


Liftcrane Boom Capacities

Boom No. B15:505-500
215 200 kg VPC (Variable Position Counterweight)
360 Degree Rating

MLC300 SERIES 3


 **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.

OPERATING CONDITIONS: Machine to operate on a firm, level, and uniformly supporting surface. Refer to Boom Rigging **No. 80109323**, Wire Rope Specifications chart **No. 9683-A**, Counterweight Arrangements chart **No. 9345-A**, and Wind Conditions chart **No. 9682-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. 9681-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 ($^{\circ}$) 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 215 200 kg VPC.

Consult chart **No. 9684-AM** when Jib No. 148 is attached.

Luffing Jib Backstay Deduct	
Boom Length (m)	Deduct (kg)
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

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 (lb)
12,0	10 500
18,0	11 500
24,0	12 500
30,0	15 200
36,0	18 600
42,0	21 100

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 1: With Luffing Jib Backstays

Over End or Side of Crawlers	
Boom Length (m)	Block Weight (kg)
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	#
84,0	Raising Not Permitted
90,0	

Table 2: Without Luffing Jib Backstays


Over End or Side of Crawlers	
Boom Length (m)	Block Weight (kg)
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	3 700
84,0	#
90,0	#


Explanation of Symbols


B15  Boom No. B15:505-500


 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)

REFERENCE ONLY!

MLC300 S-3

ASME B30.5



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	264 900
8,0	82,6	43,7	246 300
9,0	81,2	43,5	225 200
10,0	79,8	43,3	207 300
12,0	77,0	42,9	170 400
14,0	74,2	42,3	137 000
16,0	71,3	41,6	114 500
18,0	68,4	40,8	98 200
20,0	65,4	39,9	85 900
22,0	62,3	38,9	76 200
24,0	59,1	37,7	68 400
26,0	55,8	36,3	62 000
28,0	52,4	34,8	56 700
30,0	48,8	33,1	52 100
32,0	45,0	31,1	48 200
34,0	40,9	28,8	44 800
36,0	36,3	26,2	41 800
38,0	31,2	23,0	39 200
40,0	25,2	19,1	36 800

48,0 m

m	°	m	kg
7,3	84,4	49,8	243 500
8,0	83,5	49,8	239 500
9,0	82,3	49,6	219 300
10,0	81,1	49,4	202 500
12,0	78,7	49,0	172 000
14,0	76,2	48,5	137 900
16,0	73,7	48,0	115 200
18,0	71,2	47,3	98 800
20,0	68,7	46,5	86 400
22,0	66,1	45,6	76 700
24,0	63,4	44,6	68 800
26,0	60,6	43,5	62 400
28,0	57,8	42,2	57 000
30,0	54,9	40,8	52 400
32,0	51,9	39,3	48 400
34,0	48,7	37,5	45 000
36,0	45,4	35,6	42 000
38,0	41,9	33,4	39 300
40,0	38,0	30,9	37 000
42,0	33,8	28,0	34 800
44,0	29,1	24,6	32 900
46,0	23,4	20,3	31 200

54,0 m

m	°	m	kg
7,3	85,0	55,9	222 700
8,0	84,3	55,8	220 500
9,0	83,2	55,7	213 200
10,0	82,1	55,5	197 400
12,0	80,0	55,2	171 300
14,0	77,8	54,7	139 100
16,0	75,6	54,2	116 300
18,0	73,4	53,6	99 800
20,0	71,1	52,9	87 400
22,0	68,9	52,2	77 500
24,0	66,6	51,3	69 700
26,0	64,2	50,3	63 200
28,0	61,8	49,3	57 800
30,0	59,3	48,1	53 100
32,0	56,8	46,8	49 200
34,0	54,2	45,3	45 700
36,0	51,5	43,8	42 700
38,0	48,7	42,0	40 000
40,0	45,7	40,1	37 700
42,0	42,6	38,0	35 500
44,0	39,3	35,6	33 600
46,0	35,7	32,8	31 400
48,0	31,8	29,7	29 000
50,0	27,3	26,0	26 800
52,0	22,0	21,4	24 600

MLC300 S-3

ASME B30.5



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	163 700
14,0	79,0	60,9	140 800
16,0	77,1	60,4	117 200
18,0	75,1	59,9	100 700
20,0	73,1	59,3	88 100
22,0	71,1	58,6	78 200
24,0	69,0	57,8	70 300
26,0	67,0	57,0	63 800
28,0	64,9	56,0	58 300
30,0	62,7	55,0	53 600
32,0	60,5	53,9	49 700
34,0	58,3	52,7	46 200
36,0	56,0	51,3	43 100
38,0	53,6	49,8	40 500
40,0	51,2	48,2	38 100
42,0	48,6	46,5	35 700
44,0	46,0	44,6	33 000
46,0	43,2	42,5	30 500
48,0	40,3	40,2	28 300
50,0	37,2	37,6	26 200
52,0	33,8	34,7	24 200
54,0	30,1	31,3	22 300
56,0	25,9	27,4	20 500
58,0	20,8	22,5	18 800

