

WIND CONDITIONS

Model 999

TABLE OF CONTENTS

General	2
Operation Permitted.....	4
Rating Reduction/Operation Not Permitted	4
#82HL, 22EL or 22E Boom with Open Throat Top Only	4
Rating Reductions for Various Wind Speeds and Wind Gusts	4
Operation Not Permitted	4
#82HL or 22EL Boom with #134 Fixed Jib or #22E Boom with Open Throat Top and #123 Jib.....	5
Rating Reductions for Various Wind Speeds and Wind Gusts	5
Operation Not Permitted	5
#82HL or 22EL Boom with #135 Luffing Jib	6
Rating Reductions for Various Wind Speeds and Wind Gusts	6
Operation Not Permitted	6
#82HL or 22EL Boom with #135 Luffing Jib and #138 Fixed Jib.....	7
Rating Reductions for Various Wind Speeds and Wind Gusts	7
Operation Not Permitted	7
#82HL Boom with #149 Luffing Jib.....	8
Rating Reductions for Various Wind Speeds and Wind Gusts	8
Operation Not Permitted	9
#82HL Boom with #149 Luffing Jib and #134 Fixed Jib	10
Rating Reductions for Various Wind Speeds and Wind Gusts	10
Operation Not Permitted	11
#82HL Boom with #149 Luffing Jib – Assemble-In-Air and Outside Assist	12
Rating Reductions for Various Wind Speeds and Wind Gusts	12
Operation Not Permitted	12
#82HL Boom with #149 Luffing Jib and #134 Fixed Jib – Assemble-In-Air and Outside Assist.....	13
Rating Reductions for Various Wind Speeds and Wind Gusts	13
Operation Not Permitted	13
#82LR Boom Only	14
Rating Reductions for Various Wind Speeds and Wind Gusts	14
Operation Not Permitted	14
#82LR Boom with #123 Fixed Jib.....	15
Rating Reductions for Various Wind Speeds and Wind Gusts	15
Operation Not Permitted	15
#82LR Boom with #134 Fixed Jib.....	16
Rating Reductions for Various Wind Speeds and Wind Gusts	16
Operation Not Permitted	16
#22E Boom with Light Tapered Top Only	17
Rating Reductions for Various Wind Speeds and Wind Gusts	17
Operation Not Permitted	17

GENERAL

Wind adversely affects lifting capacity and stability as shown in Figure 1. The result could be loss of control over the load and crane, even if the load is within the crane's capacity.

WARNING



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, reducing 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.

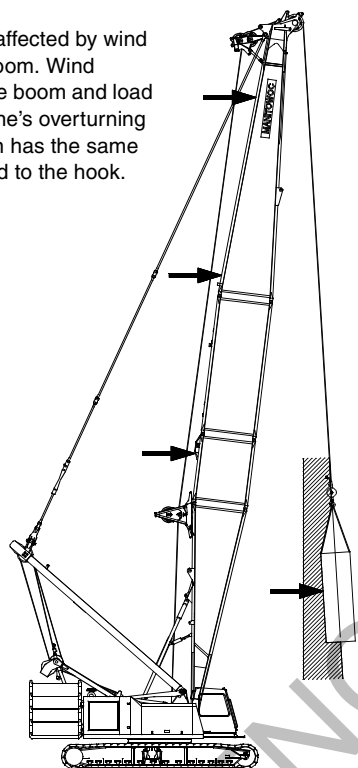
Beware that wind speed at boom or jib point can be greater than wind speed at ground level. Also beware that the larger the sail area of the load, the greater the wind's affect on the load.

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.

REFERENCE
ONLY!

