

Liftcrane Boom Capacities

Boom No. B10:680

661,300 lb VPC (Variable Position Counterweight)

Crawler Machine on a Barge

0 Degree thru 3 Degree Static Machine List

No Travel - 360 Degree Rating - Three Swing Drives

MLC650 SERIES 2



LIFTING CAPACITIES: Lifting capacities are for a crawler machine when operating on a barge. Machine shall be positively secured to prevent shifting. 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 30,000 lb or 60,000 lb with two part whip line. When Drum 1 or Drum 2 is used, capacity with single part whip line is 48,800 lb, or 73,500 lb 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.

BOOM BACKWARD STABILITY: Capacities indicated by (b) require 12,000 lb minimum weight suspended beneath boom point and (c) require 24,000 lb minimum weight. **Caution: Do not operate in areas indicated by (b) or (c) without required minimum weight. 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 and uniformly supporting surface with machine list not to exceed degrees noted. Refer to Boom Rigging **No. 81018141**, Wire Rope Specifications chart **No. 9359-A**, Counterweight Arrangements chart **No. 9349-A**, and Wind Conditions chart **No. 9358-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, 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 at barge deck 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 barge deck to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with three swing drives, 36 ft 6 in. crawlers, 60 in. or 80 in. treads, 36 ft 1 in. live mast, 30 part boom hoist reeving, boom support straps, and 661,300 lb VPC.

Warning: Luffing jib backstay straps must be removed before use of this chart. *Crane tipping or structural damage can occur.*

Consult chart **No. 9671-A** when Jib No. 148 is attached.

Deduct From Capacities When Jib No. 148 Is Attached	
Jib Length (ft)	Deduct (lb)
39.4	18,800
59.1	23,500
78.7	29,400
98.4	35,300
118.1	42,500
137.8	48,100
Weight of jib and 6,500 lb suspended beneath jib point have been included in determination of deduct.	

Refer to Tables 1 and 2 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 barge deck until combined weights are within rated capacity of chart. For boom lengths shown with (a), upper boom point must be removed and boom top equipped with a maximum of eight (8) sheaves in lower boom point. Raising is not permitted in shaded areas of table.

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

Table 1

Over End or Side of Crawlers				
Boom Length (ft)	Machine List			
	0°	1°	2°	3°
	Block Weight (lb)			
105.0 - 223.1	46,500	46,500	46,500	46,500
242.8	22,600	22,600	22,600	22,600
262.5	22,600	22,600	22,600	22,600
282.2	16,200	#	#	#
301.8	#	#	#	#
321.5 - 341.2	Raising Not Permitted			

Table 2

Over End of Blocked Crawlers				
Boom Length (ft)	Machine List			
	0°	1°	2°	3°
	Block Weight (lb)			
105.0 - 223.1	46,500	46,500	46,500	46,500
242.8	22,600	22,600	22,600	22,600
262.5	22,600	22,600	22,600	22,600
282.2	16,200	16,200	16,200	16,200
301.8	#	#	#	#
321.5	#	#	#	
(a)341.2	#	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.				

Explanation of Symbols



Boom No. B10:680



VPC (Variable Position Counterweight)



360 Degree Rating



Boom Length



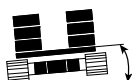
Operating Radius
(see page 1)



Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)



Machine List



Lifting Capacities
(see page 1)

B10



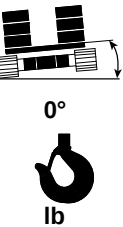
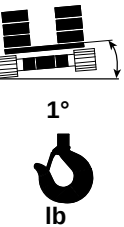
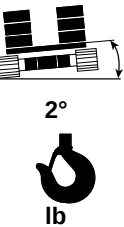
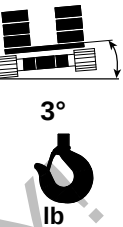
661,300 lb



105.0 ft							
ft	°	ft	lb	lb	lb	lb	ft
19	84.9	114.4	1,433,000 ^c				19
20	84.3	114.2	1,245,800 ^c				20
22	83.2	113.9	1,154,500 ^c				22
24	82.1	113.6	1,075,400 ^b	985,300 ^c			24
26	81.0	113.2	1,006,300 ^b	926,100 ^b	855,500 ^c		26
28	79.9	112.8	945,300 ^b	873,500 ^b	809,600 ^c	752,700 ^c	28
30	78.8	112.3	891,200 ^b	826,400 ^b	768,400 ^b	716,300 ^c	30
32	77.7	111.8	842,800	784,000 ^b	731,000 ^b	683,200 ^b	32
34	76.5	111.2	799,200	745,600	697,100	653,000 ^b	34
36	75.4	110.6	759,900	710,800	666,100	625,300	36
38	74.2	110.0	724,100	679,000	637,600	598,100	38
40	73.1	109.3	691,500	649,800	611,500	560,800	40
45	70.2	107.4	621,300	574,100	527,100	484,800	45
50	67.2	105.2	538,000	497,800	460,700	426,800	50
55	64.1	102.7	471,300	439,100	408,900	381,000	55
60	61.0	99.8	418,900	392,500	367,400	343,900	60
65	57.7	96.5	376,800	354,600	333,400	313,400	65
70	54.3	92.8	342,000	323,300	305,100	287,800	70
75	50.8	88.6	313,000	296,900	281,100	266,100	75
80	47.0	83.8	288,300	274,300	260,600	247,500	80
85	43.0	78.4	267,000	254,900	242,900	231,300	85
90	38.6	72.0	248,500	238,000	227,500	217,300	90
95	33.6	64.5	232,300	223,200	213,900	205,000	95
100	27.9	55.2	218,000	210,100	202,100	194,300	100
105	20.4	42.5	205,200	198,600	191,800	185,100	105

