

Liftcrane Boom Capacities

Boom No. B10:290

73,000 lb Crane Counterweight

23,100 lb Carbody Counterweight

Rating Over End of Blocked Crawlers

No Travel - Limited Swing

MLC100A-1 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 3 is 20,000 lb. When Drum 1 or Drum 2 is used, capacity with single part whip line is 27,600 lb. 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 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: A minimum of 2 parts hoist line is required when using Drum 2 or 3 on 52.5 ft boom length to maintain boom stability at high boom angles. **Caution: Do not operate using Drum 2 or 3 without required parts of hoist line. 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. Drive and idler tumblers must be properly blocked so that centerline of tumblers become tipping fulcrum. Swing is limited to that sector shown on Operating Range Diagram **No. 9791-A**. Refer to Boom Rigging **No. 80121889**, Wire Rope Specifications chart **No. 9800-A**, Counterweight Arrangements chart **No. 9794-A**, and Wind Conditions chart **No. 9799-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.



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 21 ft 3 in. crawlers, 35 in. treads, 14 ft 5 in. gantry, 8 part boom hoist reeving, two 32 mm boom pendants, 73,000 lb crane counterweight, and 23,100 lb carbody counterweight.

Consult chart **No. 9801-A** when Jib No. 117 is attached.

Upper Boom Point Deduct

Deduct 600 lb from capacities when upper boom point is attached. Deduct does not apply to 52.5 ft thru 62.3 ft boom lengths.

Third Line Deduct

Deduct 300 lb from capacities when boom top is equipped with optional 3rd sheave wire rope guide.

Deduct From Capacities When Jib No. 117 Is Attached

Jib Length (ft)	Deduct (lb)
30.0	4,500
40.0	5,300
50.0	6,200
60.0	7,400

Weight of jib and 700 lb suspended beneath jib point have been included in determination of deduct.

Refer to Table 1 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.

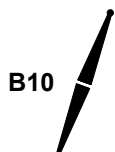
Combined weight beneath boom point sheaves must not exceed block weight shown.

Table 1

Boom Length (ft)	Over End of Blocked Crawlers
	Block Weight (lb)
52.5 - 160.8	3,800
170.6	2,650
180.4 - 200.1	700

REFERENCE ONLY!

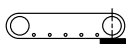
Explanation of Symbols



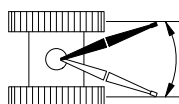
Boom No. B10:290



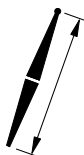
Crane Counterweight
+
Carbody Counterweight



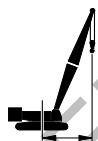
Blocked Crawler



Limited Swing



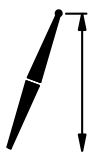
Boom Length



Operating Radius
(see page 1)



Boom Angle
(see page 1)

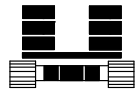


Boom Point Elevation
(see page 1)

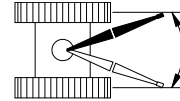
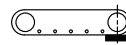


Lifting Capacities
(see page 1)

B10



73,000 lb
+
23,100 lb



52.5 ft			
ft	°	ft	lb
13	80.6	58.6	194,700
14	79.5	58.4	188,000
15	78.4	58.2	176,200
16	77.3	58.0	165,700
17	76.2	57.7	156,400
18	75.0	57.5	148,000
19	73.9	57.2	140,500
20	72.7	56.8	133,600
22	70.4	56.1	121,700
24	68.1	55.4	108,700
26	65.7	54.5	98,100
28	63.3	53.5	89,000
30	60.8	52.4	81,100
32	58.2	51.2	74,300
34	55.6	49.8	68,500
36	52.9	48.3	63,300
38	50.0	46.7	58,700
40	47.1	44.9	54,700
42	44.0	42.8	51,100
44	40.7	40.6	47,800
46	37.1	38.0	44,800
48	33.3	35.1	41,300
50	29.0	31.7	36,900

