Maximum Allowable Travel Specifications

MLC650 VPC-MAX

Boom No. B85:685-680-681-682
with Mast No. M10:684 or Mast No. M11:684 and
7,6 m (24.9 ft) Extended Upper Boom Point
VPC-MAX at 18,3 m (60.0 ft) Position

Jobsite Travel

MLC650 VPC-MAX SERIES 1 must be equipped with 200 000 kg (440,900 lb) VPC (Variable Position Counterweight); MLC650 VPC-MAX SERIES 2 must be equipped with 300 000 kg (661,300 lb) VPC; MLC650 VPC-MAX SERIES 3 must be equipped with 400 000 kg (881,800 lb) VPC. Refer to Wind Conditions chart for maximum wind speed for various boom lengths and capacity charts for maximum boom lengths lifted unassisted. Travel slowly and smoothly to avoid shock loading boom and rigging.

1. Machine Travel With Load

A. Machine can swing and travel with 360 degree rating.

B. Grade in any direction must not exceed 1 percent (0.5 degrees).

C. Travel surface must be firm, level and uniformly supporting. Capacity charts are based on static conditions; therefore judgment must be used to allow for dynamic effects of traveling with load. Carry load as close to ground as possible. Stabilize load with taglines.

2. Machine Travel Without Load

A. Load blocks and/or hook and weight balls may be suspended beneath sheaves, or tied off to machine. Total combined suspended weight beneath all sheaves must not exceed 16 780 kg (37,000 lb).

B. Machine to travel on a firm and uniformly supporting surface. Travel allowed with 360 degree swing up to 1 percent (0.5 degrees) grade; crane upperworks must be in-line with crawlers and grade when grade exceeds 1 percent. Side-to-side grade must not exceed 2 percent (1.1 degrees) measured at boom hinge pins.

C. Refer to Tables 1 thru 3 for boom angle, boom length, and direction for various grades. Adjust boom within boom angle range shown in table with machine in a level position before traveling onto grade. Do not change boom angle after crane has been traveled onto grade. Boom angle is angle between horizontal and centerline of boom butt and inserts. Refer to table below for grade vs. angle when traveling.

D. Do not exceed 2 percent (1.1 degrees) side-to-side grade at boom hinge pins when cutting (turning on grade).

E. ***Caution:*** Change in grade must not exceed 3.0 percent in 10,7 m (35 ft). *Damage could occur.*

F. ***Warning:*** Travel prohibited for boom angle range not shown in Tables 1 thru 3. *Crane could tip.*

G. ***Warning:*** 18,3 m (60.0 ft) counterweight position must be selected before traveling on grade greater than 1 percent (0.5 degrees). *Crane could tip.*

Percent Grade Vs. Angle In Degrees	
Percent Grade	Angle
5	2.9
7	4.0
10	5.7
15	8.5

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Table 1a: Boom No. B85:685-680-681-682, SERIES 1

MACHINE TRAVEL WITHOUT LOAD				
Boom Length		Boom Angle Range in Degrees		
		Percent Grade		
Meters	Feet	1 - 5%	6 - 10%	11 - 15%
BOOM FACING DOWNHILL				
107,0	351.0	44 - 75	49 - 75	54 - 75
110,0	360.9	47 - 75	51 - 75	56 - 75
113,0	370.7	50 - 75	54 - 75	59 - 75
116,0	380.6	52 - 75	56 - 75	61 - 75
119,0	390.4	55 - 75	59 - 75	63 - 75

Table 1b: Boom No. B85:685-680-681-682, SERIES 1

MACHINE TRAVEL WITHOUT LOAD			
Boom Length		Boom Angle Range in Degrees	
		Percent Grade	
Meters	Feet	1 - 5%	6 - 10%
BOOM FACING UPHILL			
107,0	351.0	45 - 72	48 - 69
110,0	360.9	46 - 72	48 - 69
113,0	370.7	47 - 72	48 - 69
116,0	380.6	49 - 72	51 - 69
119,0	390.4	51 - 72	53 - 69

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VPC-MAX at 18,3 m (60.0 ft) Position

