### Luffing Jib Raising Procedure

Luffing Jib No. 133 or No. 133A On Boom No. 79-44 Wheeled Counterweight



### Recommended boom and luffing jib raising and lowering procedure.

Machine must be equipped with 169,200 Lb. (76 750 kg) crane counterweight, 60,000 Lb. (27 220 kg) carbody counterweight, and 240,000 Lb. (108 860 kg) or 462,000 Lb. (209 560 kg) wheeled counterweight. Refer to luffing jib rigging assembly **No. 195517** for boom and luffing jib make-up of inserts, straps, struts and strut raising procedure and miscellaneous parts, etc.

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

#### A. Standard (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. Reverse this procedure when lowering boom and luffing jib.

The following combinations may be raised and lowered using this method.

WITH OR WITHOUT BOOM CATWALKS										
Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Standard (In-Line) Method Over Front of Blocked Crawlers										
Boom Length		240,000 Lb. Wheeled Co at 30 Ft. (9.)	unterweight	Wheeled Co	(108 860 kg) unterweight 2m) Position	<b>240,000 Lb.</b> (108 860 kg) Wheeled Counterweight at <b>50 Ft.</b> (15.2m) Position				
		Luffing Jib N	Io. 133/133A	Luffing Jib N	No. 133/133A	Luffing Jib No. 133/133A				
Feet	Meters	Feet Meters		Feet	Meters	Feet	Meters			
200	61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
220	67.1	70 - 170	21.3 - 51.8	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
240	73.2	70 - 120	21.3 - 36.6	70 - 170	21.3 - 51.8	70 - 200	21.3 - 61.0			
260	79.2	70 - 80	21.3 - 24.4	70 - 130	21.3 - 39.6	70 - 180	21.3 - 54.9			
		462,000 Lb. (	209 560 kg)	462,000 Lb.	(209 560 kg)	<b>462,000 Lb.</b> (209 560 kg) Wheeled Counterweight				
Bo	om	Wheeled Co	unterweight	Wheeled Co	unterweight					
Lei	ngth	at 30 Ft. (9.1	lm) <b>Position</b>	at 40 Ft. (12.	2m) Position	m) <b>Position</b> at 50 Ft. (15.2m) Po				
		Luffing Jib N	Io. 133/133A	Luffing Jib N	No. 133/133A	Luffing Jib No. 133/133A				
Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters			
200	61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
220	67.1	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
240	73.2	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
260	79.2	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
Load bl	Load block, hook and weight ball on ground until boom and luffing jib are erected.									



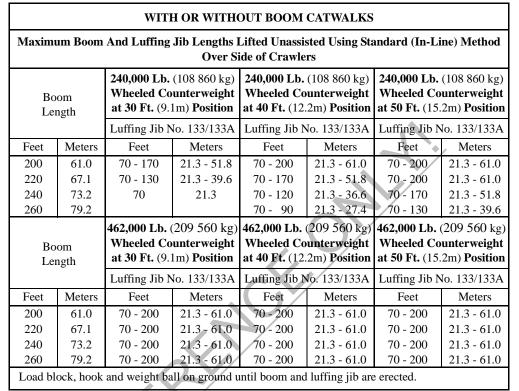
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WITH OR WITHOUT BOOM CATWALKS										
Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Standard (In-Line) Method Over Rear of Blocked Crawlers										
Boom Length		Wheeled Co	(108 860 kg) <b>unterweight</b> 1m) <b>Position</b>	240,000 Lb. Wheeled Co at 40 Ft. (12.	unterweight	<b>240,000 Lb.</b> (108 860 kg) <b>Wheeled Counterweight</b> <b>at 50 Ft.</b> (15.2m) <b>Position</b>				
		Luffing Jib N	Jo. 133/133A	Luffing Jib N	Io. 133/133A	Luffing Jib No. 133/133A				
Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters			
200	61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
220	67.1	70 - 160	21.3 - 48.8	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
240	73.2	70 - 110	21.3 - 33.5	70 - 160	21.3 - 48.8	70 - 200	21.3 - 61.0			
260	79.2	70	21.3	70 - 120	21.3 - 36.6	70 - 170	21.3 - 51.8			
		462,000 Lb.	(209 560 kg)	462,000 Lb.	(209 560 kg)	Wheeled Counterweight				
Во	om	Wheeled Co	unterweight	Wheeled Co	unterweight					
Lei	ngth	at 30 Ft. (9.	lm) <b>Position</b>	at 40 Ft. (12.	2m) Position					
		Luffing Jib N	Vo. 133/133A	Luffing Jib No. 133/133A		Luffing Jib No. 133/133A				
Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters			
200	61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
220	67.1	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
240	73.2	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
260	79.2	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0			
Load bl	ock, hook	and weight ba	ll on ground u	intil boom and	luffing jib are	e erected.				

