



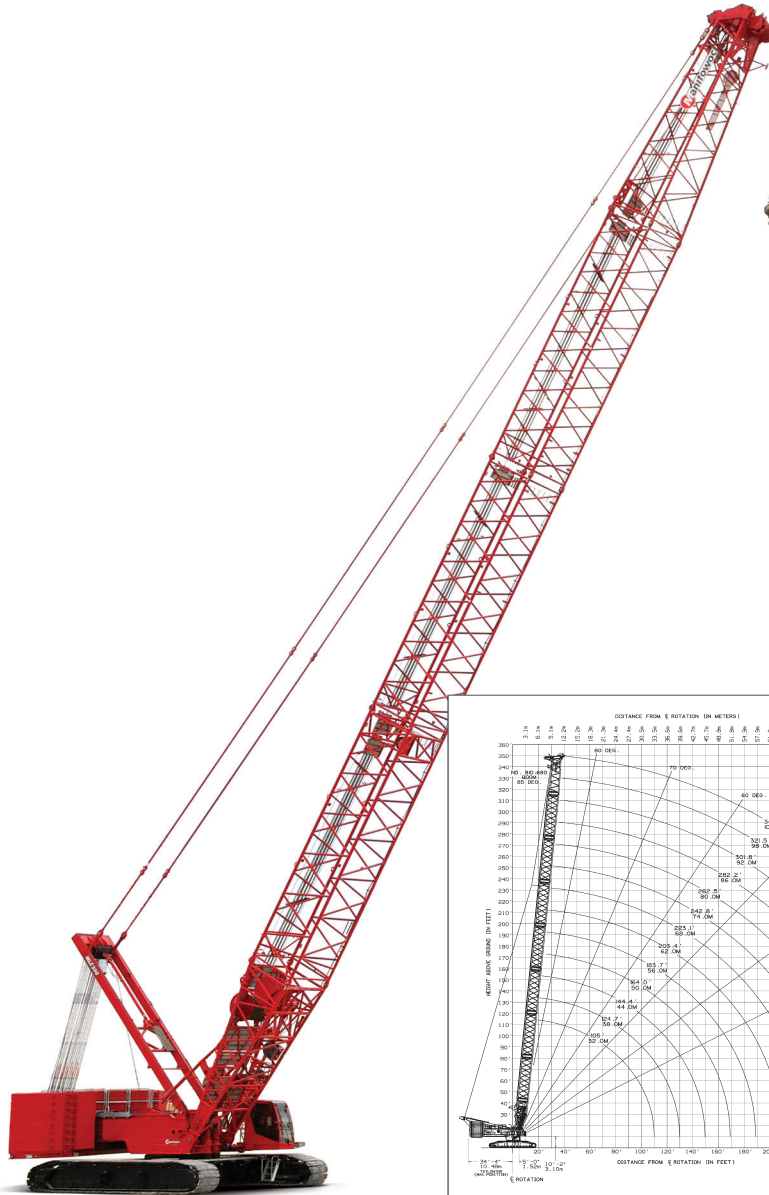
MLC300 3.5 M WIDE BOOM

Specification Sheet

Optional 3.5 m wide boom insert delivers additional capacities and tip height



MLC300 3.5 m Wide Boom



ASME B30.5

Manitowoc

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.

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.

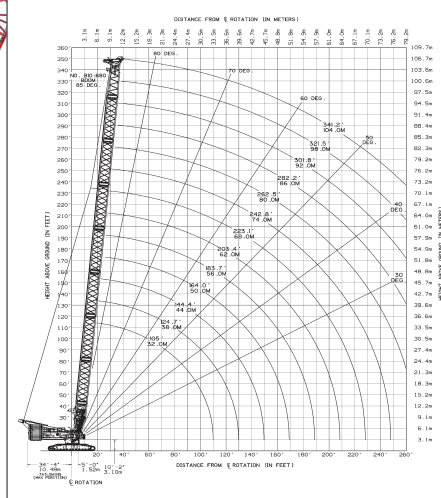
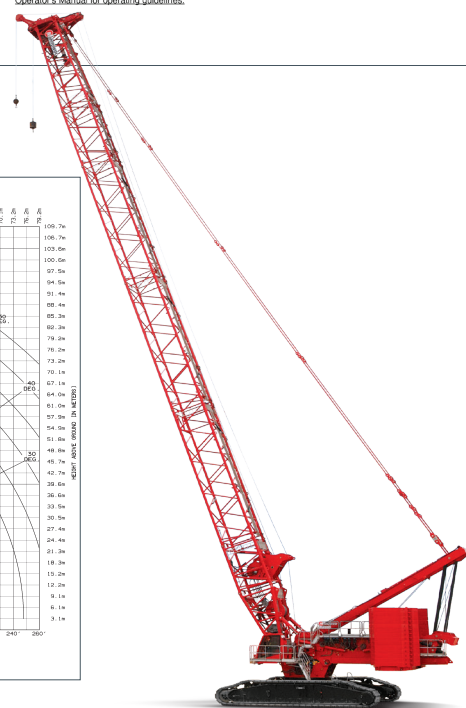
MACHINE EQUIPMENT: Machine equipped with 31 ft 10 in. crawlers, 48 in. or 60 in. treads, 30 ft live mast, 24 part boom hoist reeving, boom support straps, and 474,400 lb VPC.