62.3 ft			
ft	°	ft	lb
15	80.3	68.3	174,900
16	79.3	68.1	165,500
17	78.4	67.8	156,100
18	77.4	67.6	147,800
19	76.5	67.4	140,200
20	75.5	67.1	133,400
22	73.6	66.5	121,500
24	71.7	65.9	110,700
26	69.7	65.2	99,700
28	67.8	64.4	90,600
30	65.8	63.5	82,900
32	63.7	62.5	76,400
34	61.6	61.4	70,400
36	59.5	60.3	65,100
38	57.3	59.0	60,500
40	55.1	57.6	56,400
42	52.8	56.1	52,700
44	50.4	54.5	49,400
46	48.0	52.7	46,400
48	45.4	50.8	43,700
50	42.7	48.7	41,200
55	35.3	42.4	35,800
60	26.1	33.7	29,100

72.2 ft			
ft	°	ft	lb
16	80.8	78.1	159,100
17	80.0	77.9	156,300
18	79.2	77.7	147,900
19	78.4	77.5	140,400
20	77.6	77.3	133,600
22	75.9	76.8	121,700
24	74.3	76.2	111,600
26	72.6	75.6	101,900
28	70.9	74.9	92,500
30	69.2	74.2	84,700
32	67.5	73.3	77,900
34	65.8	72.5	72,100
36	64.0	71.5	67,100
38	62.2	70.5	62,700
40	60.4	69.3	58,700
42	58.6	68.1	55,100
44	56.7	66.8	51,700
46	54.7	65.4	48,600
48	52.7	63.9	45,800
50	50.7	62.3	43,300
55	45.3	57.7	37,800
60	39.3	52.1	33,200
65	32.5	45.0	29,300
70	23.9	35.5	24,200

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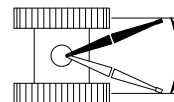
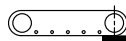
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B10



73,000 lb
+
23,100 lb

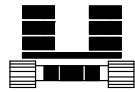


82.0 ft			
ft	°	ft	lb
18	80.5	87.7	142,800
19	79.8	87.5	139,900
20	79.1	87.3	133,300
22	77.6	86.9	121,400
24	76.2	86.4	111,400
26	74.8	85.9	102,800
28	73.3	85.3	93,300
30	71.8	84.6	85,300
32	70.4	83.9	78,400
34	68.9	83.2	72,600
36	67.3	82.3	67,400
38	65.8	81.4	62,900
40	64.3	80.5	59,000
42	62.7	79.5	55,400
44	61.1	78.4	52,200
46	59.5	77.2	49,100
48	57.8	76.0	46,300
50	56.2	74.6	43,800
55	51.8	70.9	38,500
60	47.2	66.6	33,900
65	42.2	61.4	30,100
70	36.6	55.2	26,800
75	30.2	47.5	23,900
80	22.1	37.0	19,800

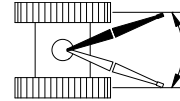
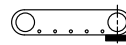
91.9 ft			
ft	°	ft	lb
19	80.9	97.5	129,300
20	80.3	97.4	126,900
22	79.0	97.0	121,300
24	77.7	96.5	111,300
26	76.4	96.1	102,800
28	75.1	95.5	94,800
30	73.8	95.0	86,600
32	72.5	94.3	79,600
34	71.2	93.7	73,500
36	69.9	92.9	68,300
38	68.6	92.2	63,700
40	67.2	91.3	59,500
42	65.8	90.4	55,600
44	64.5	89.5	52,200
46	63.1	88.5	49,100
48	61.6	87.4	46,300
50	60.2	86.3	43,800
55	56.5	83.1	38,500
60	52.7	79.5	34,200
65	48.6	75.4	30,700
70	44.3	70.5	27,600
75	39.6	64.9	24,800
80	34.3	58.1	22,300
85	28.2	49.7	20,000
90	20.5	38.4	16,600