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 124.7 ft							
 ft	 °	 ft	 0° lb	 1° lb	 2° lb	 3° lb	 ft
22	84.3	133.8	1,134,400 ^c				22
24	83.4	133.5	1,058,600 ^b	955,700 ^c			24
26	82.4	133.2	992,000 ^b	900,300 ^b	821,700 ^c		26
28	81.5	132.8	933,100	850,800 ^b	779,500 ^b	717,300 ^c	28
30	80.6	132.4	880,700	806,300	741,300 ^b	684,200 ^c	30
32	79.6	132.0	833,600	766,100	706,700 ^b	654,000 ^b	32
34	78.7	131.6	791,300	729,600	675,000	626,200 ^b	34
36	77.8	131.1	752,900	696,400	645,900	600,700	36
38	76.8	130.5	718,000	665,900	619,200	577,100	38
40	75.8	130.0	686,100	638,000	594,500	544,900	40
45	73.4	128.4	617,200	573,200	520,000	473,000	45
50	71.0	126.6	544,400	497,800	455,600	417,600	50
55	68.5	124.5	477,000	439,600	405,100	373,700	55
60	66.0	122.2	424,200	393,300	364,500	338,000	60
65	63.4	119.6	381,500	355,600	331,200	308,500	65
70	60.7	116.7	346,500	324,400	303,300	283,600	70
75	58.0	113.5	317,100	298,000	279,700	262,400	75
80	55.2	109.9	292,200	275,500	259,400	244,100	80
85	52.3	106.0	270,700	256,100	241,800	228,200	85
90	49.2	101.5	252,100	239,100	226,400	214,300	90
95	46.0	96.6	235,700	224,200	212,900	201,900	95
100	42.5	91.1	221,200	211,000	200,800	191,000	100
105	38.9	84.8	208,300	199,200	190,100	181,300	105
110	34.8	77.6	196,800	188,600	180,500	172,600	110
115	30.3	69.1	186,300	179,200	171,900	164,800	115
120	25.0	58.6	176,900	170,600	164,200	157,900	120
125	18.0	44.4	168,300	162,900	157,500	152,000	125

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661,300 lb



360°

ft	°	ft	lb	lb	lb	lb	ft
24	84.3	153.4	1,038,500b				24
26	83.5	153.1	974,700	872,100b			26
28	82.7	152.8	918,100	825,800b			28
30	81.9	152.5	867,500	784,000	748,000b	651,600c	30
32	81.1	152.1	822,000	746,100	712,900b	624,100b	32
34	80.3	151.7	780,900	711,500	651,400	598,700b	34
36	79.5	151.3	743,700	679,900	624,300	575,300	36
38	78.6	150.8	709,700	650,900	599,300	553,500	38
40	77.8	150.3	678,600	624,200	576,100	528,000	40
45	75.8	149.0	611,300	565,900	511,100	460,000	45
50	73.7	147.5	548,400	495,600	448,700	407,200	50
55	71.6	145.7	480,500	438,000	399,600	365,200	55
60	69.5	143.8	427,200	392,100	360,000	330,800	60
65	67.3	141.6	384,300	354,800	327,400	302,200	65
70	65.1	139.2	348,900	323,700	300,000	278,100	70
75	62.9	136.6	319,400	297,500	276,800	257,500	75
80	60.6	133.7	294,200	275,100	256,800	239,700	80
85	58.2	130.5	272,600	255,700	239,400	224,100	85
90	55.8	127.0	253,800	238,800	224,200	210,400	90
95	53.3	123.2	237,300	223,900	210,800	198,300	95
100	50.7	119.0	222,700	210,600	198,800	187,500	100
105	48.0	114.4	209,700	198,800	188,100	177,800	105
110	45.2	109.4	198,100	188,200	178,500	169,100	110
115	42.2	103.8	187,600	178,700	169,800	161,200	115
120	39.1	97.6	178,100	170,000	161,900	154,100	120
125	35.7	90.6	169,400	162,100	154,800	147,600	125
130	31.9	82.6	161,500	154,900	148,200	141,700	130
135	27.7	73.2	154,200	148,300	142,300	136,400	135
140	22.7	61.6	147,400	142,300	137,000	131,700	140
145	16.1	45.7	138,600	135,900	132,300	127,700	145

