

Liftcrane Boom Capacities

Boom No. 74A

46 000 kg Crane Counterweight

0 kg Carbody Counterweight

360 Degree Rating

**MLC165-1
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.

Boom Backward Stability: A minimum of 4 parts hoist line is required for capacities denoted by (b), (c), and (d) for boom lengths 15,0 m thru 30,0 m. Capacities indicated by (b) require 1 360 kg minimum weight, (c) requires 3 400 kg minimum weight, and (d) requires 6 800 kg minimum weight.

Caution: Do not operate in areas indicated by (b), (c), or (d) without required minimum weights. Boom will not boom down and boom hoist wire rope may go slack causing wire rope damage or failure.

Upper boom point capacity for liftcrane service with single part whip line is 12 500 kg or 25 000 kg with two part whip line. When boom butt mounted auxiliary drum is used, capacity with single part whip line is 9 070 kg or 18 140 kg with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

63,0 m thru 72,0 m boom lengths require only the middle three sheaves in lower boom point. All other sheaves must be removed from lower boom point.

Weight of upper boom point, jib, all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, is considered part of main boom 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 in a level position on a firm uniformly supporting surface. Refer to Boom Rigging **No. 81023602**, Wire Rope Specification chart **No. 9408-A**, and Wind Conditions chart **No. 9407-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 Operator's 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 Specification chart **No. 9404-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 7 986 mm crawlers, 1 100 mm treads, 7 200 mm live mast, 18 part boom hoist reeving, boom support straps, 46 000 kg crane counterweight, and 0 kg carbody counterweight.



46 000 kg Crane Counterweight
6 Side Boxes

WARNING: Free fall operation is limited to 5 900 kg per part of line when lowering load with free fall clutch/brake pedal. Hydraulic power must be used for full line pull.

Deduct From Capacities When Jib Is Attached	
Jib Length	Jib No. 134
9,1 m	1 800 kg
12,2 m	2 100 kg
15,2 m	2 500 kg
18,3 m	2 900 kg
21,3 m	3 200 kg
24,4 m	3 600 kg

Upper Boom Point Deduct

Deduct 600 kg from capacities when upper boom point, and adapter frame if equipped, is attached.

Lower Boom Point Sheave Deduct

Deduct 300 kg from capacities for boom lengths 45,0 m thru 60,0 m when lower boom point is equipped with outer sheave clusters.

Auxiliary Drum Deduct

Deduct 900 kg from capacities when boom butt is equipped with auxiliary drum, and 6,0 m insert is equipped with wire rope guide sheaves.

Third Line Deduct

Deduct 200 kg from capacities when boom is equipped for three line operation.

Refer to **Tables 1 and 2** for raising ability with the maximum weight of all load blocks, hooks, weight balls, slings, and hoist lines beneath lower and/or upper boom point and jib point sheaves. For block weights shown with #, a, or b, load blocks, hooks, weight balls, and slings must remain on ground until combined weights are within rated capacity of chart. For block weights shown with (a), auxiliary drum mounted in boom butt, wire rope guide sheaves in 6,0 m insert, and boom lights must be removed. For block weights shown with (b), upper boom point must be removed. Raising is not permitted in shaded areas of table.

Caution: Combined weight beneath lower and/or upper boom point and jib point sheaves must not exceed block weight shown. Total weight beneath jib point must not exceed 1 815 kg.

Table 1

Raising Ability Over End or Side of Crawlers							
Boom Length (m)	Fixed Jib No. 134						
	—	9,1 m	12,2 m	15,2 m	18,3 m	21,3 m	24,4 m
	Block Weight (kg)						
15,0 - 24,0	3 500	—	—	—	—	—	—
27,0 - 33,0	3 500	3 500	3 500	3 500	3 500	3 500	3 500
36,0	3 500	3 500	3 500	3 500	3 500	2 650	2 650
39,0	3 500	3 500	3 500	2 650	2 650	750	750
42,0	3 500	2 650	2 650	750	750	750	750
45,0	3 500	2 650	750	750	750	750	750
48,0	3 500	750	750	750	750	750	#
51,0	2 650	750	750	750	#	#	#
54,0	750	750	#	#	a	a	
57,0	750	#	a	a			
60,0	#	RAISING NOT PERMITTED					
63,0	#						
66,0	a, b						
69,0 - 72,0							

