

Liftcrane Boom Capacities

Boom No. B10:500

with 140 200 kg Fixed Position Counterweight

at 4,1 m Position

360 Degree Rating

MLC300 SERIES 1



LIFTING CAPACITIES: Lifting capacities for various boom lengths and operating radii are for freely suspended loads and may be based on percent of static tipping or strength of structural components. Capacities must be reduced by applicable deducts.

Upper boom point capacity for liftcrane service with single part whip line from Drum 6 is 13 600 kg or 27 200 kg with two part whip line. When Drum 2 or Drum 3 is used, capacity with single part whip line is 16 600 kg or 33 300 kg with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves is considered part of load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

BOOM BACKWARD STABILITY: Capacities indicated by (b) require 2 270 kg minimum weight suspended beneath boom point. **Caution: Do not operate in areas indicated by (b) without required minimum weight.** Boom may not lower and boom hoist wire rope may go slack causing wire rope damage or failure.

OPERATING CONDITIONS: Machine to operate on a firm, level, and uniformly supporting surface. Refer to Boom Rigging **No. 81023380**, Wire Rope Specifications chart **No. 9341-A**, Counterweight Arrangements **No. 9345-A**, and Wind Conditions chart **No. 9344-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to the Operator Manual for operating guidelines.

MACHINE TRAVEL: Machine to travel on a firm, level, and uniformly supporting surface. Boom must be within boom angle range shown in capacity chart. Refer to Maximum Allowable Travel Specifications chart **No. 9598-A**.



OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block.



BOOM ANGLE: Boom angle in degrees (°) is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.



BOOM POINT ELEVATION: Boom point elevation is vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 9 700 mm crawlers, 1 219 mm or 1 524 mm treads, 9 144 mm live mast, 24 part boom hoist reeving, boom support straps, and 140 200 kg Fixed Position Counterweight.

Consult chart **No. 9606-AM** when Jib No. 148 is attached.

Luffing Jib Backstay Deduct	
Boom Length (m)	Deduct (kg)
30,0	1 400
36,0	1 600
42,0	1 900
48,0	2 100
54,0	2 400
60,0	2 700
66,0	3 000
72,0	3 200
Deduct the appropriate value from capacities when luffing jib backstays are stored on boom.	

Deduct From Capacities When Jib No. 148 Is Attached	
Jib Length (m)	Deduct (kg)
12,0	9 100
18 0	13 800
24,0	18 100
30,0	22 100
36,0	27 800
42,0	31 300
Weight of jib and 3 000 kg suspended beneath jib point have been included in determination of deduct.	

Refer to Table 1 (with luffing jib backstays stored) and Table 2 (without luffing jib backstays stored) for raising ability with the maximum weight of all load blocks, hooks, weight ball, slings, and hoist lines beneath boom point sheaves. For block weights shown with #, load blocks, hooks, weight ball, and slings must remain on ground until combined weights are within rated capacity of chart. Raising is not permitted in shaded areas of table.

Combined weight beneath boom point sheaves must not exceed block weight shown.

Table 1a: With Luffing Jib Backstays

Over End or Side of Crawlers	
Boom Length (m)	Block Weight (kg)
30,0	10 300
36,0	10 300
42,0	10 300
48,0	7 100
54,0	3 700
60,0	#
66,0	#
72,0	Raising Not Permitted
78,0	

Table 1b: With Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
30,0	10 300
36,0	10 300
42,0	10 300
48,0	7 100
54,0	3 700
60,0	#
66,0	#
72,0	#
78,0	Raising Not Permitted
Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. <i>Crane tipping or structural damage can occur.</i>	

Table 2a: Without Luffing Jib Backstays

Over End or Side of Crawlers	
Boom Length (m)	Block Weight (kg)
30,0	10 300
36,0	10 300
42,0	10 300
48,0	10 300
54,0	7 100
60,0	3 700
66,0	#
72,0	#
78,0	Raising Not Permitted

Table 2b: Without Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
30,0	10 300
36,0	10 300
42,0	10 300
48,0	10 300
54,0	7 100
60,0	3 700
66,0	#
72,0	#
78,0	#
Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. Crane tipping or structural damage can occur.	

