0	0.0	77.1	33.0	33.0	0.0	0.0	77.1	77.1	33.0	33.0	0.0	0.0
						**		**		***		***		***
10*	500.0													
10	440.0	350.0	218.2											
12	374.0	298.0	214.7											
15	304.0	239.0	204.0	244.0	220.4	88.2	191.8	88.2						
20	226.0	175.7	148.2	226.0	175.7	88.2	151.4	88.2	147.4	88.2	134.5	88.2	130.0	88.2
25	179.0	132.8	108.4	178.0	130.1	82.7	110.7	82.7	147.4	82.7	129.7	82.7	113.0	82.7
30	145.0	107.9	74.7	145.0	108.2	72.0	77.0	72.0	134.8	72.0	108.2	72.0	77.6	72.0
35				116.0	86.1	63.8	54.0	63.1	114.4	63.8	86.6	63.8	54.7	61.2
40				100.0	67.2	57.3	38.7	49.5	100.0	57.3	67.8	57.3	39.6	46.8
45				85.4	53.4	51.7	28.5	38.7	85.6	51.7	54.2	51.7	29.2	36.3
50				73.6	42.9	47.4	21.0	30.9	74.8	47.4	43.8	47.4	21.7	28.5
55				62.0	34.5	43.3	15.3	24.9	62.8	43.5	35.4	41.3	16.0	22.7
60				53.0	28.0	37.2	10.0	19.9	54.2	40.3	28.8	35.1	11.6	18.0
65				46.0	22.7	31.7	7.0	16.1	46.8	37.8	23.5	29.7	7.9	14.1
70									40.8	35.5	19.2	25.2	4.9	11.1
75									35.4	33.5	15.5	21.5		8.4
80									31.2	31.5	12.3	18.3		6.3
85									27.2	29.5	9.6	15.6		
90									23.8	26.1	7.3	13.2		
95									20.8	23.1	5.1	11.0		
100														
105														
110														
115														
120														
125														
130														
135														
140														
145														
150														
155														
160														

- * 10 ft radius over rear only with optional equipment fitted
 - *1 79 ft boom - section 1 and 2 equally extended
 - ** 3rd section fully extended
 - *** 3rd section fully extended, section 1 and 2 equally extended
- Load capacities above bold line are based on structural strength, and tipping must not be relied upon as a limitation of lifting capacity.
Rated loads must not be exceeded.

Notes for lifting capacities

Rated loads do not exceed 85% of tipping load with the machine properly levelled on firm ground.

360° duties on outriggers fully extended, except free on wheel duties as noted.

Note counterweight required as listed in relevant lifting capacity columns.

For safe crane operation due allowance must be made to compensate for high winds, side load, pendulum action and other hazardous conditions. No side pull permitted.

Hook block and slings and/or boom attachments are considered part of the load and their weight must be deducted from the rated lifting capacity to determine the net load.

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360° Power luffing jib

Counterweight 77,140 lbs

144.0		+ 43.0	+ 62.0	+ 82.0		
147.0		190.0	208.0	228.0		
77.1	33.0	0.0	77.1	77.1	77.1	
99.0	88.5	88.5				
95.6	86.9	84.5				
91.0	83.1	61.6				
86.6	73.7	45.9	48.4	28.7	17.2	
82.4	59.8	35.2	46.4	28.7	17.2	
77.8	49.3	27.4	42.4	28.7	17.2	
68.0	40.9	21.6	38.8	28.7	17.2	
58.8	34.2	17.0	35.2	28.7	17.2	
51.6	28.8	13.2	32.6	28.1	17.2	
46.0	24.5	10.2	30.6	26.2	17.2	
40.4	20.6	7.5	28.2	24.2	17.2	
35.8	17.5	5.4	26.4	22.4	17.2	
32.0	14.7	3.4	24.6	21.0	16.3	
28.8	12.3		23.0	19.7	15.7	
25.6	10.2		21.6	18.3	15.0	
23.0	8.4		20.2	17.1	14.6	
20.8	6.8		19.0	16.1	13.9	
18.8	5.3		17.8	15.2	13.1	
16.8	3.9		16.2	14.3	12.3	
14.8	2.7		14.4	12.9	11.7	
13.3			12.8	11.8	10.8	
11.6			11.4	10.4	9.9	
			10.2	9.3	9.1	
				8.1	8.1	
				7.1	7.1	
				6.1	6.1	
					5.2	
					4.5	

Boom must be fully extended when lifting with the swing-away extension.

Consult crane manual to determine weight reduction for load handling devices and boom attachments.

Operate crane strictly in accordance with operator's manual.

