

# **Wind Conditions**

Luffing Jib No. 59 on Boom No. 58 HL with 98.4 ft (30,0 m) Mast No. 59A and without MAX-ER Attachment

### General

Wind adversely affects lifting capacity and stability. The result could be loss of control over the load and crane, even if the load is within the crane's capacity.



### **Tipping Crane Hazard!**

Judgment and experience of qualified operators, job planners, and supervisors must be used to compensate for affect of wind on lifted load and boom by reducing ratings or operating speeds, or a combination of both.

Failing to observe this precaution can cause crane to tip or boom and/or jib to collapse. Death or serious injury to personnel can result.

Wind speed (to include wind gusts) must be monitored by job planners and supervisors.

Wind speed at the boom or jib point can be greater than wind speed at ground level. Also be aware that the larger the sail area of the load, the greater the wind's affect on the load.

As a general rule, ratings and operating speeds must be reduced when:

Wind causes load to swing forward past allowable operating radius or sideways past either boom hinge pin.

Wind speed to be measured at jib point elevation.

# **Operation Permitted**

Operation is permitted in steady winds or wind gusts up to the maximum speed given in the following table:

Maximum Operating Wind Speeds (all boom lengths)

10 m/s with 24,0 m thru 60,0 m Luffing Jib 7 m/s with 66,0 m thru 84,0 m Luffing Jib

Refer to luffing jib capacity chart for specific backward stability conditions.

# 16000 MAX-ER

### **Operation Not Permitted**

Operation is not permitted when wind is above conditions stated in maximum operating wind speed table. Observe the following options:

#### Boom with 24,0-60,0 m Luffing Jib

Above working limit to 22 m/s —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 80 degrees and luffing jib at 50 degrees.

22 m/s and Above —

Lower boom and luffing jib onto blocking at ground level.

# Boom with 66,0-84,0 m Luffing Jib

Above working limit to 18 m/s —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 80 degrees and luffing jib at 50 degrees.

18 m/s and Above —

Lower boom and luffing jib onto blocking at ground level.

#### Mast

Above 22 m/s —

Haul in boom hoist wire rope just enough to tension mast straps. Do not raise boom off blocking. Wind can cause mast stops to collapse if this step is not performed.

Above 34 m/s —

Lower mast onto blocking at ground level.

Manitowoc Cranes, Inc. Manitowoc, Wisconsin 54220 U.S.A.



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As a general rule, ratings and operating speeds must be reduced when:

Wind causes load to swing forward past allowable operating radius or sideways past either boom hinge pin.

Wind speed to be measured at jib point elevation.

# **Operation Permitted**

Operation is permitted in steady winds or wind gusts up to the maximum speed given in the following table:

Maximum Operating Wind Speeds (all boom lengths)

10 m/s with 24,0 m thru 42,0 m Luffing Jib 7 m/s with 48,0 m thru 84,0 m Luffing Jib

Refer to luffing jib capacity chart for specific backward stability conditions.

# 16000 MAX-ER

## **Operation Not Permitted**

Operation is not permitted when wind is above conditions stated in maximum operating wind speed table. Observe the following options:

## Boom with 24,0-42,0 m Luffing Jib

Above working limit to 22 m/s —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 75 degrees and luffing jib at 45 degrees.

22 m/s and Above —

Lower boom and luffing jib onto blocking at ground level.

#### Boom with 48,0-60,0 m Luffing Jib

Above working limit to 18 m/s —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 75 degrees and luffing jib at 50 degrees.

18 m/s and Above —

Lower boom and luffing jib onto blocking at ground level.

### Boom with 66,0-84,0 m Luffing Jib

• Above working limit to 13 m/s —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 75 degrees and luffing jib at 55 degrees.

13 m/s and Above —

Lower boom and luffing jib onto blocking at ground level.

#### Mast

Above 22 m/s —

Haul in boom hoist wire rope just enough to tension mast straps. Do not raise boom off blocking. *Wind can cause mast stops to collapse if this step is not performed.* 

Above 34 m/s —

Lower mast onto blocking at ground level.