Explanation of Symbols



Boom No. B10:500



Fixed Position Counterweight



360 Degree Rating



Boom Length



Operating Radius
(see page 1)



Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)



Lifting Capacities
(see page 1)

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140 200 kg



360°

30,0 m			
m	°	m	kg
5,5	84,5	31,9	300 000 b
6,0	83,5	31,9	300 000 b
6,5	82,5	31,8	290 500 b
7,0	81,6	31,7	274 100 b
7,5	80,6	31,6	258 400
8,0	79,6	31,5	241 100
8,5	78,6	31,4	215 600
9,0	77,6	31,2	195 200
10,0	75,7	31,0	163 300
11,0	73,7	30,7	139 600
12,0	71,6	30,3	121 900
13,0	69,6	29,9	108 400
14,0	67,5	29,5	96 500
15,0	65,4	29,0	87 000
16,0	63,2	28,5	79 200
17,0	61,0	27,9	72 200
18,0	58,8	27,3	66 400
19,0	56,5	26,6	61 300
20,0	54,1	25,8	56 700
22,0	49,0	24,1	49 200
24,0	43,6	22,1	43 100
26,0	37,4	19,5	38 000
28,0	30,2	16,3	33 800
30,0	20,5	11,7	30 000

36,0 m			
m	°	m	kg
5,8	84,9	37,9	294 700 b
6,0	84,6	37,9	293 700 b
6,5	83,8	37,8	281 500
7,0	83,0	37,8	266 100
7,5	82,2	37,7	252 000
8,0	81,4	37,6	237 600
8,5	80,6	37,5	215 800
9,0	79,7	37,4	195 600
10,0	78,1	37,2	163 600
11,0	76,5	36,9	139 900
12,0	74,8	36,6	122 100
13,0	73,1	36,3	108 600
14,0	71,5	36,0	96 600
15,0	69,7	35,6	87 100
16,0	68,0	35,2	79 200
17,0	66,3	34,7	72 200
18,0	64,5	34,2	66 400
19,0	62,7	33,7	61 300
20,0	60,9	33,1	56 700
22,0	57,1	31,8	49 200
24,0	53,1	30,3	43 100
26,0	48,9	28,6	38 000
28,0	44,4	26,6	33 900
30,0	39,5	24,2	30 300
32,0	33,9	21,4	27 100
34,0	27,3	17,7	24 400

42,0 m			
m	°	m	kg
6,4	84,8	43,9	267 800
6,5	84,7	43,9	267 000
7,0	84,0	43,8	257 200
7,5	83,3	43,8	244 100
8,0	82,6	43,7	231 400
8,5	81,9	43,6	215 700
9,0	81,2	43,5	195 900
10,0	79,8	43,3	163 800
11,0	78,4	43,1	139 900
12,0	77,0	42,9	122 100
13,0	75,6	42,6	108 500
14,0	74,2	42,3	96 600
15,0	72,8	42,0	87 000
16,0	71,3	41,6	79 100
17,0	69,9	41,2	72 100
18,0	68,4	40,8	66 200
19,0	66,9	40,4	61 200
20,0	65,4	39,9	56 500
22,0	62,3	38,9	49 000
24,0	59,1	37,7	42 900
26,0	55,8	36,3	37 900
28,0	52,4	34,8	33 700
30,0	48,8	33,1	30 100
32,0	45,0	31,1	27 000
34,0	40,9	28,8	24 300
36,0	36,3	26,2	22 000
38,0	31,2	23,0	19 800
40,0	25,2	19,1	17 900



