Luffing Jib Raising Procedure

MLC650

Luffing Jib No. LJ10:681-682 on
Boom No. B10:680

Recommended boom and luffing jib raising and lowering procedure

MLC650 SERIES 2 must be equipped with 300 000 kg VPC (Variable Position Counterweight); MLC650 SERIES 3 must be equipped with 400 000 kg VPC. Refer to Luffing Jib Rigging **No. 81018143** 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.

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

Raising:

Starting position for the jib stops is resting on fully retracted jib stop support cylinders. 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 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 85 degrees or the operating radius is within capacity chart and luffing jib is above horizontal. If boom-to-luffing jib angle is greater than 135 degrees, lower luffing jib to obtain this angle to allow jib stops to properly position. Ensure both jib stop positioning rollers have correctly located the jib stops (jib stop support cylinders extended) and are flipped over center towards the boom top with pendants slack. Luffing jib radius must be within capacity chart before swinging over side of machine.

Warning: Failure to lower luffing jib to 135 degree boom-to-luffing jib angle will not allow jib stops to engage. Structural damage and/or loss of luffing jib stability may result.

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 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 until boom to luffing jib angle reaches a maximum of 150 degrees and activate jib stop support cylinder release. 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 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 150 degrees before activating jib stop positioning cylinder release. Jib stop may engage boom top during lowering.

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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

MLC650 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	
		#	#	5 900 kg	8 100 kg	#	#	5 900 kg	8 100 kg	
Meters	Degrees	Luffing Jib Length - Meters								Degrees
38,0	135	26,0 - 65,0		26,0 - 53,0		26,0 - 59,0		26,0 - 44,0		135
	90	26,0 - 101,0		26,0 - 71,0		26,0 - 101,0		26,0 - 71,0		90
	70	26,0 - 101,0		26,0 - 71,0		26,0 - 101,0		26,0 - 71,0		70
44,0	135	26,0 - 53,0		26,0 - 44,0		26,0 - 47,0		26,0 - 32,0		135
	90	26,0 - 101,0		26,0 - 65,0		26,0 - 95,0		26,0 - 65,0		90
	70	26,0 - 101,0		26,0 - 65,0		26,0 - 101,0		26,0 - 65,0		70
50,0	135	26,0 - 44,0		26,0 - 29,0		26,0 - 32,0		—		135
	90	26,0 - 101,0		26,0 - 59,0		26,0 - 83,0		26,0 - 53,0		90
	70	26,0 - 101,0		26,0 - 59,0		26,0 - 101,0		26,0 - 59,0		70
56,0	135	26,0 - 29,0		—		—		—		135
	90	26,0 - 83,0		26,0 - 41,0		26,0 - 59,0		—		90
	70	26,0 - 101,0		26,0 - 53,0		26,0 - 83,0		26,0		70
62,0	135	—		—		—		—		135
	90	26,0 - 47,0		—		—		—		90
	70	26,0 - 65,0		—		26,0 - 53,0		—		70
	(a)70	71,0 - 83,0		—		—		—		(a)70
68,0	135	—		—		—		—		135
	90	—		—		—		—		90
	(a)70	26,0 - 59,0		—		—		—		(a)70

(a) Requires lower boom point assemblies be removed.

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Table 2

MLC650 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	
		#	#	5 900 kg	8 100 kg	#	#	5 900 kg	8 100 kg	
Meters	Degrees	Luffing Jib Length - Meters								Degrees
38,0	135	26,0 - 89,0		26,0 - 71,0		26,0 - 83,0		26,0 - 65,0		135
	90	26,0 - 101,0		26,0 - 71,0		26,0 - 101,0		26,0 - 71,0		90
	70	26,0 - 101,0		26,0 - 71,0		26,0 - 101,0		26,0 - 71,0		70
44,0	135	26,0 - 77,0		26,0 - 53,0		26,0 - 71,0		26,0 - 53,0		135
	90	26,0 - 101,0		26,0 - 65,0		26,0 - 101,0		26,0 - 65,0		90
	70	26,0 - 101,0		26,0 - 65,0		26,0 - 101,0		26,0 - 65,0		70
50,0	135	26,0 - 59,0		26,0 - 41,0		26,0 - 59,0		26,0 - 41,0		135
	90	26,0 - 101,0		26,0 - 59,0		26,0 - 101,0		26,0 - 59,0		90
	70	26,0 - 101,0		26,0 - 59,0		26,0 - 101,0		26,0 - 59,0		70
56,0	135	26,0 - 47,0		26,0		26,0 - 29,0		26,0		135
	90	26,0 - 101,0		26,0 - 53,0		26,0 - 101,0		26,0 - 53,0		90
	70	26,0 - 101,0		26,0 - 53,0		26,0 - 101,0		26,0 - 53,0		70
62,0	135	26,0 - 29,0		—		—		—		135
	90	26,0 - 65,0		26,0 - 47,0		26,0 - 65,0		26,0 - 44,0		90
	70	26,0 - 65,0		26,0 - 47,0		26,0 - 65,0		26,0 - 47,0		70
	(a)70	71,0 - 83,0		—		—		—		(a)70
68,0	135	—		—		—		—		135
	90	26,0 - 47,0		—		26,0 - 47,0		—		90
	70	26,0 - 47,0		—		26,0 - 47,0		—		70
	(a)70	50,0 - 59,0		—		—		—		(a)70
(a) Requires lower boom point assemblies be removed.										