Luffing Jib Raising Procedure

MAX-ER 2000 On 2250

Fixed Jib No. 140 On Luffing Jib No. 133 or No. 133A On Boom No. 79-44
240,000 Lb. (108 860 kg) and 462,000 (209 560 kg) Wheeled Counterweight

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 fixed jib assembly **No. 192320** or **No. 193022** and luffing jib rigging assembly **No. 195517** for boom, luffing jib and fixed 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, luffing jib and fixed jib combinations.

A. Layout Jack-Knife Method With Fixed Jib Attached

Raising:

Boom, luffing jib and fixed jib are assembled in layout, end to end, position. Raise fixed jib strut and attach pendants and backstays. Attach fixed jib stop to fixed jib butt and temporarily tie off to fixed jib strut. 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 and fixed 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. Tighten luffing jib suspension with luffing jib hoist. Boom and luffing jib are then raised together using boom hoist while fixed jib point wheels roll on ground. Continue raising until fixed jib suspension tightens. Attach fixed jib stop to luffing jib top. Boom, luffing jib and fixed jib are then raised together using boom hoist until boom reaches 87 degree angle. Raise luffing jib to radius within capacity chart. Fixed jib radius must be within capacity chart before swinging over side of machine.

Lowering:

Position boom at 87 degrees prior to lowering luffing jib. Lower luffing jib until boom to luffing jib angle reaches value specified in table. If fixed jib point wheels contact ground prior to luffing jib reaching angle specified in table, remove fixed jib stop from luffing jib top and temporarily tie off to fixed jib strut at this time, and then continue to lower luffing jib until boom to luffing jib angle specified in table is reached. If fixed jib point wheels have not contacted ground, lower boom until fixed jib point wheels contact ground. Remove fixed jib stop from luffing jib top and temporarily tie off to fixed jib strut. Lower boom as fixed jib point wheels roll on ground. Lower boom until luffing jib point wheels contact ground. Continue to lower boom while luffing jib and fixed jib 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 and unpin luffing jib stop pendants. Rotate luffing jib stop struts forward and lower boom and luffing jib to ground.

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B. Layout Jack-Knife Method With Fixed Jib Attached Before Luffing Jib Lift-Off

Raising:

Boom and luffing jib are assembled in layout, end to end, position. Attach fixed jib backstay pendants to luffing jib insert and place on ground. 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. Tighten luffing jib suspension with luffing jib hoist. Attach fully assembled fixed jib to luffing jib. Attach fixed jib backstays to fixed jib strut. Attach fixed jib stop to fixed jib butt and temporarily tie off to fixed jib strut. Boom and luffing jib are raised together using boom hoist while fixed jib point wheels roll on ground. Continue raising until fixed jib suspension tightens. Attach fixed jib stop to luffing jib top. Boom, luffing jib and fixed jib are then raised together using boom hoist until boom reaches 87 degree angle. Raise luffing jib to radius within capacity chart. Fixed jib radius must be within capacity chart before swinging over side of machine.

Lowering:

Position boom at 87 degrees prior to lowering luffing jib. Lower luffing jib until boom to luffing jib angle reaches value specified in table. If fixed jib point wheels contact ground prior to luffing jib reaching angle specified in table, remove fixed jib stop from luffing jib top and temporarily tie off to fixed jib strut at this time, and then continue to lower luffing jib until boom to luffing jib angle specified in table is reached. If fixed jib point wheels have not contacted ground, lower boom until fixed jib point wheels contact ground. Remove fixed jib stop from luffing jib top and temporarily tie off to fixed jib strut. Lower boom as fixed jib point wheels roll on ground. Lower boom until luffing jib point wheels contact ground. Remove fixed jib from luffing jib. 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.

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Fixed Jib No. 140 On Luffing Jib No. 133 or No. 133A On Boom No. 79-44
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Boom, luffing jib and fixed jib combinations in table require layout jack knifing to a specified boom to luffing jib angle for raising and lowering.

WITH OR WITHOUT BOOM CATWALKS						
Maximum Boom, Luffing Jib And Fixed Jib Lengths Lifted Unassisted Using Layout Jack-Knife Method						
Boom Length		Luffing Jib No. 133 or No. 133A		Fixed Jib No. 140		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Feet	Meters	Degrees
Over Side or End of Blocked Crawlers						
462,000 Lb. (209 560 kg) Wheeled Counterweight at 30 Ft. (9.1m), 40 Ft. (12.2m) or 50 Ft. (15.2m) Position						
260	79.2	160 - 200	48.8 - 61.0	40 - 120	12.2 - 36.6	90
280	85.3	160 - 200	48.8 - 61.0	40 - 120	12.2 - 36.6	90
300	91.4	160 - 200	48.8 - 61.0	40 - 120	12.2 - 36.6	90
Load blocks, hook and weight ball on ground until boom, luffing jib and fixed jib are erected.						

WITH OR WITHOUT BOOM CATWALKS						
Maximum Boom, Luffing Jib And Fixed Jib Lengths Lifted Unassisted Using Layout Jack-Knife Method						
Boom Length		Luffing Jib No. 133 or No. 133A		Fixed Jib No. 140		Boom to Luffing Jib Angle
Feet	Meters	Feet	Meters	Feet	Meters	Degrees
Over End of Blocked Crawlers						
240,000 Lb. (108 860 kg) Wheeled Counterweight at 30 Ft. (9.1m), 40 Ft. (12.2m) or 50 Ft. (15.2m) Position						
260	79.2	160 - 200	48.8 - 61.0	40 - 120	12.2 - 36.6	70
Over Side of Crawlers						
240,000 Lb. (108 860 kg) Wheeled Counterweight at 40 Ft. (12.2m) or 50 Ft. (15.2m) Position *(30 Ft. position NOT ALLOWED)*						
260	79.2	160 - 200	48.8 - 61.0	40 - 120	12.2 - 36.6	70
Load blocks, hook and weight ball on ground until boom, luffing jib and fixed jib are erected.						