48,0 m			
m	°	m	kg
7,3	84,4	49,8	239 600
7,5	84,1	49,8	235 500
8,0	83,5	49,8	224 300
8,5	82,9	49,7	214 100
9,0	82,3	49,6	195 700
10,0	81,1	49,4	163 700
11,0	79,9	49,3	139 800
12,0	78,7	49,0	121 900
13,0	77,5	48,8	108 300
14,0	76,2	48,5	96 300
15,0	75,0	48,3	86 700
16,0	73,7	48,0	78 800
17,0	72,5	47,6	71 800
18,0	71,2	47,3	65 900
19,0	69,9	46,9	60 800
20,0	68,7	46,5	56 200
22,0	66,1	45,6	48 700
24,0	63,4	44,6	42 500
26,0	60,6	43,5	37 500
28,0	57,8	42,2	33 300
30,0	54,9	40,8	29 700
32,0	51,9	39,3	26 600
34,0	48,7	37,5	23 900
36,0	45,4	35,6	21 600
38,0	41,9	33,4	19 500
40,0	38,0	30,9	17 600
42,0	33,8	28,0	15 900
44,0	29,1	24,6	14 300
46,0	23,4	20,3	12 900

54,0 m			
m	°	m	kg
7,3	85,0	55,9	222 700
7,5	84,8	55,9	221 200
8,0	84,3	55,8	216 300
8,5	83,7	55,7	206 900
9,0	83,2	55,7	194 200
10,0	82,1	55,5	164 000
11,0	81,0	55,4	140 000
12,0	80,0	55,2	122 000
13,0	78,9	55,0	108 400
14,0	77,8	54,7	96 400
15,0	76,7	54,5	86 800
16,0	75,6	54,2	78 800
17,0	74,5	53,9	71 800
18,0	73,4	53,6	65 900
19,0	72,3	53,3	60 800
20,0	71,1	52,9	56 100
22,0	68,9	52,2	48 600
24,0	66,6	51,3	42 500
26,0	64,2	50,3	37 400
28,0	61,8	49,3	33 200
30,0	59,3	48,1	29 600
32,0	56,8	46,8	26 500
34,0	54,2	45,3	23 900
36,0	51,5	43,8	21 500
38,0	48,7	42,0	19 400
40,0	45,7	40,1	17 500
42,0	42,6	38,0	15 900
44,0	39,3	35,6	14 300
46,0	35,7	32,8	13 000
48,0	31,8	29,7	11 700
50,0	27,3	26,0	10 500
52,0	22,0	21,4	9 400

60,0 m			
m	°	m	kg
7,9	84,9	61,8	192 300
8,0	84,8	61,9	192 100
8,5	84,4	61,8	190 900
9,0	83,9	61,7	187 400
10,0	82,9	61,6	163 800
11,0	82,0	61,5	139 700
12,0	81,0	61,3	121 700
13,0	80,0	61,1	108 000
14,0	79,0	60,9	95 900
15,0	78,1	60,7	86 300
16,0	77,1	60,4	78 300
17,0	76,1	60,2	71 200
18,0	75,1	59,9	65 300
19,0	74,1	59,6	60 200
20,0	73,1	59,3	55 600
22,0	71,1	58,6	48 000
24,0	69,0	57,8	41 800
26,0	67,0	57,0	36 800
28,0	64,9	56,0	32 600
30,0	62,7	55,0	29 000
32,0	60,5	53,9	25 900
34,0	58,3	52,7	23 200
36,0	56,0	51,3	20 800
38,0	53,6	49,8	18 700
40,0	51,2	48,2	16 900
42,0	48,6	46,5	15 200
44,0	46,0	44,6	13 700
46,0	43,2	42,5	12 300
48,0	40,3	40,2	11 100
50,0	37,2	37,6	9 900
52,0	33,8	34,7	8 900
54,0	30,1	31,3	7 900
56,0	25,9	27,4	6 900
58,0	20,8	22,5	6 100

