Luffing Jib Raising Procedure

Luffing Jib No. 79A on Boom No. 55 or No. 55A with 140 ft (42,7 m) Mast No. 56 Hanging Counterweight

18000 With 21000 MAX-ER

Recommended boom and luffing jib raising and lowering procedure.

Machine must be equipped with 492,000 lb (223 170 kg) crane counterweight, 320,000 lb (145 150 kg) carbody counterweight and 0 lb (0 kg), 247,800 lb (112 400 kg), 467,800 lb (212 190 kg), or 599,800 lb (272 060 kg) hanging counterweight. Refer to luffing jib rigging assembly **No. A08238** for boom and luffing jib make-up of inserts, straps, struts, strut raising procedure, jib stop positioner setup and operation, jib stop raising and lowering procedure and miscellaneous parts, etc.

Boom and luffing jib combinations must be raised and lowered using jack-knife method.

Release swing brake (disengage swing lock) and slowly raise boom while jib point dolly is allowed to roll on ground. Tension should be applied to luffing jib hoist to keep jib strut off luffing jib during boom raising. Boom up until boom to luffing jib angle reaches 140 degrees. Extend jib stop positioner cylinders (see procedure). Continue to boom up until boom to luffing jib reaches value specified in table. Tighten luffing jib suspension with luffing jib hoist. Boom and luffing jib are then raised together using boom hoist until boom reaches desired boom operating angle. Luffing jib radius must be within capacity chart before swinging over side of machine when raising over end of blocked crawlers.

Position boom at 85 degrees prior to lowering luffing jib. Lower luffing jib until boom to luffing jib angle reaches value specified in table. Lower boom until luffing jib point is just above ground. Position dolly under upper jib point, then lower upper jib point onto dolly. Release swing brake (disengage swing lock) and continue to lower boom while luffing jib rolls along ground until boom to luffing jib angle reaches 140 degrees. Keep enough tension on luffing jib hoist to keep jib strut off luffing jib. Retract jib stop positioner cylinders (see procedure). Continue to lower boom while luffing jib rolls along ground.

CAUTION: Do not under any condition allow boom to luffing jib angle to become less than 70 degrees.

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18000 With 21000 MAX-ER

WITH OR WITHOUT BOOM AND/OR JIB CATWALKS							
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method							
		Over End of Blocked Crawlers			**Over Side of Crawlers**		
		0 lb (0 kg) **Hanging Counterweight**					
Boom Length		Luffing Jib No. 79A		Boom to Luffing Jib Angle	Luffing Jib No. 79A		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
160	48,8	90 - 130 150 - 270 290 - 310	27,4 - 39,6 45,7 - 82,3 88,4 - 94,5	140 90 70	90 - 110 130 - 210 230 - 310	27,4 - 33,5 39,6 - 64,0 70,1 - 94,5	140 90 70
180	54,9	90 - 210 230 - 310	27,4 - 64,0 70,1 - 94,5	90 70	90 - 110 130 - 270(a)	27,4 - 33,5 39,6 - 82,3	90 70
200	61,0	90 - 190	27,4 - 57,9	70	—	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected. (a) Machine must equipped with optional upperworks jacking cylinders.							

Luffing Jib Raising Procedure

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Manitowoc

18000 With 21000 MAX-ER

WITH OR WITHOUT BOOM AND/OR JIB CATWALKS

Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Over Side or End of Unblocked Crawlers

Boom Length		**247,800 lb** (112 400 kg) **Hanging Counterweight at 59 ft** (18 m) **Position**			**467,800 lb** (212 190 kg) **Hanging Counterweight at 59 ft** (18 m) **Position**			**599,800 lb** (272 060 kg) **Hanging Counterweight at 59 ft** (18 m) **Position**		
		Luffing Jib No. 79A		Boom to Luffing Jib Angle	Luffing Jib No. 79A		Boom to Luffing Jib Angle	Luffing Jib No. 79A		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees	Feet	Meters	Degrees
160	48,8	90 - 230 250 - 310	27,4 - 70,1 76,2 - 94,5	140 90	90 - 290 310	27,4 - 88,4 94,5	140 90	90 - 310 —	27,4 - 94,5 —	140 —
180	54,9	90 - 190 210 - 310	27,4 - 57,9 64,0 - 94,5	140 90	90 - 270 290 - 310	27,4 - 82,3 88,4 - 94,5	140 90	90 - 310 —	27,4 - 94,5 —	140 —
200	61,0	90 - 150 170 - 310	27,4 - 45,7 51,8 - 94,5	140 90	90 - 230 250 - 310	27,4 - 70,1 76,2 - 94,5	140 90	90 - 290 310	27,4 - 88,4 94,5	140 90
220	67,1	90 - 110 130 - 270 290 - 310	27,4 - 33,5 39,6 - 82,3 88,4 - 94,5	140 90 70	90 - 210 230 - 310 —	27,4 - 64,0 70,1 - 94,5 —	140 90 —	90 - 270 290 - 310 —	27,4 - 82,3 88,4 - 94,5 —	140 90 —
240	73,2	90 - 210 230 - 310	27,4 - 64,0 70,1 - 94,5	90 70	90 - 170 190 - 310	27,4 - 51,8 57,9 - 94,5	140 90	90 - 230 250 - 310	27,4 - 70,1 76,2 - 94,5	140 90
260	79,2	(a)90 - 190 (b)210 - 250	27,4 - 57,9 64,0 - 76,2	70 —	90 - 130 150 - 310	27,4 - 39,6 45,7 - 94,5	140 90	90 - 190 210 - 310	27,4 - 57,9 64,0 - 94,5	140 90
280	85,3	— — —	— — —	— — —	90 - 110 130 - 250 270 - 310	27,4 - 33,5 39,6 - 76,2 82,3 - 94,5	140 90 70	90 - 170 190 - 310 —	27,4 - 51,8 57,9 - 94,5 —	140 90 —
300	91,4	— — —	— — —	— — —	90 - 110 130 - 230 —	27,4 - 33,5 39,6 - 70,1 —	90 70 —	90 - 130 150 - 270 290 - 310	27,4 - 39,6 45,7 - 82,3 88,4 - 94,5	140 90 70
320	97,5	— — —	— — —	— — —	— — —	— — —	— — —	90 110 - 170 190 - 270	27,4 33,5 - 51,8 57,9 - 82,3	140 90 70

Load blocks, hook and weight ball on ground until boom and luffing jib are erected.
(a) Machine must be equipped with upperworks jacking cylinders.
(b) Raising reserve is less than 10% tip weight. When equipped with boom and/or jib catwalks, 250 ft (76,2 m) luffing jib on 260 ft (79,2 m) boom cannot be raised with 247,800 lb (112 400 kg) hanging counterweight.