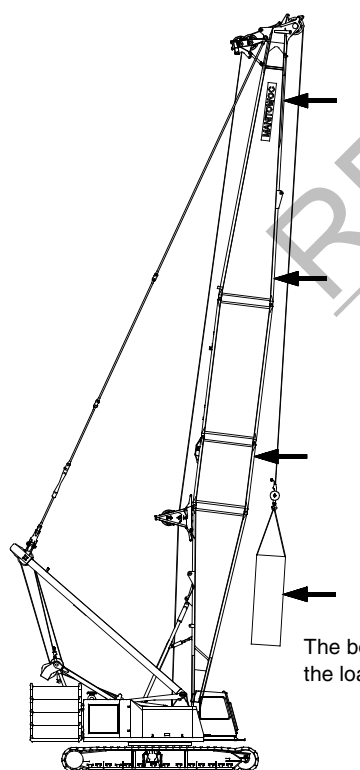
Forward stability is affected by wind on the rear of the boom. Wind applies a force to the boom and load that adds to the crane's overturning moment. This action has the same effect as adding load to the hook.



A910

The wind's affect on the rear of the load increases load radius. This condition can result in an overload hazard, possibly causing the crane to tip or the boom to collapse.

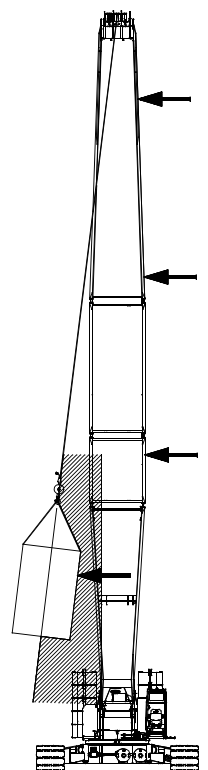
To avoid this hazard, reduce operating speeds and load (see appropriate table for recommended capacity reductions).



Backward stability is affected by wind on the front of the boom. This condition is especially dangerous when the boom is at or near the maximum angle when operating without load.

Wind forces on the front of the boom reduce the normal forward tipping effect of the boom. The crane can tip or the boom can collapse if this condition is not avoided.

The boom can buckle and collapse if the load contacts the boom.



Boom strength is affected the most when the wind acts on the side of the boom.

The wind's affect on the side of the load can cause the load to swing out past the boom hinge pin. This condition can result in excessive side load forces on the boom, possibly causing the crane to tip or the boom to collapse.

To avoid this hazard, reduce operating speeds and load (see appropriate table for recommended capacity reductions).

FIGURE 1

OPERATION PERMITTED

Operation is permitted in steady winds or wind gusts up to the maximum speed given in the following tables, provided the ratings are reduced the specified amount for the corresponding attachment.

NOTE: For conditions not covered in this folio, contact your Manitowoc distributor or Manitowoc Crane Care.

RATING REDUCTION/ OPERATION NOT PERMITTED

#82HL, 22EL or 22E Boom with Open Throat Top Only

Rating Reductions for Various Wind Speeds and Wind Gusts

Table 1

Boom Length ft (m)		70-180 (21.3-54.9)	190-240 (57.9-73.2)	250-290 (76.2-88.4)
Maximum Wind Speed (mph) (m/s)		Percent Rating Reduction		
15	7	0	0	0
20	9	0	0	10
25	11	0	0	20
30	13	0	10	40
35	16	0	20	60
Above 35 mph (16 m/s)		OPERATION NOT PERMITTED		

For operation in steady winds or wind gusts above 25 mph (40 km/hr) at front of boom, do not operate boom higher than 70° with loads less than 6,000 lb (2 722 kg). **Boom could be blown over backwards if this precaution is not observed. Refer to boom capacity chart for specific backward stability problems (b on capacity chart).**

Operation Not Permitted

- Up to 50 mph (22 m/s) —
Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom no higher than 70°.
- 50 mph (22 m/s) and Above —
Lower boom onto blocking at ground level.

