

Liftcrane Boom Capacities

Boom No. B60:680
with Mast No. M11:684
440,900 lb VPC (Variable Position Counterweight)
Crawler Machine on a Barge
0 Degree thru 2 Degree Static Machine List
No Travel - 360 Degree Rating

MLC650 VPC-MAX SERIES 1

 **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.

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 8,200 lb minimum weight suspended beneath boom point and (c) require 15,500 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. 81022686**, Mast Rigging **No. 84050187**, Wire Rope Specifications chart **No. 9387-A**, Counterweight Arrangements chart **No. 9349-A**, and Wind Conditions chart **No. 9388-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 VPC-MAX, 36 ft 6 in. crawlers, 60 in. or 80 in. treads, 36 ft 1 in. live mast, 118.1 ft mast, 16 part boom hoist reeving, boom support straps, and 440,900 lb VPC.

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

Consult chart **No. 9721-A** when jib No. 148 is attached.

Deduct From Capacities When Jib No. 148 Is Attached	
Jib Length (ft)	Deduct (lb)
39.4	19,200
59.1	28,400
78.7	36,900
98.4	45,000
118.1	56,000
137.8	63,300
Weight of jib and 6,500 lb suspended beneath jib point have been included in determination of deduct.	

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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. Raising is not permitted in shaded areas of table.

Select counterweight position from Table 1 or 2 that will allow raising and lowering of boom length. Counterweight position selection may be changed with boom on barge deck or while boom is within operating range of capacity chart.

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

Table 1

Over End or Side of Crawlers						
Boom Length (ft)	38.7 ft Counterweight Position			60.0 ft Counterweight Position		
	Machine List					
	0°	1°	2°	0°	1°	2°
	Block Weight (lb)					
144.4 - 164.0	46,500	46,500	46,500	46,500	46,500	46,500
183.7 - 203.4	22,600	22,600	22,600	46,500	46,500	46,500
223.1 - 242.8	16,200	16,200	16,200	46,500	46,500	46,500
262.5 - 282.2	#	#	#	46,500	46,500	46,500
301.8	#	#	#	22,600	22,600	22,600
321.5	Raising Not Permitted			22,600	22,600	22,600
341.2				16,200	#	#
360.9				#	#	#
380.6				#	#	#

Table 2

Over End of Blocked Crawlers						
Boom Length (ft)	38.7 ft Counterweight Position			60.0 ft Counterweight Position		
	Machine List					
	0°	1°	2°	0°	1°	2°
	Block Weight (lb)					
144.4 - 164.0	46,500	46,500	46,500	46,500	46,500	46,500
183.7 - 203.4	22,600	22,600	22,600	46,500	46,500	46,500
223.1 - 242.8	16,200	16,200	16,200	46,500	46,500	46,500
262.5 - 282.2	#	#	#	46,500	46,500	46,500
301.8	#	#	#	22,600	22,600	22,600
321.5	#	#	#	22,600	22,600	22,600
341.2	Raising Not Permitted			16,200	#	#
360.9				#	#	#
380.6				#	#	#
Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. <i>Crane tipping or structural damage can occur.</i>						

Explanation of Symbols



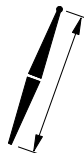
Boom No. B60:680



VPC (Variable Position Counterweight)



360 Degree Rating



Boom Length



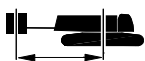
Operating Radius
(see page 1)



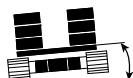
Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)



Counterweight Position
from Axis of Rotation



Machine List



Lifting Capacities
(see page 1)

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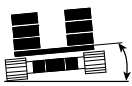
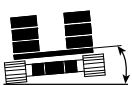
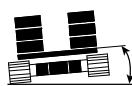
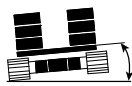
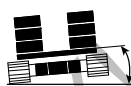
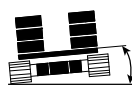