Main boom - ft	Radius ft	Jib length (ft)				
		69	95	121	148	173
79*)	40	81.4				
	45	73.0	52.5			
	50	62.9	52.5			
	55	54.5	51.9	37.7		
	60	48.5	49.7	37.4		
	65	43.8	43.3	37.3	24.2	
	70		39.2	37.0	24.0	
	75		35.6	35.3	23.6	
	80		32.5	32.3	23.3	14.0
	85		30.1	29.3	22.9	13.7
	90			27.4	22.7	13.2
	95			25.5	22.3	12.8
	100			23.8	21.8	12.4
	105			22.3	21.2	12.1
	110			20.8	19.6	11.8
	115				18.4	11.4
	120				17.3	11.0
	125				16.3	10.5
	130				15.6	10.2
	135					9.8
140					9.5	
145					9.2	
150					8.7	
111	40	56.1				
	45	55.8				
	50	51.9				
	55	47.3	37.5			
	60	42.9	37.5	26.5		
	65	38.8	37.5	26.5		
	70		36.7	26.5	17.2	
	75		35.0	26.5	17.1	
	80		32.7	26.5	17.0	
	85		30.4	26.5	16.8	10.1
	90		28.2	26.0	16.7	9.5
	95			25.1	16.4	9.4
	100			23.7	16.3	9.2
	105			22.1	16.1	9.0
	110			20.7	15.9	8.9
115				15.8	8.7	
120				15.5	8.5	
125				15.4	8.3	
130				15.2	8.2	
135				14.9	8.0	
140					7.8	
145					7.7	
150					7.5	
155					7.3	
144	50	27.6				
	60	27.6	21.0			
	70	27.6	21.0	15.0		
	80	27.6	21.0	15.0	10.4	
	90		21.0	15.0	10.4	4.4
	100		21.0	15.0	10.4	4.4
	110			15.0	10.4	4.4
	120			15.0	10.4	4.4
	130				10.4	4.4
	140				10.4	4.4
150					4.4	
160					4.4	
170					4.4	

STERLING CRANE

Superstructure Specifications

Boom

46 ft - 144 ft 4-section boom,
2 full power, 1 power pinned section
Telescoping cycle:
1. section 80 sec.
2. section 70 sec.
High speed:
1. section 45 sec.
2. section 47 sec.

*) Jibs

43 - 82 ft swing-away lattice extension
and inserts
69 - 173 ft power luffing jib

Main Hoist

Axial piston motor with planetary gear
and fail-safe brake
Single line pull max.: 22 000 lbs
Single line speed max.: 390 fpm
Drum diameter: 22"
Rope diameter: 7/8"
Rope length: 1180 ft

*) Auxiliary Hoist

Axial piston motor with planetary gear
and fail-safe brake
Single line pull max.: 16 750 lbs
Single line speed max.: 520 fpm
Drum diameter: 17"
Rope diameter: 3/4"
Rope length: 980 ft

Hook Blocks

120 ton
*) 175, 65, 35, 20 ton
and 9 ton single hook

Boom Elevation

Hydraulic cylinder with integral
holding valve, boom angle
from -1.5 to +82.0 degrees
Elevation cycle: 130 sec.,
High speed: 80 sec.

Swing Gear

Axial piston motor with planetary gear,
holding and service brake,
swing speed 0 - 1,3 rpm variable

Engine

6 cyl. Daimler Benz OM 355,
water-cooled, 240 hp at 2200 rpm
Tank capacity: 75 gal. diesel

Hydraulic system

3 separate circuits: 2 axial piston pumps
with integrated infinitely variable speed
and load control,
1 axial piston pump. Oil cooler.
Tank capacity: 400 gal. hydraulic oil

Control system

Infinite variation of all crane-motions by
hydraulic pilot circuit, dead-man-position

Counterweight

77140 lbs, in 4 sections, hydraulically
removable

Operator's cab

Full vision, all steel, safety glass,
fully adjustable operator's seat
with hydraulic suspension,
independent heating and ventilation,
complete engine instrumentation
and crane operating controls

Safety installations

Hoist limit switch, lock valves, pressure
relief valves.
*) Electronic load moment safety device
with automatic cut-out and indicators
for load moment and working radius,
lowering limit switch.

Carrier Specifications

Chassis

Krupp heavy-duty 6-axle carrier, welded
box-type frame from high tensile steel

Engine

12 cyl. Daimler Benz OM 404,
water-cooled, 420 hp at 2400 rpm
Tank capacity: 150 gal.

Transmission

Allison 5 speed automatic gear-box
MAN transfer case, 2 speed with
differential lock

Axles

1. driven steering axle 4. driven axle
2. steering axle 5. driven axle
3. steering axle 6. steering axle
driven axles = planetary axles
4. + 5. axle with interaxle
differential lock

Suspension

1. and 2. axle parabolic leaf springs
3. - 6. axle hydropneumatic suspension
system and axle lock-outs

Tyres

16 tyres 14.00 - 24 PR 22
4th and 5th axle dual tyres

Steering

ZF semi-integral ball-nut hydraulic
power steering

Brakes

Service brake:
pneumatic dual-circuit acting on all
wheels
Permanent brake:
retarder of Allison automatic
transmission
Auxiliary brake:
pneumatically operated spring-loaded
brake acting on 1st to 3rd and 6th axle

Driver's cab

All-steel, two-man-design with bunk,
safety glass, adjustable hydraulically
suspended seats, independent heating
and ventilation. Complete instrumen-
tation and driving controls

Outriggers

Independent horizontal and vertical
hydraulic motion of each beam.
Control on each side of chassis.
Sight level device.

Electrical equipment

Three-phase alternator 28 V/55 A
2 batteries 12 V/180 Ah

Performance

Travelling speeds: max. 42 mph
min. 0,1 mph
Gradeability: 40%
Turning radius: 54 ft

*) Optional items

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Dimensions

