



LIFTING CHARTS - All Terrain Cranes

DEMAG MODEL AC 1300 - 500 TON CAPACITY

Notes on Capacity Charts

1.0 Capacity Charts:

Configuration	Notes	Counterweight (lb)
Main Boom with add. central outriggers		269,000
Main Boom		269,000 211,500 154,000 97,000 0
Main Boom	Simple Sequence of Extended Boom	211,500 154,000 97,000
Main Boom with Superlift		269,000 211,500
Main Boom	red. Outrigger Base	154,000 97,000 0
Main Boom Capacity Chart for Erection		0
Main Boom Capacity Chart for Erection	red. Outrigger Base	0
Telescopic Capacities on Main Boom		269,000 211,500 154,000 97,000 0
Telescopic Capacities on Main Boom	red. Outrigger Base	154,000 97,000 0
Notes on Telescopic Capacities on Main Boom		
Fixed Jib	Pos. 0°	211,500 154,000 97,000
Fixed Jib	Pos. 20°	154,000 97,000
Fixed Jib with Superlift	Pos. 0°	269,000 211,500
Fixed Jib with Superlift	Pos. 20°	211,500
Luffing Fly Jib	Main Boom Pos. 82°	211,500
Luffing Fly Jib	Main Boom Pos. 70°	211,500

2.0 In case of operation observe the following instructions:

- ~ The crane shall be supported in level position.
- ~ The supporting surface shall be sufficiently firm (max. outrigger load: 330,860 lb)
- ~ Slewing is only permitted with outriggers extended.

3.0 Weights of Hook Blocks

Weights of hook blocks and lifting tackles shall be subtracted from the listed ratings

hook block	2 x	11 sheaves	=	17640 lb
hook block		11 sheaves	=	7056 lb
hook block		7 sheaves	=	5072 lb
hook block		5 sheaves	=	3969 lb
hook block		3 sheaves	=	2867 lb
hook block		1 sheave	=	1764 lb
hook suspension		12.5 t	=	1323 lb

Max. single line pull
Hoist 1: 22,930 lb
Hoist 11: 22,930 lb

For runner operation, shift rope reeving to 1, max. load see max. single line pull.

All capacity charts are valid for pinned telescopes.

Telescopic capacities see capacity chart 878 482 40 US, 878 483 40 US and 878 039 40 US.

4.0 Permissible Sequences (%) of Extending the Telescopes

4.1 Only for Main Boom Operation

Boom Length (ft)	Tele 1	Tele 2	Tele 3	Tele 4
49.0	0	0	0	0
65.0	45	0	0	0
81.0	45	45	0	0
97.0	90	45	0	0
97.0	45	45	45	0
113.0	90	90	0	0
113.0	45	45	45	45
129.5	90	45	45	45
144.5	90	90	45	45
160.5	90	90	90	45
176.5	90	90	90	90
190.0	100	100	100	100

4.2 Only for Main Boom Operation with Simple Sequence of Extended Boom

~ Tele 3 = 45% / Tele 4 = 0%

Boom Length (ft)	Tele 1	Tele 2	Tele 3	Tele 4
129.5	90	90	45	0

~ Tele 3 = 45% / Tele 4 = 45%

Boom Length (ft)	Tele 1	Tele 2	Tele 3	Tele 4
81.0	0	0	45	45

~ Tele 3 = 90% / Tele 4 = 45%

Boom Length (ft)	Tele 1	Tele 2	Tele 3	Tele 4
113.0	0	45	90	0
144.5	45	90	90	0

~ Tele 3 = 90% / Tele 4 = 45%

Boom Length (ft)	Tele 1	Tele 2	Tele 3	Tele 4
113.0	0	0	90	90
129.5	0	45	90	90
160.5	45	90	90	90

4.3 Only for Fixed Jib Operation

Boom Length (ft)	Tele 1	Tele 2	Tele 3	Tele 4
176.5	90	90	90	90
190.0	100	100	100	100

4.4 Only for Luffing Fly Jib Operation

Boom Length (ft)	Tele 1	Tele 2	Tele 3	Tele 4
81.0	45	45	0	0
97.0	45	45	45	0
113.0	90	90	0	0
129.5	90	90	45	0
144.5	90	90	90	0
160.5	90	90	90	45
176.5	90	90	90	90

5.0 Wind speeds - dynamic wind pressures

5.1 Crane in wind, with load

For the wind speeds of 22.36 mph (dynamic wind pressure 1.2528 psf) taken into account in the capacity charts, the wind area of the load is taken as 5.856×10^{-3} sqft/lb.

With the exception of jib, wind speeds up to 33.53 mph (dynamic wind pressure 3.132 psf) will be permitted if the wind area of the load or the capacity is reduced according to the ratings above mentioned.

for example: load 44100 lb
 wind area of the load with 1.2528 psf = 258 sqft
 wind area of the load with 3.132 psf = 103sqft

5.2 Crane in wind, without load

see operation manual

STERLING CRANE

6.0 Loads to be deducted from the rated listings

6.1 Fixed Jib

Loads (lb) to be deducted from the rated listings of main boom in case fixed jib fitted on main boom in working position (including hook block 1 sheave / 1764 lb) load on main boom

Boom Length [ft]	Jib 26.2 ft		Jib 65.6 ft		Jib 105.0 ft	
	0°	20°	0°	20°	0°	20°
49.0	11,466	14,333	20,948	29,768	32,855	50,495
65.0	10,805	13,451	18,963	27,342	28,886	45,644
81.0	10,584	13,010	17,861	25,578	26,460	42,116
97.0	10,143	12,348	16,979	23,594	24,696	37,926
113.0	10,143	11,907	16,317	22,491	23,594	35,942
129.5	9,923	11,687	15,876	21,609	22,712	34,398
144.5	9,702	11,466	15,435	20,727	21,830	32,193
160.5	9,702	11,025	15,215	19,845	21,389	30,429
176.5	9,702	11,025	14,994	19,625	20,727	30,209
190.0	9,482	10,805	14,774	18,963	20,507	28,886

6.2 SL-Mast

6.2.1 Loads (lb) to be deducted from rated listings of main boom in case of SL-mast deposited on main boom

Main Boom (ft)	Load to be deducted (lb)
49.0	9,700
65.0	7,300
81.0	5,900
97.0	4,800
113.0	4,200
129.5	3,700
144.5	3,300
160.5	2,900
176.5	2,600
190.0	2,400