



MLC300 3.5 m wide boom

Specification Sheet



NEW optional 3.5 m wide boom insert delivers additional capacities and tip height

Liftcrane Boom Capacities

Boom No. B10-500
474,400 lb VPC (Variable Position Counterweight)
360 Degree Rating

MLC300
SERIES 3

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 6 is 30,000 lb or 60,000 lb with two part whip line. When Drum 2 or Drum 3 is used, capacity with single part whip line is 36,700 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 point, upper boom point, and jib point sheaves is considered part of the main 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 5,000 lb minimum weight. **Caution: Do not operate in areas indicated by (b) without required minimum weights.** Boom will not lower and boom hoist wire may go slack causing wire rope damage or failure.

OPERATING CONDITIONS: Machine to operate on a firm, level, and uniformly supporting surface. Refer to Boom Hoisting No. 81023380, Wire Rope Specification No. 8341-A, Counterweight Arrangement No. 9345-A, and Wind Conditions chart No. 9344-A. Operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, transverse 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. 9342-A.

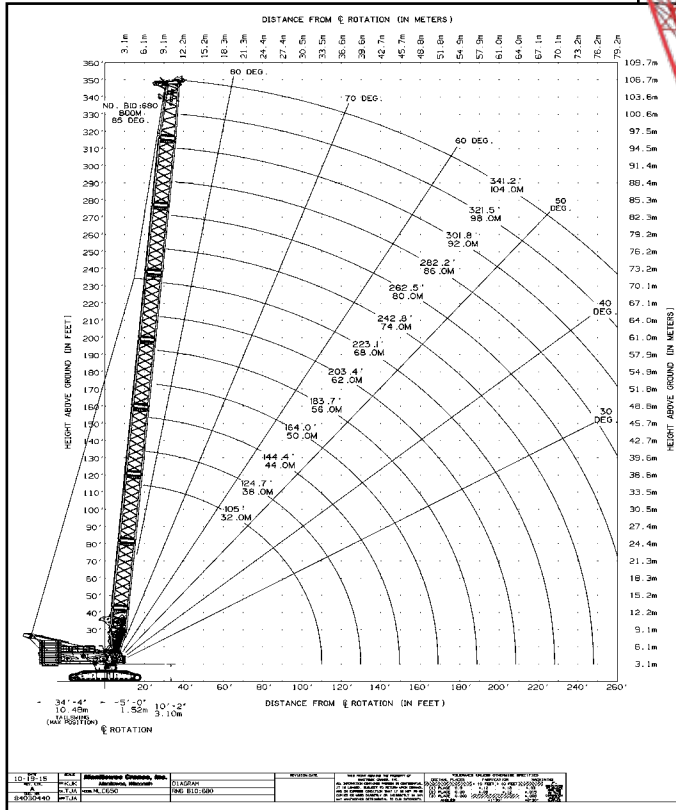
OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block.

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.

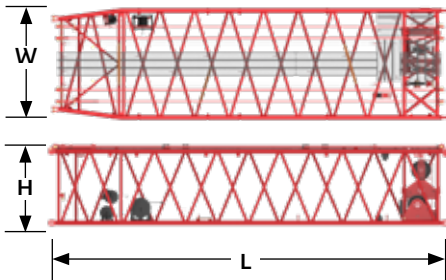
MACHINE EQUIPMENT: Machine equipped with 31 ft 10 in. crawlers, 48 in. or 60 in. treads, 30 ft live mast, 24 part boom hoist reeving, boom support straps, and 474,400 lb VPC.

9336-A, 2016-11-22
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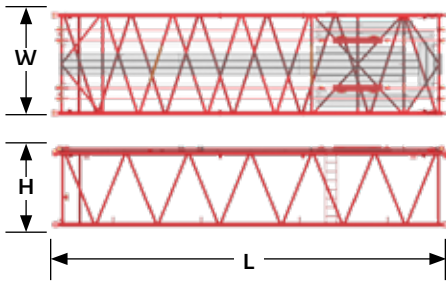
Outline dimensions



12 m (39.4 ft) No. 500-505 Transition with sheave

Length	12,2 m	40'
Width	3,5 m	11' 6"
Height	2,5 m	8' 2"
Weight	6300 kg	13,900 lb

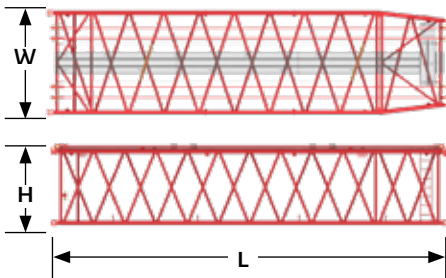
Note: Includes boom straps and backstay straps.