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ft	°	ft	lb	lb	lb	lb	ft
24	85.0	173.2	1,017,400				24
26	84.3	173.0	956,800				26
28	83.6	172.7	902,600	800,200			28
30	82.9	172.4	854,100	761,300	684,300b		30
32	82.2	172.1	810,400	725,700	654,900		32
34	81.4	171.7	770,700	693,200	627,700	571,500b	34
36	80.7	171.4	734,700	663,400	602,600	550,100	36
38	80.0	171.0	701,700	635,900	579,400	530,300	38
40	79.3	170.6	671,500	610,600	557,800	511,700	40
45	77.5	169.4	605,900	554,900	503,800	448,500	45
50	75.7	168.0	551,600	494,900	443,200	398,200	50
55	73.9	166.5	485,600	437,800	395,400	357,800	55
60	72.0	164.8	431,800	392,300	356,700	324,800	60
65	70.2	163.0	388,500	355,200	324,700	297,200	65
70	68.3	160.9	352,800	324,300	297,900	273,800	70
75	66.4	158.6	322,900	298,100	275,000	253,700	75
80	64.4	156.2	297,500	275,800	255,300	236,400	80
85	62.5	153.5	275,700	256,400	238,200	221,200	85
90	60.4	150.6	256,700	239,500	223,200	207,800	90
95	58.4	147.4	240,100	224,600	209,800	195,900	95
100	56.3	144.0	225,300	211,400	198,000	185,200	100
105	54.1	140.3	212,200	199,600	187,300	175,700	105
110	51.8	136.3	200,500	189,000	177,800	167,100	110
115	49.5	132.0	189,900	179,400	169,100	159,200	115
120	47.1	127.3	180,300	170,700	161,200	152,100	120
125	44.6	122.2	171,500	162,700	154,000	145,600	125
130	42.0	116.6	163,500	155,500	147,500	139,700	130
135	39.2	110.4	155,400	148,800	141,400	134,300	135
140	36.3	103.5	146,300	141,800	135,900	129,300	140
145	33.1	95.8	137,900	133,900	129,800	124,700	145
150	29.6	87.1	130,100	126,500	122,900	119,400	150
155	25.6	76.8	122,700	119,600	116,400	113,300	155
160	20.8	64.1	115,800	113,000	110,300	107,600	160

B10



661,300 lb



360°

ft	°	ft	lb	lb	lb	lb	lb	ft
26	84.9	192.8	938,900					26
28	84.3	192.6	887,200					28
30	83.6	192.3	840,700	739,100				30
32	83.0	192.0	798,700	705,800	629,900			32
34	82.4	191.7	760,400	675,200	604,900			34
36	81.7	191.4	725,600	647,100	581,700	526,100		36
38	81.1	191.0	693,600	621,100	560,100	507,900		38
40	80.5	190.6	664,300	597,000	539,900	490,800		40
45	78.9	189.6	600,400	543,900	495,100	437,400		45
50	77.3	188.4	547,300	494,200	437,800	389,300		50
55	75.7	187.1	490,900	437,700	391,200	350,600		55
60	74.0	185.6	436,600	392,500	353,400	318,800		60
65	72.4	183.9	392,800	355,600	322,100	292,100		65
70	70.7	182.1	356,700	324,800	295,700	269,400		70
75	69.1	180.2	326,500	298,800	273,300	250,000		75
80	67.4	178.0	300,900	276,500	253,900	233,000		80
85	65.6	175.7	278,900	257,200	236,900	218,200		85
90	63.9	173.2	259,700	240,300	222,100	205,100		90
95	62.1	170.5	242,900	225,400	208,900	193,400		95
100	60.3	167.5	228,000	212,200	197,200	183,000		100
105	58.5	164.4	214,700	200,400	186,600	173,600		105
110	56.6	161.1	202,900	189,800	177,100	165,100		110
115	54.7	157.5	192,200	180,100	168,500	157,400		115
120	52.7	153.6	182,500	171,400	160,600	150,400		120
125	50.7	149.4	173,400	163,400	153,500	143,900		125
130	48.6	145.0	162,800	156,100	146,900	138,000		130
135	46.4	140.1	153,000	147,000	140,900	132,600		135
140	44.2	134.9	144,000	138,500	133,200	127,600		140
145	41.8	129.3	135,600	130,700	125,800	121,100		145
150	39.4	123.1	127,900	123,400	118,900	114,600		150
155	36.8	116.4	120,600	116,500	112,500	108,600		155
160	34.0	109.0	113,800	110,100	106,500	102,900		160
165	30.9	100.7	107,500	104,100	100,800	97,600		165
170	27.6	91.2	101,500	98,500	95,500	92,600		170
175	23.8	80.1	95,800	93,200	90,500	87,900		175
180	19.2	66.4	90,400	88,100	85,800	83,400		180