440,900 lb



360°

144.4 ft

			38.7 ft			60.0 ft			
									
ft	°	ft	lb	lb	lb	lb	lb	lb	ft
28	82.7	152.8	1,030,800c			1,460,100c			28
30	81.9	152.5	941,300c	846,500c		1,431,700c	1,000,900c		30
32	81.1	152.1	865,100c	783,300c		1,355,100c	977,600c		32
34	80.3	151.7	799,300c	728,100c		1,285,900c	977,600c		34
36	79.5	151.3	742,100b	679,500b	625,600c	1,222,800b	977,600b	813,600c	36
38	78.6	150.8	691,800b	636,300b	588,200c	1,165,300b	977,600b	797,900c	38
40	77.8	150.3	647,200b	597,800b	554,600c	1,112,500b	977,600b	797,900c	40
45	75.8	149.0	555,200	517,300	483,500b	998,000	937,600	797,900b	45
50	73.7	147.5	483,700	453,700	426,700	903,300	853,500	796,400	50
55	71.6	145.7	426,400	402,100	380,100	809,000	754,000	705,000	55
60	69.5	143.8	379,500	359,600	341,300	715,000	671,000	631,300	60
65	67.3	141.6	340,400	323,800	308,400	639,200	603,300	570,500	65
70	65.1	139.2	307,300	293,200	280,200	576,800	547,000	519,500	70
75	62.9	136.6	278,900	266,900	255,700	524,500	499,400	476,100	75
80	60.6	133.7	254,300	244,000	234,300	480,100	458,700	438,800	80
85	58.2	130.5	232,700	223,700	215,400	441,900	423,500	406,300	85
90	55.8	127.0	213,600	205,800	198,500	408,600	392,700	377,700	90
95	53.3	123.2	196,600	189,800	183,400	379,400	365,600	352,500	95
100	50.7	119.0	181,300	175,400	169,800	353,600	341,500	330,000	100
105	48.0	114.4	167,600	162,400	157,500	330,600	319,900	309,800	105
110	45.2	109.4	155,100	150,600	146,200	309,900	300,500	291,600	110
115	42.2	103.8	143,700	139,800	136,000	291,200	283,000	275,100	115
120	39.1	97.6	133,300	129,800	126,500	274,300	267,100	260,000	120
125	35.7	90.6	123,600	120,700	117,800	258,800	252,500	246,300	125
130	31.9	82.6	114,700	112,200	109,700	244,700	239,200	233,800	130
135	27.7	73.2	106,400	104,200	102,200	231,600	226,900	222,200	135
140	22.7	61.6	98,500	96,800	95,100	219,600	215,500	211,600	140
145	16.1	45.7	90,900	89,600	88,400	208,300	205,100	201,900	145

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B60



440,900 lb



360°

164.0 ft

			38.7 ft			60.0 ft			
			0°	1°	2°	0°	1°	2°	
30	82.9	172.4	941,800b			1,352,900b			30
32	82.2	172.1	865,200b			1,321,800b			32
34	81.4	171.7	799,100b	718,500b		1,255,800b	892,100b		34
36	80.7	171.4	741,500	670,600	610,800b	1,195,600	883,600	750,700b	36
38	80.0	171.0	690,900	628,100	574,600b	1,140,400	883,600	736,900b	38
40	79.3	170.6	646,100	590,100	541,900b	1,089,700	883,600	723,700b	40
45	77.5	169.4	553,700	510,500	472,700	979,100	883,600	723,700	45
50	75.7	168.0	481,800	447,600	417,200	887,300	830,300	723,700	50
55	73.9	166.5	424,200	396,500	371,600	806,800	745,100	690,900	55
60	72.0	164.8	377,100	354,200	333,500	712,700	663,200	619,100	60
65	70.2	163.0	337,900	318,700	301,200	636,900	596,300	559,700	65
70	68.3	160.9	304,600	288,400	273,400	574,400	540,600	509,900	70
75	66.4	158.6	276,100	262,200	249,300	522,100	493,600	467,400	75
80	64.4	156.2	251,400	239,400	228,200	477,700	453,300	430,700	80
85	62.5	153.5	229,700	219,300	209,500	439,400	418,400	398,800	85
90	60.4	150.6	210,600	201,400	192,800	406,100	387,800	370,700	90
95	58.4	147.4	193,600	185,500	177,900	376,900	360,900	345,800	95
100	56.3	144.0	178,300	171,200	164,500	351,100	336,900	323,600	100
105	54.1	140.3	164,600	158,300	152,300	328,000	315,500	303,700	105
110	51.8	136.3	152,100	146,500	141,200	307,400	296,300	285,700	110
115	49.5	132.0	140,700	135,700	131,000	288,700	278,800	269,400	115
120	47.1	127.3	130,300	125,900	121,700	271,800	263,000	254,500	120
125	44.6	122.2	120,800	116,800	113,100	256,400	248,500	240,900	125
130	42.0	116.6	111,900	108,400	105,100	242,300	235,200	228,400	130
135	39.2	110.4	103,800	100,700	97,700	229,300	223,000	216,800	135
140	36.3	103.5	96,100	93,400	90,800	217,300	211,700	206,200	140
145	33.1	95.8	89,000	86,600	84,300	206,200	201,200	196,300	145
150	29.6	87.1	82,300	80,300	78,300	195,900	191,500	187,200	150
160	20.8	64.1	70,000	68,500	67,100	177,300	174,000	170,800	160