#82HL or 22EL Boom with #134 Fixed Jib or #22E Boom with Open Throat Top and #123 Jib

Rating Reductions for Various Wind Speeds and Wind Gusts

Table 2

Fixed Jib Length ft (m)		30-60 (9.1-18.3)			70-80 (21.3-24.4)	
Boom Length ft (m)		90-200 (27.4-61.0)	210-250 (64.0-76.2)	260-270 (79.2-82.3)	90-200 (27.4-61.0)	210-250 (64.0-76.2)
Maximum Wind Speed (mph) (m/s)		Percent Rating Reduction				
15	7	0	0	0	0	0
20	9	0	0	0	0	0
25	11	0	0	10	0	0
30	13	0	10	40	0	30
35	16	0	30		10	
Above 35 mph (16 m/s)		OPERATION NOT PERMITTED				

For operation in steady winds or wind gusts above 25 mph (40 km/hr) at front of boom, do not operate boom higher than 70° with total loads on boom and jib less than 6,000 lb (2 722 kg). **Boom and jib could be blown over backwards if this precaution is not observed.**

Operation Not Permitted

- Up to 50 mph (22 m/s) —
Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom no higher than 70°.
- 50 mph (22 m/s) and Above —
Lower boom and jib onto blocking at ground level.

#82HL or 22EL Boom with #135 Luffing Jib**Rating Reductions for Various Wind Speeds and Wind Gusts****Table 3**

Luffing Jib Length ft (m)		70-110 (21.3-33.5)			120-150 (36.6-45.7)			160-170 (48.8-51.8)		
Boom Length ft (m)		70-120 (21.3-36.6)	130-160 (39.6-48.8)	170-200 (51.8-61.0)	70-120 (21.3-36.6)	130-160 (39.6-48.8)	170-200 (51.8-61.0)	70-120 (21.3-36.6)	130-160 (39.6-48.8)	170-200 (51.8-61.0)
Maximum Wind Speed		Percent Rating Reduction								
mph	m/s									
15	7	0	0	0	0	0	0	0	0	0
20	9	0	0	0	0	0	0	0	0	0
25	11	0	0	0	0	10	50	0	50	
30	13	0	0	20	30					
35	16	0	20							
Above 35 mph (16 m/s)		OPERATION NOT PERMITTED								

For operation in steady winds or wind gusts above 15 mph (24 km/hr) at front of boom, do not operate luffing jib higher than 55° with loads less than 2,800 lb (1 270 kg). **Boom and luffing jib could be blown over backwards if this precaution is not observed.** When #138 fixed jib is attached, backward stability is not a factor. **Refer to luffing jib capacity chart for specific backward stability problems (b on capacity chart).**

Operation Not Permitted

- Up to 50 mph (22 m/s) —
Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 70° and luffing jib at 55°.
- 50 mph (22 m/s) and Above —
Lower boom and luffing jib onto blocking at ground level.

#82HL or 22EL Boom with #135 Luffing Jib and #138 Fixed Jib***Rating Reductions for Various Wind Speeds and Wind Gusts*****Table 4**

Total combination length ft (m)		330-350 (100.6-106.7)	360-380 (109.7-115.8)	390-430 (118.9-131.1)
Maximum Wind Speed		Percent Rating Reduction		
mph	m/s			
15	7	0	0	0
20	9	0	40	
Above 20 mph (9 m/s)		OPERATION NOT PERMITTED		

Operation Not Permitted

- Up to 35 mph (16 m/s) —
Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 70° and luffing jib at 55°.
- 35 mph (16 m/s) and Above —
Lower boom and jibs onto blocking at ground level.

REFERENCE ONLY!

#82HL Boom with #149 Luffing Jib

Rating Reductions for Various Wind Speeds and Wind Gusts

Table 5

Luffing Jib Length ft (m)		70-110 (21.3-33.5)			120-140 (36.6-42.7)			150-170 (45.7-51.8)								
Boom Length ft (m)		80-120 (24.4-36.6)	130-160 (39.6-48.8)	170-200 (51.8-61.0)	80-120 (24.4-36.6)	130-160 (39.6-48.8)	170-200 (51.8-61.0)	80-120 (24.4-36.6)	130-160 (39.6-48.8)	170-200 (51.8-61.0)						
Maximum Wind Speed		Percent Rating Reduction														
mph	m/s															
10	5	0	0	0	0	0	0	0	0	0						
15	7	0	0	0	0	0	0	0	0	0						
20	9	0	0	0	0	0	0	0	10	20						
25	11	0	0	0	0	10	20	40	OPERATION NOT PERMITTED							
30	13	0	0	10	30	50	OPERATION NOT PERMITTED									
35	16	0	20	40	OPERATION NOT PERMITTED											
Above 35 mph (16 m/s)		OPERATION NOT PERMITTED														