UPPER BOOM POINT CAPACITY: 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 JOINT SHAFTS IS CONSIDERED PART OF THE MAIN LOAD. BOOM IS NOT TO BE LOWERED BEYOND RADI 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 Rigging No. 81023380, Wire Rope Specification chart No. 9341-A, Counterweight Arrangement No. 9345-A, and Wind Conditions chart No. 9344-A. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to Operator's Manual for operating guidelines.



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SEARCH

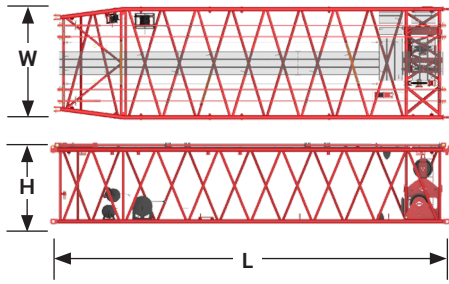
Lattice Boom Crane Library

Technical documents and diagrams for all Manitowoc lattice boom crawler cranes are available online.

Visit manitowoc.com/support/lattice-boom-crane-library or scan the QR code



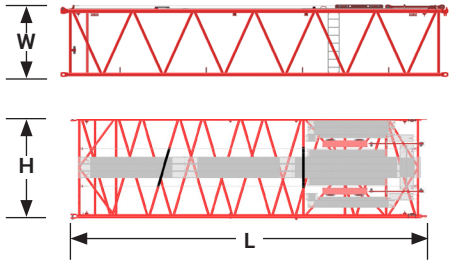
OUTLINE DIMENSIONS



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

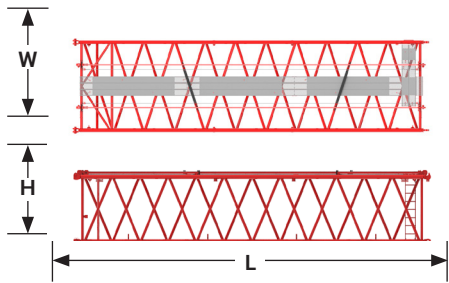
Note: Includes wire rope guide sheaves.



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

Length	12,2 m	40'
Width	3,5 m	11' 6"
Height	2,5 m	8' 2"
Weight	4800 kg	10,500 lb

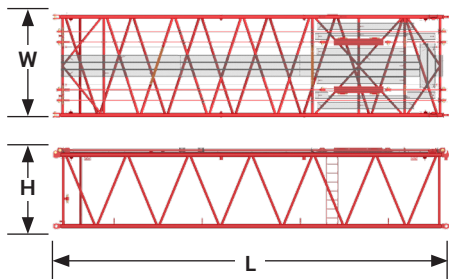
Note: Includes boom straps.



12m (39.4) No. 505 XH Insert

Length	12,2 m	40'
Width	3,5 m	11' 6"
Height	2,5 m	8' 2"
Weight	4800 kg	10,500 lb

Note: Includes boom straps.

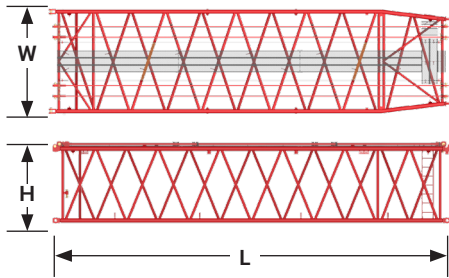


12 m (39.4 ft) No. 505 Insert with equalizer rails

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.

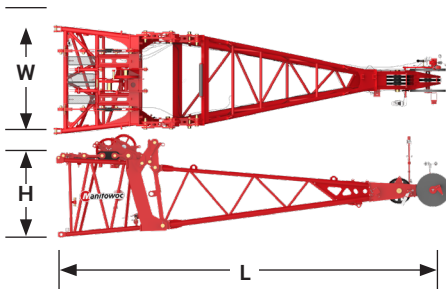
OUTLINE DIMENSIONS



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

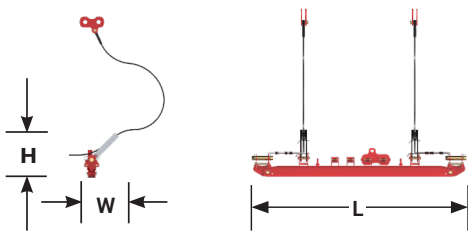
Length	12,2 m	40'
Width	3,5 m	11' 6"
Height	2,5 m	8' 2"
Weight	4800 kg	10,600 lb

Note: Includes boom straps.



