

Luffing Jib Raising Procedure

999 SERIES 1, 2, 3

Luffing Jib No. 135 On Boom No. 82 or 22EL

Recommended boom and luffing jib raising and lowering procedure:

999 SERIES 1 must be equipped with 149,000 lb (67 860 kg) crane counterweight, 999 SERIES 2 must be equipped with 184,600 lb (83 730 kg) crane counterweight and 44,000 lb (19 960 kg) carbody counterweight and 999 SERIES 3 must be equipped with 219,600 lb (99 610 kg) crane counterweight and 80,000 lb (36 290 kg) carbody counterweight for raising and lowering various boom and luffing jib combinations. Refer to luffing jib rigging assembly **No. 196199** (Boom No. 22EL) or **No. 196200** (Boom No. 82) without intermediate fall or **No. A09286** (Boom No. 22EL) or **No. A09287** (Boom No. 82) with intermediate fall for boom and luffing jib make-up of inserts, pendants and miscellaneous parts, etc.

Three methods may be used to raise and lower boom and luffing jib combinations, depending on length.

A. Layout In-Line Method

Boom and luffing jib are assembled in layout, end-to-end, position. Slowly raise boom until 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). Tighten luffing jib suspension with luffing jib hoist. Boom and luffing jib can then be raised simultaneously using only the boom hoist. Luffing jib radius must be within capacity chart before swinging over side of machine when raising over end of blocked crawlers. Reverse this procedure when lowering boom and luffing jib.

Boom and luffing jib combinations in following tables may be raised and lowered using layout in-line method. For jib lengths shown with (c), machine must be equipped with lowerworks jacking cylinders when boom catwalks are attached.

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 1					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using In-Line Method Without Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
70	21,3	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
80	24,4	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
90	27,4	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
100	30,5	70 - 170	21,3 - 51,8	70 - 150	21,3 - 45,7
110	33,5	70 - 170	21,3 - 51,8	70 - 120	21,3 - 36,6
120	36,6	70 - 140	21,3 - 42,7	70 - 90	21,3 - 27,4
130	39,6	70 - 120	21,3 - 36,6	70	21,3
140	42,7	70 - 90	21,3 - 27,4	—	—
150	45,7	70(c)	21,3	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected. Intermediate fall must be completely removed for 999 SERIES 1 application.					

Luffing Jib Raising Procedure

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Luffing Jib No.135 On Boom No. 82 or 22EL

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 2					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using In-Line Method Without Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
70	21,3	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
80	24,4	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
90	27,4	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
100	30,5	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
110	33,5	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
120	36,6	70 - 170	21,3 - 51,8	70 - 160	21,3 - 48,8
130	39,6	70 - 160	21,3 - 48,8	70 - 140	21,3 - 42,7
140	42,7	70 - 150	21,3 - 45,7	70 - 120	21,3 - 36,6
150	45,7	70 - 120	21,3 - 36,6	70 - 90	21,3 - 27,4
160	48,8	70 - 100	21,3 - 30,5	—	—
170	51,8	70 - 80	21,3 - 24,4	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.					

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 3					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using In-Line Method Without Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
70	21,3	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
80	24,4	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
90	27,4	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
100	30,5	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
110	33,5	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
120	36,6	70 - 170	21,3 - 51,8	70 - 170	21,3 - 51,8
130	39,6	70 - 160	21,3 - 48,8	70 - 160	21,3 - 48,8
140	42,7	70 - 150	21,3 - 45,7	70 - 150	21,3 - 45,7
150	45,7	70 - 120	21,3 - 36,6	70 - 120	21,3 - 36,6
160	48,8	70 - 100	21,3 - 30,5	70 - 100	21,3 - 30,5
170	51,8	70 - 80	21,3 - 24,4	70 - 80	21,3 - 24,4
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.					

Luffing Jib Raising Procedure

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Luffing Jib No. 135 On Boom No. 82 or 22EL

Boom and luffing jib combinations with intermediate fall in following tables may be raised and lowered using in-line method.

