Luffing Jib Raising Procedure MLC165

Luffing Jib No. 135 on Boom No. 74

Recommended boom and luffing jib raising and lowering procedure

MLC165 SERIES 1 must be equipped with 45 130 kg crane counterweight and 0 kg carbody counterweight; MLC165 SERIES 2 must be equipped with 55 110 kg crane counterweight and 16 010 kg carbody counterweight. Refer to luffing jib rigging assembly **No. 81022481** for boom and luffing jib make-up of inserts, pendants, struts, strut raising and lowering procedure, jib stop setup and operation and miscellaneous parts, etc. Refer to Operator's Manual for setup and installation.

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

***Caution*:** Anytime luffing jib point rollers are in contact with ground during raising or lowering procedure, disengage swing lock if equipped, and release swing brake.

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 with luffing jib wheels rolling on ground until boom-to-luffing jib angle reaches value specified in Tables 1 and 2 or 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 when raising over front of blocked crawlers.

Lowering:

Position boom at 85 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.

***Caution*:** Do not under any condition allow boom to luffing jib angle to become less than 60 degrees.

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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. Raising with blocks requires luffing jib wire rope guard per delta note 36 on rigging drawing. 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

MLC165 SERIES 1									
Boom Length	Boom to Luffing Jib Angle	Over Front 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	
		#	#	2 760 kg	1 040 kg	#	#	2 760 kg	1 040 kg	
Meters	Degrees	Luffing Jib Length - Meters								Degrees
21,0	168	21,3 - 51,8		21,3 - 36,6		21,3 - 39,6		21,3 - 27,4		168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		60
24,0	168	21,3 - 45,7		21,3 - 30,5		21,3 - 33,5		—		168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		60
27,0	168	21,3 - 36,6		21,3		21,3 - 27,4		—		168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		60
30,0	168	21,3 - 30,5		—		21,3		—		168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 39,6		90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		60
33,0	168	21,3 - 24,4		—		—		—		168
	90	21,3 - 51,8		21,3 - 48,8		21,3 - 51,8		—		90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 33,5		60
36,0	90	21,3 - 51,8		—		21,3		—		90
	60	21,3 - 51,8		21,3 - 45,7		21,3 - 51,8		—		60
39,0	90	21,3 - 45,7		—		—		—		90
	60	21,3 - 51,8		—		—		—		60
(a)42,0	60	21,3 - 51,8		—		—		—		60
(a) Requires lower boom point to be removed.										

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Table 2

MLC165 SERIES 2									
Boom Length	Boom to Luffing Jib Angle	Over Front 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	
		#	#	2 760 kg	1 040 kg	#	#	2 760 kg	1 040 kg	
Meters	Degrees	Luffing Jib Length - Meters							Degrees
21,0	168	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 42,7	168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	60
24,0	168	21,3 - 51,8		21,3 - 45,7		21,3 - 48,8		21,3 - 36,6	168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	60
27,0	168	21,3 - 51,8		21,3 - 39,6		21,3 - 42,7		21,3 - 27,4	168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	60
30,0	168	21,3 - 48,8		21,3 - 33,5		21,3 - 36,6		21,3	168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	60
33,0	168	21,3 - 42,7		21,3 - 24,4		21,3 - 30,5		—	168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	60
36,0	168	21,3 - 33,5		—		21,3 - 24,4		—	168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 39,6	90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 51,8	60
39,0	168	21,3 - 27,4		—		—		—	168
	90	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		—	90
	60	21,3 - 51,8		21,3 - 51,8		21,3 - 51,8		21,3 - 45,7	60
42,0	168	21,3		—		—		—	168
	90	21,3 - 51,8		—		21,3 - 39,6		—	90
	60	21,3 - 51,8		21,3 - 39,6		21,3 - 51,8		—	60
45,0	90	21,3 - 51,8		—		—		—	90
	60	21,3 - 51,8		—		21,3 - 45,7		—	60
48,0	60	21,3 - 51,8		—		—		—	60
(a)51,8	60	21,3 - 51,8		—		—		—	60
(a) Requires lower boom point to be removed.									