MLC650

VPC-MAX S-1



B60



440,900 lb



360°

183.7 ft

			38.7 ft			60.0 ft			
ft	°	ft	0° lb	1° lb	2° lb	0° lb	1° lb	2° lb	ft
32	83.0	192.0	863,900			1,263,000			32
34	82.4	191.7	797,500			1,226,100			34
36	81.7	191.4	739,600	660,600		1,168,500	819,700		36
38	81.1	191.0	688,800	618,700		1,115,500	803,700		38
40	80.5	190.6	643,800	581,200	528,400	1,066,700	803,700	672,400	40
45	78.9	189.6	550,900	502,700	461,000	959,900	803,700	644,500	45
50	77.3	188.4	478,700	440,400	406,800	870,800	803,700	644,500	50
55	75.7	187.1	420,900	389,800	362,200	795,300	735,600	644,500	55
60	74.0	185.6	373,700	347,900	324,800	709,800	654,900	606,600	60
65	72.4	183.9	334,200	312,600	293,100	633,900	588,800	548,700	65
70	70.7	182.1	300,900	282,500	265,700	571,400	533,700	499,900	70
75	69.1	180.2	272,300	256,500	242,000	519,000	487,200	458,200	75
80	67.4	178.0	247,500	233,800	221,100	474,500	447,200	422,200	80
85	65.6	175.7	225,700	213,800	202,700	436,200	412,600	390,900	85
90	63.9	173.2	206,500	196,000	186,300	402,900	382,300	363,200	90
95	62.1	170.5	189,500	180,200	171,500	373,700	355,600	338,700	95
100	60.3	167.5	174,200	165,900	158,200	347,800	331,800	316,800	100
105	58.5	164.4	160,400	153,100	146,200	324,800	310,500	297,100	105
110	56.6	161.1	147,900	141,400	135,200	304,100	291,400	279,400	110
115	54.7	157.5	136,600	130,700	125,100	285,400	274,100	263,200	115
120	52.7	153.6	126,200	120,900	115,900	268,500	258,300	248,500	120
125	50.7	149.4	116,600	111,900	107,300	253,100	243,900	235,100	125
130	48.6	145.0	107,800	103,500	99,500	239,000	230,700	222,700	130
135	46.4	140.1	99,700	95,800	92,100	226,100	218,500	211,200	135
140	44.2	134.9	92,100	88,600	85,300	214,100	207,300	200,700	140
145	41.8	129.3	85,100	81,900	78,900	203,100	196,900	190,900	145
150	39.4	123.1	78,500	75,700	73,000	192,800	187,200	181,800	150
160	34.0	109.0	66,500	64,300	62,100	174,300	169,800	165,300	160
170	27.6	91.2	55,800	54,100	52,400	158,100	154,500	150,900	170
180	19.2	66.4	46,000	44,800	43,600	143,700	141,000	138,200	180

MLC650

VPC-MAX S-1



B60



440,900 lb



360°

203.4 ft

			38.7 ft			60.0 ft			
ft	°	ft	0° lb	1° lb	2° lb	0° lb	1° lb	2° lb	ft
36	82.5	211.3	740,100			1,139,600			36
38	82.0	211.0	689,000	611,600		1,089,200	752,400		38
40	81.4	210.7	643,700	574,600		1,042,700	738,400		40
45	80.0	209.7	550,300	496,800	451,500	940,400	738,400	598,900	45
50	78.5	208.6	477,600	435,100	398,400	854,500	738,400	589,500	50
55	77.1	207.4	419,500	384,900	354,600	781,300	721,700	589,500	55
60	75.6	206.1	372,000	343,300	317,900	708,700	648,400	589,500	60
65	74.2	204.6	332,300	308,200	286,600	632,600	583,000	539,500	65
70	72.7	203.0	298,800	278,200	259,700	569,900	528,500	491,600	70
75	71.2	201.3	270,000	252,300	236,300	517,400	482,300	450,700	75
80	69.7	199.4	245,100	229,700	215,700	472,800	442,700	415,400	80
85	68.2	197.3	223,200	209,800	197,400	434,400	408,300	384,400	85
90	66.6	195.1	203,900	192,100	181,100	401,100	378,200	357,200	90
95	65.1	192.7	186,800	176,300	166,500	371,800	351,600	333,000	95
100	63.5	190.1	171,400	162,100	153,400	345,800	328,000	311,400	100
105	61.9	187.4	157,600	149,200	141,400	322,700	306,800	292,000	105
110	60.2	184.5	145,100	137,500	130,500	302,000	287,700	274,400	110
115	58.6	181.4	133,600	126,900	120,500	283,300	270,500	258,400	115
120	56.9	178.1	123,200	117,100	111,300	266,300	254,800	243,800	120
125	55.2	174.5	113,600	108,100	102,900	250,900	240,400	230,500	125
130	53.4	170.8	104,800	99,800	95,000	236,800	227,300	218,200	130
135	51.6	166.7	96,700	92,100	87,700	223,800	215,100	206,900	135
140	49.7	162.4	89,100	84,900	81,000	211,800	203,900	196,400	140
145	47.8	157.9	82,100	78,300	74,700	200,800	193,600	186,600	145
150	45.9	153.0	75,500	72,000	68,700	190,500	183,900	177,500	150
160	41.7	142.0	63,500	60,700	58,000	172,000	166,500	161,200	160
170	37.1	129.3	53,000	50,600	48,400	155,900	151,300	146,800	170
180	32.0	114.0	43,500	41,600	39,800	141,600	137,800	134,100	180
190	25.9	94.9	34,900	33,400	32,000	128,900	125,800	122,700	190
200	17.9	68.3	26,900	25,800	24,800	117,300	115,000	112,600	200