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 2					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using In-Line Method With Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
70	21,3	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
80	24,4	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
90	27,4	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
100	30,5	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
110	33,5	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
120	36,6	110 - 160	33,5 - 48,8	110 - 150	33,5 - 45,7
130	39,6	110 - 150	33,5 - 45,7	110 - 120	33,5 - 36,6
140	42,7	110 - 130	33,5 - 39,6	—	—
150	45,7	110	33,5	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.					

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 3					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using In-Line Method With Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
70	21,3	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
80	24,4	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
90	27,4	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
100	30,5	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
110	33,5	110 - 170	33,5 - 51,8	110 - 170	33,5 - 51,8
120	36,6	110 - 160	33,5 - 48,8	110 - 160	33,5 - 48,8
130	39,6	110 - 150	33,5 - 45,7	110 - 150	33,5 - 45,7
140	42,7	110 - 130	33,5 - 39,6	110 - 130	33,5 - 39,6
150	45,7	110	33,5	110	33,5
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.					

Luffing Jib Raising Procedure

999 SERIES 1, 2, 3

Luffing Jib No.135 On Boom No. 82 or 22EL

B. Layout Jack-Knife Method:

(Longer boom and luffing jib combinations must be raised and lowered using this method)

Raising:

Boom and luffing jib are assembled in layout, end-to-end, position. Slowly raise boom until 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). Boom is then raised while luffing jib point wheels are allowed to roll on ground. Tension should be applied to luffing jib hoist to keep luffing jib strut off luffing jib during boom raising. Boom up until boom-to-luffing jib angle reaches value specified in table below 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 end of blocked crawlers.

Lowering:

Position boom at 75 degrees prior to lowering luffing jib. Lower luffing jib until boom-to-luffing jib angle reaches value specified in table below. 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 rolls 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 and unpin luffing jib stop pendants. Rotate luffing jib stop struts forward and lower boom and luffing jib to ground.

Luffing Jib Raising Procedure

999 SERIES 1, 2, 3

Luffing Jib No. 135 On Boom No. 82 or 22EL

Boom and luffing jib combinations in following tables require layout jack-knifing to a specified boom-to-luffing jib angle for raising and lowering. Boom lengths shown with (a) require only the middle two sheaves in lower boom point. All other sheaves must be removed from lower boom point. Boom lengths shown with (b) require lower boom point to be removed. For jib lengths shown with (c), machine must be equipped with lowerworks jacking cylinders when boom catwalks are attached.

WITH OR WITHOUT BOOM CATWALKS							
999 SERIES 1							
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Without Intermediate Fall							
Boom Length		Over End of Blocked Crawlers			Over Side of Crawlers		
		Luffing Jib No. 135		Boom to Luffing Jib Angle	Luffing Jib No. 135		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
100	30,5	—	—	—	160 - 170	48,8 - 51,8	90
110	33,5	—	—	—	130 - 170	39,6 - 51,8	90
120	36,6	150 - 170	45,7 - 51,8	90	100 - 170	30,5 - 51,8	90
130	39,6	130 - 170	39,6 - 51,8	90	80 - 170	24,4 - 51,8	90
140	42,7	100 - 170	30,5 - 51,8	90	70 - 150	21,3 - 45,7	90
		—	—	—	160 - 170	48,8 - 51,8	60
150	45,7	80 - 170	24,4 - 51,8	90	(c) 80 - 90	24,4 - 27,4	60
160	48,8	70 - 170(c)	21,3 - 51,8	60	—	—	—
(b) 170	51,8	80 - 150(c)	24,4 - 45,7	60	—	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected. Intermediate fall must be completely removed for 999 SERIES 1 application.							