MLC650 S-2



ft	°	ft	0° lb	1° lb	2° lb	3° lb	ft
28	84.8	212.4	868,500				28
30	84.3	212.1	824,500				30
32	83.7	211.9	784,400	683,300			32
34	83.1	211.6	747,900	654,900			34
36	82.5	211.3	714,500	628,700	559,000		36
38	82.0	211.0	683,800	604,300	539,100	484,400	38
40	81.4	210.7	655,500	581,700	520,500	468,900	40
45	80.0	209.7	593,700	531,500	479,000	426,200	45
50	78.5	208.6	542,100	488,900	432,100	380,400	50
55	77.1	207.4	495,900	437,300	386,800	343,300	55
60	75.6	206.1	441,100	392,500	349,900	312,600	60
65	74.2	204.6	396,900	355,800	319,200	286,800	65
70	72.7	203.0	360,500	325,200	293,400	264,900	70
75	71.2	201.3	330,000	299,300	271,300	246,000	75
80	69.7	199.4	304,100	277,100	252,200	229,500	80
85	68.2	197.3	281,900	257,800	235,500	215,100	85
90	66.6	195.1	262,500	241,000	220,900	202,300	90
95	65.1	192.7	245,500	226,100	207,800	190,900	95
100	63.5	190.1	230,500	212,900	196,200	180,700	100
105	61.9	187.4	217,200	201,100	185,800	171,500	105
110	60.2	184.5	205,200	190,400	176,400	163,200	110
115	58.6	181.4	194,400	180,800	167,800	155,600	115
120	56.9	178.1	182,300	172,100	160,000	148,600	120
125	55.2	174.5	170,700	162,500	152,900	142,300	125
130	53.4	170.8	160,100	152,600	145,400	136,500	130
135	51.6	166.7	150,300	143,500	136,900	130,600	135
140	49.7	162.4	141,300	135,100	129,100	123,300	140
145	47.8	157.9	133,000	127,300	121,700	116,400	145
150	45.9	153.0	125,300	120,000	114,900	110,000	150
155	43.8	147.7	118,100	113,300	108,600	104,000	155
160	41.7	142.0	111,300	106,900	102,600	98,400	160
165	39.5	135.9	105,000	101,000	97,000	93,100	165
170	37.1	129.3	99,100	95,400	91,700	88,200	170
175	34.6	122.0	93,600	90,200	86,800	83,500	175
180	32.0	114.0	88,300	85,200	82,100	79,100	180
185	29.1	105.1	83,300	80,500	77,700	74,900	185
190	25.9	94.9	78,600	76,000	73,500	70,900	190
195	22.3	83.0	74,100	71,800	69,500	67,200	195
200	17.9	68.3	69,700	67,700	65,700	63,700	200

B10



661,300 lb



360°

ft	°	ft	0° lb	1° lb	2° lb	3° lb	ft
30	84.8	232.0	803,000				30
32	84.2	231.7	765,300				32
34	83.7	231.5	730,800	631,100			34
36	83.2	231.2	699,100	606,900			36
38	82.7	230.9	669,900	584,300	516,100		38
40	82.2	230.6	642,900	563,300	499,100		40
45	80.9	229.8	583,500	516,200	460,800	413,700	45
50	79.6	228.8	533,700	476,000	424,200	370,000	50
55	78.2	227.7	491,400	433,700	380,100	334,400	55
60	76.9	226.5	441,900	389,500	344,100	304,900	60
65	75.6	225.1	397,500	353,100	314,200	280,100	65
70	74.3	223.7	361,000	322,800	288,900	258,800	70
75	72.9	222.1	330,400	297,200	267,300	240,500	75
80	71.6	220.4	304,400	275,100	248,500	224,500	80
85	70.2	218.5	282,000	256,000	232,100	210,400	85
90	68.8	216.5	262,600	239,200	217,700	198,000	90
95	67.4	214.4	245,500	224,500	204,900	186,800	95
100	66.0	212.1	230,500	211,300	193,400	176,800	100
105	64.6	209.7	217,000	199,600	183,100	167,800	105
110	63.1	207.1	205,000	189,000	173,800	159,600	110
115	61.7	204.4	194,100	179,400	165,300	152,200	115
120	60.2	201.5	182,100	170,700	157,600	145,400	120
125	58.7	198.4	170,500	161,400	150,600	139,100	125
130	57.1	195.1	159,900	151,600	143,700	133,400	130
135	55.6	191.6	150,100	142,500	135,300	128,100	135
140	54.0	187.9	141,100	134,200	127,500	121,100	140
145	52.3	184.0	132,800	126,400	120,200	114,300	145
150	50.7	179.8	125,100	119,200	113,500	108,000	150
155	49.0	175.4	117,900	112,400	107,200	102,100	155
160	47.2	170.7	111,200	106,200	101,200	96,500	160
165	45.4	165.8	104,900	100,300	95,700	91,300	165
170	43.5	160.5	99,000	94,700	90,500	86,400	170
175	41.6	154.8	93,500	89,500	85,600	81,800	175
180	39.5	148.7	88,300	84,600	81,000	77,400	180
185	37.4	142.1	83,400	79,900	76,600	73,300	185
190	35.2	135.0	78,700	75,500	72,400	69,400	190
195	32.8	127.2	74,300	71,400	68,500	65,700	195
200	30.3	118.7	70,100	67,400	64,700	62,100	200
205	27.5	109.2	66,000	63,600	61,200	58,800	205
210	24.5	98.4	62,200	60,000	57,800	55,600	210
215	21.0	85.7	58,500	56,500	54,500	52,500	215
220	16.7	70.0	54,900	53,200	51,400	49,600	220