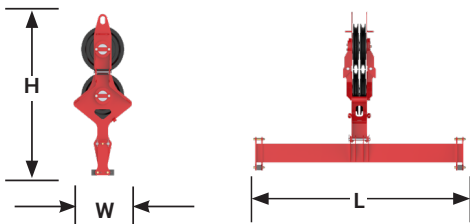
Boom cap + Extended upper boom point

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



Intermediate suspension

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



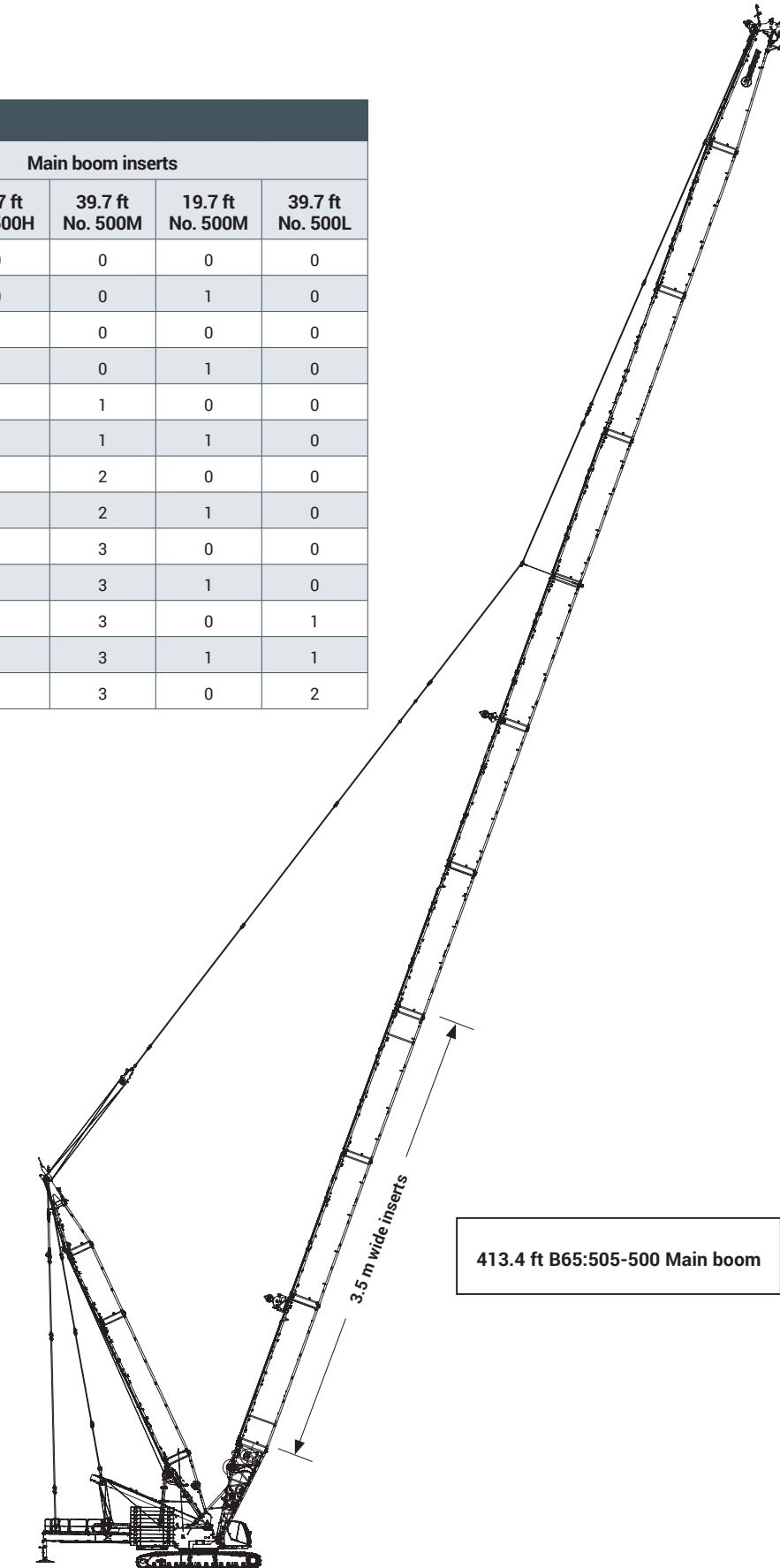
Wire rope guide

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



CAPACITIES

Main Boom

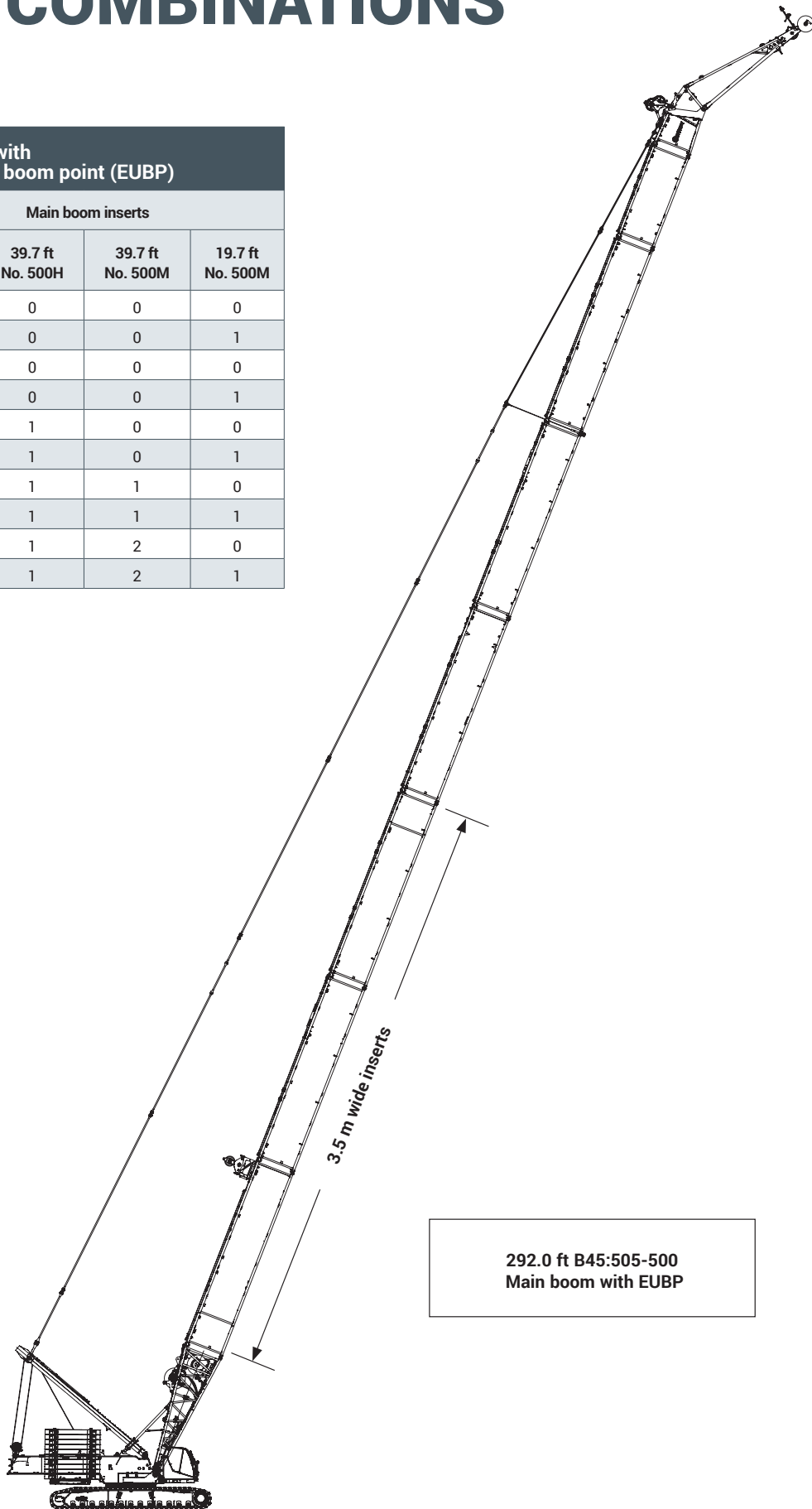
MLC300 VPC-MAX B65:505-500 (3.5m Wide Boom)													
VPC-MAX S3 (474,100 lb) Counterweight													
360°	lhx 1000												
Radius (ft)	Boom length (ft)												
	177	197	217	236	256	276	295	315	335	354	374	394	413
24	588.1												
26	588.1	514.6											
28	588.1	514.6	477.8										
30	588.1	514.6	477.8	404.3									
32	588.1	514.6	477.8	404.3	377.9								
34	588.1	514.6	477.8	404.3	377.9	336.7							
36	583.0	514.6	477.8	404.3	377.9	336.7	301.4	260.9					
38	568.6	514.6	477.8	404.3	377.9	336.7	301.4	260.9	225.4				
40	554.7	514.6	477.8	404.3	377.9	336.7	301.4	260.9	225.4	196.6			