Table 2

Raising Ability Over Front of Blocked Crawlers							
Boom Length (m)	Fixed Jib No. 134						
	—	9,1 m	12,2 m	15,2 m	18,3 m	21,3 m	24,4 m
	Block Weight (kg)						
15,0 - 24,0	3 500	—	—	—	—	—	—
27,0 - 33,0	3 500	3 500	3 500	3 500	3 500	3 500	3 500
36,0	3 500	3 500	3 500	3 500	3 500	2 650	2 650
39,0	3 500	3 500	3 500	2 650	2 650	750	750
42,0	3 500	2 650	2 650	750	750	750	750
45,0	3 500	2 650	750	750	750	750	750
48,0	3 500	750	750	750	750	750	#
51,0	2 650	750	750	750	#	#	#
54,0	750	750	#	#	#	#	#
57,0	750	#	#	#	#	#	#
60,0	#	#	#	#	a	a	
63,0	#	#	a				
66,0	#	RAISING NOT PERMITTED					
69,0	#						
72,0	a, b						

Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius and crane configuration is within 360 degree chart.

Explanation of Symbols



Boom No. 74A



Crane Counterweight
+
Carbody Counterweight



360 Degree Rating



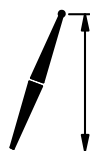
Boom Length



Operating Radius
(see page 1)



Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)



Lifting Capacities
(see page 1)



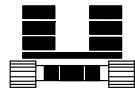
46 000 kg
+
0 kg



15,0 m			
m	°	m	kg
4,3	81,7	16,8	165 000 d
5,0	78,8	16,6	143 500 d
6,0	74,9	16,3	120 800 c
7,0	70,8	16,0	94 600 c
8,0	66,6	15,5	75 400 b
10,0	57,8	14,4	53 300
12,0	47,8	12,7	40 700
14,0	35,7	10,2	32 600

18,0 m			
m	°	m	kg
4,9	81,1	19,7	146 800 d
5,0	80,7	19,7	143 500 d
6,0	77,5	19,5	120 700 c
7,0	74,1	19,2	94 900 c
8,0	70,8	18,8	75 600 b
10,0	63,8	17,9	53 400
12,0	56,2	16,6	40 900
14,0	47,9	15,0	32 800
16,0	38,2	12,6	27 100
18,0	25,3	9,1	22 900

21,0 m			
m	°	m	kg
5,2	81,6	22,7	138 400 d
6,0	79,3	22,5	120 400 c
7,0	76,5	22,3	94 800 c
8,0	73,6	22,0	75 500 b
10,0	67,8	21,2	53 300
12,0	61,6	20,2	40 700
14,0	55,1	18,9	32 700
16,0	47,9	17,2	27 000
18,0	39,8	15,0	22 800
20,0	29,7	11,9	19 600



46 000 kg
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0 kg



24,0 m			
m	°	m	kg
5,8	81,2	25,6	124 400 c
6,0	80,6	25,6	120 300 c
7,0	78,2	25,4	94 900 b
8,0	75,7	25,1	75 600 b
10,0	70,7	24,5	53 300
12,0	65,5	23,6	40 800
14,0	60,0	22,5	32 700
16,0	54,2	21,1	27 000
18,0	47,9	19,4	22 800
20,0	40,9	17,2	19 600
22,0	32,6	14,4	17 100
24,0	21,4	10,2	14 900

27,0 m			
m	°	m	kg
6,1	81,5	28,6	118 300 c
7,0	79,5	28,5	95 100 b
8,0	77,4	28,2	75 600 b
10,0	72,9	27,7	53 400
12,0	68,4	26,9	40 800
14,0	63,7	25,9	32 700
16,0	58,8	24,8	27 100
18,0	53,6	23,4	22 900
20,0	48,0	21,7	19 700
22,0	41,8	19,5	17 100
24,0	34,7	16,9	15 100
26,0	26,0	13,2	13 300