12 m (39.4 ft) No. 505 Insert with equalizer rails

Length	12,2 m	40'
Width	3,5 m	11' 6"
Height	2,5 m	8' 2"
Weight	5200 kg	11,500 lb

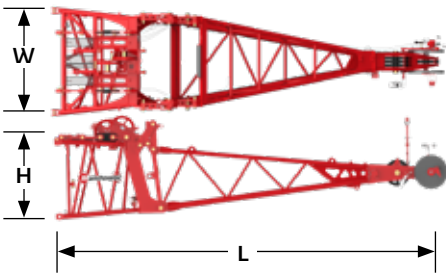
Note: Includes boom straps and backstay straps.



12 m (39.4 ft) No. 505-500 Transition

Length	12,2 m	40'
Width	3,5 m	11' 6"
Height	2,5 m	8' 2"
Weight	4800 kg	10,600 lb

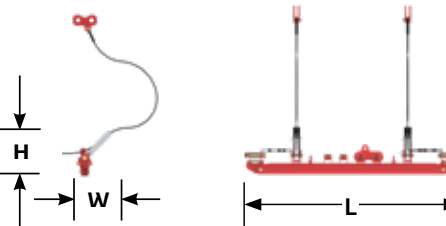
Note: Includes boom straps and backstay straps.



Boom cap + Extended upper boom point

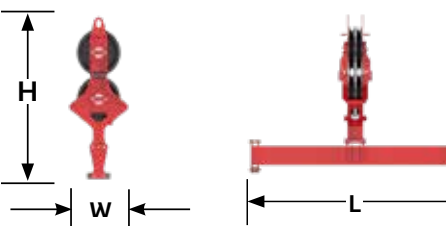
Length	11,6 m	38'
Width	3,0 m	9' 10"
Height	3,0 m	9' 10"
Weight	7000 kg	15,400 lb

Note: Includes boom straps and backstay straps.