MLC650 VPC-MAX S-1



B60



440,900 lb



360°

223.1 ft

223.1 ft									
			38.7 ft			60.0 ft			
			0°	1°	2°	0°	1°	2°	
ft	°	ft	lb	lb	lb	lb	lb	lb	ft
38	82.7	230.9	691,800			1,063,400			38
40	82.2	230.6	646,300			1,019,400			40
45	80.9	229.8	552,400	494,000	445,000	922,100	679,800	549,400	45
50	79.6	228.8	479,400	432,800	393,100	839,700	679,800	538,300	50
55	78.2	227.7	421,100	383,100	350,200	769,300	679,800	538,300	55
60	76.9	226.5	373,300	341,800	314,200	708,400	644,200	538,300	60
65	75.6	225.1	333,400	306,900	283,400	633,600	579,600	532,700	65
70	74.3	223.7	299,700	277,100	256,900	570,800	525,600	485,900	70
75	72.9	222.1	270,800	251,300	233,700	518,200	479,800	445,700	75
80	71.6	220.4	245,800	228,800	213,400	473,400	440,500	410,900	80
85	70.2	218.5	223,800	209,000	195,400	435,000	406,400	380,500	85
90	68.8	216.5	204,500	191,300	179,300	401,500	376,500	353,700	90
95	67.4	214.4	187,300	175,600	164,800	372,200	350,100	329,800	95
100	66.0	212.1	171,800	161,400	151,800	346,200	326,600	308,500	100
105	64.6	209.7	157,900	148,600	139,900	323,000	305,500	289,300	105
110	63.1	207.1	145,400	136,900	129,100	302,300	286,500	271,900	110
115	61.7	204.4	133,900	126,300	119,200	283,500	269,400	256,100	115
120	60.2	201.5	123,500	116,500	110,100	266,600	253,700	241,700	120
125	58.7	198.4	113,900	107,600	101,700	251,100	239,400	228,400	125
130	57.1	195.1	105,000	99,300	93,900	236,900	226,300	216,300	130
135	55.6	191.6	96,800	91,600	86,700	223,900	214,200	205,000	135
140	54.0	187.9	89,300	84,500	79,900	212,000	203,100	194,600	140
145	52.3	184.0	82,200	77,800	73,700	200,900	192,700	184,900	145
150	50.7	179.8	75,600	71,600	67,800	190,600	183,100	175,900	150
160	47.2	170.7	63,700	60,300	57,100	172,100	165,800	159,700	160
170	43.5	160.5	53,200	50,300	47,600	156,000	150,600	145,300	170
180	39.5	148.7	43,800	41,400	39,100	141,700	137,100	132,700	180
190	35.2	135.0	35,300	33,300	31,400	129,000	125,100	121,300	190
200	30.3	118.7	27,600	26,000	24,400	117,700	114,400	111,200	200
210	24.5	98.4	20,500	19,300	18,000	107,300	104,700	102,000	210
220	16.7	70.0				97,900	95,800	93,800	220

MLC650 VPC-MAX S-1



B60



440,900 lb



360°

242.8 ft

			38.7 ft			60.0 ft			
			lb	lb	lb	lb	lb	lb	
40	82.8	250.5	644,900			956,400			40
45	81.6	249.7	550,700	487,200		899,500	623,300		45
50	80.4	248.8	477,300	426,700	384,100	820,800	623,300	483,600	50
55	79.2	247.8	418,700	377,300	342,000	753,100	623,300	483,600	55
60	78.0	246.7	370,700	336,300	306,600	694,300	623,300	483,600	60
65	76.8	245.5	330,700	301,700	276,400	631,800	573,400	483,600	65
70	75.6	244.2	296,800	272,100	250,200	568,800	520,000	477,500	70
75	74.3	242.7	267,800	246,500	227,400	516,100	474,600	438,100	75
80	73.1	241.2	242,600	224,000	207,300	471,300	435,600	403,900	80
85	71.9	239.5	220,600	204,300	189,500	432,700	401,700	373,900	85
90	70.6	237.7	201,200	186,700	173,600	399,200	372,000	347,500	90
95	69.3	235.8	183,900	171,000	159,300	369,800	345,800	323,900	95
100	68.1	233.7	168,400	156,900	146,300	343,800	322,400	302,900	100
105	66.8	231.5	154,500	144,100	134,600	320,600	301,400	283,900	105
110	65.5	229.2	141,800	132,500	123,900	299,700	282,600	266,700	110
115	64.2	226.7	130,400	121,900	114,100	281,000	265,500	251,100	115
120	62.8	224.1	119,900	112,200	105,000	264,000	249,900	236,800	120
125	61.5	221.3	110,200	103,200	96,700	248,500	235,700	223,700	125
130	60.1	218.4	101,400	95,000	89,000	234,300	222,600	211,600	130
135	58.7	215.3	93,200	87,300	81,800	221,300	210,600	200,500	135
140	57.3	212.1	85,600	80,200	75,100	209,300	199,400	190,100	140
145	55.9	208.6	78,500	73,500	68,900	198,200	189,100	180,500	145
150	54.4	205.0	71,900	67,300	63,000	187,900	179,500	171,600	150
160	51.4	197.1	60,000	56,100	52,400	169,400	162,300	155,400	160
170	48.3	188.4	49,400	46,100	43,000	153,200	147,100	141,200	170
180	45.0	178.6	40,100	37,200	34,500	139,000	133,700	128,600	180
190	41.5	167.5	31,600	29,200	26,900	126,300	121,700	117,300	190
200	37.7	154.9	24,000	22,000	20,000	114,900	111,000	107,200	200
210	33.5	140.4	17,100			104,700	101,300	98,000	210
220	28.8	123.1				95,400	92,500	89,700	220
230	23.2	101.5				86,800	84,500	82,200	230
240	15.7	71.4				78,900	77,100	75,300	240