45	509.4	499.7	473.4	404.3	377.9	336.7	301.4	260.9	225.4	196.6	170.9	149.3	130.0
50	481.4	473.1	452.0	404.3	377.9	336.7	301.4	260.9	225.4	196.6	170.9	149.3	130.0
55	455.8	437.2	429.9	404.3	375.9	336.7	301.4	260.9	225.4	196.6	170.9	149.3	130.0
60	455.8	420.1	423.7	391.7	372.1	336.1	301.4	260.9	225.4	196.6	170.9	149.3	129.9
65	455.8	420.1	423.7	364.8	358.0	332.7	301.4	260.9	225.4	196.6	170.9	149.3	129.8
70	415.9	415.2	414.2	364.8	358.0	329.3	298.0	260.9	225.4	196.6	170.9	149.3	129.8
75	380.6	379.8	378.8	364.8	358.0	325.9	290.7	260.9	225.4	196.6	170.9	149.2	129.6
80	350.5	349.6	348.6	347.4	346.5	319.0	282.5	260.9	225.4	196.6	170.9	149.1	129.6
85	324.4	323.5	322.5	321.3	320.3	310.9	274.2	260.9	225.4	196.6	170.9	149.0	129.1
90	301.6	300.7	299.6	298.4	297.4	296.0	265.9	260.9	225.4	196.6	170.7	148.9	124.9
95	281.6	280.7	279.5	278.3	277.3	275.9	257.1	260.9	225.4	196.6	170.6	148.8	120.9
100	263.8	262.8	261.7	260.5	259.4	258.0	248.5	255.6	225.4	196.6	170.4	144.5	116.9
110	233.6	232.6	231.5	230.2	229.1	227.7	227.4	225.2	224.7	196.3	162.0	135.7	109.6