Intermediate suspension

Length	3,1 m	10' 2"
Width	0,6 m	2'
Height	0,8 m	2' 7"
Weight	400 kg	900 lb



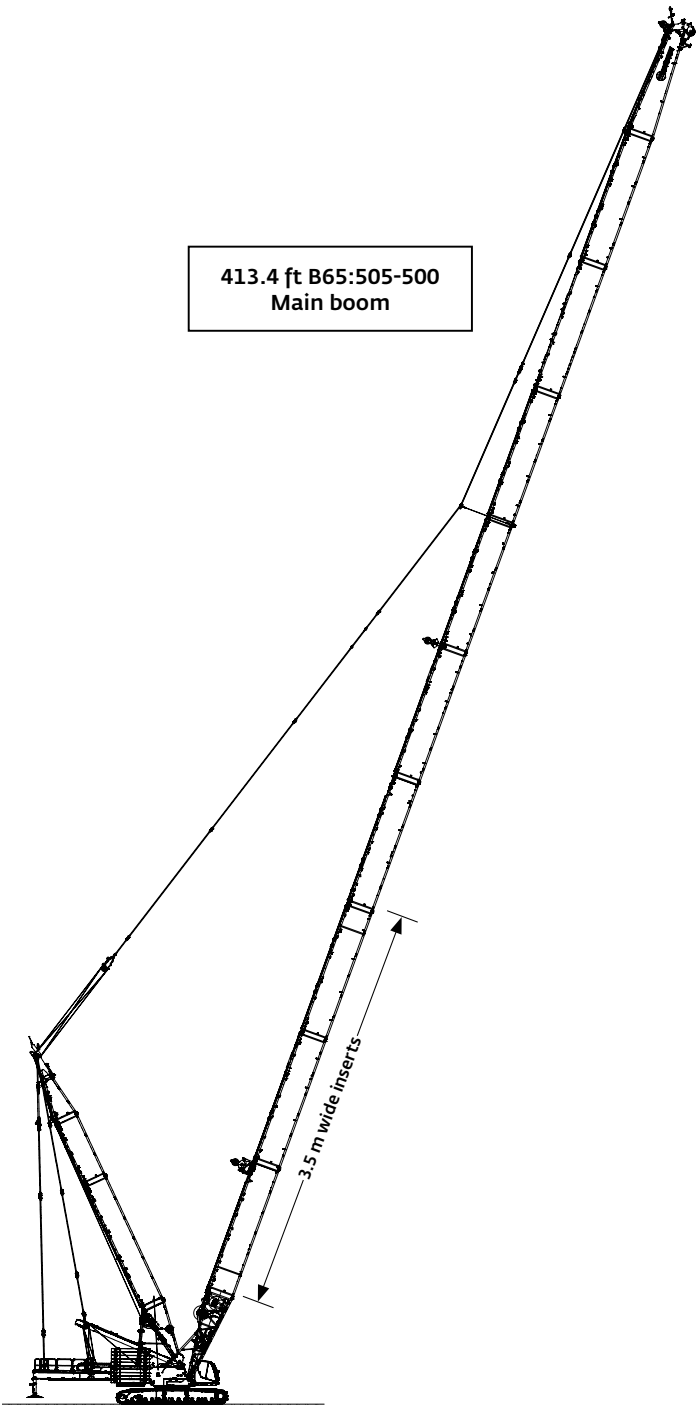
Wire rope guide

Length	2,9 m	9' 8"
Width	0,8 m	2' 9"
Height	2,1 m	6' 11"
Weight	500 kg	1100 lb

Boom combinations

B65:505-500 Main boom					
Boom length (ft)	Main boom inserts				
	39.7 ft No. 505	39.7 ft No. 500H	39.7 ft No. 500M	19.7 ft No. 500M	39.7 ft No. 500L
177.2	3	0	0	0	0
196.9	3	0	0	1	0
216.5	3	1	0	0	0
236.2	3	1	0	1	0
255.9	3	1	1	0	0
275.6	3	1	1	1	0
295.3	3	1	2	0	0
315.0	3	1	2	1	0
334.6	3	1	3	0	0
354.3	3	1	3	1	0
374.0	3	1	3	0	1
393.7	3	1	3	1	1
413.4	3	1	3	0	2