Luffing Jib Raising Procedure

999 SERIES 1, 2, 3

Luffing Jib No.135 On Boom No. 82 or 22EL

WITH OR WITHOUT BOOM CATWALKS							
999 SERIES 2 Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Without Intermediate Fall							
Boom Length		Over End of Blocked Crawlers			Over Side of Crawlers		
		Luffing Jib No. 135		Boom to Luffing Jib Angle	Luffing Jib No. 135		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
120	36,6	—	—	—	170	51,8	90
130	39,6	170	51,8	90	150 - 170	45,7 - 51,8	90
140	42,7	160 - 170	48,8 - 51,8	90	130 - 170	39,6 - 51,8	90
150	45,7	130 - 170	39,6 - 51,8	90	100 - 170	30,5 - 51,8	90
160	48,8	110 - 170	33,5 - 51,8	90	70 - 170	21,3 - 51,8	90
170	51,8	90 - 170	27,4 - 51,8	90	70 - 170(c)	21,3 - 51,8	60
180	54,9	70 - 170	21,3 - 51,8	90	—	—	—
(a) 190	57,9	70 - 170	21,3 - 51,8	60	—	—	—
(b) 200	61,0	100 - 170(c)	30,5 - 51,8	60	—	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.							

WITH OR WITHOUT BOOM CATWALKS							
999 SERIES 3 Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Without Intermediate Fall							
Boom Length		Over End of Blocked Crawlers			Over Side of Crawlers		
		Luffing Jib No. 135		Boom to Luffing Jib Angle	Luffing Jib No. 135		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
130	39,6	170	51,8	90	170	51,8	90
140	42,7	160 - 170	48,8 - 51,8	90	160 - 170	48,8 - 51,8	90
150	45,7	130 - 170	39,6 - 51,8	90	130 - 170	39,6 - 51,8	90
160	48,8	110 - 170	33,5 - 51,8	90	110 - 170	33,5 - 51,8	90
170	51,8	90 - 170	27,4 - 51,8	90	90 - 170	27,4 - 51,8	90
180	54,9	70 - 170	21,3 - 51,8	90	70 - 170	21,3 - 51,8	90
(a) 190	57,9	70 - 170	21,3 - 51,8	90	70 - 150	21,3 - 45,7	60
(b) 200	61,0	70 - 170	21,3 - 51,8	90	—	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.							

Luffing Jib Raising Procedure 999 SERIES 1, 2, 3

Luffing Jib No. 135 On Boom No. 82 or 22EL

Boom and luffing jib combinations with intermediate fall in following tables may be raised and lowered using jack-knife method.

WITH OR WITHOUT BOOM CATWALKS							
999 SERIES 2							
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method With Intermediate Fall							
Boom Length		Over End of Blocked Crawlers			Over Side of Crawlers		
		Luffing Jib No. 135		Boom to Luffing Jib Angle	Luffing Jib No. 135		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
120	36,6	170	51,8	90	160 - 170	48,8 - 51,8	90
130	39,6	160 - 170	48,8 - 51,8	90	130 - 170	39,6 - 51,8	90
140	42,7	140 - 170	42,7 - 51,8	90	110 - 170	33,5 - 51,8	90
150	45,7	120 - 170	36,6 - 51,8	90	110 - 170	33,5 - 51,8	90
160	48,8	110 - 170	33,5 - 51,8	90	110 - 170	33,5 - 51,8	60
170	51,8	110 - 170	33,5 - 51,8	90	110 - 140(c)	33,5 - 42,7	60
180	54,9	110 - 170	33,5 - 51,8	60	—	—	—
(b) 190	57,9	110 - 170	33,5 - 51,8	60	—	—	—
(b) 200	61,0	110 - 150(c)	33,5 - 45,7	60	—	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.							