30,0 m			
m	°	m	kg
6,7	81,2	31,6	102 300 b
7,0	80,6	31,5	95 300 b
8,0	78,6	31,3	75 600
10,0	74,7	30,8	53 300
12,0	70,7	30,1	40 700
14,0	66,5	29,3	32 600
16,0	62,2	28,3	27 000
18,0	57,8	27,0	22 800
20,0	53,0	25,6	19 600
22,0	48,0	23,9	17 100
24,0	42,5	21,8	15 000
26,0	36,3	19,2	13 300
28,0	28,9	16,0	11 800
30,0	19,0	11,2	10 500

74A



46 000 kg
+
0 kg



33,0 m			
m	°	m	kg
7,3	80,9	34,5	87 900 b
8,0	79,7	34,4	75 700
10,0	76,1	33,9	53 400
12,0	72,5	33,3	40 800
14,0	68,8	32,6	32 700
16,0	65,0	31,7	27 000
18,0	61,0	30,6	22 800
20,0	56,9	29,3	19 600
22,0	52,6	27,9	17 100
24,0	48,0	26,1	15 000
26,0	43,1	24,1	13 300
28,0	37,6	21,6	11 900
30,0	31,2	18,6	10 600
32,0	23,3	14,5	9 500

36,0 m			
m	°	m	kg
7,3	81,7	37,6	87 900 b
8,0	80,6	37,4	75 700
10,0	77,3	37,0	53 300
12,0	74,0	36,5	40 700
14,0	70,6	35,8	32 600
16,0	67,2	35,0	26 900
18,0	63,7	34,0	22 700
20,0	60,0	32,9	19 500
22,0	56,2	31,6	17 000
24,0	52,2	30,1	14 900
26,0	48,0	28,4	13 200
28,0	43,5	26,3	11 800
30,0	38,5	23,9	10 500
32,0	32,9	21,0	9 400
34,0	26,3	17,4	8 500

39,0 m			
m	°	m	kg
7,9	81,4	40,5	76 800
8,0	81,3	40,5	75 800
10,0	78,3	40,1	53 300
12,0	75,3	39,6	40 600
14,0	72,2	39,0	32 500
16,0	69,1	38,2	26 800
18,0	65,9	37,4	22 700
20,0	62,6	36,4	19 500
22,0	59,2	35,2	16 900
24,0	55,6	33,9	14 900
26,0	52,0	32,3	13 100
28,0	48,1	30,6	11 700
30,0	43,9	28,6	10 500
32,0	39,4	26,3	9 400
34,0	34,4	23,5	8 500
36,0	28,6	20,1	7 600
38,0	21,4	15,6	6 900



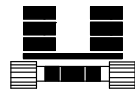
46 000 kg
+
0 kg



42,0 m			
m	°	m	kg
8,5	81,2	43,4	68 100
10,0	79,1	43,2	53 200
12,0	76,3	42,7	40 500
14,0	73,5	42,1	32 400
16,0	70,6	41,4	26 700
18,0	67,7	40,6	22 500
20,0	64,7	39,7	19 300
22,0	61,6	38,7	16 800
24,0	58,4	37,5	14 700
26,0	55,1	36,1	13 000
28,0	51,7	34,6	11 600
30,0	48,1	32,8	10 300
32,0	44,2	30,8	9 300
34,0	40,1	28,6	8 300
36,0	35,5	25,9	7 500
38,0	30,4	22,7	6 800
40,0	24,2	18,7	6 100

45,0 m			
m	°	m	kg
9,1	81,0	46,4	61 200
10,0	79,9	46,2	53 400
12,0	77,3	45,8	40 700
14,0	74,6	45,2	32 600
16,0	72,0	44,6	26 900
18,0	69,2	43,9	22 700
20,0	66,5	43,0	19 500
22,0	63,7	42,1	17 000
24,0	60,8	41,0	14 900
26,0	57,8	39,7	13 200
28,0	54,7	38,3	11 800
30,0	51,4	36,8	10 500
32,0	48,1	35,0	9 500
34,0	44,5	33,1	8 500
36,0	40,6	30,8	7 700
38,0	36,5	28,2	7 000
40,0	31,8	25,2	6 300
42,0	26,5	21,5	5 700
44,0	19,7	16,6	5 200