H: Heavy insert
M: Medium insert
L: Light insert

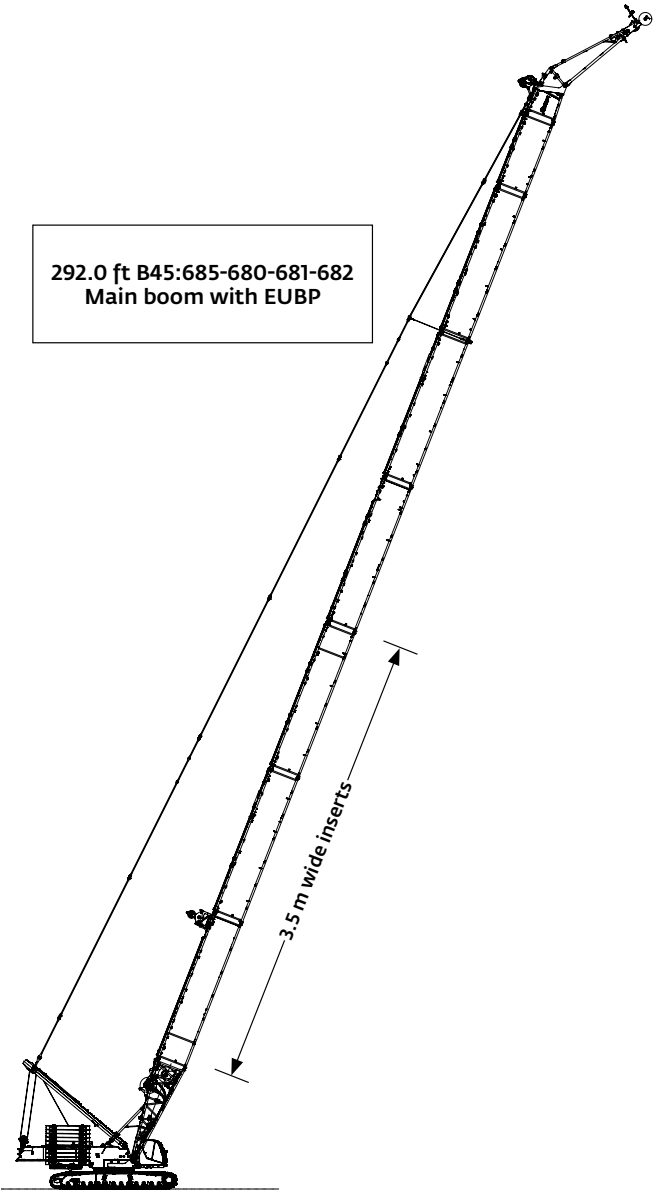


PRELIMINARY - Capacities

Main Boom

MLC300 VPC-MAX B65:505-500 (3.5 m Wide Boom)													
VPC-MAX S3 (474,400 lb) Counterweight													
360°	lbx 1000												
Radius (ft)	Boom length (ft)												
	177	197	217	236	256	276	295	315	335	354	374	394	413
24	586.3												
26	585	514.6											
28	583.7	514.6	477.8										
30	582.5	514.6	477.8	404.3									
34	579.1	514.6	475.6	404.3	368.7	312.3							
38	557.9	514.6	473.2	404.3	370	313.2	264.8	227.3	196.3				
40	544.6	514.6	472	404.3	370.6	313.6	265.1	227.5	196.5	170			
45	500.8	490.7	467.3	404.3	371.9	314.6	265.8	228	196.8	170.3	146.5	128.2	126.1
50	473.8	465.1	444.1	404.3	372.9	315.4	266.3	228.4	197	170.5	146.6	128.2	126.1
55	449.2	430.3	422.8	404.3	371.4	316	266.7	228.6	197.3	170.5	146.6	128.2	126
60	449.2	414	415.8	386	366.2	316.6	267.1	228.9	197.4	170.7	146.7	128.2	126
65	445.7	414	415.8	359.7	352.1	317	267.3	229	197.5	170.7	146.7	128.2	125.9
70	404.9	404.1	403.2	359.7	352.1	317.2	267.5	229.2	197.6	170.8	146.6	128.2	125.9
75	370.5	369.7	368.7	359.7	350.6	317.5	267.6	229.2	197.6	170.7	146.6	128.2	125.7
80	341.1	340.3	339.3	338.2	337.2	310.4	267.6	229.3	197.6	170.7	144	126.1	125.7
85	315.7	314.8	313.8	312.7	311.7	301.8	266.9	229.3	197.6	170.7	139	121.6	124.8
90	293.5	292.6	291.6	290.4	289.4	288.1	258.1	229.2	197.5	170	134.3	117.4	120.8
95	274	273.1	272	270.8	269.8	268.5	249.5	229.2	195.1	165	129.8	113.4	116.9
100	256.6	255.7	254.7	253.5	252.4	251.1	241.2	229	189.8	160.2	125.5	109.5	113.2
110	227.2	226.3	225.2	224	222.9	221.5	221.1	219.5	179.8	151.3	117.4	102.4	106.2
120	203.2	202.3	201.1	199.9	198.8	197.4	196.9	195.3	170.5	143.1	110.2	95.9	99.8
130	183.2	182.3	181.1	179.9	178.8	177.4	176.8	175.2	162	135.7	103.5	89.9	94
140	166.3	165.4	164.2	163	161.8	160.4	159.9	158.3	154.3	128.9	97.5	84.6	88.6
150	151.8	150.9	149.7	148.4	147.3	145.9	145.3	143.7	143.1	117.6	92.1	79.7	83.8
160	139.2	138.3	137.1	135.9	134.8	133.3	132.8	131.1	130.5	105	87.1	75.3	79.3
170	128.2	127.3	126.1	124.9	123.8	122.3	121.8	120.1	119.5	94.1	82.6	71.2	75.2
180		117.5	116.4	115.2	114.1	112.6	112	110.4	109.8	84.5	78.5	67.5	71.5
190		108.8	107.8	106.5	105.4	104	103.4	101.8	101.2	76.2	74.7	64.1	64.5
200			100	98.8	97.7	96.2	95.7	94.1	93.3	68.8	70.4	58.5	57.2
220				85.4	84.4	82.9	82.4	80.8	78.3	56.3	57.4	46.8	44.9
240					73.3	71.9	71.4	69.8	66.7	46.3	47	37.2	35
260						62.6	62.2	60.6	57.6	38.2	38.5	29.3	26.8
280							47.2	52.7	50.8	31.6	31.6	22.8	20
300								45.8	44.9	26.2	26	17.3	14.4
320									39.3	20.9	21.5	12.6	
340										16.5	18.2		
360											15.2		

