



Luffing Jib Raising Procedure

Luffing Jib No. 133 or No. 133A On
Boom No. 49A-44 with Heavy Lift Top
Hanging or Wheeled Counterweight

MAX-ER 225 On 2250 or M-250

Recommended boom and luffing jib raising and lowering procedure.

Machine must be equipped with 169,200 Lb. (76 750 kg) [2250] crane counterweight or 167,000 Lb. (75 750 kg) [M-250] crane counterweight, 60,000 Lb. (27 220 kg) carbody counterweight, and 0 Lb. (0 kg), 55,000 Lb. (24 950 kg), 135,000 Lb. (61 230 kg) or 225,000 Lb. (102 060 kg) hanging or wheeled counterweight. Refer to luffing jib rigging assembly **No. 176153** or **No. 192108** for boom and luffing jib make-up of inserts, straps or pendants, 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

Slowly raise boom until jib stop strut is just clear of ground. Unpin jib stop inner strut from retracted position and attach jib stop pendants. Slowly raise boom until 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.

Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Standard (In-Line) Method Over Front of Blocked Crawlers									
Boom Length		0 Lb. (0 kg) Hanging or Wheeled Counterweight		55,000 Lb. (24 950 kg) Hanging or Wheeled Counterweight		135,000 Lb. (61 230 kg) Hanging or Wheeled Counterweight		225,000 Lb. (102 060 kg) Hanging or Wheeled Counterweight	
		Luffing Jib No. 133 or No. 133A		Luffing Jib No. 133 or No. 133A		Luffing Jib No. 133 or No. 133A		Luffing Jib No. 133 or No. 133A	
Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
140	42.7	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
160	48.8	70 - 180	21.3 - 54.9	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
180	54.9	70 - 120	21.3 - 36.6	70 - 180	21.3 - 54.9	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
200	61.0	70 - 80	21.3 - 24.4	70 - 140	21.3 - 42.7	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
220	67.1	---	---	70 - 100	21.3 - 30.5	70 - 170	21.3 - 51.8	70 - 200	21.3 - 61.0
240	73.2	---	---	---	---	70 - 130	21.3 - 39.6	70 - 170	21.3 - 51.8
260	79.2	---	---	---	---	70 - 90	21.3 - 27.4	70 - 140	21.3 - 42.7
280	85.3	---	---	---	---	---	---	70 - 100	21.3 - 30.5

Load blocks, 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. 49A-44 with Heavy Lift Top
Hanging or Wheeled Counterweight

MAX-ER 225 On 2250 or M-250

Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Standard (In-Line) Method Over Rear of Blocked Crawlers									
Boom Length		0 Lb. (0 kg) Hanging or Wheeled Counterweight		55,000 Lb. (24 950 kg) Hanging or Wheeled Counterweight		135,000 Lb. (61 230 kg) Hanging or Wheeled Counterweight		225,000 Lb. (102 060 kg) Hanging or Wheeled Counterweight	
		Luffing Jib No. 133 or No. 133A		Luffing Jib No. 133 or No. 133A		Luffing Jib No. 133 or No. 133A		Luffing Jib No. 133 or No. 133A	
Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
140	42.7	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
160	48.8	70 - 170	21.3 - 51.8	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
180	54.9	70 - 110	21.3 - 33.5	70 - 180	21.3 - 54.9	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
200	61.0	70	21.3	70 - 130	21.3 - 39.6	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
220	67.1	---	---	70 - 90	21.3 - 27.4	70 - 170	21.3 - 51.8	70 - 200	21.3 - 61.0
240	73.2	---	---	---	---	70 - 130	21.3 - 39.6	70 - 170	21.3 - 51.8
260	79.2	---	---	---	---	70 - 90	21.3 - 27.4	70 - 140	21.3 - 42.7
280	85.3	---	---	---	---	---	---	70 - 100	21.3 - 30.5

Load blocks, hook and weight ball on ground until boom and luffing jib are erected.

Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Standard (In-Line) Method Over Side of Crawlers									
Boom Length		0 Lb. (0 kg) Hanging or Wheeled Counterweight		55,000 Lb. (24 950 kg) Hanging or Wheeled Counterweight		135,000 Lb. (61 230 kg) Hanging or Wheeled Counterweight		225,000 Lb. (102 060 kg) Hanging or Wheeled Counterweight	
		Luffing Jib No. 133 or No. 133A		Luffing Jib No. 133 or No. 133A		Luffing Jib No. 133 or No. 133A		Luffing Jib No. 133 or No. 133A	
Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
140	42.7	70 - 170	21.3 - 51.8	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
160	48.8	70 - 130	21.3 - 39.6	70 - 190	21.3 - 57.9	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
180	54.9	70	21.3	70 - 140	21.3 - 42.7	70 - 200	21.3 - 61.0	70 - 200	21.3 - 61.0
200	61.0	---	---	70 - 100	21.3 - 30.5	70 - 170	21.3 - 51.8	70 - 200	21.3 - 61.0
220	67.1	---	---	---	---	70 - 130	21.3 - 39.6	70 - 200	21.3 - 61.0
240	73.2	---	---	---	---	70 - 90	21.3 - 27.4	70 - 170	21.3 - 51.8
260	79.2	---	---	---	---	---	---	70 - 140	21.3 - 42.7
280	85.3	---	---	---	---	---	---	70 - 100	21.3 - 30.5

Load blocks, 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. 49A-44 with Heavy Lift Top
Hanging or Wheeled Counterweight

MAX-ER 225 On 2250 or M-250

B. Jack-Knife Method

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

Slowly raise boom until jib stop strut is just clear of ground. Unpin jib stop inner strut from retracted position and attach jib stop pendants. Slowly raise boom until jib stop strut is fully extended and pins engaged (approximately 168 degree boom to luffing jib angle). Boom is then raised while jib point roller is allowed to roll on ground. Tension should be applied to luffing jib hoist to keep jib strut off luffing jib during boom raising. Boom up until boom to luffing jib angle reaches value specified in tables or 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 desired boom operating angle. Luffing jib radius must be within capacity chart before swinging over side of machine.