48,0 m			
m	°	m	kg
9,1	81,6	49,4	61 200
10,0	80,5	49,3	53 300
12,0	78,1	48,9	40 600
14,0	75,6	48,4	32 500
16,0	73,1	47,8	26 800
18,0	70,6	47,1	22 600
20,0	68,0	46,3	19 400
22,0	65,4	45,4	16 800
24,0	62,8	44,4	14 800
26,0	60,0	43,3	13 100
28,0	57,2	42,0	11 600
30,0	54,3	40,6	10 400
32,0	51,3	39,1	9 300
34,0	48,1	37,3	8 400
36,0	44,7	35,3	7 600
38,0	41,2	33,1	6 800
40,0	37,3	30,6	6 200
42,0	33,1	27,7	5 600
44,0	28,3	24,2	5 100
46,0	22,6	19,9	4 600



46 000 kg
+
0 kg



51,0 m			
m	°	m	kg
9,8	81,4	52,4	55 300
10,0	81,1	52,3	53 300
12,0	78,8	51,9	40 500
14,0	76,5	51,5	32 400
16,0	74,2	50,9	26 700
18,0	71,8	50,3	22 500
20,0	69,4	49,5	19 300
22,0	67,0	48,7	16 700
24,0	64,5	47,8	14 700
26,0	62,0	46,7	13 000
28,0	59,4	45,6	11 500
30,0	56,7	44,3	10 300
32,0	53,9	42,9	9 200
34,0	51,1	41,3	8 300
36,0	48,1	39,5	7 500
38,0	44,9	37,6	6 700
40,0	41,6	35,4	6 100
42,0	38,0	32,9	5 500
44,0	34,2	30,1	5 000
46,0	29,8	26,8	4 500
48,0	24,8	22,8	4 000
50,0	18,5	17,6	3 600

54,0 m			
m	°	m	kg
10,4	81,2	55,3	50 300
12,0	79,4	55,0	40 400
14,0	77,3	54,6	32 300
16,0	75,1	54,1	26 500
18,0	72,9	53,5	22 400
20,0	70,6	52,8	19 100
22,0	68,3	52,0	16 600
24,0	66,0	51,1	14 500
26,0	63,7	50,1	12 800
28,0	61,2	49,1	11 400
30,0	58,8	47,9	10 100
32,0	56,2	46,6	9 100
34,0	53,6	45,1	8 100
36,0	50,9	43,5	7 300
38,0	48,1	41,8	6 600
40,0	45,1	39,8	5 900
42,0	42,0	37,7	5 300
44,0	38,7	35,3	4 800
46,0	35,1	32,5	4 300
48,0	31,1	29,4	3 900
50,0	26,6	25,7	3 500
52,0	21,3	21,0	3 100

57,0 m			
m	°	m	kg
10,4	81,7	58,3	50 300
12,0	80,0	58,1	40 300
14,0	77,9	57,6	32 200
16,0	75,9	57,1	26 500
18,0	73,8	56,6	22 300
20,0	71,7	55,9	19 100
22,0	69,5	55,2	16 500
24,0	67,4	54,4	14 400
26,0	65,1	53,5	12 700
28,0	62,9	52,5	11 300
30,0	60,6	51,4	10 000
32,0	58,2	50,1	9 000
34,0	55,8	48,8	8 000
36,0	53,3	47,4	7 200
38,0	50,8	45,8	6 500
40,0	48,1	44,0	5 800
42,0	45,3	42,1	5 300
44,0	42,4	39,9	4 700
46,0	39,2	37,6	4 200
48,0	35,9	34,9	3 800
50,0	32,2	31,9	3 400
52,0	28,1	28,3	3 000
54,0	23,4	24,1	2 700
56,0	17,4	18,5	2 300

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46 000 kg
+
0 kg

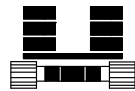


360°

60,0 m			
m	o	m	kg
11,0	81,5	61,3	46 000
12,0	80,5	61,1	40 200
14,0	78,6	60,7	32 100
16,0	76,6	60,3	26 300
18,0	74,6	59,7	22 100
20,0	72,6	59,1	18 900
22,0	70,6	58,4	16 400
24,0	68,6	57,7	14 300
26,0	66,5	56,8	12 600
28,0	64,4	55,9	11 100
30,0	62,2	54,8	9 900
32,0	60,0	53,7	8 800
34,0	57,8	52,4	7 900
36,0	55,5	51,1	7 100
38,0	53,1	49,6	6 300
40,0	50,7	48,0	5 700
42,0	48,1	46,3	5 100
44,0	45,5	44,3	4 600
46,0	42,7	42,2	4 100
48,0	39,8	39,9	3 700
50,0	36,6	37,3	3 200
52,0	33,2	34,4	2 900
54,0	29,5	31,0	2 500
56,0	25,2	27,0	2 200
58,0	20,1	22,1	1 800