Boom combinations



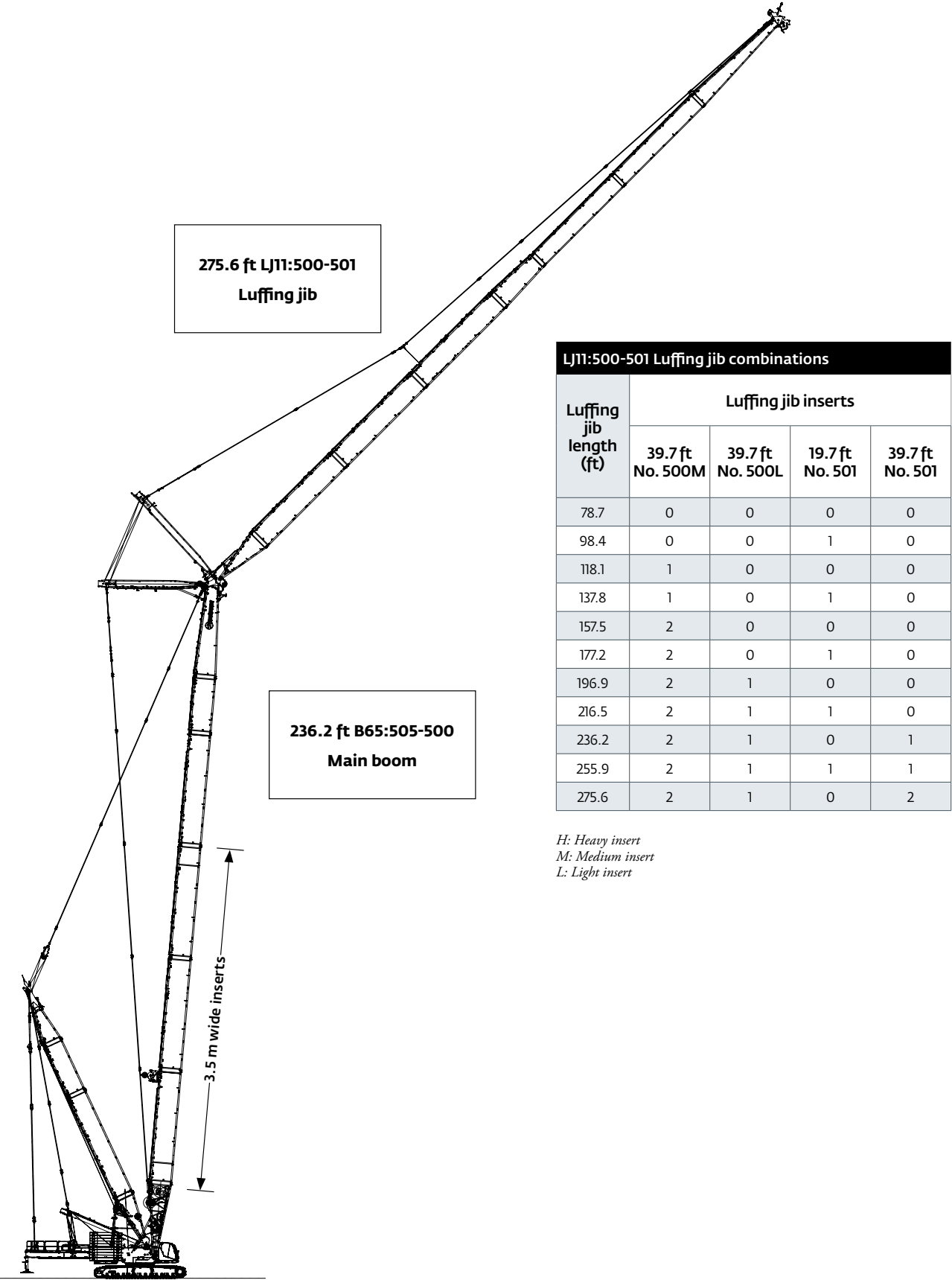
B45:505-500 Boom with 25 ft extended upper boom point (EUBP)

Boom length (ft)	Main boom inserts			
	39.7 ft No. 505	39.7 ft No. 500H	39.7 ft No. 500M	19.7 ft No. 500M
114.8	2	0	0	0
134.5	2	0	0	1
154.2	3	0	0	0
173.9	3	0	0	1
193.6	3	1	0	0
213.3	3	1	0	1
232.9	3	1	1	0
252.6	3	1	1	1
272.3	3	1	2	0
292.0	3	1	2	1