WITH OR WITHOUT BOOM CATWALKS							
999 SERIES 3							
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method With Intermediate Fall							
Boom Length		Over End of Blocked Crawlers			Over Side of Crawlers		
		Luffing Jib No. 135		Boom to Luffing Jib Angle	Luffing Jib No. 135		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
120	36,6	170	51,8	90	170	51,8	90
130	39,6	160 - 170	48,8 - 51,8	90	160 - 170	48,8 - 51,8	90
140	42,7	140 - 170	42,7 - 51,8	90	140 - 170	42,7 - 51,8	90
150	45,7	120 - 170	36,6 - 51,8	90	120 - 170	36,6 - 51,8	90
160	48,8	110 - 170	33,5 - 51,8	90	110 - 170	33,5 - 51,8	90
170	51,8	110 - 170	33,5 - 51,8	90	110 - 170	33,5 - 51,8	90
180	54,9	110 - 170	33,5 - 51,8	60	110 - 170	33,5 - 51,8	90
(b) 190	57,9	110 - 170	33,5 - 51,8	60	110 - 130	33,5 - 51,8	60
(b) 200	61,0	110 - 150	33,5 - 45,7	60	—	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.							

Luffing Jib Raising Procedure

999 SERIES 1, 2, 3

Luffing Jib No.135 On Boom No. 82 or 22EL

C. Fold Under Jack-Knife Method:

Raising:

Boom and luffing jib are assembled in fold under position. Slowly raise boom; luffing jib point wheels will roll along ground. When luffing jib hinge pin is 30 ft (9,1m) off ground, connect luffing jib pendants. Move luffing jib top wire rope guide to working position. Tighten luffing jib suspension with luffing jib hoist. Slowly raise boom until luffing jib is vertical and luffing jib point wheels are clear of ground. 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 range. Luffing jib radius must be within capacity chart before swinging over side of machine when raising over end of blocked crawlers.

Lowering:

Position boom at 75 degrees prior to lowering luffing jib. Slowly lower luffing jib to vertical. Lower boom until luffing jib point wheels are just clear of ground. Slowly boom down and assist luffing jib point wheels in fold under direction. Boom down until luffing jib hinge pin is 30 ft (9,1m) off ground. Disconnect luffing jib pendants. Move luffing jib top wire rope guide to stowed position. Raise luffing jib strut with luffing jib hoist until luffing jib strut is inline with luffing jib. Lower boom and luffing jib to ground.

Boom and luffing jib combinations in following tables may be raised and lowered using fold under jack-knife method. Boom length shown with (a) requires only the middle two sheaves in lower boom point. All other sheaves must be removed from lower boom point. Boom lengths shown with a (b) require lower boom point to be removed. For jib lengths shown with (c), machine must be equipped with lowerworks jacking cylinders when boom catwalks are attached.

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 1					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Fold Under Jack-Knife Method Without Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
90	27,4	70	21,3	70	21,3
100	30,5	70 - 80	21,3 - 24,4	70 - 80	21,3 - 24,4
110	33,5	70 - 90	21,3 - 27,4	70 - 90	21,3 - 27,4
120	36,6	70 - 100	21,3 - 30,5	70 - 100	21,3 - 30,5
130	39,6	70 - 110	21,3 - 33,5	70 - 110	21,3 - 33,5
140	42,7	70 - 120	21,3 - 36,6	70 - 120	21,3 - 36,6
150	45,7	70 - 130	21,3 - 39,6	(c) 80 - 90	24,4 - 27,4
160	48,8	70 - 140	21,3 - 42,7	—	—
(b) 170	51,8	80 -150(c)	24,4 - 45,7	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected. Intermediate fall must be completely removed for 999 SERIES 1 application.					

