Manitowoc Cranes, Inc. Manitowoc, Wisconsin 54220 U.S.A.

Maximum Allowable **Travel Specifications**

European Standards



Boom No. 83 Jib No. 134A With 12 Ft. 6 in. (3 810 mm) Strut

Jobsite Travel

1015 must be equipped with 53,000 Lb. (24 040 kg) counterweight.

1. Machine Travel With Load

- A. Travel with crane upperworks in-line with crawlers. Grade in any direction must not exceed 1 percent (0.5 degrees). Travel with 100 percent of rated load prohibited. Travel restricted to 90 percent of rated capacity with speed not to exceed 1.4 km/hr.
- B. 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. Travel slowly and smoothly to avoid shock loading boom, jib and rigging.

2. Machine Travel Without Load

- A. Load blocks and/or hook and weight balls may be suspended beneath lower boom point, upper boom point and jib point. Total combined suspended weight beneath lower and upper boom points must not exceed 5,500 Lbs. (2 490 kg). Total suspended weight beneath jib point must not exceed 1,500 Lbs. (680 kg).
- B. Machine to travel on a firm and uniformly supporting surface with crane upperworks in-line with grade. Grade in direction of travel should not exceed 30 percent (16.7 degrees); side-to-side grade must not exceed 2 percent (1.1 degrees) measured at boom hinge pins.
- C. See tables on pages 2 and 3 for boom angle, boom length and direction for various grades. Adjust boom within boom angle range shown in tables on pages 2 and 3 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. See table below for grade vs. angle when traveling.
- D. For extended crawlers, do not exceed 2 percent (1.1 degrees) side-to-side grade at boom hinge pins when cutting (turning on grade). Travel with crane upperworks in-line with grade at all times.
- E. For retracted crawlers, cutting (turning on grade) is prohibited. Travel in-line with grade and with crane upperworks in-line with retracted crawlers at all times.
- F. Boom lengths shown in tables on page 2 do not include jib. Boom lengths shown in tables on page 3 include all jib lengths and offset angles.
- G. Warning: Travel prohibited for boom lengths not shown in tables on pages 2 and 3. Crane could tip.

Refer to capacity charts for maximum boom and jib length raising.

Percent Grade Vs. Angle In Degrees		
Percent Grade	Angle	
1	0.5	
10	5.7	
20	11.3	
30	16.7	

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Machine Travel Without Load Boom Facing Downhill			
Boom Angle	Boom Length		
Range in	(not incl	(not including jib)	
Degrees	Feet	Meters	
0 - 1%	0 - 1% Percent Grade		
30 - 72	50 - 120	15.2 - 36.6	
40 - 72	130 - 140	39.6 - 42.7	
50 - 72	150 - 160	45.7 - 48.8	
60 - 72	170 - 190	51.8 - 57.9	
65 - 72	200	61.0	
2 - 10% Percent Grade			
30 - 72	50 - 110	15.2 - 33.5	
40 - 72	120	36.6	
50 - 72	130 - 140	39.6 - 42.7	
60 - 72	150 - 160	45.7 - 48.8	
65 - 72	170 - 180	51.8 - 54.9	
11 - 20	% Percent (Grade	
30 - 72	50 - 100	15.2 - 30.5	
40 - 72	110	33.5	
50 - 72	120	36.6	
60 - 72	130 - 140	39.6 - 42.7	
65 - 72	150	45.7	
21 - 30% Percent Grade			
30 - 72	50 - 80	15.2 - 24.4	
40 - 72	90	27.4	
50 - 72	100	30.5	
60 - 72	110 - 120	33.5 - 36.6	
65 - 72	130	39.6	

Machine Travel Without Load Boom Facing Uphill				
Boom Angle Range in	Boom Length (not including jib)			
Degrees	Feet	Meters		
0 - 1% Percent Grade				
30 - 72	50 - 130	15.2 - 39.6		
40 - 72	140	42.7		
50 - 72	150 - 160	45.7 - 48.8		
60 - 72	170 - 200	51.8 - 61.0		
2 - 10% Percent Grade				
30 - 66	50 - 130	15.2 - 39.6		
40 - 66	140	42.7		
50 - 66	150	45.7		
60 - 66	160 - 170	48.8 - 51.8		
11 - 20% Percent Grade				
30 - 45	50	15.2		
30 - 50	60 - 70	18.3 - 21.3		
30 - 60	80 - 110	24.4 - 33.5		
40 - 60	120	36.6		
50 - 60	130	39.6		
21 - 30% Percent Grade				
30 - 35	60 - 70	18.3 - 21.3		
30 - 45	80 - 100	24.4 - 30.5		
35 - 55	110	33.5		
50 - 55	120	36.6		

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Boom No. 83 Jib No. 134A With 12 Ft. 6 in. (3 810 mm) Strut

Machine Travel Without Load Boom Facing Downhill		
Boom Angle Range in Degrees	Boom Length (including all jib lengths and offset angles)	
Degrees	Feet	Meters
0 - 1% Percent Grade		
50 - 72	90	27.4
55 - 72	100 - 130	30.5 - 39.6
60 - 72	140 - 150	42.7 - 45.7
65 - 72	160 - 170	48.8 - 51.8
2 - 10% Percent Grade		
50 - 72	90	27.4
55 - 72	100 - 120	30.5 - 36.6
60 - 72	130	39.6
65 - 72	140 - 150	42.7 - 45.7
11 - 20% Percent Grade		
50 - 72	90	27.4
60 - 72	100	30.5
65 - 72	110	33.5
21 - 30% Percent Grade		
65 - 72	90	27.4
68 - 72	100	30.5

European Standards



Machine Travel Without Load Boom Facing Uphill		
Boom Angle Range in Degrees	Boom Length (including all jib lengths and offset angles)	
Degrees	Feet	Meters
0 - 1% Percent Grade		
50 - 72	90	27.4
55 - 72	100 - 140	30.5 - 42.7
60 - 72	150 - 160	45.7 - 48.8
65 - 72	170	51.8
2 - 10% Percent Grade		
50 - 66	90	27.4
55 - 66	100 - 120	30.5 - 36.6
11 - 20% Percent Grade		
50 - 60	90	27.4
55 - 60	100 - 110	30.5 - 33.5
21 - 30% Percent Grade		
51 - 55	90	27.4