

# Luffing Jib Raising Procedure

## MLC300

Luffing Jib No. LJ10:501 on  
Boom No. B10:500

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

MLC300 SERIES 1 must be equipped with 298,100 lb VPC (Variable Position Counterweight); MLC300 SERIES 2 must be equipped with 386,200 lb VPC; MLC300 SERIES 3 must be equipped with 474,400 lb VPC. 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.*

#### 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.

**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:** If luffing jib fails to roll once luffing jib point rollers contact ground, lock counterweight until boom-to-luffing jib angle has reached 135 degrees. Luffing jib point rollers must remain on ground with jib straps slack. Once boom-to-luffing jib angle has reached 135 degrees unlock counterweight and continue booming down. *Failure to lock and unlock counterweight as instructed may result in a loss of machine stability.*

**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 balls, slings and hoist lines beneath boom and jib point sheaves. For block weights shown with #, load blocks, hooks, weight balls 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 - 157.5		78.7 - 118.1		78.7 - 137.8		78.7 - 98.4		145
	90	78.7 - 275.6		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 - 255.9		70
118.1	145	78.7 - 118.1		78.7		78.7 - 98.4		—		145
	90	78.7 - 255.9		78.7 - 216.5		78.7 - 216.5		78.7 - 177.2		90
	70	78.7 - 315.0		78.7 - 275.6		78.7 - 295.3		78.7 - 255.9		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	145	—		—		—		—		145
	90	78.7 - 137.8		—		—		—		90
	70	78.7 - 275.6		78.7 - 137.8		78.7 - 157.5		—		70
(a)177.2	145	—		—		—		—		145
	90	78.7 - 137.8		78.7 - 98.4		—		—		90
	70	98.4 - 216.5		98.4		118.1		—		70
(a) Requires lower boom point to be removed.										
<b>Warning:</b> 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. <i>Crane tipping or structural damage can occur.</i>										

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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 - 216.5		78.7 - 177.2		78.7 - 196.9		78.7 - 157.5		145
	90	78.7 - 315.0		78.7 - 295.3		78.7 - 315.0		78.7 - 275.3		90
	70	78.7 - 315.0		78.7 - 295.3		78.7 - 315.0		78.7 - 295.3		70
118.1	145	78.7 - 177.2		78.7 - 137.8		78.7 - 157.5		78.7 - 98.4		145
	90	78.7 - 315.0		78.7 - 275.6		78.7 - 295.3		78.7 - 236.2		90
	70	78.7 - 315.0		78.7 - 275.6		78.7 - 315.0		78.7 - 275.6		70
137.8	145	78.7 - 137.8		78.7 - 98.4		78.7 - 118.1		—		145
	90	78.7 - 295.3		78.7 - 196.9		78.7 - 255.9		78.7 - 196.9		90
	70	78.7 - 315.0		78.7 - 196.9		78.7 - 315.0		78.7 - 196.9		70
157.5	145	78.7 - 98.4		—		—		—		145
	90	78.7 - 255.9		78.7 - 137.8		78.7 - 196.9		78.7		90
	70	78.7 - 315.0		78.7 - 137.8		78.7 - 315.0		78.7 - 137.8		70
(a)177.2	145	78.7 - 98.4		78.7 - 98.4		—		—		145
	90	78.7 - 255.9		78.7 - 216.5		78.7 - 196.9		78.7 - 177.2		90
	70	98.4 - 315.0		98.4 - 255.9		98.4 - 295.3		98.4 - 177.2		70
(a)196.9	145	—		—		—		—		145
	90	78.7 - 177.2		78.7 - 157.5		—		—		90
	70	98.4 - 216.5		98.4 - 157.5		98.4 - 177.2		—		70
(a) Requires lower boom point to be removed.										
<b>Warning:</b> 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. <i>Crane tipping or structural damage can occur.</i>										

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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 - 275.6		78.7 - 236.2		78.7 - 236.2		78.7 - 196.9		145
	90	78.7 - 315.0		78.7 - 295.3		78.7 - 315.0		78.7 - 295.3		90
	70	78.7 - 315.0		78.7 - 295.3		78.7 - 315.0		78.7 - 295.3		70
118.1	145	78.7 - 236.2		78.7 - 196.9		78.7 - 196.9		78.7 - 157.5		145
	90	78.7 - 315.0		78.7 - 275.6		78.7 - 315.0		78.7 - 275.6		90
	70	78.7 - 315.0		78.7 - 275.6		78.7 - 315.0		78.7 - 275.6		70
137.8	145	78.7 - 196.9		78.7 - 157.5		78.7 - 157.5		78.7 - 118.1		145
	90	78.7 - 315.0		78.7 - 196.9		78.7 - 315.0		78.7 - 196.9		90
	70	78.7 - 315.0		78.7 - 196.9		78.7 - 315.0		78.7 - 196.9		70
157.5	145	78.7 - 157.5		78.7 - 118.1		78.7 - 118.1		78.7		145
	90	78.7 - 295.3		78.7 - 137.8		78.7 - 275.6		78.7 - 137.8		90
	70	78.7 - 315.0		78.7 - 137.8		78.7 - 315.0		78.7 - 137.8		70
(a)177.2	145	78.7 - 157.5		78.7 - 157.5		78.7 - 137.8		78.7 - 118.1		145
	90	78.7 - 275.6		78.7 - 216.5		78.7 - 275.6		78.7 - 216.5		90
	70	98.4 - 315.0		98.4 - 275.6		98.4 - 315.0		98.4 - 275.6		70
(a)196.9	145	78.7 - 118.1		78.7 - 118.1		78.7		78.7		145
	90	78.7 - 196.9		78.7 - 157.5		78.7 - 196.9		78.7 - 157.5		90
	70	98.4 - 216.5		98.4 - 196.9		98.4 - 216.5		98.4 - 196.9		70
(a)216.5	145	78.7		—		—		—		145
	90	78.7 - 118.1		—		78.7 - 118.1		—		90
	70	118.1 - 137.8		—		118.1		—		70
(a) Requires lower boom point to be removed.										
<b>Warning:</b> 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. <i>Crane tipping or structural damage can occur.</i>										