

Liftcrane Boom Capacities

Boom No. B10:500

175 200 kg VPC (Variable Position Counterweight)

360 Degree Rating

MLC300 SERIES 2



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. **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 chart **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. 9342-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 175 200 kg VPC.

Consult chart **No. 9455-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
78,0	3 500
84,0	3 700
90,0	4 000
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. For boom lengths shown with (a), upper boom point must be removed. 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	10 300
54,0	10 300
60,0	10 300
66,0	10 300
72,0	7 100
78,0	3 700
84,0	#
90,0	#
96,0	Raising Not Permitted
102,0	

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	10 300
54,0	10 300
60,0	10 300
66,0	10 300
72,0	7 100
78,0	3 700
84,0	#
90,0	#
96,0	Raising Not Permitted
102,0	

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.*

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	10 300
60,0	10 300
66,0	10 300
72,0	10 300
78,0	7 100
84,0	3 700
90,0	#
96,0	Raising Not Permitted
102,0	

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	10 300
60,0	10 300
66,0	10 300
72,0	10 300
78,0	7 100
84,0	3 700
90,0	#
96,0	#
(a)102,0	#

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



VPC (Variable 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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175 200 kg

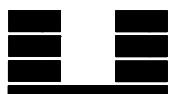


360°

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	296 900 b
7,0	81,6	31,7	281 400 b
8,0	79,6	31,5	253 100
9,0	77,6	31,2	227 300
10,0	75,7	31,0	193 100
12,0	71,6	30,3	146 800
14,0	67,5	29,5	118 000
16,0	63,2	28,5	98 500
18,0	58,8	27,3	84 400
20,0	54,1	25,8	73 700
22,0	49,0	24,1	65 300
24,0	43,6	22,1	58 600
26,0	37,4	19,5	53 000
28,0	30,2	16,3	48 400
30,0	20,5	11,7	44 400

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	289 700
7,0	83,0	37,8	274 500
8,0	81,4	37,6	247 700
9,0	79,7	37,4	225 800
10,0	78,1	37,2	195 400
12,0	74,8	36,6	148 400
14,0	71,5	36,0	119 400
16,0	68,0	35,2	99 700
18,0	64,5	34,2	85 500
20,0	60,9	33,1	74 700
22,0	57,1	31,8	66 300
24,0	53,1	30,3	59 500
26,0	48,9	28,6	53 900
28,0	44,4	26,6	49 200
30,0	39,5	24,2	45 200
32,0	33,9	21,4	41 800
34,0	27,3	17,7	38 800

42,0 m			
m	°	m	kg
6,4	84,8	43,9	267 800
6,5	84,7	43,9	267 400
7,0	84,0	43,8	263 200
8,0	82,6	43,7	241 000
9,0	81,2	43,5	220 300
10,0	79,8	43,3	197 300
12,0	77,0	42,9	149 200
14,0	74,2	42,3	120 100
16,0	71,3	41,6	100 200
18,0	68,4	40,8	85 900
20,0	65,4	39,9	75 100
22,0	62,3	38,9	66 600
24,0	59,1	37,7	59 700
26,0	55,8	36,3	54 100
28,0	52,4	34,8	49 400
30,0	48,8	33,1	45 400
32,0	45,0	31,1	41 900
34,0	40,9	28,8	38 900
36,0	36,3	26,2	36 300
38,0	31,2	23,0	34 000
40,0	25,2	19,1	31 900



175 200 kg



48,0 m			
m	o	m	kg
7,3	84,4	49,8	243 500
8,0	83,5	49,8	234 200
9,0	82,3	49,6	214 600
10,0	81,1	49,4	196 500
12,0	78,7	49,0	150 300
14,0	76,2	48,5	120 900
16,0	73,7	48,0	100 900
18,0	71,2	47,3	86 500
20,0	68,7	46,5	75 600
22,0	66,1	45,6	67 000
24,0	63,4	44,6	60 100
26,0	60,6	43,5	54 400
28,0	57,8	42,2	49 700
30,0	54,9	40,8	45 600
32,0	51,9	39,3	42 200
34,0	48,7	37,5	39 200
36,0	45,4	35,6	36 500
38,0	41,9	33,4	34 200
40,0	38,0	30,9	32 100
42,0	33,8	28,0	30 100
44,0	29,1	24,6	27 900
46,0	23,4	20,3	25 800

