

Swing and Travel Specifications

Boom No. 80 With 140 Ft. (42.7m) Mast No. 81
Luffing Jib No. 81
494,700 Lb. (224 390 kg) Crane Counterweight
200,000 Lb. (90 720 kg) Carbody Counterweight
Wheeled Counterweight

Jobsite Travel

21000 MAX-ER must be equipped with 494,700 Lb. (224 390 kg) crane counterweight and 200,000 Lb. (90 720 kg) carbody counterweight; and 0 Lb. (0 kg), 420,000 Lb. (190 510 kg), 772,000 Lb. (350 170 kg) or 1,124,000 Lb. (590 840 kg) wheeled counterweight.

1. MACHINE SWING AND TRAVEL WITH LOAD

- A. **Narrow crawler arrangement** (30 Ft. 0 in. [9.1m]) **travel allowed only with upperworks centered over front or rear of lowerworks** (no swing) **with outrigger jacks retracted or outriggers removed**. Wide crawler arrangement (47 Ft. 6 in. [14.5m]) travel allowed with 360 degree rating. Grade in any direction must not exceed 1/2 in. in 10 ft (13 mm in 3 m).
- 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, luffing jib and rigging.
- C. Travel with crane upperworks in-line or at 90 degrees to crawlers. Grade in any direction must not exceed 1/2 in. in 10 ft (13 mm in 3 m).
- D. **Warning:** For travel with crane upperworks in-line to crawlers, swing brake and swing lock must be free (released) when wheeled counterweight is attached.

Travel with crane upperworks 90 degrees to crawlers is allowed only with wide crawler arrangement. When wheeled counterweight is attached, it must be in the air, free of ground support. Swing brake and swing lock must be set.
- E. Refer to operators manual for maximum wind speed for various boom and luffing jib lengths.
- F. Machine can swing and travel in normal manner when wheeled counterweight assembly is attached and is free of ground support.
- G. When wheeled counterweight is attached and contacting ground, counterweight wheels must be properly positioned before swinging or traveling machine. See operation guide for instructions.

2. MACHINE SWING AND TRAVEL WITHOUT LOAD AND WITH 0 Lb. (0 kg) WHEELED COUNTERWEIGHT

- A. Position **boom to 82 degree boom angle** (plus or minus 1 degree) and position **luffing jib at 40 to 50 degrees** above horizontal. **Grade in direction of travel must not exceed 3 percent** (1.7 degrees).
- B. Load blocks may be suspended below boom and luffing jib point or tied off to machine rotating bed. Total combined suspended weight beneath lower boom point and luffing jib point must not exceed 37,000 Lb. (16 800 kg).
- C. Travel with crane upperworks in-line to crawlers. Do not exceed 1 percent (0.5 degrees) grade at boom hinge pins when cutting (steering on grade) or swinging.
- D. Machine to travel on a firm and uniformly supporting surface. Travel may be limited depending upon ground conditions.
- E. When traveling on **uphill grade, lower boom** the corresponding degrees for grade to be traveled. When traveling on **downhill grade, raise boom** the corresponding degrees for grade to be traveled. See table on page 2 for grade vs. angle. Side-to-side grade must not exceed 1 percent (0.5 degrees) measured at boom hinge pins.
- F. Refer to operators manual for maximum wind speed with various boom and luffing jib lengths.



21000

MAX-ER

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Luffing Jib No. 81

494,700 Lb. (224 390 kg) Crane Counterweight

200,000 Lb. (90 720 kg) Carbody Counterweight

Wheeled Counterweight

3. MACHINE SWING AND TRAVEL WITHOUT LOAD AND WITH 420,000 Lb. (190 510 kg), 772,000 Lb. (350 170 kg) or 1,124,000 Lb. (590 840 kg) WHEELED COUNTERWEIGHT
- A. Position **boom to 75 degree boom angle** (plus or minus 1 degree) and position **luffing jib at 40 to 50 degrees** above horizontal. **Grade in direction of travel must not exceed 8 percent** (4.5 degrees).
 - B. Load blocks may be suspended below boom and luffing jib point or tied off to machine rotating bed. Total combined suspended weight beneath lower boom point and luffing jib point must not exceed 37,000 Lb. (16 800 kg).
 - C. Travel with crane upperworks in-line to crawlers. Do not exceed 1 percent (0.5 degrees) grade at boom hinge pins when cutting (steering on grade) or swinging.
 - D. **Warning:** Swing brake and swing lock must be free (released).
 - E. Machine to travel on a firm and uniformly supporting surface. Travel may be limited depending upon ground conditions.
 - F. When traveling on **uphill grade, lower boom** the corresponding degrees for grade to be traveled. When traveling on **downhill grade, raise boom** the corresponding degrees for grade to be traveled. See table below for grade vs. angle. Side-to-side grade must not exceed 1 percent (0.5 degrees) measured at boom hinge pins.
 - G. **Warning:** Rate of change in grade must not exceed 2 percent (1.1 degrees) in 72 Ft. (22 m).
 - H. Refer to operators manual for maximum wind speed with various boom and luffing jib lengths.
 - I. Counterweight wheels must be properly positioned before swinging or traveling machine when wheeled counterweight is contacting ground.

Percent Grade vs. Angle In Degrees	
Percent Grade	Angle
1	0.5
3	1.7
5	3.0
8	4.5