



# Maximum Allowable Travel Specifications

## 16000 SERIES 1, 2, 3

Boom No. 58 HL with 23 ft (7 m) Extended Upper Boom Point

### 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 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 upper boom points or tied off to machine. Total combined suspended weight beneath upper boom points must not exceed 11,000 lb (4 990 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 3 on pages 2 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. **Warning:** Travel prohibited for boom angle range not shown in tables 1 thru 3 on pages 2 thru 3. *Crane could tip.*

Percent Grade Vs. Angle In Degrees	
Percent Grade	Angle
1	0.5
10	5.7
15	8.5
20	11.3
25	14.0
30	16.7



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Table 1: Boom No. 58 HL with 23 ft (7 m) Extended Upper Boom Point, SERIES 1

MACHINE TRAVEL WITHOUT LOAD							
Boom Length		Boom Angle Range in Degrees					
		Percent Grade					
Feet	Meters	0 - 1%	2 - 10%	11 - 15%	16 - 20%	21 - 25%	26 - 30%
BOOM FACING DOWNHILL OR UPHILL							
137.8	42,0	40 - 72	40 - 66	40 - 63	40 - 60	40 - 58	40 - 55
157.5	48,0	40 - 72	40 - 66	40 - 63	40 - 60	45 - 58	50 - 55
177.2	54,0	40 - 72	50 - 63	50 - 63	50 - 60	55 - 58	—
196.9	60,0	45 - 72	55 - 63	55 - 63	58 - 60	—	—
216.5	66,0	50 - 72	55 - 66	60 - 63	—	—	—
236.2	72,0	55 - 72	65 - 66	—	—	—	—

Table 2: Boom No. 58 HL with 23 ft (7 m) Extended Upper Boom Point, SERIES 2

MACHINE TRAVEL WITHOUT LOAD							
Boom Length		Boom Angle Range in Degrees					
		Percent Grade					
Feet	Meters	0 - 1%	2 - 10%	11 - 15%	16 - 20%	21 - 25%	26 - 30%
BOOM FACING DOWNHILL OR UPHILL							
137.8	42,0	40 - 72	40 - 66	40 - 63	40 - 60	40 - 58	40 - 50
157.5	48,0	40 - 72	40 - 66	40 - 63	40 - 60	40 - 58	40 - 55
177.2	54,0	40 - 72	40 - 66	40 - 63	40 - 60	40 - 58	40 - 55
196.9	60,0	40 - 72	40 - 66	40 - 63	45 - 60	50 - 58	53 - 55
216.5	66,0	40 - 72	45 - 66	45 - 63	50 - 60	56 - 58	—
236.2	72,0	45 - 72	50 - 66	55 - 63	58 - 60	—	—
255.9	78,0	50 - 72	60 - 66	60 - 63	—	—	—
275.6	84,0	55 - 72	60 - 66	—	—	—	—



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## 16000 SERIES 1, 2, 3

Boom No. 58 HL with 23 ft (7 m) Extended Upper Boom Point

Table 3: Boom No. 58 HL with 23 ft (7 m) Extended Upper Boom Point, SERIES 3

MACHINE TRAVEL WITHOUT LOAD							
Boom Length		Boom Angle Range in Degrees					
		Percent Grade					
Feet	Meters	0 - 1%	2 - 10%	11 - 15%	16 - 20%	21-25%	26-30%
BOOM FACING DOWNHILL OR UPHILL							
137.8	42,0	40 - 72	40 - 66	40 - 63	40 - 60	40 - 58	40 - 50
157.5	48,0	40 - 72	40 - 66	40 - 63	40 - 60	40 - 58	40 - 55
177.2	54,0	40 - 72	40 - 66	40 - 63	40 - 60	40 - 58	40 - 55
196.9	60,0	40 - 72	40 - 66	40 - 63	40 - 60	40 - 58	45 - 55
216.5	66,0	40 - 72	40 - 66	40 - 63	45 - 60	50 - 58	—
236.2	72,0	40 - 72	40 - 66	50 - 63	55 - 60	—	—
255.9	78,0	40 - 72	50 - 66	55 - 63	57 - 60	—	—
275.6	84,0	50 - 72	55 - 66	60 - 63	—	—	—
295.3	90,0	55 - 72	60 - 66	—	—	—	—