MLC650 VPC-MAX S-1



B60



440,900 lb



360°

262.5 ft

			38.7 ft			60.0 ft			
ft	°	ft	0° lb	1° lb	2° lb	0° lb	1° lb	2° lb	ft
45	82.3	269.7	550,100			809,300			45
50	81.1	268.8	476,500	421,900		803,700	570,300		50
55	80.0	267.9	417,700	373,100	335,400	738,700	570,300	428,400	55
60	78.9	266.9	369,500	332,500	300,700	682,000	570,300	428,400	60
65	77.8	265.8	329,400	298,100	270,900	630,900	568,400	428,400	65
70	76.7	264.6	295,400	268,700	245,200	567,900	515,500	428,400	70
75	75.6	263.2	266,300	243,200	222,800	515,100	470,500	428,400	75
80	74.4	261.8	241,100	220,900	203,000	470,200	431,800	398,000	80
85	73.3	260.2	219,000	201,300	185,400	431,600	398,200	368,600	85
90	72.1	258.6	199,500	183,800	169,600	398,000	368,800	342,500	90
95	71.0	256.8	182,200	168,200	155,500	368,600	342,700	319,300	95
100	69.8	254.9	166,700	154,100	142,700	342,500	319,500	298,500	100
105	68.6	252.9	152,700	141,400	131,100	319,300	298,600	279,800	105
110	67.4	250.8	140,000	129,800	120,500	298,500	279,900	262,800	110
115	66.2	248.6	128,500	119,300	110,700	279,700	262,900	247,400	115
120	65.0	246.2	118,000	109,600	101,800	262,600	247,400	233,200	120
125	63.8	243.7	108,400	100,700	93,500	247,100	233,200	220,300	125
130	62.6	241.1	99,500	92,400	85,800	232,900	220,200	208,300	130
135	61.3	238.3	91,300	84,800	78,700	219,900	208,200	197,300	135
140	60.1	235.4	83,700	77,700	72,100	207,900	197,200	187,100	140
145	58.8	232.3	76,600	71,100	65,900	196,800	186,900	177,600	145
150	57.5	229.0	70,000	64,900	60,100	186,500	177,300	168,700	150
160	54.8	222.1	58,000	53,700	49,600	168,000	160,100	152,600	160
170	52.1	214.4	47,500	43,800	40,200	151,800	145,000	138,500	170
180	49.2	205.9	38,200	34,900	31,800	137,600	131,700	126,000	180
190	46.2	196.5	29,800	27,000	24,300	124,900	119,700	114,800	190
200	43.0	186.0	22,200	19,800	17,500	113,500	109,100	104,700	200
210	39.7	174.2	15,300			103,300	99,400	95,600	210
220	36.0	160.8				94,100	90,700	87,300	220
230	32.0	145.4				85,600	82,700	79,800	230
240	27.5	127.2				77,800	75,300	72,900	240
250	22.1	104.5				70,700	68,600	66,500	250