101.7 ft			
ft	°	ft	lb
22	80.1	107.0	114,500
24	78.9	106.6	110,600
26	77.8	106.2	102,500
28	76.6	105.7	95,100
30	75.4	105.2	87,000
32	74.3	104.6	79,900
34	73.1	104.0	73,800
36	71.9	103.4	68,500
38	70.7	102.7	63,900
40	69.5	102.0	59,400
42	68.3	101.2	55,500
44	67.1	100.3	52,000
46	65.9	99.4	48,900
48	64.6	98.5	46,100
50	63.4	97.5	43,600
55	60.1	94.8	38,300
60	56.8	91.6	34,000
65	53.4	88.1	30,500
70	49.8	84.1	27,600
75	45.9	79.5	25,000
80	41.8	74.2	22,600
85	37.4	68.0	20,400
90	32.4	60.8	18,500
95	26.6	51.7	16,700

B10



73,000 lb
+
23,100 lb



111.5 ft			
ft	°	ft	lb
22	81.0	117.0	105,900
24	79.9	116.6	102,500
26	78.9	116.2	99,300
28	77.8	115.8	94,900
30	76.8	115.3	88,300
32	75.7	114.8	81,100
34	74.6	114.3	74,800
36	73.6	113.7	68,800
38	72.5	113.1	63,700
40	71.4	112.4	59,200
42	70.3	111.7	55,300
44	69.2	111.0	51,900
46	68.1	110.2	48,800
48	67.0	109.3	46,000
50	65.9	108.4	43,500
55	63.0	106.0	38,100
60	60.1	103.2	33,900
65	57.1	100.1	30,300
70	53.9	96.6	27,400
75	50.7	92.7	24,900
80	47.2	88.3	22,800
85	43.6	83.3	20,700
90	39.7	77.6	18,800
95	35.5	71.0	17,100
100	30.7	63.2	15,500
105	25.1	53.6	14,100

121.4 ft			
ft	°	ft	lb
24	80.7	126.6	96,100
26	79.8	126.3	93,300
28	78.8	125.9	90,500
30	77.9	125.5	87,700
32	76.9	125.0	81,300
34	75.9	124.5	74,600
36	74.9	124.0	68,700
38	74.0	123.4	63,600
40	73.0	122.8	59,100
42	72.0	122.1	55,200
44	71.0	121.5	51,700
46	70.0	120.7	48,600
48	69.0	120.0	45,800
50	67.9	119.2	43,300
55	65.4	117.0	37,900
60	62.7	114.5	33,700
65	60.0	111.7	30,100
70	57.3	108.6	27,200
75	54.4	105.2	24,700
80	51.4	101.4	22,500
85	48.3	97.1	20,700
90	45.1	92.3	18,900
95	41.6	86.9	17,200
100	37.9	80.8	15,700
105	33.8	73.8	14,300
110	29.2	65.6	13,000
115	23.9	55.4	11,700

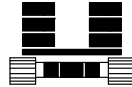
131.2 ft			
ft	°	ft	lb
26	80.6	136.3	87,400
28	79.7	135.9	84,800
30	78.8	135.5	82,300
32	77.9	135.1	79,900
34	77.0	134.6	74,500
36	76.1	134.1	68,500
38	75.2	133.6	63,400
40	74.3	133.1	58,900
42	73.4	132.5	55,000
44	72.5	131.8	51,500
46	71.5	131.2	48,400
48	70.6	130.5	45,600
50	69.7	129.7	43,100
55	67.3	127.7	37,800
60	64.9	125.5	33,500
65	62.5	123.0	30,000
70	60.0	120.2	27,000
75	57.4	117.1	24,500
80	54.8	113.7	22,400
85	52.1	110.0	20,500
90	49.2	105.8	18,900
95	46.3	101.2	17,400
100	43.1	96.1	15,800
105	39.8	90.4	14,500
110	36.2	83.9	13,200
115	32.3	76.5	12,000
120	27.9	67.7	10,900
125	22.8	57.0	9,900

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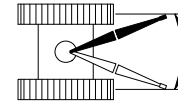
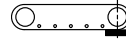
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B10