54,0 m			
m	o	m	kg
7,3	85,0	55,9	222 700
8,0	84,3	55,8	220 400
9,0	83,2	55,7	209 100
10,0	82,1	55,5	193 200
12,0	80,0	55,2	151 700
14,0	77,8	54,7	122 100
16,0	75,6	54,2	102 000
18,0	73,4	53,6	87 500
20,0	71,1	52,9	76 500
22,0	68,9	52,2	67 900
24,0	66,6	51,3	61 000
26,0	64,2	50,3	55 300
28,0	61,8	49,3	50 500
30,0	59,3	48,1	46 400
32,0	56,8	46,8	42 900
34,0	54,2	45,3	39 900
36,0	51,5	43,8	37 200
38,0	48,7	42,0	34 900
40,0	45,7	40,1	32 600
42,0	42,6	38,0	30 100
44,0	39,3	35,6	27 900
46,0	35,7	32,8	25 900
48,0	31,8	29,7	24 000
50,0	27,3	26,0	22 300
52,0	22,0	21,4	20 700

60,0 m			
m	o	m	kg
7,9	84,9	61,8	192 300
8,0	84,8	61,9	192 100
9,0	83,9	61,7	187 700
10,0	82,9	61,6	179 200
12,0	81,0	61,3	153 400
14,0	79,0	60,9	123 200
16,0	77,1	60,4	103 000
18,0	75,1	59,9	88 400
20,0	73,1	59,3	77 300
22,0	71,1	58,6	68 600
24,0	69,0	57,8	61 600
26,0	67,0	57,0	55 800
28,0	64,9	56,0	51 000
30,0	62,7	55,0	46 900
32,0	60,5	53,9	43 400
34,0	58,3	52,7	40 300
36,0	56,0	51,3	37 600
38,0	53,6	49,8	34 600
40,0	51,2	48,2	31 900
42,0	48,6	46,5	29 400
44,0	46,0	44,6	27 200
46,0	43,2	42,5	25 200
48,0	40,3	40,2	23 400
50,0	37,2	37,6	21 700
52,0	33,8	34,7	20 200
54,0	30,1	31,3	18 700
56,0	25,9	27,4	17 400
58,0	20,8	22,5	16 100

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175 200 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	160 400
12,0	81,8	67,3	147 800
14,0	80,0	67,0	124 300
16,0	78,3	66,6	103 600
18,0	76,5	66,1	88 900
20,0	74,7	65,5	77 800
22,0	72,9	64,9	69 000
24,0	71,0	64,2	62 000
26,0	69,2	63,5	56 200
28,0	67,3	62,6	51 400
30,0	65,4	61,7	47 300
32,0	63,4	60,7	43 700
34,0	61,5	59,6	40 600
36,0	59,4	58,5	37 600
38,0	57,4	57,2	34 400
40,0	55,3	55,8	31 700
42,0	53,1	54,3	29 300
44,0	50,9	52,7	27 000
46,0	48,6	50,9	25 000
48,0	46,2	49,0	23 200
50,0	43,7	47,0	21 500
52,0	41,0	44,7	20 000
54,0	38,3	42,2	18 600
56,0	35,3	39,4	17 300
58,0	32,1	36,3	16 000
60,0	28,6	32,8	14 900
62,0	24,5	28,6	13 800
64,0	19,7	23,4	12 800