Luffing Jib Length ft (m)		180-200 (54.9-61.0)			210-220 (64.0-67.1)			230-240 (70.1-73.2)		
Boom Length ft (m)		80-120 (24.4-36.6)	130-160 (39.6-48.8)	170-190 (51.8-57.9)	80-120 (24.4-36.6)	130-160 (39.6-48.8)	170-190 (51.8-57.9)	80-120 (24.4-36.6)	130-160 (39.6-48.8)	180 (54.9)
Maximum Wind Speed		Percent Rating Reduction								
mph	m/s									
10	5	0	0	0	0	0	0	0	0	0
15	7	0	0	0	0	10	20	20	40	60
20	9	40	60	OPERATION NOT PERMITTED						
Above 20 mph (9 m/s)		OPERATION NOT PERMITTED								

For operation in steady winds or wind gusts above 20 mph (32 km/hr) at front of boom, do not operate luffing jib higher than 60° with loads less than 3,900 lb (1 770 kg). **Boom and luffing jib could be blown over backwards if this precaution is not observed.** When #134 fixed jib is attached, backward stability is not a factor. **Refer to luffing jib capacity chart for specific backward stability problems (b on capacity chart).**

Operation Not Permitted**Boom with 70-140 ft (21.3-42.7 m) Luffing Jib**

- Up to 50 mph (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° and luffing jib at 55°.

- 50 mph (22 m/s) and Above —

Lower boom and luffing jib onto blocking at ground level.

Boom with 150-170 ft (45.7-51.8 m) Luffing Jib

- Up to 40 mph (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° and luffing jib at 60°.

- 40 mph (18 m/s) and Above —

Lower boom and luffing jib onto blocking at ground level.

Boom with 180-200 ft (54.9-61.0 m) Luffing Jib

- Up to 35 mph (16 m/s) —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 80° and luffing jib at 60°.

- 35 mph (16 m/s) and Above —

Lower boom and luffing jib onto blocking at ground level.

Boom with 210-220 ft (64.0-67.1 m) Luffing Jib

- Up to 30 mph (13 m/s) —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 80° and luffing jib at 60°.

- 30 mph (13 m/s) and Above —

Lower boom and luffing jib onto blocking at ground level.

Boom with 230-240 ft (70.1-73.2 m) Luffing Jib

- Up to 25 mph (11 m/s) —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 80° and luffing jib at 60°.

- 25 mph (11 m/s) and Above —

Lower boom and luffing jib onto blocking at ground level.

#82HL Boom with #149 Luffing Jib and #134 Fixed Jib

Rating Reductions for Various Wind Speeds and Wind Gusts

Table 6

Boom Length ft (m)		80 (24.4)								
Fixed Jib Length ft (m)		30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)	30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)	30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)
Luffing Jib Length ft (m)		170 (51.8)			180-190 (54.9-57.9)			200-210 (61.0-64.0)		
Maximum Wind Speed		Percent Rating Reduction								
mph	m/s	0	0	0	0	0	0	0	0	0
10	5	0	0	0	0	0	0	0	0	0
15	7	0	0	20	0	10	30	0	20	50
20	9	40								
Above 20 mph (9 m/s)		OPERATION NOT PERMITTED								

Boom Length ft (m)		120-160 (36.6-48.8)								
Fixed Jib Length ft (m)		30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)	30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)	30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)
Luffing Jib Length ft (m)		170 (51.8)			180-190 (54.9-57.9)			200-210 (61.0-64.0)		
Maximum Wind Speed		Percent Rating Reduction								
mph	m/s	0	0	0	0	0	0	0	0	0
10	5	0	0	0	0	0	0	0	0	0
15	7	10	30	60	30	60				
Above 15 mph (7 m/s)		OPERATION NOT PERMITTED								

