


Liftcrane Boom

Extended Upper Point Capacities

MLC300 SERIES 3

Boom No. B45:505-500
with 7,0 m Extended Upper Boom Point
200 200 kg Fixed Position Counterweight
at 4,1 m Position
360 Degree Rating


 **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 (upper sheave) capacity for liftcrane service with single part whip line from Drum 6 is 13 600 kg. When Drum 2 or Drum 3 is used, capacity with single part whip line is 16 600 kg. In all cases, upper boom point capacities cannot exceed those listed for extended upper boom point (lower sheave) capacity.


Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath 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. 84049567**, Wire Rope Specifications chart **No. 9647-A**, Counterweight Arrangements chart **No. 9345-A**, and Wind Conditions chart **No. 9646-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. 9644-A**.

 **EXTENDED UPPER BOOM POINT OPERATING RADIUS:** Extended upper boom point 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.

 **EXTENDED UPPER BOOM POINT ELEVATION:** Extended upper boom point elevation is vertical distance from ground level to centerline of extended upper 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 200 200 kg Fixed Position Counterweight.

Luffing Jib Backstay Deduct	
Boom Length (m)	Deduct (kg)
35,0	1 400
38,0	1 500
41,0	1 700
44,0	1 800
47,0	2 000
50,0	2 100
53,0	2 200
56,0	2 300
59,0	2 400
62,0	2 600
65,0	2 700
68,0	2 900
71,0	3 000
74,0	3 200
77,0	3 200

Deduct the appropriate value from capacities when luffing jib backstays are stored on boom.

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 extended upper boom point (lower or upper 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 extended upper boom point (lower or upper 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)
35,0	3 400
38,0	3 400
41,0	3 400
44,0	3 400
47,0	3 400
50,0	3 400
53,0	3 400
56,0	3 400
59,0	3 400
62,0	3 400
65,0	3 400
68,0	3 400
71,0	#
74,0	#
77,0	
80,0	Raising Not Permitted
83,0	
86,0	

Table 1b: With Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
35,0	3 400
38,0	3 400
41,0	3 400
44,0	3 400
47,0	3 400
50,0	3 400
53,0	3 400
56,0	3 400
59,0	3 400
62,0	3 400
65,0	3 400
68,0	3 400
71,0	#
74,0	#
77,0	#
80,0	
83,0	Raising Not Permitted
86,0	

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)
35,0	3 400
38,0	3 400
41,0	3 400
44,0	3 400
47,0	3 400
50,0	3 400
53,0	3 400
56,0	3 400
59,0	3 400
62,0	3 400
65,0	3 400
68,0	3 400
71,0	3 400
74,0	#
77,0	#
80,0	Raising Not Permitted
83,0	
86,0	

Table 2b: Without Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
35,0	3 400
38,0	3 400
41,0	3 400
44,0	3 400
47,0	3 400
50,0	3 400
53,0	3 400
56,0	3 400
59,0	3 400
62,0	3 400
65,0	3 400
68,0	3 400
71,0	3 400
74,0	#
77,0	#
80,0	#
83,0	#
86,0	#

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.*

REFERENCE ONLY!

Explanation of Symbols



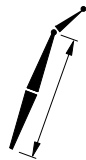
Boom No. B45:505-500



Fixed Position Counterweight



360 Degree Rating



Boom Length



Extended Upper Boom Point Operating Radius
(see page 1)



Boom Angle
(see page 1)



Extended Upper Boom Point Elevation
(see page 1)



Lifting Capacities
(see page 1)

MLC300 S-3

ASME B30.5



35,0 m

m	°	m	kg
16,0	75,4	41,0	81 500
18,0	72,4	40,2	79 800
20,0	69,4	39,3	77 800
22,0	66,2	38,2	70 800
24,0	63,0	37,0	62 700
26,0	59,6	35,6	56 000
28,0	56,1	34,0	50 500
30,0	52,4	32,3	45 700
32,0	48,5	30,2	41 500
34,0	44,2	27,9	38 000
36,0	39,5	25,2	34 800

38,0 m

m	°	m	kg
16,0	76,4	44,2	86 500
18,0	73,7	43,4	85 100
20,0	70,9	42,6	80 500
22,0	68,0	41,6	70 600
24,0	65,1	40,5	62 400
26,0	62,0	39,3	55 700
28,0	58,9	37,9	50 200
30,0	55,6	36,3	45 400
32,0	52,2	34,5	41 300
34,0	48,5	32,5	37 700
36,0	44,6	30,2	34 500
38,0	40,3	27,6	31 700