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### Luffing Jib Raising Procedure

Luffing Jib No. 133 or No. 133A On Boom No. 79-44 Wheeled Counterweight





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### Luffing Jib Raising Procedure

Luffing Jib No. 133 or No. 133A On Boom No. 79-44 Wheeled Counterweight



### **B. Jack-Knife Method**

Longer boom and luffing jib combinations must be raised and lowered using jack-knife 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 rollers 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 following tables 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.

### Lowering:

Position boom at 80 degrees prior to lowering luffing jib. Lower luffing jib until boom to luffing jib angle reaches value specified in following tables. Lower boom until luffing jib point rollers 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.

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

The following boom and luffing jib combinations require jack knifing to a specified boom to luffing jib angle for raising and lowering.

Luffing Jib Raising Procedure Luffing Jib No. 133 or No. 133A On Boom No. 79-44 Wheeled Counterweight

WITH OR WITHOUT BOOM CATWALKS											
Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Over Front of Blocked Crawlers											
<b>240,000 Lb.</b> (108 860 kg) <b>Wheeled Counterweight</b> <b>at 30 Ft.</b> (9.1m) <b>Position</b>					Whee	00 Lb. (108 8 eled Counterv Ft. (12.2m) Po	veight	Whee	00 Lb. (108 860 kg) ded Counterweight Ft. (15.2m) Position		
Boom Length		Luffing Jib N	Jo. 133/133A	Boom to Luffing Jib Angle	Boom to Luffing Jib Luffing Jib No. 133/133A Angle			Luffing Jib N	Luffing Jib No. 133/133A		
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees	Feet	Meters	Degrees	
220	67.1	180 - 200	54.9 - 61.0	90		_	_			_	
240	73.2	130 - 200	39.6 - 61.0	90	180 - 200	54.9 - 61.0	90				
260	79.2	90 - 200	27.4 - 61.0	90	140 - 200	42.7 - 61.0	90	190 - 200	57.9 - 61.0	90	
280	85.3	70 - 200	21.3 - 61.0	70	70 - 200	21.3 - 61.0	90 70	70 - 200	21.3 - 61.0	90 90	
300 91.4   462,000 Lb. (209 560   Wheeled Counterwe   at 30 Ft. (9.1m) Posi			veight	Whee	21.3 - 61.0 00 Lb. (209 5 eled Countery Ft. (12.2m) Po	veight	Whee	21.3 - 61.0 00 Lb. (209 5 eled Countery Ft. (15.2m) Po	560 kg) weight		
Boom Length		Luffing Jib N	Jo. 133/133A	Boom to Luffing Jib Angle	Luffing		Boom to Luffing Jib Angle	Luffing Jib No. 133/133A		Boom to Luffing Jib Angle	
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees	Feet	Meters	Degrees	
280	85.3	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	
300	91.4	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	
Load block, hook and weight ball on ground until boom and luffing jib are erected.											