120	208.9	207.9	206.7	205.5	204.4	202.9	202.6	200.4	199.9	189.6	153.0	127.5	103.0
130	188.4	187.4	186.2	184.9	183.8	182.3	182.0	179.7	179.2	176.8	144.8	120.1	96.9
140	171.0	170.0	168.8	167.5	166.4	164.9	164.5	162.3	161.8	159.4	137.2	113.4	91.4
150	156.1	155.1	153.9	152.6	151.5	150.0	149.6	147.3	146.9	144.4	130.2	107.2	86.4
160	143.2	142.2	141.0	139.7	138.5	137.0	136.7	134.4	133.9	131.5	116.7	101.5	81.8
170	131.8	130.8	129.7	128.4	127.2	125.7	125.4	123.1	122.6	120.1	104.1	90.7	77.6
180		120.8	119.7	118.4	117.3	115.7	115.4	113.1	112.6	110.1	93.1	80.6	73.7
190		111.9	110.8	109.5	108.4	106.9	106.5	104.2	103.7	100.4	83.6	71.8	65.3
200			102.8	101.5	100.4	98.9	98.6	96.3	95.8	90.9	75.1	64.0	57.9
220				87.8	86.7	85.3	84.9	82.6	82.2	75.2	61.1	50.9	45.5
240					75.4	73.9	73.6	71.4	70.9	62.9	49.9	40.4	35.4
260						64.3	64.1	61.8	61.4	53.1	40.8	31.8	27.1
280							48.6	53.7	53.3	45.5	33.5	24.7	20.2
300								46.6	46.3	39.6	27.5	18.8	14.5
320									40.0	33.7	22.9	14.0	
340										29.4	19.5	10.1	
360											15.7		