72,0 m			
m	o	m	kg
9,1	84,8	73,8	140 100
10,0	84,1	73,7	139 300
12,0	82,5	73,4	132 000
14,0	80,9	73,1	121 700
16,0	79,3	72,7	105 200
18,0	77,6	72,3	89 700
20,0	76,0	71,8	78 500
22,0	74,3	71,2	69 700
24,0	72,7	70,6	62 600
26,0	71,0	69,9	56 700
28,0	69,3	69,1	51 900
30,0	67,6	68,3	47 700
32,0	65,8	67,4	44 100
34,0	64,1	66,4	40 200
36,0	62,3	65,4	36 700
38,0	60,4	64,3	33 700
40,0	58,6	63,0	30 900
42,0	56,7	61,7	28 500
44,0	54,7	60,3	26 300
46,0	52,7	58,8	24 300
48,0	50,7	57,2	22 400
50,0	48,5	55,4	20 800
52,0	46,4	53,5	19 200
54,0	44,1	51,5	17 800
56,0	41,7	49,3	16 500
58,0	39,2	46,8	15 300
60,0	36,6	44,2	14 100
62,0	33,7	41,3	13 100
64,0	30,7	38,0	12 100
66,0	27,3	34,2	11 100
68,0	23,5	29,8	10 200
70,0	18,9	24,4	9 400

78,0 m			
m	o	m	kg
9,8	84,7	79,7	116 300
10,0	84,6	79,7	116 100
12,0	83,1	79,5	114 600
14,0	81,6	79,2	113 100
16,0	80,1	78,8	107 200
18,0	78,6	78,4	90 300
20,0	77,1	78,0	79 000
22,0	75,6	77,4	70 200
24,0	74,0	76,9	63 000
26,0	72,5	76,2	57 200
28,0	71,0	75,6	52 200
30,0	69,4	74,8	48 100
32,0	67,8	74,0	43 900
34,0	66,2	73,1	39 900
36,0	64,6	72,2	36 400
38,0	62,9	71,1	33 300
40,0	61,2	70,0	30 600
42,0	59,5	68,9	28 100
44,0	57,8	67,6	25 900
46,0	56,0	66,3	23 900
48,0	54,2	64,8	22 100
50,0	52,4	63,3	20 400
52,0	50,5	61,7	18 900
54,0	48,5	59,9	17 500
56,0	46,5	58,0	16 200
58,0	44,4	56,0	14 900
60,0	42,2	53,8	13 800
62,0	40,0	51,4	12 700
64,0	37,6	48,9	11 800
66,0	35,0	46,1	10 800
68,0	32,3	43,0	9 900
70,0	29,4	39,5	9 100
72,0	26,2	35,6	8 300
74,0	22,5	31,0	7 600
76,0	18,1	25,4	6 900



175 200 kg



360°

84,0 m			
m	°	m	kg
10,4	84,7	85,7	98 000
12,0	83,6	85,5	96 800
14,0	82,2	85,3	95 500
16,0	80,8	84,9	94 200
18,0	79,4	84,6	90 400
20,0	78,0	84,1	79 700
22,0	76,6	83,7	70 700
24,0	75,2	83,1	63 600
26,0	73,8	82,5	57 600
28,0	72,4	81,9	52 600
30,0	70,9	81,2	47 700
32,0	69,5	80,5	43 100
34,0	68,0	79,7	39 100
36,0	66,5	78,8	35 600
38,0	65,0	77,9	32 600
40,0	63,5	76,9	29 800
42,0	61,9	75,8	27 400
44,0	60,4	74,7	25 100
46,0	58,8	73,4	23 100
48,0	57,2	72,2	21 300
50,0	55,5	70,8	19 600
52,0	53,8	69,3	18 100
54,0	52,1	67,8	16 700
56,0	50,3	66,1	15 300
58,0	48,5	64,4	14 100
60,0	46,6	62,5	13 000
62,0	44,7	60,5	11 900
64,0	42,7	58,3	10 900
66,0	40,6	56,0	10 000
68,0	38,4	53,5	9 100
70,0	36,1	50,8	8 300
72,0	33,7	47,9	7 600
74,0	31,1	44,7	6 800
76,0	28,3	41,0	6 100
78,0	25,2	36,9	5 400