MLC650

VPC-MAX S-1



B60



440,900 lb



360°

282.2 ft

			38.7 ft			60.0 ft			
ft	°	ft	0° lb	1° lb	2° lb	0° lb	1° lb	2° lb	ft
45	82.8	289.6	595,000			686,900			45
50	81.8	288.8	515,800	453,100		686,900	487,400		50
55	80.7	287.9	452,400	401,200	358,400	686,900	487,400	369,800	55
60	79.7	287.0	400,600	358,000	321,900	667,100	487,400	369,800	60
65	78.7	286.0	357,400	321,400	290,500	618,900	487,400	369,800	65
70	77.6	284.8	320,900	290,100	263,400	565,500	487,400	369,800	70
75	76.6	283.6	289,600	263,000	239,600	512,600	464,900	369,800	75
80	75.5	282.3	262,400	239,200	218,700	467,600	426,500	369,800	80
85	74.5	280.8	238,700	218,200	200,000	428,900	393,200	361,700	85
90	73.4	279.3	217,700	199,600	183,400	395,300	363,900	336,000	90
95	72.3	277.7	199,100	182,900	168,400	365,700	338,000	313,100	95
100	71.3	275.9	182,400	167,900	154,800	339,600	314,900	292,600	100
105	70.2	274.1	167,400	154,300	142,400	316,300	294,200	274,100	105
110	69.1	272.1	153,800	142,000	131,200	295,500	275,500	257,300	110
115	68.0	270.1	141,400	130,700	120,800	276,600	258,600	242,000	115
120	66.9	267.9	130,100	120,300	111,300	259,600	243,100	228,000	120
125	65.8	265.6	119,700	110,800	102,500	244,000	229,000	215,200	125
130	64.7	263.2	110,200	102,000	94,400	229,800	216,100	203,400	130
135	63.5	260.7	101,400	93,800	86,800	216,800	204,200	192,400	135
140	62.4	258.0	93,200	86,200	79,800	204,700	193,100	182,300	140
145	61.2	255.2	85,600	79,200	73,200	193,600	182,900	172,800	145
150	60.0	252.3	78,500	72,600	67,000	183,300	173,400	164,000	150
160	57.6	246.0	65,700	60,600	55,800	164,800	156,200	148,100	160
170	55.2	239.1	54,400	50,000	45,800	148,600	141,200	134,100	170
180	52.6	231.6	44,400	40,600	36,900	134,300	127,800	121,600	180
190	50.0	223.3	35,400	32,100	28,900	121,600	115,900	110,500	190
200	47.2	214.2	27,400	24,400	21,600	110,300	105,300	100,500	200
210	44.4	204.1	20,000	17,500		100,100	95,700	91,400	210
220	41.3	193.0				90,800	86,900	83,200	220
230	38.1	180.5				82,400	79,000	75,700	230
240	34.6	166.4				74,700	71,700	68,800	240
250	30.7	150.2				67,600	65,000	62,400	250
260	26.3	131.1				61,000	58,700	56,500	260
270	21.1	107.2				54,800	53,000	51,100	270

MLC650

VPC-MAX S-1



B60



440,900 lb



360°

301.8 ft

301.8 ft									
			38.7 ft			60.0 ft			
ft	°	ft	0° lb	1° lb	2° lb	0° lb	1° lb	2° lb	ft
50	82.3	308.7	514,600			589,700			50
55	81.4	307.9	451,100	396,400		589,700	415,500		55
60	80.4	307.0	399,100	353,600	312,600	589,700	415,500	312,600	60
65	79.4	306.1	355,800	317,300	284,600	589,700	415,500	312,600	65
70	78.5	305.0	319,200	286,200	257,900	564,300	415,500	312,600	70
75	77.5	303.9	287,800	259,300	234,500	511,300	415,500	312,600	75
80	76.5	302.6	260,500	235,700	213,800	466,300	415,500	312,600	80
85	75.5	301.3	236,700	214,800	195,500	427,500	389,500	312,600	85
90	74.5	299.9	215,700	196,300	179,000	393,900	360,400	312,600	90
95	73.5	298.4	197,000	179,700	164,200	364,300	334,700	308,400	95
100	72.5	296.8	180,300	164,700	150,700	338,100	311,800	288,200	100
105	71.5	295.0	165,200	151,200	138,500	314,800	291,200	269,900	105
110	70.5	293.2	151,600	138,900	127,400	293,900	272,600	253,300	110
115	69.5	291.3	139,200	127,700	117,100	275,100	255,800	238,200	115
120	68.5	289.3	127,900	117,300	107,700	258,000	240,400	224,400	120
125	67.5	287.2	117,500	107,900	99,000	242,400	226,400	211,700	125
130	66.4	285.0	107,900	99,100	90,900	228,200	213,500	199,900	130
135	65.4	282.7	99,100	91,000	83,400	215,100	201,600	189,100	135
140	64.3	280.2	90,900	83,400	76,400	203,100	190,600	179,000	140
145	63.3	277.7	83,300	76,400	69,900	192,000	180,400	169,700	145
150	62.2	275.0	76,200	69,800	63,700	181,600	171,000	161,000	150
160	60.0	269.3	63,400	57,800	52,600	163,100	153,900	145,200	160
170	57.8	263.0	52,100	47,300	42,700	146,900	138,900	131,300	170
180	55.5	256.2	42,100	37,900	33,900	132,600	125,600	118,900	180
190	53.1	248.8	33,100	29,400	25,900	119,900	113,700	107,800	190
200	50.6	240.7	25,100	21,800	18,700	108,600	103,100	97,900	200
210	48.1	231.8	17,700			98,400	93,500	88,900	210
220	45.5	222.1				89,100	84,800	80,700	220
230	42.7	211.5				80,700	76,900	73,200	230
240	39.8	199.7				73,000	69,600	66,300	240
250	36.6	186.6				66,000	62,900	60,000	250
260	33.2	171.8				59,400	56,800	54,100	260
270	29.5	154.8				53,400	51,000	48,700	270
280	25.2	134.7				47,700	45,700	43,700	280
290	20.1	109.7				42,400	40,700	39,000	290