Luffing Jib Raising Procedure

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Luffing Jib No. 135 On Boom No. 82 or 22EL

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 2					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Fold Under Jack-Knife Method Without Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
90	27,4	70	21,3	70	21,3
100	30,5	70 - 80	21,3 - 24,4	70 - 80	21,3 - 24,4
110	33,5	70 - 90	21,3 - 27,4	70 - 90	21,3 - 27,4
120	36,6	70 - 100	21,3 - 30,5	70 - 100	21,3 - 30,5
130	39,6	70 - 110	21,3 - 33,5	70 - 110	21,3 - 33,5
140	42,7	70 - 120	21,3 - 36,6	70 - 120	21,3 - 36,6
150	45,7	70 - 130	21,3 - 39,6	70 - 130	21,3 - 39,6
160	48,8	70 - 140	21,3 - 42,7	70 - 140	21,3 - 42,7
170	51,8	70 - 150	21,3 - 45,7	70 - 150	21,3 - 45,7
180	54,9	70 - 160	21,3 - 48,8	—	—
(a) 190	57,9	70 - 170	21,3 - 51,8	—	—
(b) 200	61,0	100 - 170(c)	30,5 - 51,8	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.					

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 3					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Fold Under Jack-Knife Method Without Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
90	27,4	70	21,3	70	21,3
100	30,5	70 - 80	21,3 - 24,4	70 - 80	21,3 - 24,4
110	33,5	70 - 90	21,3 - 27,4	70 - 90	21,3 - 27,4
120	36,6	70 - 100	21,3 - 30,5	70 - 100	21,3 - 30,5
130	39,6	70 - 110	21,3 - 33,5	70 - 110	21,3 - 33,5
140	42,7	70 - 120	21,3 - 36,6	70 - 120	21,3 - 36,6
150	45,7	70 - 130	21,3 - 39,6	70 - 130	21,3 - 39,6
160	48,8	70 - 140	21,3 - 42,7	70 - 140	21,3 - 42,7
170	51,8	70 - 150	21,3 - 45,7	70 - 150	21,3 - 45,7
180	54,9	70 - 160	21,3 - 48,8	70 - 160	21,3 - 48,8
(a) 190	57,9	70 - 170	21,3 - 51,8	70 - 150	21,3 - 45,7
(b) 200	61,0	70 - 170	21,3 - 51,8	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.					

Luffing Jib Raising Procedure

999 SERIES 1, 2, 3

Luffing Jib No.135 On Boom No. 82 or 22EL

Boom and luffing jib combinations with intermediate fall in following tables may be raised and lowered using fold under jack-knife method.

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 2					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Fold Under Jack-Knife Method With Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
130	39,6	110	33,5	110	33,5
140	42,7	110 - 120	33,5 - 36,6	110 - 120	33,5 - 36,6
150	45,7	110 - 130	33,5 - 39,6	110 - 130	33,5 - 39,6
160	48,8	110 - 140	33,5 - 42,7	110 - 140	33,5 - 42,7
170	51,8	110 - 150	33,5 - 45,7	110 - 140(c)	33,5 - 42,7
180	54,9	110 - 160	33,5 - 48,8	—	—
(b) 190	57,9	110 - 170	33,5 - 51,8	—	—
(b) 200	61,0	100 - 150(c)	33,5 - 45,7	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.					

WITH OR WITHOUT BOOM CATWALKS					
999 SERIES 3					
Maximum Boom and Luffing Jib Lengths Lifted Unassisted Using Fold Under Jack-Knife Method With Intermediate Fall					
Boom Length		Over End of Blocked Crawlers		Over Side of Crawlers	
		Luffing Jib No. 135		Luffing Jib No. 135	
Feet	Meters	Feet	Meters	Feet	Meters
130	39,6	110	33,5	110	33,5
140	42,7	110 - 120	33,5 - 36,6	110 - 120	33,5 - 36,6
150	45,7	110 - 130	33,5 - 39,6	110 - 130	33,5 - 39,6
160	48,8	110 - 140	33,5 - 42,7	110 - 140	33,5 - 42,7
170	51,8	110 - 150	33,5 - 45,7	110 - 150	33,5 - 45,7
180	54,9	110 - 160	33,5 - 48,8	110 - 160	33,5 - 48,8
(b) 190	57,9	110 - 170	33,5 - 51,8	110 - 130	33,5 - 39,6
(b) 200	61,0	110 - 150	33,5 - 45,7	—	—
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.					