Manıtowoc

**VPC-MAX** 

## Maximum Allowable Travel Specifications

Boom No. B60:500 with Mast No. M10:503 or Mast No. M11:503 VPC-MAX at 14,6 m (48.0 ft) Position

#### Jobsite Travel

MLC300 SERIES 1 must be equipped with 135 100 kg (297,800 lb) VPC (Variable Position Counterweight); MLC300 SERIES 2 must be equipped with 175 100 kg (386,000 lb) VPC; MLC300 Series 3 must be equipped with 215 000 kg (474,100 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 boom points, or tied off to machine. Total combined suspended weight beneath boom points must not exceed 10 000 kg (22,000 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 when grade exceeds 1 percent Grade in direction of travel shall not exceed 10 percent (5.7 degrees); 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 percent (1.7 degrees) in 9.1 m (30 ft). Damage could occur.
- F. Warning: Travel prohibited for boom angle range not shown in Tables 1 thru 3. Crane could tip.
- G. *Warning:* 14,6 m (48.0 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		
10	5.7		



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# Maximum Allowable Travel Specifications

Boom No. B60:500 with Mast No. M10:503 or Mast No. M11:503

VPC-MAX at 14,6 m (48.0 ft) Position

Table 1a: Boom	B60:500, SERIES 1
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MACHINE TRAVEL WITHOUT LOAD				
De ens les sette		Boom Angle Range in Degrees		
Boom Length		Percent Grade		
Meters	Feet	1 - 5%	6 - 10%	
BOOM FACING DOWNHILL				
42,0	137.8	30 - 75	30 - 75	
48,0	157.5	30 - 75	30 - 75	
54,0	177.2	30 - 75	30 - 75	
60,0	196.9	30 - 75	30 - 75	
66,0	216.5	30 - 75	30 - 75	
72,0	236.2	30 - 75	30 - 75	
78,0	255.9	30 - 75	38 - 75	
84,0	275.6	30 - 75	46 - 75	
90,0	295.3	30 - 75	51 - 75	
96,0	315.0	39 - 75	56 - 75	
102,0	334.6	45 - 75	60 - 75	
108,0	354.3	49 - 75	65 - 75	
114,0	374.0	62 - 75	69 - 75	
120,0	393.7	67 - 75	72 - 75	

### Table 1b: Boom B60:500, SERIES 1

MACHINE TRAVEL WITHOUT LOAD				
		Boom Angle Range in Degrees		
Boom Length		Percent Grade		
Meters	Feet	1 - 5%	6 - 10%	
BOOM FACING UPHILL				
42,0	137.8	30 - 70	30 - 61	
48,0	157.5	30 - 72	30 - 66	
54,0	177.2	30 - 72	30 - 67	
60,0	196.9	30 - 72	30 - 69	
66,0	216.5	30 - 72	30 - 69	
72,0	236.2	30 - 72	30 - 69	
78,0	255.9	30 - 72	30 - 69	
84,0	275.6	30 - 72	30 - 69	
90,0	295.3	30 - 72	30 - 69	
96,0	315.0	35 - 72	35 - 69	
102,0	334.6	41 - 72	41 - 69	
108,0	354.3	46 - 72	46 - 69	
114,0	374.0	50 - 72	50 - 69	
120,0	393.7	53 - 72	53 - 69	



**VPC-MAX** 

## Maximum Allowable Travel Specifications

Boom No. B60:500

with Mast No. M10:503 or Mast No. M11:503 VPC-MAX at 14,6 m (48.0 ft) Position

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MACHINE TRAVEL WITHOUT LOAD					
Deem Length		Boom Angle Range in Degrees			
Boom Length		Percent Grade			
Meters	Feet	1 - 5%	6 - 10%		
	BOOM FACING DOWNHILL				
42,0	137.8	30 - 72	30 - 72		
48,0	157.5	30 - 75	30 - 75		
54,0	177.2	30 - 75	30 - 75		
60,0	196.9	30 - 75	30 - 75		
66,0	216.5	30 - 75	30 - 75		
72,0	236.2	30 - 75	30 - 75		
78,0	255.9	30 - 75	30 - 75		
84,0	275.6	30 - 75	30 - 75		
90,0	295.3	30 - 75	30 - 75		
96,0	315.0	30 - 75	30 - 75		
102,0	334.6	30 - 75	30 - 75		
108,0	354.3	36 - 75	39 - 75		
114,0	374.0	43 - 75	45 - 75		
120,0	393.7	47 - 75	63 - 75		