MLC650

VPC-MAX S-1



B60



440,900 lb



360°

321.5 ft

 38.7 ft  60.0 ft									
ft	°	ft	0° lb	1° lb	2° lb	0° lb	1° lb	2° lb	ft
50	82.8	328.6	506,900			506,900			50
55	81.9	327.9	447,400	350,300		506,900	350,300		55
60	81.0	327.0	395,300	346,900	263,300	506,900	350,300	263,300	60
65	80.1	326.1	351,800	310,900	263,300	506,900	350,300	263,300	65
70	79.2	325.1	315,100	280,000	250,100	506,900	350,300	263,300	70
75	78.3	324.1	283,600	253,200	227,000	506,900	350,300	263,300	75
80	77.3	322.9	256,300	229,700	206,700	463,300	350,300	263,300	80
85	76.4	321.7	232,400	209,000	188,500	424,500	350,300	263,300	85
90	75.5	320.3	211,300	190,500	172,200	390,800	350,300	263,300	90
95	74.6	318.9	192,500	174,000	157,600	361,100	329,700	263,300	95
100	73.6	317.4	175,800	159,100	144,300	334,900	306,900	263,300	100
105	72.7	315.8	160,700	145,700	132,200	311,600	286,400	263,300	105
110	71.8	314.1	147,000	133,400	121,100	290,600	268,000	247,600	110
115	70.8	312.4	134,600	122,200	111,000	271,700	251,200	232,600	115
120	69.9	310.5	123,200	111,900	101,600	254,600	235,900	218,900	120
125	68.9	308.5	112,800	102,400	93,000	239,000	221,900	206,300	125
130	68.0	306.5	103,200	93,700	84,900	224,800	209,100	194,700	130
135	67.0	304.3	94,400	85,600	77,500	211,700	197,300	184,000	135
140	66.0	302.1	86,200	78,100	70,600	199,600	186,300	174,000	140
145	65.0	299.7	78,500	71,000	64,100	188,500	176,200	164,800	145
150	64.0	297.2	71,400	64,500	58,000	178,100	166,700	156,100	150
160	62.0	292.0	58,600	52,600	46,900	159,600	149,700	140,400	160
170	60.0	286.2	47,300	42,000	37,100	143,400	134,700	126,600	170
180	57.9	280.0	37,300	32,600	28,300	129,100	121,500	114,300	180
190	55.7	273.2	28,300	24,200	20,400	116,400	109,700	103,300	190
200	53.5	265.9	20,200			105,000	99,100	93,400	200
210	51.2	258.0				94,800	89,500	84,400	210
220	48.9	249.3				85,500	80,800	76,300	220
230	46.4	239.9				77,100	72,900	68,800	230
240	43.9	229.7				69,400	65,700	62,000	240
250	41.2	218.5				62,400	59,000	55,700	250
260	38.4	206.1				55,900	52,800	49,900	260
270	35.3	192.4				49,800	47,100	44,500	270
280	32.0	176.9				44,200	41,800	39,500	280
290	28.4	159.1				39,000	36,900	34,800	290
300	24.3	138.2				34,100	32,200	30,400	300
310	19.3	112.1				29,400	27,900	26,300	310

MLC650 VPC-MAX S-1



B60



440,900 lb



360°

341.2 ft

341.2 ft									
			38.7 ft			60.0 ft			
ft	°	ft	0° lb	1° lb	2° lb	0° lb	1° lb	2° lb	ft
55	82.4	347.8	461,300			461,300			55
60	81.5	347.0	428,100	307,600		461,300	307,600		60
65	80.7	346.1	381,600	307,600	231,000	461,300	307,600	231,000	65
70	79.8	345.2	342,300	302,700	231,000	461,300	307,600	231,000	70
75	78.9	344.2	308,600	274,300	231,000	461,300	307,600	231,000	75
80	78.1	343.1	279,400	249,500	223,600	461,300	307,600	231,000	80
85	77.2	341.9	253,900	227,500	204,500	423,000	307,600	231,000	85
90	76.4	340.7	231,300	207,900	187,300	389,200	307,600	231,000	90
95	75.5	339.4	211,300	190,300	171,800	359,500	307,600	231,000	95
100	74.6	338.0	193,400	174,500	157,800	333,300	303,700	231,000	100
105	73.7	336.5	177,200	160,200	145,000	309,900	283,300	231,000	105
110	72.9	334.9	162,600	147,200	133,400	288,900	264,900	231,000	110
115	72.0	333.2	149,300	135,300	122,600	270,000	248,300	228,700	115
120	71.1	331.5	137,200	124,400	112,700	252,900	233,100	215,200	120
125	70.2	329.7	126,100	114,300	103,600	237,300	219,200	202,700	125
130	69.3	327.7	115,800	105,000	95,100	223,000	206,400	191,200	130
135	68.4	325.7	106,400	96,400	87,300	209,900	194,600	180,600	135
140	67.5	323.6	97,600	88,400	79,900	197,800	183,700	170,700	140
145	66.6	321.4	89,500	80,900	73,000	186,700	173,600	161,500	145
150	65.6	319.1	81,900	73,900	66,600	176,300	164,200	152,900	150
160	63.8	314.2	68,200	61,300	54,900	157,700	147,200	137,400	160
170	61.9	308.9	56,100	50,100	44,500	141,500	132,300	123,600	170
180	59.9	303.2	45,400	40,100	35,200	127,200	119,100	111,400	180
190	58.0	297.0	35,800	31,200	26,800	114,500	107,300	100,500	190
200	55.9	290.3	27,200	23,100	19,200	103,100	96,700	90,700	200
210	53.9	283.0	19,400			92,900	87,200	81,800	210
220	51.7	275.2				83,700	78,600	73,700	220
230	49.5	266.8				75,200	70,700	66,300	230
240	47.3	257.6				67,600	63,400	59,500	240
250	44.9	247.7				60,500	56,800	53,200	250
260	42.4	237.0				54,000	50,700	47,400	260
270	39.8	225.2				48,000	45,000	42,000	270
280	37.1	212.3				42,400	39,700	37,000	280
290	34.1	197.9				37,200	34,800	32,400	290
300	31.0	181.7				32,300	30,200	28,000	300
310	27.4	163.3				27,800	25,800	23,900	310
320	23.4	141.4				23,400	21,800	20,100	320
330	18.5	114.2				19,300	17,900		330



