

Luffing Jib Raising Procedure

MLC250

Luffing Jib No. 135 on
Boom No. B10:82A

Recommended boom and luffing jib raising and lowering procedure

MLC250 SERIES 1 must be equipped with 149,600 lb crane counterweight; MLC250 SERIES 2 must be equipped with 184,600 lb crane counterweight and 44,000 lb carbody counterweight; and MLC250 SERIES 3 must be equipped with 219,600 lb crane counterweight and 80,000 lb carbody counterweight. Refer to luffing jib rigging assembly **No. 80138074** 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 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 75 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 75 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 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 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

MLC250 SERIES 1												
Boom Length	Boom to Luffing Jib Angle	Maximum Number Lower Boom Point Sheaves	Over End of Blocked Crawlers		Over End or Side of Crawlers				Maximum Number Lower Boom Point Sheaves	Boom to Luffing Jib Angle		
			Weight Under Load Point									
			Boom	Jib	Boom	Jib	Boom	Jib			Boom	Jib
Feet	Degrees		#	#	7,000 lb	3,600 lb	#	#	7,000 lb	3,600 lb		Degrees
Luffing Jib Length - Feet												
80.0	168	8	70.0 - 170.0	70.0 - 160.0	70.0 - 170.0	70.0 - 120.0	8	168				
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90				
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60				
90.0	168	8	70.0 - 170.0	70.0 - 130.0	70.0 - 160.0	70.0 - 90.0	8	168				
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90				
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60				
100.0	168	8	70.0 - 170.0	70.0 - 110.0	70.0 - 130.0	—	8	168				
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90				
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60				
110.0	168	8	70.0 - 150.0	70.0 - 70.0	70.0 - 110.0	—	8	168				
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90				
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60				
120.0	168	8	70.0 - 130.0	—	70.0 - 80.0	—	8	168				
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	—	8	90				
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60				
130.0	168	8	70.0 - 100.0	—	—	—	8	168				
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	—	8	90				
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	80.0 - 90.0	8	60				
140.0	168	8	70.0 - 70.0	—	—	—	8	168				
	90	8	70.0 - 170.0	—	70.0 - 150.0	—	8	90				
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	—	8	60				
150.0	168	8	—	—	—	—	8	168				
	90	8	70.0 - 170.0	—	—	—	8	90				
	60	8	70.0 - 170.0	—	80.0 - 90.0	—	8	60				
160.0	168	8	—	—	—	—	8	168				
	90	8	—	—	—	—	8	90				
	60	8	70.0 - 170.0	—	—	—	8	60				

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

MLC250 SERIES 2										
Boom Length	Boom to Luffing Jib Angle	Maximum Number Lower Boom Point Sheaves	Over End of Blocked Crawlers		Over End or Side of Crawlers				Maximum Number Lower Boom Point Sheaves	Boom to Luffing Jib Angle
			Weight Under Load Point							
			Boom #	Jib #	Boom 7,000 lb	Jib 3,600 lb	Boom #	Jib #		
Feet	Degrees		Luffing Jib Length - Feet							Degrees
80.0	168	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	168
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60
90.0	168	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 150.0	70.0 - 170.0	8	168
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60
100.0	168	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 120.0	70.0 - 170.0	8	168
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60
110.0	168	8	70.0 - 170.0	70.0 - 140.0	70.0 - 170.0	70.0 - 170.0	70.0 - 90.0	70.0 - 170.0	8	168
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60
120.0	168	8	70.0 - 170.0	70.0 - 120.0	70.0 - 150.0	70.0 - 170.0	70.0 - 70.0	70.0 - 170.0	8	168
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60
130.0	168	8	70.0 - 170.0	70.0 - 90.0	70.0 - 120.0	70.0 - 170.0	—	70.0 - 170.0	8	168
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60
140.0	168	8	70.0 - 150.0	70.0 - 70.0	70.0 - 90.0	70.0 - 170.0	—	70.0 - 130.0	8	168
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60
150.0	168	8	70.0 - 120.0	—	70.0 - 70.0	70.0 - 170.0	—	—	8	168
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	—	—	8	90
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	80.0 - 150.0	—	8	60
160.0	168	8	70.0 - 90.0	—	—	70.0 - 170.0	—	—	8	168
	90	8	70.0 - 170.0	—	70.0 - 170.0	70.0 - 170.0	—	—	8	90
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	—	—	8	60
170.0	168	8	70.0 - 70.0	—	—	—	—	—	8	168
	90	8	70.0 - 170.0	—	—	—	—	—	8	90
	60	8	70.0 - 170.0	100.0 - 130.0	70.0 - 160.0	—	—	—	8	60
180.0	168	8	—	—	—	—	—	—	8	168
	90	8	70.0 - 170.0	—	—	—	—	—	8	90
	60	8	70.0 - 170.0	—	—	—	—	—	8	60
190.0	168	2	—	—	—	—	—	—	2	168
	90	2	—	—	—	—	—	—	2	90
	60	2	70.0 - 170.0	—	—	—	—	—	2	60