90,0 m			
m	°	m	kg
11,0	84,7	91,7	82 500
12,0	84,0	91,6	81 900
14,0	82,7	91,3	80 600
16,0	81,4	91,0	76 600
18,0	80,1	90,7	72 400
20,0	78,8	90,3	68 600
22,0	77,5	89,8	65 200
24,0	76,2	89,3	62 100
26,0	74,9	88,8	57 900
28,0	73,6	88,2	52 800
30,0	72,2	87,6	47 500
32,0	70,9	86,9	42 900
34,0	69,5	86,1	39 000
36,0	68,2	85,3	35 500
38,0	66,8	84,5	32 400
40,0	65,4	83,6	29 700
42,0	64,0	82,6	27 200
44,0	62,5	81,5	25 000
46,0	61,1	80,4	23 000
48,0	59,6	79,3	21 100
50,0	58,1	78,0	19 500
52,0	56,6	76,7	17 900
54,0	55,0	75,3	16 500
56,0	53,4	73,8	15 200
58,0	51,8	72,3	14 000
60,0	50,2	70,6	12 900
62,0	48,5	68,8	11 800
64,0	46,7	67,0	10 800
66,0	44,9	65,0	9 900
68,0	43,1	62,9	9 000
70,0	41,2	60,6	8 200
72,0	39,2	58,2	7 400
74,0	37,1	55,6	6 700
76,0	34,9	52,7	6 000
78,0	32,5	49,7	5 400
80,0	30,0	46,3	4 700

96,0 m			
m	°	m	kg
11,0	85,0	97,7	71 000
12,0	84,4	97,6	70 500
14,0	83,2	97,4	69 400
16,0	82,0	97,1	68 400
18,0	80,8	96,8	67 500
20,0	79,6	96,4	66 500
22,0	78,3	96,0	65 500
24,0	77,1	95,5	63 700
26,0	75,9	95,0	58 400
28,0	74,6	94,5	52 100
30,0	73,4	93,9	46 700
32,0	72,1	93,2	42 200
34,0	70,9	92,5	38 200
36,0	69,6	91,8	34 700
38,0	68,3	91,0	31 600
40,0	67,0	90,1	28 900
42,0	65,7	89,2	26 400
44,0	64,4	88,3	24 200
46,0	63,1	87,3	22 200
48,0	61,7	86,2	20 300
50,0	60,3	85,1	18 700
52,0	58,9	83,9	17 100
54,0	57,5	82,6	15 700
56,0	56,1	81,2	14 400
58,0	54,6	79,8	13 200
60,0	53,1	78,3	12 000
62,0	51,6	76,8	11 000
64,0	50,1	75,1	10 000
66,0	48,5	73,3	9 100
68,0	46,8	71,5	8 200
70,0	45,2	69,5	7 400
72,0	43,4	67,4	6 600
74,0	41,6	65,2	5 900
76,0	39,8	62,8	5 200

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175 200 kg



360°

102,0 m			
m	°	m	kg
11,6	84,9	103,7	59 800
12,0	84,7	103,6	59 600
14,0	83,6	103,4	58 700
16,0	82,4	103,1	57 700
18,0	81,3	102,8	56 800
20,0	80,2	102,5	54 400
22,0	79,0	102,1	51 700
24,0	77,9	101,7	49 200
26,0	76,7	101,2	46 800
28,0	75,6	100,7	44 700
30,0	74,4	100,1	42 800
32,0	73,2	99,5	40 900
34,0	72,0	98,9	38 100
36,0	70,9	98,2	34 500
38,0	69,7	97,4	31 400
40,0	68,4	96,6	28 700
42,0	67,2	95,8	26 200
44,0	66,0	94,9	24 000
46,0	64,8	94,0	22 000
48,0	63,5	93,0	20 100
50,0	62,2	91,9	18 400
52,0	60,9	90,8	16 900
54,0	59,6	89,6	15 500
56,0	58,3	88,4	14 200
58,0	57,0	87,1	13 000
60,0	55,6	85,7	11 800
62,0	54,2	84,3	10 800
64,0	52,8	82,8	9 800
66,0	51,4	81,2	8 900
68,0	49,9	79,5	8 000
70,0	48,4	77,8	7 200
72,0	46,9	75,9	6 400
74,0	45,3	73,9	5 700
76,0	43,7	71,9	5 000