

# Luffing Jib Raising Procedure

## MLC300

Luffing Jib No. LJ10:501 on  
Boom No. B10:500  
with Fixed Position Counterweight  
at 13.4 ft Position

### Recommended boom and luffing jib raising and lowering procedure

MLC300 SERIES 1 must be equipped with 309,100 lb counterweight; MLC300 SERIES 2 must be equipped with 397,300 lb counterweight; MLC300 SERIES 3 must be equipped with 441,400 lb counterweight. Refer to Luffing Jib Rigging No. 81023383 for boom and luffing jib make-up of inserts, straps, struts, strut raising and lowering procedure, jib stop operation and miscellaneous parts, etc. Refer to the Operator Manual for setup and installation.

**Caution:** Any time luffing jib point rollers are in contact with ground during raising or lowering procedure, release swing brake. *Structural damage can occur.*

**Caution:** Do not under any condition allow boom-to-luffing jib angle to become less than 70 degrees. *Structural damage can occur.*

**Warning:** Machines manufactured prior to S/N 607860 require rotating bed modification No. 84054771 before use of this chart. *Structural damage can occur.*

#### Raising:

Starting position for the jib stops is resting on the boom top's jib stop lugs. Luff up jib strut until straps on inserts are clear of strap supports. Slowly raise boom while luffing jib point rollers are allowed to roll on ground. Tension should be applied to luffing jib hoist to keep jib straps clear of strap supports. Boom up and luff down until boom-to-luffing jib angle reaches value specified in Tables 1 thru 3 or luffing 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 83 degrees or the operating radius is within capacity chart and the luffing jib is above horizontal. If boom-to-luffing jib angle is greater than 145 degrees, lower luffing jib to obtain this angle to allow jib stops to properly position.

**Warning:** Failure to lower luffing jib to 145 degree boom-to-luffing jib angle will not allow jib stops to engage. *Structural damage and/or loss of luffing jib stability can occur.*

#### Lowering:

Position boom at 83 degrees prior to lowering luffing jib. Lower luffing jib until boom-to-luffing jib angle reaches value specified in Tables 1 thru 3. Lower boom until luffing jib point rollers contact ground. If luffing jib is hanging vertical, raise luffing jib a few degrees forward of vertical. Should luffing jib fail to roll along ground it may be necessary to provide outside assistance. Continue to lower boom while luffing jib rolls along ground. Keep enough tension on luffing jib hoist to keep jib straps clear of strap supports.

**Warning:** Do not under any condition allow boom-to-luffing jib angle to become greater than 145 degrees before luffing jib point rollers contact ground. Jib stop may engage boom top during lowering. *Structural damage can occur.*

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Refer to Tables 1 thru 3 for raising ability with the maximum weight of load blocks, hooks, weight ball, slings and hoist lines beneath boom and jib point sheaves. For block weights shown with #, load blocks, hooks, weight ball and slings must remain on ground until combined weights are within rated capacity of chart.

**Table 1**

MLC300 SERIES 1										
Boom Length	Boom to Luffing Jib Angle	Over End of Blocked Crawlers				Over End or Side of Crawlers				Boom to Luffing Jib Angle
		Weight Under Load Point								
		Boom	Jib	Boom	Jib	Boom	Jib	Boom	Jib	
		#	#	8,000 lb	6,200 lb	#	#	8,000 lb	6,200 lb	
Feet	Degrees	Luffing Jib Length - Feet								Degrees
98.4	145	78.7 - 118.1		78.7		78.7		—		145
	90	78.7 - 236.2		78.7 - 196.9		78.7 - 196.9		78.7 - 157.5		90
	70	78.7 - 275.6		78.7 - 275.6		78.7 - 255.9		78.7 - 255.9		70
118.1	145	78.7		—		—		—		145
	90	78.7 - 196.9		78.7 - 157.5		78.7 - 157.5		—		90
	70	78.7 - 275.6		78.7 - 275.6		78.7 - 255.9		78.7 - 236.2		70
137.8	145	—		—		—		—		145
	90	78.7 - 137.8		—		—		—		90
	70	78.7 - 275.6		78.7 - 196.9		78.7 - 137.8		—		70
157.5	70	118.1 - 137.8		—		—		—		70
	(a)70	78.7 - 196.9		—		—		—		(a)70

(a) Requires lower boom point to be removed.