63,0 m			
m	o	m	kg
11,6	81,3	64,2	42 300
12,0	81,0	64,2	40 200
14,0	79,1	63,8	31 900
16,0	77,2	63,3	26 200
18,0	75,4	62,8	22 000
20,0	73,5	62,2	18 800
22,0	71,6	61,6	16 200
24,0	69,6	60,9	14 200
26,0	67,7	60,1	12 400
28,0	65,7	59,2	11 000
30,0	63,6	58,2	9 800
32,0	61,6	57,1	8 700
34,0	59,5	56,0	7 800
36,0	57,3	54,7	6 900
38,0	55,1	53,3	6 200
40,0	52,9	51,9	5 600
42,0	50,5	50,2	5 000
44,0	48,1	48,5	4 400
46,0	45,6	46,6	4 000
48,0	43,0	44,5	3 500
50,0	40,2	42,2	3 100
52,0	37,2	39,6	2 700
54,0	34,1	36,8	2 400
56,0	30,6	33,5	2 000
58,0	26,7	29,8	1 700

66,0 m			
m	o	m	kg
12,2	81,2	67,2	39 100
14,0	79,6	66,8	31 800
16,0	77,8	66,4	26 100
18,0	76,0	65,9	21 900
20,0	74,2	65,4	18 600
22,0	72,4	64,7	16 100
24,0	70,6	64,1	14 000
26,0	68,7	63,3	12 300
28,0	66,8	62,4	10 800
30,0	64,9	61,5	9 600
32,0	63,0	60,5	8 500
34,0	61,0	59,4	7 600
36,0	59,0	58,3	6 800
38,0	56,9	57,0	6 100
40,0	54,8	55,6	5 400
42,0	52,6	54,1	4 800
44,0	50,4	52,5	4 300
46,0	48,1	50,7	3 800
48,0	45,7	48,8	3 400
50,0	43,2	46,7	3 000
52,0	40,6	44,4	2 600
54,0	37,8	41,9	2 200
56,0	34,8	39,1	1 800



46 000 kg
+
0 kg



69,0 m			
m	°	m	kg
12,2	81,6	70,2	36 700
14,0	80,1	69,9	31 700
16,0	78,4	69,5	26 000
18,0	76,7	69,0	21 800
20,0	74,9	68,5	18 500
22,0	73,2	67,9	16 000
24,0	71,5	67,3	13 900
26,0	69,7	66,5	12 200
28,0	67,9	65,7	10 700
30,0	66,1	64,9	9 500
32,0	64,3	63,9	8 400
34,0	62,4	62,9	7 500
36,0	60,5	61,8	6 700
38,0	58,6	60,6	5 900
40,0	56,6	59,3	5 300
42,0	54,6	57,9	4 700
44,0	52,5	56,4	4 200
46,0	50,3	54,7	3 700
48,0	48,1	53,0	3 300
50,0	45,8	51,1	2 900
52,0	43,4	49,0	2 400
54,0	40,9	46,7	2 000
56,0	38,3	44,3	1 700

72,0 m			
m	°	m	kg
12,8	81,4	73,1	35 900
14,0	80,5	72,9	31 400
16,0	78,9	72,5	25 700
18,0	77,2	72,1	21 500
20,0	75,6	71,6	18 200
22,0	73,9	71,0	15 600
24,0	72,3	70,4	13 600
26,0	70,6	69,7	11 800
28,0	68,9	69,0	10 400
30,0	67,2	68,1	9 100
32,0	65,4	67,2	8 100
34,0	63,6	66,2	7 100
36,0	61,8	65,2	6 300
38,0	60,0	64,1	5 600
40,0	58,1	62,8	4 900
42,0	56,2	61,5	4 300
44,0	54,3	60,1	3 800
46,0	52,3	58,6	3 300
48,0	50,2	56,9	2 800
50,0	48,1	55,2	2 400
52,0	45,9	53,3	1 900
54,0	43,6	51,2	1 500