Table 2a: Boom No. B85:685-680-681-682, SERIES 2

MACHINE TRAVEL WITHOUT LOAD			
Boom Length		Boom Angle Range in Degrees	
		Percent Grade	
Meters	Feet	1 - 5%	6 - 10%
BOOM FACING DOWNHILL			
107,0	351.0	44 - 75	47 - 75
110,0	360.9	44 - 75	47 - 75
113,0	370.7	44 - 75	47 - 75
116,0	380.6	44 - 75	47 - 75
119,0	390.4	44 - 75	47 - 75
122,0	400.3	44 - 75	47 - 75
125,0	410.1	44 - 75	47 - 75
128,0	419.9	44 - 75	47 - 75
131,0	429.8	46 - 75	50 - 75
134,0	439.6	48 - 75	53 - 75
137,0	449.5	50 - 75	54 - 75
140,0	459.3	52 - 75	56 - 75

Maximum Allowable Travel Specifications

MLC650 VPC-MAX

Boom No. B85:685-680-681-682
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7,6 m (24.9 ft) Extended Upper Boom Point
VPC-MAX at 18,3 m (60.0 ft) Position

Table 2b: Boom No. B85:685-680-681-682, SERIES 2

MACHINE TRAVEL WITHOUT LOAD			
Boom Length		Boom Angle Range in Degrees	
		Percent Grade	
Meters	Feet	1 - 5%	6 - 10%
BOOM FACING UPHILL			
107,0	351.0	45 - 72	48 - 69
110,0	360.9	46 - 72	48 - 69
113,0	370.7	46 - 72	48 - 69
116,0	380.6	46 - 72	48 - 69
119,0	390.4	46 - 72	48 - 69
122,0	400.3	46 - 72	48 - 69
125,0	410.1	46 - 72	48 - 69
128,0	419.9	46 - 72	48 - 69
131,0	429.8	46 - 72	48 - 69
134,0	439.6	46 - 72	48 - 69
137,0	449.5	46 - 72	48 - 69
140,0	459.3	47 - 72	50 - 69

Maximum Allowable Travel Specifications

MLC650 VPC-MAX

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VPC-MAX at 18,3 m (60.0 ft) Position

Table 3a: Boom No. B85:685-680-681-682, SERIES 3

MACHINE TRAVEL WITHOUT LOAD			
Boom Length		Boom Angle Range in Degrees	
		Percent Grade	
Meters	Feet	1 - 5%	6 - 7%
BOOM FACING DOWNHILL			
107,0	351.0	44 - 75	45 - 75
110,0	360.9	44 - 75	45 - 75
113,0	370.7	44 - 75	45 - 75
116,0	380.6	44 - 75	45 - 75
119,0	390.4	44 - 75	45 - 75
122,0	400.3	44 - 75	45 - 75
125,0	410.1	44 - 75	45 - 75
128,0	419.9	44 - 75	45 - 75
131,0	429.8	44 - 75	45 - 75
134,0	439.6	44 - 75	45 - 75
137,0	449.5	44 - 75	45 - 75
140,0	459.3	44 - 75	45 - 75
143,0	469.2	44 - 75	45 - 75
146,0	479.0	44 - 75	45 - 75
149,0	488.8	44 - 75	45 - 75
152,0	498.7	45 - 75	47 - 75
155,0	508.5	46 - 75	47 - 75
158,0	518.4	48 - 75	50 - 75
161,0	528.2	49 - 75	51 - 75
164,0	538.1	49 - 75	51 - 75

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7,6 m (24.9 ft) Extended Upper Boom Point
VPC-MAX at 18,3 m (60.0 ft) Position

Table 3b: Boom No. B85:685-680-681-682, SERIES 3

MACHINE TRAVEL WITHOUT LOAD			
Boom Length		Boom Angle Range in Degrees	
		Percent Grade	
Meters	Feet	1 - 5%	6 - 7%
BOOM FACING UPHILL			
107,0	351.0	45 - 72	47 - 71
110,0	360.9	46 - 72	47 - 71
113,0	370.7	46 - 72	47 - 71
116,0	380.6	46 - 72	47 - 71
119,0	390.4	46 - 72	47 - 71
122,0	400.3	46 - 72	47 - 71
125,0	410.1	46 - 72	47 - 71
128,0	419.9	46 - 72	47 - 71
131,0	429.8	46 - 72	47 - 71
134,0	439.6	46 - 72	47 - 71
137,0	449.5	46 - 72	47 - 71
140,0	459.3	46 - 72	47 - 71
143,0	469.2	46 - 72	47 - 71
146,0	479.0	46 - 72	47 - 71
149,0	488.8	46 - 72	47 - 71
152,0	498.7	46 - 72	47 - 71
155,0	508.5	46 - 72	47 - 71
158,0	518.4	46 - 72	47 - 71
161,0	528.2	46 - 72	47 - 71
164,0	538.1	47 - 72	47 - 71