ft	°	ft	0° lb	1° lb	2° lb	3° lb	ft
32	84.7	251.5	747,600				32
34	84.2	251.3	715,100				34
36	83.8	251.1	685,100	586,200			36
38	83.3	250.8	657,400	565,400			38
40	82.8	250.5	631,700	545,800	478,500		40
45	81.6	249.7	574,900	502,000	443,500	394,900	45
50	80.4	248.8	526,900	464,200	412,800	361,100	50
55	79.2	247.8	485,900	431,300	375,500	327,000	55
60	78.0	246.7	446,200	389,100	340,300	298,600	60
65	76.8	245.5	401,400	353,000	311,100	274,700	65
70	75.6	244.2	364,500	322,900	286,300	254,100	70
75	74.3	242.7	333,700	297,300	265,000	236,300	75
80	73.1	241.2	307,400	275,400	246,600	220,800	80
85	71.9	239.5	284,900	256,300	230,400	207,100	85
90	70.6	237.7	265,200	239,600	216,200	194,900	90
95	69.3	235.8	248,000	224,900	203,600	184,100	95
100	68.1	233.7	232,800	211,700	192,200	174,300	100
105	66.8	231.5	219,200	200,000	182,100	165,500	105
110	65.5	229.2	205,900	189,400	172,800	157,500	110
115	64.2	226.7	191,800	179,800	164,500	150,200	115
120	62.8	224.1	179,000	168,100	156,800	143,500	120
125	61.5	221.3	167,400	157,500	148,100	137,400	125
130	60.1	218.4	156,800	147,700	139,100	131,000	130
135	58.7	215.3	147,000	138,600	130,700	123,200	135
140	57.3	212.1	138,000	130,300	123,000	116,000	140
145	55.9	208.6	129,600	122,600	115,800	109,400	145
150	54.4	205.0	121,900	115,400	109,100	103,100	150
155	53.0	201.2	114,700	108,700	102,800	97,300	155
160	51.4	197.1	108,000	102,400	97,000	91,800	160
165	49.9	192.9	101,800	96,500	91,500	86,600	165
170	48.3	188.4	95,900	91,000	86,300	81,800	170
175	46.7	183.6	90,300	85,800	81,500	77,200	175
180	45.0	178.6	85,100	81,000	76,900	72,900	180
185	43.3	173.2	80,200	76,300	72,500	68,800	185
190	41.5	167.5	75,600	72,000	68,400	64,900	190
195	39.6	161.4	71,200	67,800	64,500	61,200	195
200	37.7	154.9	67,000	63,900	60,800	57,700	200
205	35.7	147.9	63,100	60,100	57,200	54,400	205
210	33.5	140.4	59,300	56,600	53,900	51,200	210
215	31.2	132.1	55,700	53,200	50,700	48,200	215
220	28.8	123.1	52,200	49,900	47,600	45,300	220
225	26.1	113.0	48,900	46,800	44,600	42,500	225
230	23.2	101.5	45,700	43,800	41,800	39,900	230
235	19.8	88.1	42,700	40,900	39,100	37,400	235
240	15.7	71.4	39,700	38,100	36,500	35,000	240