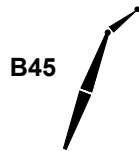
41,0 m

m	°	m	kg
14,0	79,9	47,9	92 600
16,0	77,3	47,3	91 400
18,0	74,8	46,6	90 400
20,0	72,2	45,8	80 500
22,0	69,5	44,9	70 500
24,0	66,8	43,9	62 400
26,0	64,0	42,8	55 700
28,0	61,2	41,5	50 100
30,0	58,2	40,1	45 400
32,0	55,1	38,5	41 200
34,0	51,9	36,7	37 700
36,0	48,5	34,7	34 500
38,0	44,8	32,5	31 700
40,0	40,9	29,9	29 200

REFERENCE ONLY

MLC300 S-3

ASME B30.5



200 200 kg



360°

44,0 m			
m	o	m	kg
14,0	80,5	51,0	96 700
16,0	78,1	50,5	95 800
18,0	75,7	49,8	91 800
20,0	73,3	49,1	80 200
22,0	70,8	48,2	70 200
24,0	68,3	47,3	62 100
26,0	65,8	46,3	55 300
28,0	63,1	45,1	49 800
30,0	60,4	43,8	45 000
32,0	57,6	42,3	40 900
34,0	54,7	40,7	37 300
36,0	51,7	39,0	34 200
38,0	48,5	37,0	31 400
40,0	45,1	34,8	28 900
42,0	41,4	32,2	26 600
44,0	37,4	29,3	24 600

47,0 m			
m	o	m	kg
12,5	82,7	54,4	100 000
13,0	82,1	54,3	100 000
13,5	81,6	54,2	100 000
14,0	81,0	54,1	99 900
14,5	80,5	54,0	99 600
16,0	78,8	53,6	97 900
18,0	76,6	53,0	91 900
20,0	74,3	52,3	80 200
22,0	72,0	51,5	70 200
24,0	69,6	50,6	62 000
26,0	67,3	49,6	55 300
28,0	64,8	48,5	49 700
30,0	62,3	47,3	44 900
32,0	59,7	46,0	40 800
34,0	57,1	44,6	37 200
36,0	54,3	42,9	34 100
38,0	51,4	41,2	31 300
40,0	48,4	39,2	28 800
42,0	45,2	37,0	26 600
44,0	41,8	34,5	24 500
46,0	38,1	31,7	22 700

50,0 m			
m	o	m	kg
12,8	82,8	57,4	100 000
13,0	82,6	57,4	100 000
13,5	82,0	57,3	100 000
14,0	81,5	57,1	100 000
14,5	81,0	57,0	100 000
16,0	79,4	56,7	98 700
18,0	77,3	56,1	91 900
20,0	75,2	55,4	79 900
22,0	73,0	54,7	69 800
24,0	70,8	53,9	61 600
26,0	68,6	53,0	54 900
28,0	66,3	51,9	49 300
30,0	64,0	50,8	44 500
32,0	61,6	49,6	40 400
34,0	59,1	48,3	36 800
36,0	56,6	46,8	33 700
38,0	54,0	45,2	30 900
40,0	51,3	43,4	28 400
42,0	48,4	41,4	26 200
44,0	45,4	39,2	24 100
46,0	42,2	36,8	22 300
48,0	38,8	34,1	20 600

REFER TO THE

MLC300 S-3

ASME B30.5



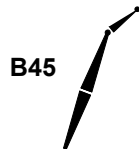
53,0 m			
m	o	m	kg
13,1	82,8	60,4	100 000
13,5	82,4	60,3	100 000
14,0	82,0	60,2	100 000
14,5	81,5	60,1	100 000
15,0	81,0	60,0	100 000
16,0	80,0	59,8	99 200
18,0	78,0	59,2	92 000
20,0	76,0	58,6	79 800
22,0	73,9	57,9	69 800
24,0	71,8	57,1	61 600
26,0	69,7	56,3	54 800
28,0	67,6	55,3	49 200
30,0	65,4	54,3	44 400
32,0	63,2	53,1	40 300
34,0	60,9	51,9	36 700
36,0	58,6	50,5	33 600
38,0	56,2	49,0	30 800
40,0	53,7	47,4	28 300
42,0	51,1	45,6	26 100
44,0	48,4	43,7	24 100
46,0	45,6	41,5	22 200
48,0	42,6	39,1	20 500
50,0	39,4	36,5	19 000