0°	1°	2°	0°
 lb	 lb	 lb	 lb
402,000	259,600		402,000
377,200	259,600		402,000
337,800	259,600	193,600	402,000
303,900	259,600	193,600	402,000
274,600	243,000	193,600	402,000
249,000	221,100	193,600	402,000
226,400	201,600	180,000	385,900
206,300	184,100	164,700	356,200
188,300	168,400	150,800	329,900
172,100	154,100	138,100	306,400
157,500	141,100	126,600	285,400
144,100	129,300	115,900	266,500
132,000	118,400	106,100	249,300
120,800	108,400	97,100	233,600
110,600	99,100	88,600	219,300
101,100	90,500	80,800	206,200
92,300	82,500	73,500	194,100
84,200	75,100	66,700	182,900
76,600	68,100	60,300	172,600
62,800	55,500	48,700	153,900
50,800	44,300	38,400	137,700
40,100	34,400	29,100	123,300
30,500	25,500	20,800	110,600
21,900	17,400		99,300

MLC650 VPC-MAX S-1



B60



440,900 lb



360°

380.6 ft

380.6 ft									
			38.7 ft			60.0 ft			
ft	°	ft	0° lb	1° lb	2° lb	0° lb	1° lb	2° lb	ft
60	82.4	386.8	348,100			348,100			60
65	81.6	386.1	348,100	220,800		348,100	220,800		65
70	80.9	385.2	338,500	220,800	161,700	348,100	220,800	161,700	70
75	80.1	384.3	304,600	220,800	161,700	348,100	220,800	161,700	75
80	79.3	383.4	275,300	220,800	161,700	348,100	220,800	161,700	80
85	78.6	382.3	249,600	220,200	161,700	348,100	220,800	161,700	85
90	77.8	381.2	226,900	200,800	161,700	348,100	220,800	161,700	90
95	77.0	380.0	206,800	183,400	161,700	348,100	220,800	161,700	95
100	76.3	378.8	188,800	167,800	149,400	330,400	220,800	161,700	100
105	75.5	377.5	172,600	153,600	136,800	306,900	220,800	161,700	105
110	74.7	376.1	157,900	140,700	125,400	285,900	220,800	161,700	110
115	73.9	374.6	144,600	128,900	114,800	266,900	220,800	161,700	115
120	73.1	373.0	132,400	118,000	105,100	249,700	220,800	161,700	120
125	72.3	371.4	121,200	108,000	96,200	234,100	213,900	161,700	125
130	71.5	369.7	110,900	98,800	87,800	219,700	201,300	161,700	130
135	70.7	367.9	101,400	90,200	80,100	206,600	189,600	161,700	135
140	69.9	366.1	92,700	82,300	72,800	194,500	178,700	161,700	140
145	69.1	364.1	84,500	74,900	66,100	183,300	168,700	155,400	145
150	68.3	362.1	76,900	67,900	59,700	172,900	159,400	147,000	150
160	66.7	357.8	63,200	55,400	48,200	154,300	142,500	131,600	160
170	65.0	353.2	51,100	44,300	37,900	138,000	127,700	118,100	170
180	63.3	348.2	40,400	34,400	28,700	123,700	114,600	106,100	180
190	61.6	342.8	30,800	25,500	20,500	111,000	102,900	95,300	190
200	59.9	337.1	22,200	17,500		99,600	92,400	85,600	200
210	58.1	330.9				89,400	82,900	76,800	210
220	56.3	324.3				80,100	74,300	68,800	220
230	54.5	317.2				71,700	66,500	61,500	230
240	52.6	309.6				64,100	59,300	54,800	240
250	50.6	301.5				57,000	52,700	48,600	250
260	48.6	292.8				50,600	46,600	42,900	260
270	46.6	283.4				44,600	41,000	37,600	270
280	44.4	273.3				39,000	35,800	32,600	280
290	42.2	262.5				33,900	30,900	28,000	290
300	39.9	250.7				29,100	26,400	23,700	300
310	37.4	237.9				24,600	22,100	19,700	310
320	34.8	223.8				20,300	18,100		320
330	32.1	208.3				16,400			330