B10



661,300 lb



360°

ft	°	ft	lb	lb	lb	lb	lb	ft
34	84.7	271.1	702,900					34
36	84.2	270.9	674,200					36
38	83.8	270.6	647,600	517,700				38
40	83.4	270.4	622,800	516,500				40
45	82.3	269.7	567,900	490,700	398,900			45
50	81.1	268.8	521,300	454,700	397,200	320,100		50
55	80.0	267.9	481,400	423,200	370,300	319,100		55
60	78.9	266.9	446,800	387,900	336,100	292,300		60
65	77.8	265.8	404,300	352,100	307,500	269,100		65
70	76.7	264.6	367,200	322,200	283,200	249,300		70
75	75.6	263.2	336,100	296,900	262,400	232,100		75
80	74.4	261.8	309,700	275,100	244,300	217,000		80
85	73.3	260.2	287,000	256,100	228,400	203,700		85
90	72.1	258.6	267,200	239,500	214,400	191,800		90
95	71.0	256.8	249,900	224,800	202,000	181,200		95
100	69.8	254.9	234,600	211,800	190,800	171,700		100
105	68.6	252.9	220,000	200,100	180,800	163,100		105
110	67.4	250.8	204,300	189,500	171,700	155,200		110
115	66.2	248.6	190,200	177,300	163,400	148,100		115
120	65.0	246.2	177,500	165,700	154,700	141,500		120
125	63.8	243.7	165,800	155,000	145,000	135,500		125
130	62.6	241.1	155,200	145,300	136,000	127,300		130
135	61.3	238.3	145,400	136,300	127,800	119,700		135
140	60.1	235.4	136,400	128,000	120,100	112,600		140
145	58.8	232.3	128,000	120,300	113,000	106,100		145
150	57.5	229.0	120,300	113,100	106,300	99,900		150
155	56.2	225.7	113,100	106,500	100,100	94,100		155
160	54.8	222.1	106,400	100,200	94,300	88,700		160
165	53.5	218.3	100,100	94,400	88,900	83,600		165
170	52.1	214.4	94,200	88,900	83,700	78,800		170
175	50.7	210.2	88,700	83,700	78,900	74,300		175
180	49.2	205.9	83,500	78,900	74,300	70,000		180
185	47.7	201.3	78,600	74,300	70,000	66,000		185
190	46.2	196.5	74,000	69,900	65,900	62,100		190
195	44.7	191.4	69,600	65,800	62,100	58,500		195
200	43.0	186.0	65,500	61,900	58,400	55,000		200
205	41.4	180.3	61,500	58,200	54,900	51,700		205
210	39.7	174.2	57,800	54,600	51,500	48,600		210
215	37.9	167.7	54,200	51,300	48,400	45,500		215
220	36.0	160.8	50,800	48,000	45,300	42,700		220
225	34.1	153.4	47,500	45,000	42,400	39,900		225
230	32.0	145.4	44,400	42,000	39,600	37,300		230
235	29.8	136.8	41,400	39,200	37,000	34,800		235
240	27.5	127.2	38,500	36,500	34,400	32,400		240
245	24.9	116.6	35,700	33,800	31,900	30,100		245
250	22.1	104.5	33,100	31,300	29,600	27,800		250
255	18.8	90.3	30,200	28,900	27,300	25,700		255

MLC650 S-2



36	84.6	290.7	604,200				36
38	84.2	290.5	602,400				38
40	83.8	290.2	600,500	435,800			40
45	82.8	289.6	559,000	433,400	333,600		45
50	81.8	288.8	514,200	431,000	332,000	265,100	50
55	80.7	287.9	475,600	413,300	330,500	264,100	55
60	79.7	287.0	442,100	386,900	329,100	263,100	60
65	78.7	286.0	408,000	351,600	304,000	262,100	65
70	77.6	284.8	370,600	321,900	280,200	244,300	70
75	76.6	283.6	339,200	296,700	259,800	227,600	75
80	75.5	282.3	312,500	275,000	242,000	212,900	80
85	74.5	280.8	289,600	256,200	226,400	200,000	85
90	73.4	279.3	269,700	239,600	212,600	188,500	90
95	72.3	277.7	252,200	225,000	200,300	178,200	95
100	71.3	275.9	234,100	211,900	189,300	168,900	100
105	70.2	274.1	216,700	199,600	179,400	160,400	105
110	69.1	272.1	201,000	185,600	170,400	152,800	110
115	68.0	270.1	186,800	172,900	160,100	145,800	115
120	66.9	267.9	174,000	161,400	149,600	138,800	120
125	65.8	265.6	162,400	150,800	140,000	130,000	125
130	64.7	263.2	151,700	141,100	131,200	121,900	130
135	63.5	260.7	141,900	132,100	123,000	114,400	135
140	62.4	258.0	132,800	123,800	115,400	107,400	140
145	61.2	255.2	124,500	116,200	108,300	100,900	145
150	60.0	252.3	116,800	109,000	101,700	94,800	150
155	58.8	249.2	109,500	102,400	95,600	89,100	155
160	57.6	246.0	102,800	96,200	89,800	83,800	160
165	56.4	242.7	96,600	90,300	84,400	78,700	165
170	55.2	239.1	90,700	84,900	79,300	74,000	170
175	53.9	235.5	85,200	79,700	74,500	69,500	175
180	52.6	231.6	80,000	74,900	70,000	65,300	180
185	51.3	227.5	75,100	70,300	65,700	61,200	185
190	50.0	223.3	70,400	66,000	61,600	57,400	190
195	48.6	218.9	66,100	61,800	57,800	53,800	195
200	47.2	214.2	61,900	58,000	54,100	50,400	200
205	45.8	209.3	58,000	54,300	50,600	47,100	205
210	44.4	204.1	54,200	50,700	47,300	44,000	210
215	42.9	198.7	50,700	47,400	44,100	41,000	215
220	41.3	193.0	47,300	44,200	41,100	38,200	220
225	39.7	186.9	44,000	41,100	38,200	35,400	225
230	38.1	180.5	40,900	38,200	35,500	32,800	230
235	36.4	173.7	38,000	35,400	32,800	30,300	235
240	34.6	166.4	35,100	32,700	30,300	27,900	240
245	32.7	158.7	32,400	30,100	27,800	25,600	245
250	30.7	150.2	29,700	27,600	25,500	23,400	250
255	28.6	141.1	27,200	25,200	23,200	21,300	255
260	26.3	131.1	24,800	22,900	21,100	19,200	260
265	23.8	119.9	21,900	20,700	19,000	17,300	265
270	21.1	107.2	18,000	17,200			270

