

Liftcrane Boom

Extended Upper Point Capacities

MLC300 SERIES 1

Boom No. B45:505-500

with 7,0 m Extended Upper Boom Point
140 200 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 (°) 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 140 200 kg Fixed Position Counterweight.

Luffing Jib Backstay Deduct	
Boom Length (m)	Deduct (kg)
35,0	1 400
41,0	1 700
47,0	2 000
53,0	2 200
59,0	2 400
65,0	2 700
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
41,0	3 400
47,0	3 400
53,0	3 400
59,0	#
65,0	Raising Not Permitted
71,0	

Table 1b: With Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
35,0	3 400
41,0	3 400
47,0	3 400
53,0	3 400
59,0	#
65,0	#
71,0	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. *Crane tipping or structural damage can occur.*

Table 2a: Without Luffing Jib Backstays

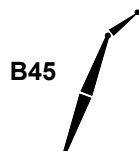
Over End or Side of Crawlers	
Boom Length (m)	Block Weight (kg)
35,0	3 400
41,0	3 400
47,0	3 400
53,0	3 400
59,0	3 400
65,0	#
71,0	Raising Not Permitted

Table 2b: Without Luffing Jib Backstays

Over End of Blocked Crawlers	
Boom Length (m)	Block Weight (kg)
35,0	3 400
41,0	3 400
47,0	3 400
53,0	3 400
59,0	3 400
65,0	#
71,0	#

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



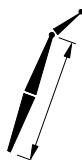
Boom No. B45:505-500



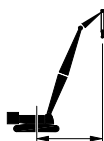
Fixed Position Counterweight



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)

B45



140 200 kg



360°

35,0 m			
m	°	m	kg
11,0	82,7	42,5	86 600
11,5	81,9	42,4	86 000
12,0	81,2	42,3	85 500
12,5	80,5	42,1	84 900
13,0	79,8	42,0	84 400
14,0	78,3	41,7	83 400
16,0	75,4	41,0	79 800
18,0	72,4	40,2	70 100
20,0	69,4	39,3	60 100
22,0	66,2	38,2	52 400
24,0	63,0	37,0	46 000
26,0	59,6	35,6	40 800
28,0	56,1	34,0	36 500
30,0	52,4	32,3	32 800
32,0	48,5	30,2	29 600
34,0	44,2	27,9	26 800
36,0	39,5	25,2	24 300

41,0 m			
m	°	m	kg
11,6	82,9	48,5	94 100
12,0	82,3	48,4	93 800
12,5	81,7	48,3	93 500
13,0	81,1	48,2	93 200
13,5	80,5	48,0	92 900
14,0	79,9	47,9	92 000
16,0	77,3	47,3	83 100
18,0	74,8	46,6	69 800
20,0	72,2	45,8	59 800
22,0	69,5	44,9	52 100
24,0	66,8	43,9	45 700
26,0	64,0	42,8	40 500
28,0	61,2	41,5	36 200
30,0	58,2	40,1	32 500
32,0	55,1	38,5	29 300
34,0	51,9	36,7	26 500
36,0	48,5	34,7	24 000
38,0	44,8	32,5	21 800
40,0	40,9	29,9	19 900

47,0 m			
m	°	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	97 900
14,5	80,5	54,0	94 200
16,0	78,8	53,6	82 900
18,0	76,6	53,0	69 600
20,0	74,3	52,3	59 500
22,0	72,0	51,5	51 700
24,0	69,6	50,6	45 300
26,0	67,3	49,6	40 100
28,0	64,8	48,5	35 800
30,0	62,3	47,3	32 000
32,0	59,7	46,0	28 800
34,0	57,1	44,6	26 000
36,0	54,3	42,9	23 600
38,0	51,4	41,2	21 400
40,0	48,4	39,2	19 500
42,0	45,2	37,0	17 700
44,0	41,8	34,5	16 100
46,0	38,1	31,7	14 700



