

Maximum Allowable Travel Specifications

16000 SERIES 1, 2, 3

Boom No. 58 HL Jib No. 133 or No. 133A with 21 ft (6 400 mm) Strut

Jobsite Travel

16000 SERIES 1 must be equipped with 224,000 lb (101 600 kg) crane counterweight and 0 lb (0 kg) carbody counterweight; 16000 SERIES 2 must be equipped with 296,000 lb (134 260 kg) crane counterweight and 60,000 lb (27 220 kg) carbody counterweight; 16000 SERIES 3 must be equipped with 332,000 lb (150 590 kg) crane counterweight and 120,000 lb (54 430 kg) carbody counterweight. Refer to Wind Conditions chart for maximum wind speed for various boom lengths and capacity charts for maximum boom length lifted unassisted.

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. Travel slowly and smoothly to avoid shock loading boom and rigging.

2. Machine Travel Without Load

- A. Load blocks and/or hook and weight balls may be suspended beneath lower and upper boom points or tied off to machine. Total combined suspended weight beneath lower and upper boom points must not exceed 25,000 lb (11 340 kg). Total suspended weight beneath jib point must not exceed 8,000 lb (3 630 kg).
- 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. 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. Refer to tables 1 thru 6 on pages 2 thru 4 for boom angle and boom length 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. Boom lengths shown in tables 1 thru 3 on pages 2 and 3 do not include jib. Boom lengths shown in tables 4 thru 6 on page 4 include all jib lengths and offset angles.
- F. Warning: Travel prohibited for boom angle range not shown in tables 1 thru 6 on pages 2 thru 4. Crane could tip.

Percent Grade Vs. Angle In Degrees			
Percent Grade	Angle		
1	0.5		
5	2.9		
10	5.7		
20	11.3		
30	16.7		

Manitowoc Cranes 8683-A, 2011-11-18



Maximum Allowable Travel Specifications

16000 SERIES 1, 2, 3

Boom No. 58 HL
Jib No. 133 or No. 133A with 21 ft (6 400 mm) Strut

Table 1: Boom No. 58 HL, SERIES 1

	MACHINE TRAVEL WITHOUT LOAD				
Boom	Length	Boom Angle Range in Degrees			
(not incl	uding jib)	Percent Grade			
Feet	Meters	0 - 1% 2 - 10% 11 - 20% 21 - 30%			
	BOOM FACING DOWNHILL OR UPHILL				
98.4	30,0	30 - 72	30 - 66	30 - 60	30 - 50
118.1	36,0	30 - 72	30 - 66	30 - 60	30 - 55
137.8	42,0	30 - 72	30 - 66	40 - 60	_
157.5	48,0	35 - 72	45 - 66	55 - 60	_
177.2	54,0	45 - 72	55 - 66	/ –	_
196.9	60,0	50 - 72	60 - 66	_	_
216.5	66,0	60 - 72	65 - 66	_	_
236.2	72,0	60 - 72	- /-		_

Table 2: Boom No. 58 HL, SERIES 2

	MACHINE TRAVEL WITHOUT LOAD				
Boom Length Boom Angle Rang			inge in Degr	ees	
(not inclu	uding jib)		Percen	t Grade	
Feet	Meters	0 - 1%	2 - 10%	11 - 20%	21 - 30%
	воом	FACING DO	WNHILL OR	UPHILL	
98.4	30,0	30 - 72	30 - 66	30 - 50	30 - 40
118.1	36,0	30 - 72	30 - 66	30 - 60	30 - 45
137.8	42,0	30 - 72	30 - 66	30 - 60	30 - 50
157.5	48,0	30 - 72	30 - 66	30 - 60	45 - 55
177.2	54,0	30 - 72	35 - 66	45 - 60	_
196.9	60,0	35 - 72	45 - 66	55 - 60	_
216.5	66,0	45 - 72	55 - 66	_	_
236.2	72,0	50 - 72	60 - 66		_
255.9	78,0	55 - 72	65 - 66	_	_
275.6	84,0	60 - 72	65 - 66		_