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# Luffing Jib Raising Procedure Luffing Jib No. 133 or No. 133A On Boom No. 79-44 Wheeled Counterweight



	WITH OR WITHOUT BOOM CATWALKS										
Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Over Rear of Blocked Crawlers											
	240,000 Lb. (108 860 kg) Wheeled Counterweight at 30 Ft. (9.1m) Position					00 Lb. (108 8 eled Counterv Ft. (12.2m) Po	veight	Whee	led Counterv	<b>0 Lb.</b> (108 860 kg) ed Counterweight 't. (15.2m) Position	
	oom ngth	Luffing Jib N	Jo. 133/133A	Boom to Luffing Jib Angle			Boom to Luffing Jib Angle	Luffing Jib No. 133/133A		Boom to Luffing Jib Angle	
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees	Feet	Meters	Degrees	
220 240	67.1 73.2	170 - 200 120 - 200	51.8 - 61.0 36.6 - 61.0	90 90		 51.8 - 61.0		/_			
260	79.2	80 - 200	24.4 - 61.0	90	130 - 200	39.6 - 61.0	90	180 - 200	54.9 - 61.0	90	
280	85.3	70 - 200	21.3 - 61.0	70	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	
300	91.4				70 - 200	21.3 - 61.0	70	70 - 200	21.3 - 61.0	90	
	462,000 Lb. (209 560 kg) Wheeled Counterweight at 30 Ft. (9.1m) Position				Whee	00 Lb. (209 5 eled Counterv Ft. (12.2m) Po	veight	Whee	00 Lb. (209 5 led Countery Ft. (15.2m) Po	veight	
	oom ngth	Luffing Jib N	Jo. 133/133A	Boom to Luffing Jib Angle	Luffing Jib N	No. 133/133A	Boom to Luffing Jib Angle	ng Jib		Boom to Luffing Jib Angle	
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees	Feet	Meters	Degrees	
280	85.3	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	
300	91.4	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	
Load bl	Load block, hook and weight ball on ground until boom and luffing jib are erected.										

Luffing Jib Raising Procedure Luffing Jib No. 133 or No. 133A On Boom No. 79-44 Wheeled Counterweight

	WITH OR WITHOUT BOOM CATWALKS										
Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Over Side of Crawlers											
240,000 Lb. (108 860 kg) Wheeled Counterweight at 30 Ft. (9.1m) Position					Whee	00 Lb. (108 8 eled Countery Ft. (12.2m) Pe	veight	240,000 Lb. (108 860 kg) Wheeled Counterweight at 50 Ft. (15.2m) Position			
	oom ngth	Luffing Jib N	Jo. 133/133A	Boom to Luffing Jib Angle	Luffing J		Boom to Luffing Jib Angle	Luffing Jib No. 133/133A		Boom to Luffing Jib Angle	
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees	Feet Meters		Degrees	
200 220 240 260 280 280 300 300	61.0 67.1 73.2 79.2 85.3 85.3 91.4 91.4	180 - 200 140 - 200 80 - 200 70 - 200 462.00	54.9 - 61.0 42.7 - 61.0 24.4 - 61.0 21.3 - 61.0 0 Lb. (209 50	90 90 90 70	180 - 200 130 - 200 100 - 200 70 - 120 130 - 200	54.9 - 61.0 39.6 - 61.0 30.5 - 61.0 21.3 - 36.6 39.6 - 61.0 <b>20 Lb.</b> (209 5	90 90 90 70	 180 - 200 140 - 200 70 - 200  70 - 170 180 - 200 462.00	 54.9 - 61.0 42.7 - 61.0 21.3 - 61.0  21.3 - 51.8 54.9 - 61.0 <b>00 Lb.</b> (209 5		
		Whee	eled Counterv Ft. (9.1m) Po	veight	Whee	eled Counterv Ft. (12.2m) Po	veight	Whee	veight osition		
	oom ngth	Luffing Jib N	Jo. 133/133A	Boom to Luffing Jib Angle	Lu		Boom to Luffing Jib Angle	Luffing Jib No. 133/133A		Boom to Luffing Jib Angle	
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees	Feet	Meters	Degrees	
280	85.3	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	
300	91.4	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	70 - 200	21.3 - 61.0	90	
Load bl	Load block, hook and weight ball on ground until boom and luffing jib are erected.										



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