B10



140 200 kg



360°

66,0 m			
m	o	m	kg
8,5	84,8	67,8	169 300
9,0	84,4	67,8	166 900
10,0	83,6	67,6	158 800
11,0	82,7	67,5	139 800
12,0	81,8	67,3	121 700
13,0	80,9	67,2	108 000
14,0	80,0	67,0	95 900
15,0	79,2	66,8	86 200
16,0	78,3	66,6	78 200
17,0	77,4	66,3	71 100
18,0	76,5	66,1	65 200
19,0	75,6	65,8	60 100
20,0	74,7	65,5	55 400
22,0	72,9	64,9	47 900
24,0	71,0	64,2	41 700
26,0	69,2	63,5	36 600
28,0	67,3	62,6	32 400
30,0	65,4	61,7	28 800
32,0	63,4	60,7	25 700
34,0	61,5	59,6	23 000
36,0	59,4	58,5	20 700
38,0	57,4	57,2	18 600
40,0	55,3	55,8	16 700
42,0	53,1	54,3	15 000
44,0	50,9	52,7	13 500
46,0	48,6	50,9	12 100
48,0	46,2	49,0	10 900
50,0	43,7	47,0	9 700
52,0	41,0	44,7	8 700
54,0	38,3	42,2	7 700
56,0	35,3	39,4	6 800
58,0	32,1	36,3	5 900
60,0	28,6	32,8	4 900
62,0	24,5	28,6	4 000

72,0 m			
m	o	m	kg
9,1	84,8	73,8	140 100
10,0	84,1	73,7	139 300
11,0	83,3	73,6	136 900
12,0	82,5	73,4	121 300
13,0	81,7	73,3	107 500
14,0	80,9	73,1	95 400
15,0	80,1	72,9	85 600
16,0	79,3	72,7	77 600
17,0	78,4	72,5	70 500
18,0	77,6	72,3	64 600
19,0	76,8	72,0	59 400
20,0	76,0	71,8	54 800
22,0	74,3	71,2	47 200
24,0	72,7	70,6	41 000
26,0	71,0	69,9	35 900
28,0	69,3	69,1	31 700
30,0	67,6	68,3	28 000
32,0	65,8	67,4	24 900
34,0	64,1	66,4	22 200
36,0	62,3	65,4	19 900
38,0	60,4	64,3	17 800
40,0	58,6	63,0	15 900
42,0	56,7	61,7	14 200
44,0	54,7	60,3	12 700
46,0	52,7	58,8	11 400
48,0	50,7	57,2	10 100
50,0	48,5	55,4	9 000
52,0	46,4	53,5	7 900
54,0	44,1	51,5	6 800
56,0	41,7	49,3	5 700
58,0	39,2	46,8	4 800

78,0 m			
m	o	m	kg
9,8	84,7	79,7	116 300
10,0	84,6	79,7	116 100
11,0	83,8	79,6	115 300
12,0	83,1	79,5	114 600
13,0	82,3	79,3	105 700
14,0	81,6	79,2	95 300
15,0	80,8	79,0	85 500
16,0	80,1	78,8	77 500
17,0	79,4	78,6	70 400
18,0	78,6	78,4	64 400
19,0	77,8	78,2	59 200
20,0	77,1	78,0	54 500
22,0	75,6	77,4	46 900
24,0	74,0	76,9	40 700
26,0	72,5	76,2	35 600
28,0	71,0	75,6	31 400
30,0	69,4	74,8	27 700
32,0	67,8	74,0	24 600
34,0	66,2	73,1	21 900
36,0	64,6	72,2	19 600
38,0	62,9	71,1	17 500
40,0	61,2	70,0	15 600
42,0	59,5	68,9	13 900
44,0	57,8	67,6	12 400
46,0	56,0	66,3	11 000
48,0	54,2	64,8	9 800
50,0	52,4	63,3	8 600
52,0	50,5	61,7	7 400
54,0	48,5	59,9	6 300
56,0	46,5	58,0	5 200