56,0 m			
m	o	m	kg
13,4	82,9	63,4	100 000
13,5	82,8	63,4	100 000
14,0	82,3	63,3	100 000
14,5	81,9	63,2	100 000
15,0	81,4	63,1	100 000
16,0	80,5	62,8	99 600
18,0	78,6	62,3	91 900
20,0	76,7	61,7	79 500
22,0	74,7	61,1	69 400
24,0	72,8	60,3	61 200
26,0	70,8	59,5	54 400
28,0	68,8	58,6	48 800
30,0	66,7	57,7	44 000
32,0	64,6	56,6	39 900
34,0	62,5	55,4	36 300
36,0	60,3	54,1	33 200
38,0	58,1	52,8	30 300
40,0	55,8	51,3	27 900
42,0	53,4	49,6	25 600
44,0	51,0	47,8	23 600
46,0	48,4	45,9	21 800
48,0	45,7	43,8	20 100
50,0	42,9	41,4	18 600
52,0	39,8	38,8	17 100
54,0	36,6	35,9	15 800

59,0 m			
m	o	m	kg
13,7	83,0	66,4	100 000
14,0	82,7	66,3	100 000
14,5	82,3	66,2	100 000
15,0	81,8	66,1	100 000
15,5	81,4	66,0	100 000
16,0	80,9	65,9	100 000
18,0	79,1	65,4	92 000
20,0	77,3	64,9	79 400
22,0	75,5	64,3	69 300
24,0	73,6	63,6	61 100
26,0	71,7	62,8	54 300
28,0	69,8	61,9	48 700
30,0	67,9	61,0	43 900
32,0	65,9	60,0	39 700
34,0	63,9	58,9	36 200
36,0	61,9	57,7	33 000
38,0	59,8	56,4	30 200
40,0	57,6	55,0	27 700
42,0	55,4	53,5	25 500
44,0	53,2	51,9	23 500
46,0	50,8	50,1	21 600
48,0	48,4	48,1	20 000
50,0	45,8	46,0	18 400
52,0	43,2	43,7	17 000
54,0	40,3	41,2	15 700
56,0	37,3	38,3	14 500

MLC300 S-3

ASME B30.5



62,0 m			
m	o	m	kg
14,3	82,7	69,3	100 000
14,5	82,6	69,3	100 000
15,0	82,2	69,2	100 000
15,5	81,7	69,1	100 000
16,0	81,3	69,0	100 000
18,0	79,6	68,5	91 800
20,0	77,9	68,0	79 000
22,0	76,1	67,4	68 900
24,0	74,3	66,7	60 700
26,0	72,6	66,0	53 900
28,0	70,8	65,2	48 300
30,0	68,9	64,3	43 500
32,0	67,1	63,4	39 300
34,0	65,2	62,3	35 700
36,0	63,3	61,2	32 600
38,0	61,3	60,0	29 800
40,0	59,3	58,7	27 300
42,0	57,2	57,3	25 000
44,0	55,1	55,7	23 000
46,0	52,9	54,1	21 200
48,0	50,7	52,3	19 500
50,0	48,4	50,4	18 000
52,0	45,9	48,3	16 500
54,0	43,4	46,0	15 200
56,0	40,7	43,5	14 000
58,0	37,8	40,7	12 900

65,0 m			
m	o	m	kg
14,6	82,8	72,3	100 000
15,0	82,5	72,3	100 000
15,5	82,1	72,2	100 000
16,0	81,7	72,1	100 000
16,5	81,3	72,0	99 900
18,0	80,0	71,6	91 700
20,0	78,4	71,1	79 000
22,0	76,7	70,5	68 800
24,0	75,0	69,9	60 600
26,0	73,3	69,2	53 800
28,0	71,6	68,4	48 100
30,0	69,9	67,6	43 300
32,0	68,1	66,7	39 200
34,0	66,3	65,7	35 600
36,0	64,5	64,7	32 400
38,0	62,7	63,5	29 600
40,0	60,8	62,3	27 100
42,0	58,8	61,0	24 900
44,0	56,9	59,5	22 900
46,0	54,8	58,0	21 000
48,0	52,8	56,3	19 400
50,0	50,6	54,5	17 800
52,0	48,4	52,6	16 400
54,0	46,1	50,5	15 100
56,0	43,6	48,3	13 900
58,0	41,1	45,8	12 800
60,0	38,4	43,1	11 700