73,000 lb
+
23,100 lb

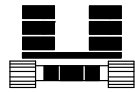


141.1 ft			
ft	°	ft	lb
28	80.4	145.9	77,800
30	79.6	145.5	75,500
32	78.7	145.2	73,300
34	77.9	144.7	71,100
36	77.1	144.3	68,400
38	76.2	143.8	63,300
40	75.4	143.3	58,800
42	74.6	142.7	54,800
44	73.7	142.1	51,400
46	72.9	141.5	48,200
48	72.0	140.9	45,500
50	71.2	140.2	42,900
55	69.0	138.4	37,600
60	66.8	136.3	33,300
65	64.6	134.0	29,800
70	62.3	131.5	26,800
75	60.0	128.7	24,300
80	57.6	125.6	22,200
85	55.1	122.2	20,300
90	52.6	118.5	18,700
95	50.0	114.5	17,200
100	47.3	110.0	15,900
105	44.4	105.1	14,500
110	41.4	99.7	13,200
115	38.2	93.6	12,100
120	34.8	86.8	11,000
125	31.0	79.0	10,000
130	26.8	69.8	9,100
135	21.8	58.5	8,100

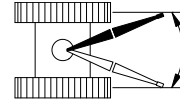
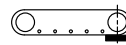
150.9 ft			
ft	°	ft	lb
30	80.3	155.6	70,700
32	79.5	155.2	68,500
34	78.7	154.8	66,500
36	77.9	154.4	64,500
38	77.2	153.9	62,700
40	76.4	153.4	58,600
42	75.6	152.9	54,700
44	74.8	152.4	51,200
46	74.0	151.8	48,100
48	73.2	151.2	45,300
50	72.4	150.6	42,800
55	70.4	148.9	37,400
60	68.4	147.0	33,100
65	66.3	144.9	29,600
70	64.2	142.5	26,600
75	62.1	140.0	24,100
80	59.9	137.2	22,000
85	57.7	134.1	20,100
90	55.4	130.8	18,500
95	53.1	127.1	17,000
100	50.6	123.1	15,700
105	48.1	118.8	14,400
110	45.5	114.1	13,200
115	42.8	108.9	12,000
120	39.9	103.1	11,000
125	36.8	96.7	10,000
130	33.5	89.5	9,100
135	29.8	81.3	8,300
140	25.7	71.7	7,500
145	20.9	59.9	6,500

160.8 ft			
ft	°	ft	lb
30	80.9	165.5	62,900
32	80.1	165.2	61,900
34	79.4	164.8	61,100
36	78.7	164.4	60,100
38	78.0	164.0	58,400
40	77.2	163.6	56,700
42	76.5	163.1	54,500
44	75.8	162.6	51,000
46	75.0	162.0	47,900
48	74.3	161.5	45,100
50	73.5	160.9	42,600
55	71.7	159.3	37,200
60	69.8	157.5	32,900
65	67.9	155.6	29,400
70	65.9	153.4	26,400
75	63.9	151.0	23,900
80	61.9	148.4	21,800
85	59.9	145.6	19,900
90	57.8	142.6	18,200
95	55.7	139.3	16,800
100	53.5	135.7	15,500
105	51.2	131.8	14,300
110	48.9	127.5	13,100
115	46.5	122.9	11,900
120	43.9	117.9	10,900
125	41.3	112.4	9,900
130	38.5	106.4	9,000
135	35.5	99.7	8,200
140	32.3	92.2	7,400
145	28.8	83.6	6,700
150	24.8	73.6	6,000
155	20.0	61.3	5,100

B10



73,000 lb
+
23,100 lb



170.6 ft			
ft	°	ft	lb
32	80.7	175.2	53,200
34	80.0	174.8	52,400
36	79.3	174.5	51,700
38	78.7	174.1	51,000
40	78.0	173.6	50,300
42	77.3	173.2	49,600
44	76.6	172.7	48,300
46	75.9	172.2	46,900
48	75.2	171.7	44,900
50	74.5	171.1	42,400
55	72.8	169.7	37,000
60	71.0	168.0	32,700
65	69.2	166.2	29,200
70	67.4	164.1	26,200
75	65.6	161.9	23,700
80	63.7	159.5	21,600
85	61.8	156.9	19,700
90	59.9	154.1	18,100
95	57.9	151.1	16,600
100	55.9	147.8	15,300
105	53.8	144.2	14,200
110	51.7	140.4	13,100
115	49.5	136.2	12,000
120	47.3	131.8	10,900
125	44.9	126.9	9,900
130	42.5	121.6	9,000
135	39.9	115.9	8,200
140	37.2	109.5	7,400
145	34.3	102.5	6,700
150	31.2	94.7	6,000
155	27.8	85.8	5,400
160	23.9	75.3	4,800

