



# Maximum Allowable Sidehill Travel Specifications

Boom No. 58 HL

## 16000 SERIES 1, 2, 3

### 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).
- 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 on uphill or downhill grade when grade exceeds 1 percent. Grade in direction of travel on sidehill should not exceed 5 percent (2.9 degrees); sidehill grade must not exceed 5 percent (2.9 degrees) measured at boom hinge pins.
- C. Refer to tables 1 thru 3 on pages 2 and 3 for boom angle, boom length and direction, uphill or downhill grades and various sidehill 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. **Warning:** Travel prohibited for boom angle range not shown in tables 1 thru 3 on page 2 and 3. *Crane could tip.*

Percent Grade Vs. Angle In Degrees	
Percent Grade	Angle
1	0.5
2	1.1
5	2.9



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Table 1: Boom No. 58 HL, SERIES 1

MACHINE TRAVEL WITHOUT LOAD					
		1% UPHILL OR DOWNHILL MAXIMUM GRADE		5% UPHILL OR DOWNHILL MAXIMUM GRADE	
Boom Length		Boom Angle Range in Degrees		Boom Angle Range in Degrees	
		Percent Sidehill Grade		Percent Sidehill Grade	
Feet	Meters	0 - 2%	3 - 5%	0 - 2%	3 - 5%
98.4	30,0	30 - 72	30 - 72	30 - 69	30 - 69
118.1	36,0	30 - 72	30 - 72	30 - 69	30 - 69
137.8	42,0	30 - 72	30 - 72	30 - 69	30 - 69
157.5	48,0	35 - 72	35 - 72	45 - 69	45 - 69
177.2	54,0	45 - 72	45 - 72	55 - 69	55 - 69
196.9	60,0	50 - 72	50 - 70	60 - 69	60 - 69
216.5	66,0	60 - 72	—	65 - 69	—
236.2	72,0	60 - 72	—	67 - 69	—

Table 2: Boom No. 58 HL, SERIES 2

MACHINE TRAVEL WITHOUT LOAD					
		1% UPHILL OR DOWNHILL MAXIMUM GRADE		5% UPHILL OR DOWNHILL MAXIMUM GRADE	
Boom Length		Boom Angle Range in Degrees		Boom Angle Range in Degrees	
		Percent Sidehill Grade		Percent Sidehill Grade	
Feet	Meters	0 - 2%	3 - 5%	0 - 2%	3 - 5%
98.4	30,0	30 - 72	30 - 72	30 - 69	30 - 69
118.1	36,0	30 - 72	30 - 72	30 - 69	30 - 69
137.8	42,0	30 - 72	30 - 72	30 - 69	30 - 69
157.5	48,0	30 - 72	30 - 72	30 - 69	30 - 69
177.2	54,0	30 - 72	30 - 72	35 - 69	35 - 69
196.9	60,0	35 - 72	35 - 72	45 - 69	45 - 69
216.5	66,0	45 - 72	45 - 72	55 - 69	55 - 69
236.2	72,0	50 - 72	50 - 63	60 - 69	60 - 63
255.9	78,0	55 - 72	—	65 - 69	—
275.6	84,0	60 - 72	—	65 - 69	—

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Table 3: Boom No. 58 HL, SERIES 3

MACHINE TRAVEL WITHOUT LOAD					
		1% UPHILL OR DOWNHILL MAXIMUM GRADE		5% UPHILL OR DOWNHILL MAXIMUM GRADE	
Boom Length		Boom Angle Range in Degrees		Boom Angle Range in Degrees	
		Percent Sidehill Grade		Percent Sidehill Grade	
Feet	Meters	0 - 2%	3 - 5%	0 - 2%	3 - 5%
98.4	30,0	30 - 72	30 - 72	30 - 69	30 - 69
118.1	36,0	30 - 72	30 - 72	30 - 69	30 - 69
137.8	42,0	30 - 72	30 - 72	30 - 69	30 - 69
157.5	48,0	30 - 72	30 - 72	30 - 69	30 - 69
177.2	54,0	30 - 72	30 - 72	30 - 69	30 - 69
196.9	60,0	30 - 72	30 - 72	35 - 69	35 - 69
216.5	66,0	35 - 72	35 - 72	45 - 69	45 - 69
236.2	72,0	45 - 72	45 - 72	50 - 69	50 - 69
255.9	78,0	50 - 72	50 - 64	60 - 69	60 - 64
275.6	84,0	55 - 72	—	65 - 69	—
295.3	90,0	60 - 72	—	65 - 69	—
315.0	96,0	65 - 72	—	67 - 69	—