68,0 m			
m	o	m	kg
14,9	82,9	75,3	100 000
15,0	82,8	75,3	100 000
15,5	82,4	75,2	100 000
16,0	82,0	75,1	100 000
16,5	81,6	75,0	100 000
18,0	80,5	74,7	91 400
20,0	78,9	74,2	78 600
22,0	77,3	73,6	68 400
24,0	75,7	73,0	60 200
26,0	74,0	72,4	53 300
28,0	72,4	71,6	47 700
30,0	70,7	70,9	42 900
32,0	69,1	70,0	38 700
34,0	67,4	69,1	35 100
36,0	65,6	68,0	31 900
38,0	63,9	67,0	29 100
40,0	62,1	65,8	26 600
42,0	60,3	64,5	24 400
44,0	58,4	63,2	22 400
46,0	56,5	61,8	20 500
48,0	54,6	60,2	18 900
50,0	52,6	58,5	17 300
52,0	50,5	56,8	15 900
54,0	48,4	54,8	14 600
56,0	46,1	52,8	13 400
58,0	43,8	50,5	12 300
60,0	41,4	48,1	11 200
62,0	38,8	45,4	10 200
64,0	36,1	42,5	9 300

MLC300 S-3

ASME B30.5



71,0 m

m	o	m	kg
15,2	82,9	78,3	100 000
15,5	82,7	78,2	100 000
16,0	82,3	78,1	100 000
16,5	82,0	78,0	99 900
17,0	81,6	77,9	98 300
18,0	80,8	77,7	91 400
20,0	79,3	77,3	78 600
22,0	77,8	76,7	68 400
24,0	76,2	76,2	60 100
26,0	74,7	75,5	53 300
28,0	73,1	74,8	47 700
30,0	71,5	74,1	42 800
32,0	69,9	73,2	38 700
34,0	68,3	72,4	35 100
36,0	66,7	71,4	31 900
38,0	65,0	70,4	29 100
40,0	63,3	69,3	26 600
42,0	61,6	68,1	24 400
44,0	59,8	66,8	22 300
46,0	58,0	65,4	20 500
48,0	56,2	64,0	18 800
50,0	54,3	62,4	17 300
52,0	52,4	60,8	15 900
54,0	50,4	59,0	14 600
56,0	48,3	57,1	13 400
58,0	46,2	55,0	12 200
60,0	44,0	52,8	11 200
62,0	41,7	50,4	10 200
64,0	39,2	47,7	9 300
66,0	36,6	44,9	8 400

74,0 m

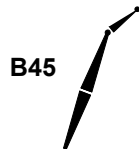
m	o	m	kg
15,5	83,0	81,3	100 000
16,0	82,6	81,2	100 000
16,5	82,3	81,1	99 900
17,0	81,9	81,0	98 200
17,5	81,5	80,9	94 700
18,0	81,2	80,8	91 200
20,0	79,7	80,4	78 200
22,0	78,2	79,9	68 000
24,0	76,8	79,3	59 700
26,0	75,3	78,7	52 900
28,0	73,8	78,0	47 200
30,0	72,3	77,3	42 400
32,0	70,7	76,5	38 200
34,0	69,2	75,7	34 600
36,0	67,6	74,7	31 400
38,0	66,0	73,8	28 600
40,0	64,4	72,7	26 100
42,0	62,8	71,6	23 900
44,0	61,1	70,4	21 800
46,0	59,4	69,1	20 000
48,0	57,7	67,7	18 300
50,0	55,9	66,2	16 800
52,0	54,1	64,7	15 400
54,0	52,2	63,0	14 100
56,0	50,3	61,2	12 800
58,0	48,3	59,3	11 700
60,0	46,3	57,3	10 700
62,0	44,2	55,1	9 700
64,0	42,0	52,7	8 800
66,0	39,6	50,1	7 900
68,0	37,2	47,3	7 100

77,0 m

m	o	m	kg
16,2	82,8	84,2	100 000
16,5	82,6	84,1	99 900
17,0	82,2	84,1	98 900
18,0	81,5	83,9	91 200
20,0	80,1	83,4	78 100
22,0	78,7	82,9	67 900
24,0	77,3	82,4	59 600
26,0	75,8	81,8	52 700
28,0	74,4	81,2	47 100
30,0	72,9	80,5	42 200
32,0	71,5	79,7	38 000
34,0	70,0	78,9	34 400
36,0	68,5	78,0	31 300
38,0	66,9	77,1	28 400
40,0	65,4	76,1	25 900
42,0	63,8	75,0	23 700
44,0	62,3	73,9	21 600
46,0	60,6	72,6	19 800
48,0	59,0	71,3	18 100
50,0	57,3	69,9	16 600
52,0	55,6	68,5	15 200
54,0	53,9	66,9	13 900
56,0	52,1	65,2	12 700
58,0	50,2	63,4	11 600
60,0	48,3	61,5	10 500
62,0	46,4	59,5	9 500
64,0	44,3	57,3	8 600
66,0	42,2	55,0	7 800
68,0	40,0	52,4	7 000
70,0	37,6	49,7	6 200