Table 2a: Boom B60:500, SERIES 2

#### Table 2b: Boom B60:500, SERIES 2

MACHINE TRAVEL WITHOUT LOAD				
Boom Length		Boom Angle Range in Degrees		
Boom Length		Percent Grade		
Meters	Feet	1 - 5%	6 - 10%	
BOOM FACING UPHILL				
42,0	137.8	30 - 63	30 - 53	
48,0	157.5	30 - 68	30 - 60	
54,0	177.2	30 - 71	30 - 64	
60,0	196.9	30 - 72	30 - 67	
66,0	216.5	30 - 72	30 - 69	
72,0	236.2	30 - 72	30 - 69	
78,0	255.9	30 - 72	30 - 69	
84,0	275.6	30 - 72	30 - 69	
90,0	295.3	30 - 72	30 - 69	
96,0	315.0	35 - 72	30 - 69	
102,0	334.6	30 - 72	30 - 69	
108,0	354.3	33 - 72	33 - 69	
114,0	374.0	39 - 72	39 - 69	
120,0	393.7	44 - 72	44 - 69	



**VPC-MAX** 

# Maximum Allowable Travel Specifications

Boom No. B60:500

with Mast No. M10:503 or Mast No. M11:503 VPC-MAX at 14,6 m (48.0 ft) Position

### Table 3a: Boom B60:500, SERIES 3

MACHINE TRAVEL WITHOUT LOAD				
De erre Lerreth		Boom Angle Range in Degrees		
Boom Length		Percent Grade		
Meters	Feet	1 - 5%	6 - 10%	
BOOM FACING DOWNHILL				
42,0	137.8	30 - 65	30 - 65	
48,0	157.5	30 - 70	30 - 70	
54,0	177.2	30 - 74	30 - 74	
60,0	196.9	30 - 75	30 - 75	
66,0	216.5	30 - 75	30 - 75	
72,0	236.2	30 - 75	30 - 75	
78,0	255.9	30 - 75	30 - 75	
84,0	275.6	30 - 75	30 - 75	
90,0	295.3	30 - 75	30 - 75	
96,0	315.0	30 - 75	30 - 75	
102,0	334.6	30 - 75	30 - 75	
108,0	354.3	30 - 75	30 - 75	
114,0	374.0	30 - 75	31 - 75	
120,0	393.7	42 - 75	46 - 75	

### Table 3b: Boom B60:500, SERIES 3

MACHINE TRAVEL WITHOUT LOAD				
		Boom Angle Range in Degrees		
Boom Length		Percent Grade		
Meters	Feet	1 - 5%	6 - 10%	
BOOM FACING UPHILL				
42,0	137.8	30 - 56	30 - 45	
48,0	157.5	30 - 62	30 - 54	
54,0	177.2	30 - 66	30 - 58	
60,0	196.9	30 - 70	30 - 63	
66,0	216.5	30 - 72	30 - 66	
72,0	236.2	30 - 72	30 - 68	
78,0	255.9	30 - 72	30 - 69	
84,0	275.6	30 - 72	30 - 69	
90,0	295.3	30 - 72	30 - 69	
96,0	315.0	30 - 72	30 - 69	
102,0	334.6	30 - 72	30 - 69	
108,0	354.3	30 - 72	30 - 69	
114,0	374.0	30 - 72	30 - 69	
120,0	393.7	40 - 72	40 - 69	