Maximum Allowable Travel Specifications

16000 SERIES 1, 2, 3

Boom No. 58 HL Jib No. 133 or No. 133A with 21 ft (6 400 mm) Strut

Table 3: Boom No. 58 HL, SERIES 3

MACHINE TRAVEL WITHOUT LOAD					
Boom Length Boom Angle Range in Degrees				ees	
(not inclu	uding jib)	Percent Grade			
Feet	Meters	0 - 1%	2 - 10%	11 - 20%	21 - 30%
	воом	FACING DO	WNHILL OR	UPHILL	
98.4	30,0	30 - 72	30 - 66	30 - 50	30 - 40
118.1	36,0	30 - 72	30 - 66	30 - 60	30 - 45
137.8	42,0	30 - 72	30 - 66	30 - 60	30 - 50
157.5	48,0	35 - 72	30 - 66	30 - 60	30 - 55
177.2	54,0	30 - 72	30 - 66	30 - 60	45 - 55
196.9	60,0	30 - 72	35 - 66	45 - 60	_
216.5	66,0	35 - 72	45 - 66	55 - 60	_
236.2	72,0	45 - 72	50 - 66	_	_
255.9	78,0	50 - 72	60 - 66	_	_
275.6	84,0	55 - 72	65 - 66	_	_
295.3	90,0	60 - 72	65 - 66	_	_
315.0	96,0	65 - 72	_	_	_



Maximum Allowable Travel Specifications

16000 SERIES 1, 2, 3

Boom No. 58 HL Jib No. 133 or No. 133A with 21 ft (6 400 mm) Strut

Table 4: Boom No. 58 HL, Jib No. 133 or No. 133A, SERIES 1

MACHINE TRAVEL WITHOUT LOAD				
Boom Length Boom Angle Range in Degree			gle Range in Degrees	
	ng all jib nd offsets)	Percent Grade		
Feet	Meters	0 - 1%	2 - 5% 6 - 10%	
BOOM FACING DOWNHILL OR UPHILL				
137.8	42,0	60 - 72	65 - 69	
157.5	48,0	65 - 72	65 - 69 —	
177.2	54,0	65 - 72	65 - 69 —	

Table 5: Boom No. 58 HL, Jib No. 133 or No. 133A, SERIES 2

MACHINE TRAVEL WITHOUT LOAD					
Boom Length		Boom Angle Range in Degrees			
(including all jib lengths and offsets)		Percent Grade			
Feet	Meters	0 - 1% 2 - 5% 6 - 10%			
В	BOOM FACING DOWNHILL OR UPHILL				
137.8	42,0	50 - 72	55 - 69	60 - 66	
157.5	48,0	60 - 72	60 - 69	65 - 66	
177.2	54,0	60 - 72	60 - 69	_	
196.9	60,0	65 - 72	65 - 69	_	
216.5	66,0	65 - 72	65 - 69	_	

Table 6: Boom No. 58 HL, Jib No. 133 or No. 133A, SERIES 3

MACHINE TRAVEL WITHOUT LOAD					
Boom Length		Boom Angle Range in Degrees			
	ng all jib nd offsets)	Percent Grade		е	
Feet	Meters	0 - 1% 2 - 5% 6 - 10%			
В	BOOM FACING DOWNHILL OR UPHILL				
137.8	42,0	45 - 72	45 - 69	50 - 66	
157.5	48,0	50 - 72	55 - 69	60 - 66	
177.2	54,0	55 - 72	60 - 69	60 - 66	
196.9	60,0	60 - 72	65 - 69	65 - 66	
216.5	66,0	65 - 72	65 - 69	_	
236.2	72,0	65 - 72	_	_	

8683-A, 2011-11-18 4/4 Manitowoc, Wisconsin 54220 U.S.A.