

Luffing Jib Raising Procedure

MLC150-1

Luffing Jib No. 135A on
Boom No. B20:350

Recommended boom and luffing jib raising and lowering procedure

MLC150-1 SERIES 1 must be equipped with 75,200 lb crane counterweight and 0 lb carbody counterweight; MLC150-1 SERIES 2 must be equipped with 110,500 lb crane counterweight and 35,000 lb carbody counterweight. Refer to luffing jib rigging assembly **No. 80117862** for boom and luffing jib make-up of inserts, pendants, struts, strut raising and lowering procedure, jib stop setup and operation, 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 60 degrees. *Structural damage can occur.*

Caution: Boom load hoist may not be operated when boom and luffing jib are beyond radii specified in Boom Capacities with Luffing Jib Attached chart. *Structural damage can occur.*

Raising:

Luff up jib strut to keep luffing jib strut off luffing jib during boom raising. Slowly raise boom while luffing jib point wheels are allowed to roll on ground. When luffing jib stop strut is just clear of ground, attach luffing jib stop pendants and unpin luffing jib stop inner strut from retracted position. Slowly raise boom until luffing jib stop strut is fully extended and pins engaged (approximately 168 degree boom-to-luffing jib angle). Continue to boom up and luff down, with luffing jib wheels rolling on ground, until boom-to-luffing jib angle reaches value specified in Tables 1 and 2 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 80 degrees or the operating radius is within capacity chart and luffing jib is above horizontal. Luffing jib radius must be within capacity chart before swinging over side of machine when raising over front of blocked crawlers.

Warning: Failure to lower luffing jib to 168 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 80 degrees prior to lowering luffing jib. Lower luffing jib until boom-to-luffing jib angle reaches value specified in Tables 1 and 2. Lower boom until luffing jib point wheels contact ground. If luffing jib is hanging vertical, raise luffing jib a few degrees forward of vertical. Continue to lower boom while luffing jib wheels roll along ground. Keep enough tension on luffing jib hoist to keep luffing jib strut off luffing jib. Stop lowering boom when luffing jib stop pendants start to go into tension (approximately 168 degree boom-to-luffing jib angle). Disengage luffing jib stop strut pins and lower boom to retract luffing jib stop inner strut. Pin strut in retracted position.

Warning: Failure to disengage luffing jib stop strut pins when luffing jib stop pendants go into tension will not allow jib stops to disengage. *Structural damage can occur.*

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Refer to Tables 1 and 2 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

MLC150-1 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	
		#	#	3,400 lb	2,900 lb	#	#	3,400 lb	2,900 lb	
Feet	Degrees	Luffing Jib Length - Feet								Degrees
68.9	168	70.0 - 150.0		70.0 - 110.0		70.0 - 110.0		70.0		168
	90	70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		90
	60	70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		60
78.7	168	70.0 - 120.0		70.0 - 80.0		70.0 - 90.0		—		168
	90	70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		70.0 - 160.0		90
	60	70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		60
88.6	168	70.0 - 100.0		—		70.0		—		168
	90	70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		70.0 - 120.0		90
	60	70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		60
98.4	168	70.0 - 80.0		—		—		—		168
	90	70.0 - 170.0		70.0 - 150.0		70.0 - 160.0		—		90
	60	70.0 - 170.0		70.0 - 170.0		70.0 - 170.0		70.0 - 150.0		60
108.3	90	70.0 - 170.0		—		70.0		—		90
	60	70.0 - 170.0		70.0 - 170.0		70.0 - 150.0		—		60
118.1	90	70.0 - 130.0		—		—		—		90
	60	70.0 - 170.0		—		—		—		60
128.0	60	70.0 - 90.0		—		—		—		60
	60(a)	70.0 - 130.0		—		—		—		60(a)

(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 is within 360 degree chart. Crane tipping or structural damage can occur.

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Table 2

MLC150-1 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	
		#	#	3,400 lb	2,900 lb	#	#	3,400 lb	2,900 lb	
Feet	Degrees	Luffing Jib Length - Feet								Degrees
68.9	168	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 130.0	168				
	90	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	90				
	60	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	60				
78.7	168	70.0 - 170.0	70.0 - 150.0	70.0 - 160.0	70.0 - 110.0	168				
	90	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	90				
	60	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	60				
88.6	168	70.0 - 170.0	70.0 - 130.0	70.0 - 130.0	70.0 - 90.0	168				
	90	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	90				
	60	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	60				
98.4	168	70.0 - 150.0	70.0 - 110.0	70.0 - 110.0	70.0	168				
	90	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	90				
	60	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	60				
108.3	168	70.0 - 130.0	70.0 - 80.0	70.0 - 90.0	—	168				
	90	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	90				
	60	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	60				
118.1	168	70.0 - 110.0	—	70.0	—	168				
	90	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 90.0	90				
	60	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	60				
128.0	168	70.0 - 90.0	—	—	—	168				
	90	70.0 - 170.0	70.0 - 150.0	70.0 - 170.0	—	90				
	60	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 150.0	60				
137.8	90	70.0 - 170.0	—	—	—	90				
	60	70.0 - 170.0	70.0 - 170.0	70.0 - 160.0	—	60				
147.6	90	70.0 - 150.0	—	—	—	90				
	60	70.0 - 170.0	90.0 - 110.0	—	—	60				
157.5	60	70.0 - 130.0	—	—	—	60				
	60(a)	70.0 - 170.0	—	—	—	60(a)				

(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 is within 360 degree chart. Crane tipping or structural damage can occur.