180.4 ft			
ft	°	ft	lb
34	80.6	184.8	46,000
36	79.9	184.5	45,400
38	79.3	184.1	44,700
40	78.6	183.7	44,100
42	78.0	183.3	43,200
44	77.3	182.8	42,300
46	76.7	182.4	41,300
48	76.0	181.9	40,500
50	75.4	181.3	39,600
55	73.7	179.9	36,800
60	72.1	178.4	32,500
65	70.4	176.7	29,000
70	68.7	174.8	26,000
75	67.0	172.7	23,500
80	65.2	170.5	21,300
85	63.5	168.0	19,500
90	61.7	165.4	17,800
95	59.9	162.6	16,400
100	58.0	159.5	15,100
105	56.1	156.3	13,900
110	54.2	152.8	12,900
115	52.2	149.0	11,800
120	50.1	144.9	10,700
125	48.0	140.5	9,800
130	45.8	135.8	8,900
135	43.6	130.7	8,000
140	41.2	125.2	7,300
145	38.7	119.2	6,600
150	36.1	112.6	5,900
155	33.3	105.3	5,200
160	30.2	97.1	4,700
165	26.9	87.8	4,100

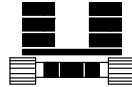
190.3 ft			
ft	°	ft	lb
36	80.5	194.5	43,500
38	79.8	194.1	43,000
40	79.2	193.7	42,500
42	78.6	193.3	42,000
44	78.0	192.9	41,500
46	77.4	192.5	41,000
48	76.8	192.0	40,500
50	76.2	191.5	40,000
55	74.6	190.2	36,600
60	73.0	188.7	32,300
65	71.4	187.1	28,700
70	69.8	185.3	25,800
75	68.2	183.4	23,200
80	66.6	181.3	21,100
85	64.9	179.0	19,200
90	63.3	176.5	17,600
95	61.6	173.9	16,100
100	59.8	171.1	14,800
105	58.1	168.0	13,600
110	56.3	164.8	12,600
115	54.4	161.3	11,600
120	52.6	157.6	10,500
125	50.6	153.6	9,500
130	48.6	149.3	8,600
135	46.6	144.7	7,800
140	44.5	139.7	7,000
145	42.3	134.4	6,300
150	40.0	128.6	5,700
155	37.6	122.3	5,000
160	35.0	115.5	4,400
165	32.3	107.9	3,900

MLC100A-1 S-2

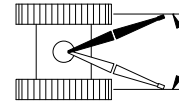
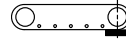
ASME B30.5



B10



73,000 lb
+
23,100 lb



 200.1 ft			
ft	°	ft	lb
36	80.9	204.5	38,800
38	80.4	204.1	38,300
40	79.8	203.8	37,800
42	79.2	203.4	37,400
44	78.6	203.0	36,900
46	78.0	202.6	36,400
48	77.4	202.1	36,000
50	76.8	201.6	35,500
55	75.4	200.4	34,400
60	73.9	199.0	32,000
65	72.4	197.5	28,500
70	70.9	195.8	25,500
75	69.4	193.9	23,000
80	67.8	192.0	20,800
85	66.3	189.8	18,900
90	64.7	187.5	17,300
95	63.1	185.0	15,800
100	61.5	182.4	14,500
105	59.8	179.5	13,400
110	58.1	176.5	12,300
115	56.4	173.3	11,300
120	54.7	169.8	10,200
125	52.9	166.1	9,300
130	51.1	162.2	8,400
135	49.2	158.0	7,500
140	47.3	153.5	6,800
145	45.3	148.7	6,000
150	43.3	143.5	5,400
155	41.1	137.9	4,800
160	38.9	131.9	4,200