MLC300 S-3

ASME B30.5



80,0 m			
m	o	m	kg
16,5	82,8	87,2	97 800
17,0	82,5	87,1	97 400
17,5	82,1	87,0	94 600
18,0	81,8	86,9	90 800
18,5	81,5	86,8	87 300
20,0	80,4	86,5	77 700
22,0	79,1	86,1	67 400
24,0	77,7	85,5	59 100
26,0	76,3	85,0	52 200
28,0	74,9	84,4	46 500
30,0	73,5	83,7	41 600
32,0	72,1	83,0	37 400
34,0	70,7	82,2	33 800
36,0	69,3	81,3	30 600
38,0	67,8	80,4	27 800
40,0	66,3	79,5	25 300
42,0	64,8	78,4	23 000
44,0	63,3	77,3	21 000
46,0	61,8	76,2	19 100
48,0	60,2	74,9	17 400
50,0	58,6	73,6	15 900
52,0	57,0	72,2	14 500
54,0	55,4	70,7	13 200
56,0	53,7	69,2	12 000
58,0	52,0	67,5	10 800
60,0	50,2	65,7	9 800
62,0	48,3	63,8	8 800
64,0	46,5	61,8	7 900
66,0	44,5	59,6	7 000
68,0	42,5	57,3	6 200
70,0	40,3	54,8	5 400

83,0 m			
m	o	m	kg
16,8	82,9	90,2	95 100
17,0	82,7	90,1	94 900
17,5	82,4	90,1	94 200
18,0	82,1	90,0	91 100
18,5	81,8	89,9	87 600
19,0	81,4	89,8	84 300
20,0	80,8	89,6	78 000
22,0	79,5	89,1	67 700
24,0	78,1	88,6	59 400
26,0	76,8	88,1	52 500
28,0	75,5	87,5	46 800
30,0	74,1	86,8	42 000
32,0	72,8	86,1	37 700
34,0	71,4	85,4	34 100
36,0	70,0	84,6	30 900
38,0	68,6	83,7	28 100
40,0	67,2	82,8	25 600
42,0	65,8	81,8	23 400
44,0	64,3	80,8	21 300
46,0	62,8	79,6	19 500
48,0	61,4	78,5	17 800
50,0	59,8	77,2	16 200
52,0	58,3	75,9	14 800
54,0	56,7	74,5	13 500
56,0	55,1	73,0	12 300
58,0	53,5	71,4	11 200
60,0	51,8	69,7	10 200
62,0	50,1	67,9	9 200
64,0	48,3	66,0	8 300
66,0	46,5	64,0	7 400
68,0	44,6	61,8	6 600
70,0	42,7	59,5	5 800
72,0	40,6	57,1	5 100

86,0 m			
m	o	m	kg
17,1	82,9	93,2	89 000
17,5	82,7	93,1	88 500
18,0	82,3	93,0	88 000
18,5	82,0	92,9	86 500
19,0	81,7	92,8	83 500
20,0	81,1	92,6	77 600
22,0	79,8	92,2	67 300
24,0	78,5	91,7	58 900
26,0	77,3	91,2	52 000
28,0	76,0	90,6	46 300
30,0	74,7	90,0	41 500
32,0	73,4	89,3	37 200
34,0	72,0	88,6	33 600
36,0	70,7	87,8	30 400
38,0	69,4	87,0	27 600
40,0	68,0	86,1	25 100
42,0	66,6	85,2	22 800
44,0	65,2	84,2	20 800
46,0	63,8	83,1	18 900
48,0	62,4	82,0	17 200
50,0	61,0	80,8	15 700
52,0	59,5	79,5	14 300
54,0	58,0	78,2	13 000
56,0	56,5	76,7	11 800
58,0	54,9	75,2	10 600
60,0	53,3	73,6	9 600
62,0	51,7	72,0	8 600
64,0	50,0	70,2	7 700
66,0	48,3	68,3	6 800
68,0	46,6	66,3	6 000
70,0	44,8	64,1	5 200