Position boom at 80 degrees or greater prior to lowering luffing jib. Lower luffing jib until boom to luffing jib angle reaches value specified in 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 jib strut off luffing jib. Stop lowering boom when jib stop pendants start to go into tension (approximately 168 degree boom to luffing jib angle). Disengage jib stop strut pins and lower boom to retract jib stop inner strut. Pin strut in retracted position and unpin jib stop pendants. Rotate 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 60 degrees.

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

Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Over Front of Blocked Crawlers							
Boom Length		0 Lb. (0 kg) Hanging or Wheeled Counterweight			55,000 Lb. (24 950 kg) Hanging or Wheeled Counterweight		
		Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle	Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
160	48.8	190 - 200	57.9 - 61.0	90	---	---	---
180	54.9	130 - 200	39.6 - 61.0	90	190 - 200	57.9 - 61.0	90
200	61.0	90 - 200	27.4 - 61.0	90	150 - 200	45.7 - 61.0	90
220	67.1	70 - 150	21.3 - 45.7	60	110 - 200	33.5 - 61.0	90
240	73.2	---	---	---	70 - 200	21.3 - 61.0	60
Boom Length		135,000 Lb. (61 230 kg) Hanging or Wheeled Counterweight			225,000 Lb. (102 060 kg) Hanging or Wheeled Counterweight		
		Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle	Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
220	67.1	180 - 200	54.9 - 61.0	90	---	---	---
240	73.2	140 - 200	42.7 - 61.0	90	180 - 200	54.9 - 61.0	90
260	79.2	100 - 200	30.5 - 61.0	90	150 - 200	45.7 - 61.0	90
280	85.3	70 - 170	21.3 - 51.8	60	110 - 200	33.5 - 61.0	90
300	91.4	---	---	---	70 - 200	21.3 - 61.0	60
Load blocks, 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. 49A-44 with Heavy Lift Top
Hanging or Wheeled Counterweight

MAX-ER 225 On 2250 or M-250

Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Over Rear of Blocked Crawlers							
Boom Length		0 Lb. (0 kg) Hanging or Wheeled Counterweight			55,000 Lb. (24 950 kg) Hanging or Wheeled Counterweight		
		Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle	Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
160	48.8	180 - 200	54.9 - 61.0	90	---	---	---
180	54.9	120 - 200	36.6 - 61.0	90	190 - 200	57.9 - 61.0	90
200	61.0	80 - 200	24.4 - 61.0	60	140 - 200	42.7 - 61.0	90
220	67.1	70 - 110	21.3 - 33.5	60	100 - 200	30.5 - 61.0	90
240	73.2	---	---	---	70 - 190	21.3 - 57.9	60
Boom Length		135,000 Lb. (61 230 kg) Hanging or Wheeled Counterweight			225,000 Lb. (102 060 kg) Hanging or Wheeled Counterweight		
		Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle	Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
220	67.1	180 - 200	54.9 - 61.0	90	---	---	---
240	73.2	140 - 200	42.7 - 61.0	90	180 - 200	54.9 - 61.0	90
260	79.2	100 - 200	30.5 - 61.0	90	150 - 200	45.7 - 61.0	90
280	85.3	70 - 170	21.3 - 51.8	60	110 - 200	33.5 - 61.0	90
300	91.4	---	---	---	70 - 200	21.3 - 61.0	60
Load blocks, 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. 49A-44 with Heavy Lift Top
Hanging or Wheeled Counterweight

MAX-ER 225 On 2250 or M-250

Maximum Boom And Luffing Jib Lengths Lifted Unassisted Using Jack-Knife Method Over Side of Crawlers							
Boom Length		0 Lb. (0 kg) Hanging or Wheeled Counterweight			55,000 Lb. (24 950 kg) Hanging or Wheeled Counterweight		
		Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle	Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
140	42.7	180 - 200	54.9 - 61.0	90	---	---	---
160	48.8	140 - 200	42.7 - 61.0	90	200	61.0	90
180	54.9	80 - 200	24.4 - 61.0	90	150 - 200	45.7 - 61.0	90
200	61.0	70 - 110	21.3 - 33.5	60	110 - 200	33.5 - 61.0	90
220	67.1	---	---	---	70 - 200	21.3 - 61.0	60
Boom Length		135,000 Lb. (61 230 kg) Hanging or Wheeled Counterweight			225,000 Lb. (102 060 kg) Hanging or Wheeled Counterweight		
		Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle	Luffing Jib No. 133 or No. 133A		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Degrees	Feet	Meters	Degrees
200	61.0	180 - 200	54.9 - 61.0	90	---	---	---
220	67.1	140 - 200	42.7 - 61.0	90	---	---	---
240	73.2	100 - 200	30.5 - 61.0	90	180 - 200	54.9 - 61.0	90
260	79.2	70 - 200	21.3 - 61.0	60	150 - 200	45.7 - 61.0	90
280	85.3	---	---	---	110 - 200	33.5 - 61.0	90
300	91.4	---	---	---	70 - 200	21.3 - 61.0	60
Load blocks, hook and weight ball on ground until boom and luffing jib are erected.							