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	3	0	0	0
134.5	3	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



292.0 ft B45:505-500
Main boom with EUBP

CAPACITIES

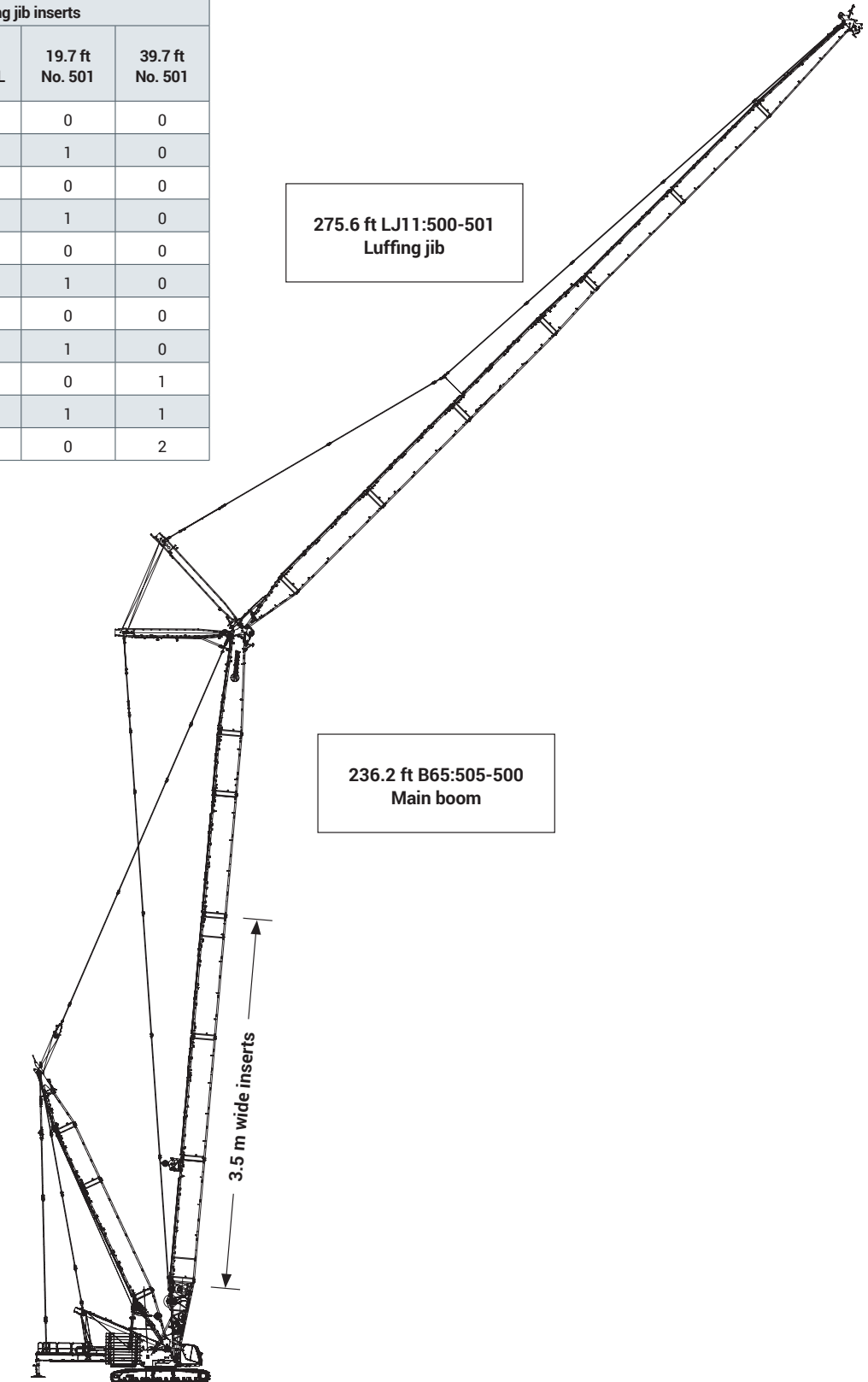
Extended Upper Boom Point

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	134.5	154.2	173.9	193.6	213.3	232.9	252.6	272.3	292.0
36	191.1									
38	189.5	207.5								
40	188.0	206.6								
45	184.5	204.5	220.5	220.5	220.5					
50	181.2	202.5	218.9	220.5	220.5	220.5	220.5			
55	178.2	200.7	212.8	217.0	220.4	220.4	220.3	220.3	209.7	
60	175.4	199.0	207.2	211.7	215.6	218.8	220.2	218.0	207.6	181.3
65	172.9	196.4	199.1	200.7	202.2	203.8	204.1	205.6	205.3	177.8
70	170.7	180.1	181.7	183.2	184.6	186.0	186.2	187.6	188.8	173.5
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	105.0	106.1	107.0	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

JIB COMBINATIONS

LJ11:500-501 Luffing jib combinations				
Luffing jib length (ft)	Luffing jib inserts			
	39.7 ft No. 500M	39.7 ft No. 500L	19.7 ft No. 501	39.7 ft No. 501
78.7	0	0	0	0
98.4	0	0	1	0
118.1	1	0	0	0
137.8	1	0	1	0
157.5	2	0	0	0
177.2	2	0	1	0
196.9	2	1	0	0
216.5	2	1	1	0
236.2	2	1	0	1
255.9	2	1	1	1
275.6	2	1	0	2

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



CAPACITIES

Luffing Jib

MLC300 LJ11:500-501 on B65:505-500 (3.5 m Wide boom)