B10



661,300 lb



360°

			0°	1°	2°	3°		
ft	°	ft	lb	lb	lb	lb	ft	
36	85.0	310.5	518,100				36	
38	84.6	310.3	516,300				38	
40	84.2	310.1	514,700				40	
45	83.3	309.4	510,500	368,500			45	
50	82.3	308.7	506,500	366,200	279,600		50	
55	81.4	307.9	469,300	364,000	278,300	220,000	55	
60	80.4	307.0	436,900	361,900	276,900	219,100	60	
65	79.4	306.1	408,300	350,500	275,500	218,200	65	
70	78.5	305.0	373,100	321,100	274,200	217,300	70	
75	77.5	303.9	341,500	296,100	256,900	216,400	75	
80	76.5	302.6	314,700	274,500	239,500	208,900	80	
85	75.5	301.3	291,600	255,700	224,200	196,400	85	
90	74.5	299.9	271,500	239,300	210,600	185,100	90	
95	73.5	298.4	252,100	224,700	198,500	175,100	95	
100	72.5	296.8	232,400	211,700	187,700	166,000	100	
105	71.5	295.0	214,900	196,800	177,900	157,800	105	
110	70.5	293.2	199,200	182,800	167,900	150,300	110	
115	69.5	291.3	185,000	170,200	156,600	143,500	115	
120	68.5	289.3	172,200	158,700	146,300	134,800	120	
125	67.5	287.2	160,500	148,200	136,700	126,200	125	
130	66.4	285.0	149,800	138,500	128,000	118,200	130	
135	65.4	282.7	140,000	129,600	119,800	110,800	135	
140	64.3	280.2	131,000	121,300	112,300	103,900	140	
145	63.3	277.7	122,600	113,700	105,300	97,500	145	
150	62.2	275.0	114,900	106,600	98,800	91,400	150	
155	61.1	272.2	107,600	99,900	92,700	85,800	155	
160	60.0	269.3	100,900	93,700	86,900	80,500	160	
165	58.9	266.2	94,600	87,900	81,600	75,500	165	
170	57.8	263.0	88,800	82,500	76,500	70,800	170	
175	56.6	259.7	83,200	77,400	71,700	66,400	175	
180	55.5	256.2	78,000	72,500	67,200	62,200	180	
185	54.3	252.6	73,100	68,000	63,000	58,200	185	
190	53.1	248.8	68,500	63,600	59,000	54,500	190	
195	51.9	244.8	64,100	59,600	55,100	50,900	195	
200	50.6	240.7	60,000	55,700	51,500	47,500	200	
205	49.4	236.3	56,100	52,000	48,000	44,300	205	
210	48.1	231.8	52,300	48,500	44,800	41,200	210	
215	46.8	227.1	48,800	45,100	41,600	38,200	215	
220	45.5	222.1	45,400	42,000	38,600	35,400	220	
225	44.1	216.9	42,100	38,900	35,700	32,700	225	
230	42.7	211.5	39,000	36,000	33,000	30,100	230	
235	41.3	205.7	36,100	33,200	30,400	27,600	235	
240	39.8	199.7	33,300	30,500	27,800	25,200	240	
245	38.2	193.3	30,500	28,000	25,400	23,000	245	
250	36.6	186.6	27,900	25,500	23,100	20,800	250	
255	35.0	179.4	25,400	23,100	20,900	18,600	255	
260	33.2	171.8	23,000	20,900	18,700		260	
265	31.4	163.6	20,700	18,700			265	
270	29.5	154.8	18,400				270	

