Luffing Jib Raising Procedure 18000

Luffing Jib No. 44 On Boom No. 55-79A with 100 Ft. Mast No. 56

Recommended boom and luffing jib raising and lowering procedure.

Machine must be equipped with 528,000 Lb. (239 500 kg) crane counterweight and 320,000 Lb. (145 150 kg) carbody counterweight. Refer to luffing jib rigging assembly **No. A07766** for boom and luffing jib make-up of inserts, straps, struts and strut raising procedure and miscellaneous parts, etc.

Two methods may be used to raise and lower boom and luffing jib combinations, depending on length.

A. Standard (In-Line) Method

Haul in luffing hoist line (luff up) until adjustable jib straps are raised to clear strap stowage brackets on luffing jib (approx. 50 to 68 degree jib strut to horizontal angle). Do not exceed 70 degree jib strut to horizontal angle. Check jib strut position by viewing angle indicator. Slowly raise boom to tighten luffing jib suspension while jib point rollers are allowed to roll on ground. After luffing jib suspension is tight, boom and luffing jib can then be raised simultaneously using only the boom hoist. Raise boom to 60 degrees or greater. If boom to luffing jib angle is more than 160 degrees, lower luffing jib to obtain this angle to allow jib stop to engage (see caution). Boom and luffing jib can then be set to desired operating angle and radius. Luffing jib radius must be within capacity chart before swinging over side of machine. Reverse this procedure when lowering boom and luffing jib.

CAUTION: Failure to lower luffing jib to 160 degree boom to luffing jib angle will not allow luffing jib stop to engage. Structural damage may result.

The following combinations may be raised and lowered using this method.

WITH OR WITHOUT BOOM CATWALKS					
Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Standard (In-Line) Method					
Boom Length		**Over End of Blocked Crawlers**		**Over Side of Crawlers**	
		Luffing Jib No. 44		Luffing Jib No. 44	
Feet	Meters	Feet	Meters	Feet	Meters
140	42.7	70 - 240	21.3 - 73.2	70 - 240	21.3 - 73.2
160	48.8	70 - 230	21.3 - 70.1	70 - 230	21.3 - 70.1
180	54.9	70 - 200	21.3 - 61.0	70 - 190	21.3 - 57.9
200	61.0	70 - 170	21.3 - 51.8	70 - 150	21.3 - 45.7
220	67.1	70 - 140	21.3 - 42.7	70 - 100	21.3 - 30.5
240	73.2	70 - 100	21.3 - 30.5		
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.					

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B. Jack-Knife Method

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

Haul in luffing hoist line (luff up) until adjustable jib straps are raised to clear strap stowage brackets on luffing jib (approx. 50 to 68 degree jib strut to horizontal angle). Do not exceed 70 degree jib strut to horizontal angle. Check jib strut position by viewing angle indicator. Slowly raise boom while jib point rollers are allowed to roll on ground. Tension should be applied to luffing jib hoist to keep adjustable jib straps off luffing jib during boom raising. Boom up until boom to luffing jib angle reaches value specified in table or jib is vertical, whichever occurs first. 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.

Position boom at 70 degrees or greater 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. If luffing jib is hanging vertical, raise luffing jib a few degrees forward of vertical. Continue to lower boom while luffing jib rolls along ground. Keep enough tension on luffing jib hoist to keep adjustable jib straps off luffing jib and lower boom to ground.

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

The following boom and luffing jib combinations require jack-knifing to a specified boom to luffing jib angle for raising and lowering.

WITH OR WITHOUT BOOM CATWALKS							
Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method							
		Over End of Blocked Crawlers			**Over Side of Crawlers**		
Boom Length		Luffing Jib No. 44		Boom to Luffing Jib Angle	Luffing Jib No. 44		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
160	48.8	240	73.2	90	240	73.2	90
180	54.9	210 - 240	64.0 - 73.2	90	200 - 240	61.0 - 73.2	90
200	61.0	180 - 240	54.9 - 73.2	90	160 - 240	48.8 - 73.2	90
220	67.1	150 - 240	45.7 - 73.2	90	110 - 240	33.5 - 73.2	90
240	73.2	110 - 240	33.5 - 73.2	90	70 - 220	21.3 - 67.1	70
260	79.2	70 - 240	21.3 - 73.2	70			
280*	85.3	70 - 230(a)	21.3 - 70.1	70			
280*	85.3	240(a)(b)	73.2	70			

Load blocks, hook and weight ball on ground until boom and luffing jib are erected.

*Remove lower boom point.

(a) Machine must be equipped with optional upperworks jacking cylinders.

(b) Raising reserve less than 10% tip weight.