H: Heavy insert
M: Medium insert
L: Light insert

MLC300 B45:505-500 (3.5 m wide boom)										
VPC S3 (474,400 lb) Counterweight										
360°	lb x 1000									
Radius (ft)	Boom length (ft)									
	114.8 ft	134.5	154.2	173.9	193.6	213.3	232.9	252.6	272.3	292
40	220.5	220.5								
45	216.0	220.5	220.5	220.5	220.5					
50	208.4	214.1	218.9	220.5	220.5	220.5	220.5			
55	201.6	207.7	212.8	217.0	220.4	220.4	220.3	220.3	209.7	
60	195.4	201.8	207.2	211.7	215.6	218.8	220.2	218.0	207.6	181.3
65	189.8	196.4	199.1	200.7	202.2	203.8	204.1	205.6	205.3	177.8
70	178.4	180.1	181.7	183.2	184.6	186.0	186.2	187.6	188.8	173.8
75	164.0	165.5	167.0	168.4	169.7	171.0	171.2	172.5	173.5	165.3
80	151.6	153.1	154.5	155.8	157.0	158.3	158.3	159.5	160.5	158.2
90	131.6	133.0	134.3	135.4	136.5	137.6	137.5	138.6	139.5	140.5
100	116.2	117.4	118.6	119.6	120.6	121.6	121.4	122.4	122.8	120.6
110	103.8	105	106.1	107	107.9	108.8	108.6	109.0	106.6	104.3
120	93.7	94.9	95.9	96.8	97.6	98.4	98.1	95.5	93.2	90.8
130		86.4	87.4	88.2	89.0	89.1	86.8	84.1	81.9	79.5
140			80.2	81.0	81.8	79.3	77.0	74.4	72.2	69.8
150			74.1	74.8	73.1	70.7	68.5	65.9	63.8	61.4
160				67.6	65.5	63.2	61.1	58.5	56.5	54.1
170				60.6	58.8	56.6	54.5	52.0	50.1	47.7
180					52.6	50.6	48.6	46.2	44.3	41.9
190						45.2	43.3	40.9	39.2	36.8
200						40.2	38.5	36.2	34.5	32.2
210							34.1	31.9	30.3	27.9
220							30.0	27.9	26.4	24.1
230								24.2	22.8	20.5
240									19.5	17.3
250									16.4	14.2
260										11.4

Boom combinations



MLC300 LJ11:500-501 on B65:505-500 (3.5 m Wide boom)**VPC S3 (474,400 lb) Counterweight****360°****lb x 1000****85°****177 ft boom, 85° boom angle**

Radius (ft)	Luffing Jib Length (ft)			
	79	157	197	276
50	308.6			
60	253.5			
70	209.8	202.0		
80	180.1	188.5	152.5	
90	159.4	163.4	152.8	
100	144.1	142.3	147.4	
120		114.0	116.0	71.4
140		96.1	95.9	65.3
160		82.6	79.6	60.4
180		54.1	65.5	56.3
200			54.5	52.1
220				41.2
240				31.9
260				23.7
280				15.6

197 ft boom, 85° boom angle

Radius (ft)	Luffing Jib Length (ft)			
	79	157	197	276
50	294.7			
60	255.8			
70	211.1			
80	181.0	180.7		
90	160.0	160.4	136.3	
100	147.0	140.4	135.8	
120		113.1	113.5	70.9
140		95.8	94.4	65.0
160		84.0	81.2	60.1
180		61.6	66.7	56.1
200			55.4	52.9
220			39.2	42.0
240				32.7
260				24.4
280				16.4

236 ft boom, 85° boom angle

Radius (ft)	Luffing Jib Length (ft)			
	79	157	197	276
55	242.4			
60	237.1			
70	197.4			
80	170.2	140.4		
90	150.8	138.8	108.9	
100	137.7	129.2	108.2	
120		104.8	96.9	62.1
140		88.9	83.1	60.7
160		75.5	70.5	57.6
180		66.1	59.9	51.3
200			51.7	45.3
220			46.7	39.8
240				32.2
260				24.3
280				16.8

276 ft boom, 85° boom angle

Radius (ft)	Luffing Jib Length (ft)			
	79	157	197	276
60	175.2			
70	170.0			
80	156.7	106.1		
90	139.4	104.4	83.3	
100	127.0	102.1	82.4	
120		88.4	77.4	50.9
140		74.5	67.1	49.7
160		63.2	57.6	45.9
180		55.5	49.4	40.9
200			42.9	36.1
220			38.8	31.8
240				28.1
260				24.9
280				18.1
300				10.8

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