VPC-MAX S3 (474,100 lb) Counterweight

360°

lb x 1000

85°

177 ft boom, 85° boom angle

Radius (ft)	Luffing Jib Length (ft)			
	79	157	197	256
50	324.7			
60	265.8			
70	219.9	202.0		
80	188.7	196.9	158.9	
90	167.0	171.3	155.6	
100	147.8	149.2	152.1	98.1
110		132.5	136.3	97.2
120		119.5	121.5	95.2
130		109.1	109.9	91.7
140		100.7	100.5	88.7
150		93.9	92.6	85.9
160		87.0	83.7	78.2
170		78.9	75.9	70.3
180		55.0	69.0	63.2
190			62.8	56.7
200			57.3	50.2
220				38.3
240				28.1
260				19.2

197 ft boom, 85° boom angle

Radius (ft)	Luffing Jib Length (ft)			
	79	157	197	256
50	302.2			
60	268.2			
70	221.3			
80	189.6	187.2		
90	167.6	168.1	144.1	
100	154.1	147.1	143.6	90.8
110		131.1	132.6	90.2
120		118.5	118.8	89.4
130		108.4	107.9	88.5
140		100.3	98.9	87.5
150		93.7	91.4	85.0
160		88.5	85.2	78.9
170		80.2	77.3	71.2
180		62.7	70.2	64.1
190			64.0	57.5
200			58.4	51.1
220			39.6	39.2
240				29.0
260				20.0
280				11.3

CAPACITIES

Luffing Jib

MLC300 LJ11:500-501 on B65:505-500 (3.5 m Wide boom)

VPC-MAX S3 (474,100 lb) Counterweight

360°

lb x 1000

85°

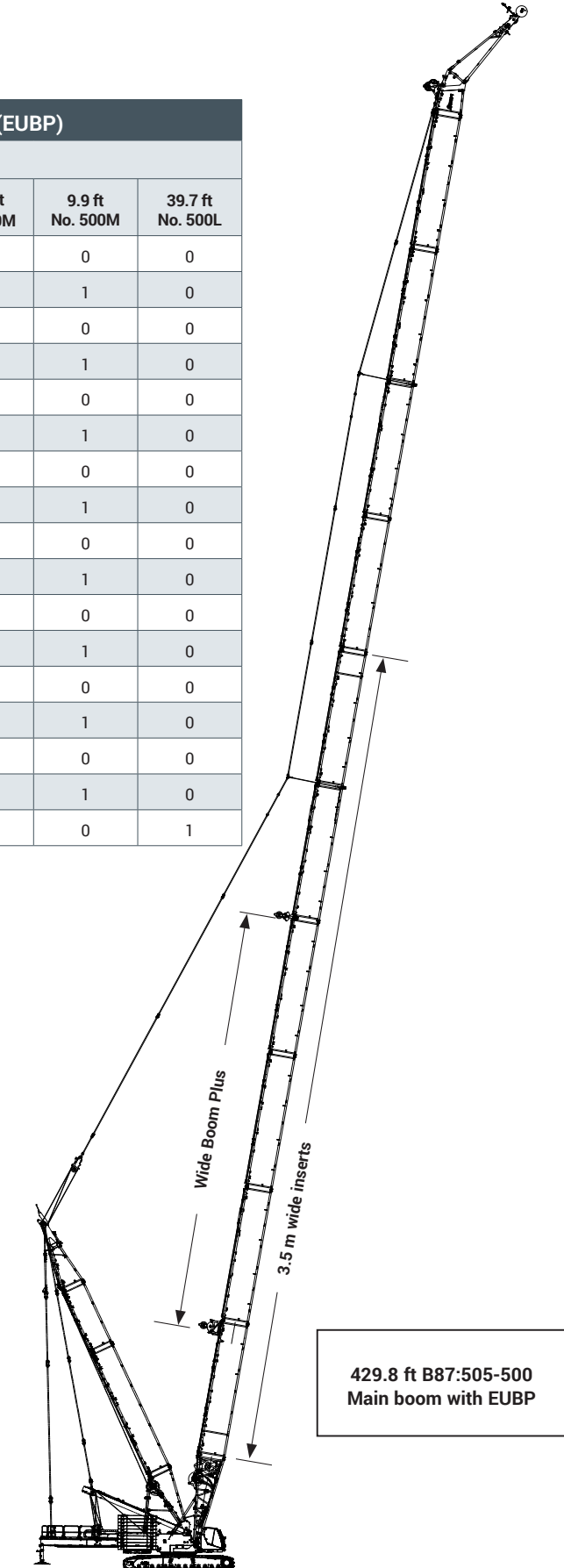
236 ft boom, 85° boom angle				
Radius (ft)	Luffing Jib Length (ft)			
	79	157	197	276
60	237.4			
70	207.1			
80	178.4	148.1		
90	158.1	146.5	115.0	
100	144.5	135.5	114.2	
110		121.2	112.9	66.1
120		109.9	108.2	65.5
130		100.7	98.7	64.8
140		93.2	90.7	64.1
150		87.2	84.0	63.2
160		82.4	78.3	62.4
170		78.9	73.6	60.4
180		74.3	68.6	57.9
190			63.7	54.6
200			59.7	51.5
220			48.2	43.0
240				33.9
260				25.6
280				17.7