**Warning:** Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius and crane configuration is within 360 degree chart. *Crane tipping or structural damage can occur.*

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Table 2

MLC300 SERIES 2										
Boom Length	Boom to Luffing Jib Angle	Over End of Blocked Crawlers				Over End or Side of Crawlers				Boom to Luffing Jib Angle
		Weight Under Load Point								
		Boom	Jib	Boom	Jib	Boom	Jib	Boom	Jib	
		#	#	8,000 lb	6,200 lb	#	#	8,000 lb	6,200 lb	
Feet	Degrees	Luffing Jib Length - Feet								Degrees
98.4	145	78.7 - 157.5	78.7 - 118.1	78.7 - 137.8	78.7 - 98.4	145				
	90	78.7 - 295.3	78.7 - 255.9	78.7 - 255.9	78.7 - 216.5	90				
	70	78.7 - 315.0	78.7 - 295.3	78.7 - 295.3	78.7 - 295.3	70				
118.1	145	78.7 - 118.1	78.7	78.7	—	145				
	90	78.7 - 255.9	78.7 - 216.5	78.7 - 216.5	78.7 - 157.5	90				
	70	78.7 - 315.0	78.7 - 275.6	78.7 - 295.3	78.7 - 275.6	70				
137.8	145	78.7	—	—	—	145				
	90	78.7 - 216.5	78.7 - 157.5	78.7 - 157.5	—	90				
	70	78.7 - 315.0	78.7 - 196.9	78.7 - 295.3	78.7 - 196.9	70				
157.5	90	78.7 - 137.8	—	—	—	90				
	70	78.7 - 216.5	78.7 - 137.8	78.7 - 157.5	—	70				
	(a)70	78.7 - 275.6	—	78.7 - 255.9	—	(a)70				
177.2	70	98.4 - 118.1	—	—	—	70				
	(a)90	78.7 - 137.8	—	—	—	(a)90				
	(a)70	98.4 - 157.5	—	118.1 - 137.8	—	(a)70				

(a) Requires lower boom point to be removed.

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Table 3

MLC300 SERIES 3										
Boom Length	Boom to Luffing Jib Angle	Over End of Blocked Crawlers				Over End or Side of Crawlers				Boom to Luffing Jib Angle
		Weight Under Load Point								
		Boom	Jib	Boom	Jib	Boom	Jib	Boom	Jib	
		#	#	8,000 lb	6,200 lb	#	#	8,000 lb	6,200 lb	
Feet	Degrees	Luffing Jib Length - Feet								Degrees
98.4	145	78.7 - 196.9	78.7 - 157.5	78.7 - 157.5	78.7 - 118.1	78.7 - 118.1	78.7 - 118.1	78.7 - 118.1	145	
	90	78.7 - 315.0	78.7 - 275.6	78.7 - 275.6	78.7 - 236.2	78.7 - 236.2	78.7 - 236.2	78.7 - 236.2	90	
	70	78.7 - 315.0	78.7 - 295.3	78.7 - 295.3	78.7 - 295.3	78.7 - 295.3	78.7 - 295.3	78.7 - 295.3	70	
118.1	145	78.7 - 157.5	78.7 - 98.4	78.7 - 118.1	—	—	—	—	145	
	90	78.7 - 295.3	78.7 - 236.2	78.7 - 236.2	78.7 - 196.9	78.7 - 196.9	78.7 - 196.9	78.7 - 196.9	90	
	70	78.7 - 315.0	78.7 - 275.6	78.7 - 295.3	78.7 - 275.6	78.7 - 275.6	78.7 - 275.6	78.7 - 275.6	70	
137.8	145	78.7 - 118.1	—	—	—	—	—	—	145	
	90	78.7 - 255.9	78.7 - 196.9	78.7 - 196.9	78.7 - 118.1	78.7 - 118.1	78.7 - 118.1	78.7 - 118.1	90	
	70	78.7 - 315.0	78.7 - 196.9	78.7 - 295.3	78.7 - 196.9	78.7 - 196.9	78.7 - 196.9	78.7 - 196.9	70	
157.5	90	78.7 - 196.9	78.7	78.7	—	—	—	—	90	
	70	78.7 - 255.9	78.7 - 137.8	78.7 - 255.9	137.8	137.8	—	—	70	
	(a)70	78.7 - 315.0	—	78.7 - 315.0	—	—	—	—	(a)70	
177.2	70	98.4 - 137.8	—	—	—	—	—	—	70	
	(a)90	78.7 - 196.9	—	—	—	—	—	—	(a)90	
	(a)70	98.4 - 196.9	—	98.4 - 196.9	—	—	—	—	(a)70	

(a) Requires lower boom point to be removed.

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