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 3

MLC250 SERIES 3												
Boom Length	Boom to Luffing Jib Angle	Maximum Number Lower Boom Point Sheaves	Over End of Blocked Crawlers				Over End or Side of Crawlers				Maximum Number Lower Boom Point Sheaves	Boom to Luffing Jib Angle
			Weight Under Load Point									
			Boom	Jib	Boom	Jib	Boom	Jib	Boom	Jib		
			#	#	7,000 lb	3,600 lb	#	#	7,000 lb	3,600 lb		
Feet	Degrees		Luffing Jib Length - Feet								Sheaves	Degrees
80.0	168	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60	
90.0	168	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60	
100.0	168	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60	
110.0	168	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 150.0	70.0 - 170.0	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60	
120.0	168	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 120.0	70.0 - 170.0	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60	
130.0	168	8	70.0 - 170.0	70.0 - 150.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 100.0	70.0 - 170.0	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60	
140.0	168	8	70.0 - 170.0	70.0 - 130.0	70.0 - 150.0	70.0 - 150.0	70.0 - 70.0	70.0 - 70.0	70.0 - 170.0	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60	
150.0	168	8	70.0 - 170.0	70.0 - 90.0	70.0 - 130.0	70.0 - 130.0	—	—	70.0 - 170.0	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60	
160.0	168	8	70.0 - 160.0	70.0 - 70.0	70.0 - 110.0	70.0 - 110.0	—	—	70.0 - 170.0	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	—	—	70.0 - 170.0	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	8	60	
170.0	168	8	70.0 - 130.0	—	70.0 - 70.0	70.0 - 70.0	—	—	—	8	168	
	90	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	—	—	—	8	90	
	60	8	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	70.0 - 170.0	90.0 - 170.0	—	—	8	60	
180.0	168	8	70.0 - 110.0	—	—	—	—	—	—	8	168	
	90	8	70.0 - 170.0	—	70.0 - 170.0	70.0 - 170.0	—	—	—	8	90	
	60	8	70.0 - 170.0	70.0 - 150.0	70.0 - 170.0	70.0 - 170.0	—	—	—	8	60	
190.0	168	2	70.0 - 90.0	—	—	—	—	—	—	2	168	
	90	2	70.0 - 170.0	—	—	—	—	—	—	2	90	
	60	2	70.0 - 170.0	—	70.0 - 170.0	70.0 - 170.0	—	—	—	2	60	
200.0	168	0	70.0 - 70.0	—	—	—	—	—	—	0	168	
	90	0	70.0 - 170.0	—	—	—	—	—	—	0	90	
	60	0	70.0 - 170.0	—	100.0 - 150.0	100.0 - 150.0	—	—	—	0	60	

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.