276 ft boom, 85° boom angle				
Radius (ft)	Luffing Jib Length (ft)			
	79	157	197	276
60	184.6			
70	179.1			
80	164.4	111.8		
90	146.1	110.0	87.9	
100	133.2	107.6	86.9	
110		104.7	85.5	54.3
120		98.6	83.7	53.8
130		91.0	80.5	53.2
140		83.9	75.1	52.5
150		77.4	69.9	51.7
160		71.7	64.9	50.9
170		67.1	60.3	48.6
180		63.6	56.1	46.0
190			52.4	43.0
200			49.1	40.1
220			44.8	34.5
240				29.6
260				25.3
280				19.1
300				11.3

BOOM COMBINATIONS

B87:505-500 Boom with 25 ft extended upper boom point (EUBP)							
Boom length (ft)	Main boom inserts						
	39.7 ft No. 505 XH	39.7 ft No. 505	39.7 ft No. 500H	39.7 ft No. 500M	19.7 ft No. 500M	9.9 ft No. 500M	39.7 ft No. 500L
272.3	3	3	0	0	0	0	0
282.2	3	3	0	0	0	1	0
292.0	3	3	0	0	1	0	0
301.8	3	3	0	0	1	1	0
311.7	3	3	1	0	0	0	0
321.5	3	3	1	0	0	1	0
331.4	3	3	1	0	1	0	0
341.2	3	3	1	0	1	1	0
351.0	3	3	1	1	0	0	0
360.9	3	3	1	1	0	1	0
370.7	3	3	1	1	1	0	0
380.6	3	3	1	1	1	1	0
390.4	3	3	1	2	0	0	0
400.3	3	3	1	2	0	1	0
410.1	3	3	1	2	1	0	0
419.9	3	3	1	2	1	1	0
429.8	3	3	1	2	0	0	1

XH: Extra Heavy (Wide Boom Plus)
H: Heavy insert
M: Medium insert
L: Light insert



CAPACITIES

Extended Upper Boom Point

MLC300 B87:505-500 (3.5 m wide boom)									
VPC-MAX S3 (474,100 lb) Counterweight									
360°	lb x 1000								
Radius (ft)	Boom length (ft)								
	272.3	292.0	311.7	331.4	351.0	370.7	390.4	410.1	429.8
55	185.0								
58	183.7	198.1							
60	182.7	197.4	220.5						
62	181.8	196.6	220.5	209.2					
66	179.9	195.1	220.5	209.2	194.8				
68	179.0	194.2	220.5	209.2	194.8	175.2			
70	178.0	193.4	220.5	209.2	194.8	175.2	156.9		
72	177.0	192.6	219.8	209.2	194.8	175.2	156.9	140.6	
74	176.1	191.7	218.4	208.2	194.7	175.1	156.9	140.5	124.4
80	173.3	191.0	214.5	201.5	188.3	169.0	156.9	140.5	124.3
90	168.5	191.0	207.2	190.7	177.9	158.8	156.7	140.3	121.5
100	163.8	191.0	196.8	180.4	167.8	149.3	147.7	135.0	116.0
120	154.3	190.8	178.4	161.8	149.7	132.1	130.9	125.9	111.3
140	145.6	166.3	162.8	146.4	134.5	117.6	116.6	113.4	107.4
160	137.7	137.9	136.4	133.5	121.8	105.6	104.4	101.2	97.5
180	119.1	116.2	114.7	113.2	111.2	95.6	94.1	90.8	87.5
200	102.0	99.0	97.6	96.0	94.8	87.2	85.5	82.1	78.9
220	88.1	85.1	83.7	82.1	80.9	79.2	78.3	74.7	71.6
240	76.5	73.6	72.1	70.6	69.3	67.7	67.4	65.6	65.2
260		63.9	62.4	60.9	59.7	58.0	57.7	55.9	55.5
280			54.1	52.6	51.4	49.7	49.4	47.7	47.3
300				45.4	44.2	42.6	42.2	40.5	40.1
320						35.2	36.0	34.2	33.9
340							30.4	28.7	28.4
360								21.4	23.4
380									19.0



NOTES



NOTES

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