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	135 700
16,0	78,3	66,6	118 800
18,0	76,5	66,1	101 200
20,0	74,7	65,5	88 600
22,0	72,9	64,9	78 700
24,0	71,0	64,2	70 700
26,0	69,2	63,5	64 200
28,0	67,3	62,6	58 700
30,0	65,4	61,7	54 000
32,0	63,4	60,7	50 000
34,0	61,5	59,6	46 500
36,0	59,4	58,5	43 400
38,0	57,4	57,2	40 500
40,0	55,3	55,8	37 400
42,0	53,1	54,3	34 500
44,0	50,9	52,7	31 900
46,0	48,6	50,9	29 500
48,0	46,2	49,0	27 200
50,0	43,7	47,0	25 200
52,0	41,0	44,7	23 300
54,0	38,3	42,2	21 500
56,0	35,3	39,4	19 800
58,0	32,1	36,3	18 300
60,0	28,6	32,8	16 800
62,0	24,5	28,6	15 300
64,0	19,7	23,4	13 900

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	122 200
16,0	79,3	72,7	113 200
18,0	77,6	72,3	102 100
20,0	76,0	71,8	89 300
22,0	74,3	71,2	79 300
24,0	72,7	70,6	71 300
26,0	71,0	69,9	64 700
28,0	69,3	69,1	59 100
30,0	67,6	68,3	54 400
32,0	65,8	67,4	50 400
34,0	64,1	66,4	46 800
36,0	62,3	65,4	42 800
38,0	60,4	64,3	39 300
40,0	58,6	63,0	36 100
42,0	56,7	61,7	33 300
44,0	54,7	60,3	30 700
46,0	52,7	58,8	28 300
48,0	50,7	57,2	26 100
50,0	48,5	55,4	24 100
52,0	46,4	53,5	22 200
54,0	44,1	51,5	20 500
56,0	41,7	49,3	18 900
58,0	39,2	46,8	17 400
60,0	36,6	44,2	15 900
62,0	33,7	41,3	14 600
64,0	30,7	38,0	13 300
66,0	27,3	34,2	12 000
68,0	23,5	29,8	10 800
70,0	18,9	24,4	9 600

MLC300 S-3

ASME B30.5



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	111 500
18,0	78,6	78,4	103 100
20,0	77,1	78,0	89 800
22,0	75,6	77,4	79 800
24,0	74,0	76,9	71 700
26,0	72,5	76,2	65 100
28,0	71,0	75,6	59 500
30,0	69,4	74,8	54 800
32,0	67,8	74,0	50 000
34,0	66,2	73,1	45 600
36,0	64,6	72,2	41 700
38,0	62,9	71,1	38 200
40,0	61,2	70,0	35 000
42,0	59,5	68,9	32 200
44,0	57,8	67,6	29 600
46,0	56,0	66,3	27 300
48,0	54,2	64,8	25 100
50,0	52,4	63,3	23 100
52,0	50,5	61,7	21 300
54,0	48,5	59,9	19 500
56,0	46,5	58,0	17 900
58,0	44,4	56,0	16 500
60,0	42,2	53,8	15 100
62,0	40,0	51,4	13 700
64,0	37,6	48,9	12 500
66,0	35,0	46,1	11 200
68,0	32,3	43,0	9 700
70,0	29,4	39,5	8 300
72,0	26,2	35,6	7 000
74,0	22,5	31,0	5 700
76,0	18,1	25,4	4 500

84,0 m

m	o	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	92 100
20,0	78,0	84,1	87 200
22,0	76,6	83,7	80 900
24,0	75,2	83,1	72 300
26,0	73,8	82,5	65 400
28,0	72,4	81,9	58 700
30,0	70,9	81,2	53 000
32,0	69,5	80,5	48 000
34,0	68,0	79,7	43 600
36,0	66,5	78,8	39 700
38,0	65,0	77,9	36 200
40,0	63,5	76,9	33 100
42,0	61,9	75,8	30 300
44,0	60,4	74,7	27 800
46,0	58,8	73,4	25 400
48,0	57,2	72,2	23 300
50,0	55,5	70,8	21 400
52,0	53,8	69,3	19 500
54,0	52,1	67,8	17 900
56,0	50,3	66,1	16 300
58,0	48,5	64,4	14 800
60,0	46,6	62,5	13 500
62,0	44,7	60,5	12 200
64,0	42,7	58,3	11 000
66,0	40,6	56,0	9 800
68,0	38,4	53,5	8 700
70,0	36,1	50,8	7 700
72,0	33,7	47,9	6 700
74,0	31,1	44,7	5 700
76,0	28,3	41,0	4 500

90,0 m

m	o	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	59 300
28,0	73,6	88,2	56 600
30,0	72,2	87,6	52 900
32,0	70,9	86,9	47 600
34,0	69,5	86,1	43 300
36,0	68,2	85,3	39 400
38,0	66,8	84,5	35 900
40,0	65,4	83,6	32 800
42,0	64,0	82,6	30 000
44,0	62,5	81,5	27 400
46,0	61,1	80,4	25 100
48,0	59,6	79,3	23 000
50,0	58,1	78,0	21 000
52,0	56,6	76,7	19 200
54,0	55,0	75,3	17 500
56,0	53,4	73,8	16 000
58,0	51,8	72,3	14 500
60,0	50,2	70,6	13 200
62,0	48,5	68,8	11 900
64,0	46,7	67,0	10 700
66,0	44,9	65,0	9 600
68,0	43,1	62,9	8 500
70,0	41,2	60,6	7 500
72,0	39,2	58,2	6 500
74,0	37,1	55,6	5 600
76,0	34,9	52,7	4 700