MLC650 S-2



ft	o	ft	lb	lb	lb	ft
38	84.9	330.1	444,600			38
40	84.6	329.9	443,100			40
45	83.7	329.3	439,500	313,600		45
50	82.8	328.6	435,800	311,600	234,900	50
55	81.9	327.9	432,300	309,700	233,600	55
60	81.0	327.0	428,900	307,800	232,400	60
65	80.1	326.1	405,700	305,900	231,200	65
70	79.2	325.1	378,700	304,100	230,100	70
75	78.3	324.1	346,800	297,600	229,000	75
80	77.3	322.9	319,700	276,200	227,800	80
85	76.4	321.7	296,300	257,500	223,600	85
90	75.5	320.3	271,200	241,100	210,200	90
95	74.6	318.9	248,900	224,900	198,300	95
100	73.6	317.4	229,200	207,800	187,600	100
105	72.7	315.8	211,600	192,400	175,100	105
110	71.8	314.1	195,900	178,500	162,800	110
115	70.8	312.4	181,700	165,900	151,600	115
120	69.9	310.5	168,800	154,400	141,300	120
125	68.9	308.5	157,100	143,900	131,800	125
130	68.0	306.5	146,400	134,300	123,100	130
135	67.0	304.3	136,500	125,400	115,100	135
140	66.0	302.1	127,400	117,200	107,600	140
145	65.0	299.7	119,100	109,500	100,600	145
150	64.0	297.2	111,300	102,400	94,200	150
155	63.0	294.6	104,100	95,800	88,100	155
160	62.0	292.0	97,300	89,600	82,400	160
165	61.0	289.1	91,000	83,800	77,100	165
170	60.0	286.2	85,100	78,400	72,000	170
175	58.9	283.2	79,600	73,300	67,300	175
180	57.9	280.0	74,400	68,500	62,800	180
185	56.8	276.7	69,500	63,900	58,600	185
190	55.7	273.2	64,800	59,600	54,600	190
195	54.6	269.6	60,500	55,500	50,800	195
200	53.5	265.9	56,300	51,600	47,200	200
205	52.4	262.0	52,400	48,000	43,700	205
210	51.2	258.0	48,600	44,500	40,400	210
215	50.1	253.7	45,100	41,100	37,300	215
220	48.9	249.3	41,700	38,000	34,300	220
225	47.7	244.7	38,400	34,900	31,500	225
230	46.4	239.9	35,400	32,000	28,700	230
235	45.2	234.9	32,400	29,200	26,100	235
240	43.9	229.7	29,600	26,600	23,600	240
245	42.6	224.2	26,900	24,000	21,200	245
250	41.2	218.5	24,300	21,600	18,900	250
255	39.8	212.5	21,800	19,200		255
260	38.4	206.1	19,400			260
265	36.9	199.4	17,100			265

B10



661,300 lb



360°

 341.2 ft			
ft	°	ft	lb
40	84.9	349.7	384,500
45	84.1	349.1	381,200
50	83.2	348.5	378,000
55	82.4	347.8	374,900
60	81.5	347.0	371,900
65	80.7	346.1	368,800
70	79.8	345.2	365,700
75	78.9	344.2	348,900
80	78.1	343.1	321,600
85	77.2	341.9	294,800
90	76.4	340.7	269,300
95	75.5	339.4	247,000
100	74.6	338.0	227,200
105	73.7	336.5	209,700
110	72.9	334.9	193,900
115	72.0	333.2	179,700
120	71.1	331.5	166,800
125	70.2	329.7	155,000
130	69.3	327.7	144,300
135	68.4	325.7	134,400
140	67.5	323.6	125,400
145	66.6	321.4	117,000
150	65.6	319.1	109,200
155	64.7	316.7	101,900
160	63.8	314.2	95,200
165	62.8	311.6	88,900
170	61.9	308.9	83,000
175	60.9	306.1	77,500
180	59.9	303.2	72,200
185	58.9	300.1	67,300
190	58.0	297.0	62,700
195	57.0	293.7	58,300
200	55.9	290.3	54,200
205	54.9	286.7	50,200
210	53.9	283.0	46,500
215	52.8	279.2	42,900
220	51.7	275.2	39,600
225	50.6	271.1	36,300
230	49.5	266.8	33,200
235	48.4	262.3	30,300
240	47.3	257.6	27,500
245	46.1	252.8	24,800
250	44.9	247.7	22,200
255	43.7	242.5	19,700
260	42.4	237.0	17,300