Manitowoc Cranes, Inc.
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Luffing Jib Raising Procedure

Fixed Jib No. 10 On Luffing Jib No. 222 On Boom No. 260

222 SERIES B
222EX SERIES B

Recommended boom, luffing jib and fixed jib raising and lowering procedure

222 SERIES B and 222EX SERIES B must be equipped with 63,300 Lb. (28 710 kg) crane counterweight and 14,000 Lb. (6 350 kg) carbody counterweight for raising and lowering various boom, luffing jib and fixed jib combinations. Refer to fixed jib assembly **No. 195090** and luffing jib rigging assembly **No. 194529** for boom, luffing jib and fixed jib make-up of inserts, pendants, backstays 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. Boom, luffing jib and fixed jib must be inline over end of blocked crawlers prior to raising boom and luffing jib. 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 wheel rolls 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 desired boom operating angle. Fixed jib radius must be within capacity chart before swinging over side of machine.

Lowering:

Position boom at 88 degrees with boom and luffing jib and fixed jib inline over end of blocked crawlers prior to lowering luffing jib. Lower luffing jib until boom to luffing jib angle reaches value specified in table. Lower boom until fixed jib point wheel contacts ground. Remove fixed jib stop from luffing jib top and temporarily tie off to fixed jib strut. Lower boom as fixed jib point wheel rolls on ground. Lower boom until luffing jib point wheel contacts 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.

Luffing Jib Raising Procedure

Fixed Jib No. 10 On Luffing Jib No. 222 On Boom No. 260

222 SERIES B
222EX SERIES B

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. Boom and luffing jib must be inline over end of blocked crawlers prior to raising boom and luffing jib. 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 wheel is 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 wheel rolls 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 desired boom operating angle. Fixed jib radius must be within capacity chart before swinging over side of machine.

Lowering:

Position boom at 88 degrees with boom and luffing jib and fixed jib inline over end of blocked crawlers prior to lowering luffing jib. Lower luffing jib until boom to luffing jib angle reaches value specified in table. Lower boom until fixed jib point wheel contacts ground. Remove fixed jib stop from luffing jib top and temporarily tie off to fixed jib strut. Lower boom as fixed jib point wheel rolls on ground. Lower boom until luffing jib point wheel contacts 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.

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. Boom length shown with asterisk (*) requires intermediate fall load line and limit control weight and chains to be removed. Only one load hoist lead line is allowed up boom.

Maximum Boom, Luffing Jib And Fixed Jib Lengths Lifted Unassisted Over End Of Blocked Crawlers Using Layout Jack-Knife Method

Boom Length		Luffing Jib No. 222		Fixed Jib No. 10		Boom To Luffing Jib Angle
Feet	Meters	Feet	Meters	Feet	Meters	Degrees
115	35.1	100 - 130	30.5 - 39.6	30 - 60	9.1 - 18.3	60
125	38.1	100 - 130	30.5 - 39.6	30 - 60	9.1 - 18.3	60
*135	*41.1	100	30.5	30 - 60	9.1 - 18.3	60

Hook and weight ball on ground until boom, luffing jib and fixed jib are erected.