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	95 500
15,0	81,0	60,0	90 800
16,0	80,0	59,8	82 700
18,0	78,0	59,2	69 200
20,0	76,0	58,6	59 100
22,0	73,9	57,9	51 300
24,0	71,8	57,1	44 900
26,0	69,7	56,3	39 600
28,0	67,6	55,3	35 300
30,0	65,4	54,3	31 500
32,0	63,2	53,1	28 300
34,0	60,9	51,9	25 500
36,0	58,6	50,5	23 100
38,0	56,2	49,0	20 900
40,0	53,7	47,4	19 000
42,0	51,1	45,6	17 200
44,0	48,4	43,7	15 600
46,0	45,6	41,5	14 200
48,0	42,6	39,1	12 900
50,0	39,4	36,5	11 600

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	95 200
15,0	81,8	66,1	90 400
15,5	81,4	66,0	86 200
16,0	80,9	65,9	82 400
18,0	79,1	65,4	68 900
20,0	77,3	64,9	58 700
22,0	75,5	64,3	50 800
24,0	73,6	63,6	44 400
26,0	71,7	62,8	39 100
28,0	69,8	61,9	34 700
30,0	67,9	61,0	31 000
32,0	65,9	60,0	27 800
34,0	63,9	58,9	25 000
36,0	61,9	57,7	22 500
38,0	59,8	56,4	20 300
40,0	57,6	55,0	18 400
42,0	55,4	53,5	16 600
44,0	53,2	51,9	15 100
46,0	50,8	50,1	13 600
48,0	48,4	48,1	12 300
50,0	45,8	46,0	11 100
52,0	43,2	43,7	10 000
54,0	40,3	41,2	9 000
56,0	37,3	38,3	8 000

65,0 m			
m	o	m	kg
14,6	82,8	72,3	93 600
15,0	82,5	72,3	90 100
15,5	82,1	72,2	85 800
16,0	81,7	72,1	81 800
16,5	81,3	72,0	78 100
18,0	80,0	71,6	68 500
20,0	78,4	71,1	58 300
22,0	76,7	70,5	50 400
24,0	75,0	69,9	43 900
26,0	73,3	69,2	38 600
28,0	71,6	68,4	34 200
30,0	69,9	67,6	30 400
32,0	68,1	66,7	27 200
34,0	66,3	65,7	24 400
36,0	64,5	64,7	21 900
38,0	62,7	63,5	19 700
40,0	60,8	62,3	17 800
42,0	58,8	61,0	16 000
44,0	56,9	59,5	14 400
46,0	54,8	58,0	13 000
48,0	52,8	56,3	11 700
50,0	50,6	54,5	10 500
52,0	48,4	52,6	9 400
54,0	46,1	50,5	8 400
56,0	43,6	48,3	7 400
58,0	41,1	45,8	6 500
60,0	38,4	43,1	5 700

B45



140 200 kg



360°

m	o	m	kg
15,2	82,9	78,3	87 800
15,5	82,7	78,2	85 500
16,0	82,3	78,1	81 500
16,5	82,0	78,0	77 700
17,0	81,6	77,9	74 400
18,0	80,8	77,7	68 200
20,0	79,3	77,3	57 900
22,0	77,8	76,7	50 000
24,0	76,2	76,2	43 500
26,0	74,7	75,5	38 100
28,0	73,1	74,8	33 700
30,0	71,5	74,1	30 000
32,0	69,9	73,2	26 700
34,0	68,3	72,4	23 900
36,0	66,7	71,4	21 400
38,0	65,0	70,4	19 200
40,0	63,3	69,3	17 200
42,0	61,6	68,1	15 500
44,0	59,8	66,8	13 900
46,0	58,0	65,4	12 500
48,0	56,2	64,0	11 200
50,0	54,3	62,4	9 900
52,0	52,4	60,8	8 800
54,0	50,4	59,0	7 800
56,0	48,3	57,1	6 900
58,0	46,2	55,0	6 000
60,0	44,0	52,8	5 100