Boom Length ft (m)		180-200 (54.9-61.0)								
Fixed Jib Length ft (m)		30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)	30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)	30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)
Luffing Jib Length ft (m)		170 (51.8)			180-190 (54.9-57.9)			200-210 (61.0-64.0)		
Maximum Wind Speed		Percent Rating Reduction								
mph	m/s	0	0	0	0	0	0	0	0	0
10	5	0	0	0	0	0	0	0	0	0
15	7	20	50		50					
Above 15 mph (7 m/s)		OPERATION NOT PERMITTED								

Operation Not Permitted**Boom with Luffing Jib and 30-40 ft (9.1-12.2 m) Fixed Jib**

- Up to 30 mph (13 m/s) —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 83° and luffing jib at 65°.

- 30 mph (13 m/s) and Above —

Lower boom and jibs onto blocking at ground level.

Boom with Luffing Jib and 50-80 ft (15.2-24.4 m) Fixed Jib

- Up to 25 mph (11 m/s) —

Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 83° and luffing jib at 65°.

- 25 mph (11 m/s) and Above —

Lower boom and jibs onto blocking at ground level.

REFERENCE
ONLY!

#82HL Boom with #149 Luffing Jib – Assemble-In-Air and Outside Assist

Rating Reductions for Various Wind Speeds and Wind Gusts

Table 7

Luffing Jib Length ft (m)		110-130 (33.5-39.6)			140-150 (42.7-45.7)			160-170 (48.8-51.8)		
Boom Length ft (m)		210 (64.0)	220-230 (67.1-70.1)	240-250 (73.2-76.2)	210 (64.0)	220-230 (67.1-70.1)	240-250 (73.2-76.2)	210 (64.0)	220-230 (67.1-70.1)	240-250 (73.2-76.2)
Maximum Wind Speed		Percent Rating Reduction								
mph	m/s									
15	7	0	0	0	0	0	0	0	0	0
20	9	0	0	0	0	10	20	30	40	60
25	11	10	20	40	50	60				
30	13	50								
Above 30 mph (13 m/s)		OPERATION NOT PERMITTED								

Operation Not Permitted

Boom with 110-130 ft (33.5-39.6 m) Luffing Jib

- Up to 40 mph (18 m/s) —
Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 83° and luffing jib at 60°.
- 40 mph (18 m/s) and Above —
Lower boom and luffing jib onto blocking at ground level.

Boom with 140-170 ft (42.7-51.8 m) Luffing Jib

- Up to 30 mph (13 m/s) —
Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 83° and luffing jib at 60°.
- 30 mph (13 m/s) and Above —
Lower boom and luffing jib onto blocking at ground level.

#82HL Boom with #149 Luffing Jib and #134 Fixed Jib – Assemble-In-Air and Outside Assist

Rating Reductions for Various Wind Speeds and Wind Gusts

Table 8

Boom Length ft (m)		210-230 (64.0-70.1)		
Fixed Jib Length ft (m)		30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)
Luffing Jib Length ft (m)		170 (51.8)		
Maximum Wind Speed		Percent Rating Reduction		
mph	m/s			
10	5	0	0	0
15	7	40		
Above 15 mph (7 m/s)		OPERATION NOT PERMITTED		

Boom Length ft (m)		240-250 (73.2-76.2)		
Fixed Jib Length ft (m)		30-40 (9.1-12.2)	50-60 (15.2-18.3)	70-80 (21.3-24.4)
Luffing Jib Length ft (m)		170 (51.8)		
Maximum Wind Speed		Percent Rating Reduction		
mph	m/s			
10	5	0	0	0
15	7	60		
Above 15 mph (7 m/s)		OPERATION NOT PERMITTED		

Operation Not Permitted

Boom with Luffing Jib and 30-40 ft (9.1-12.2 m) Fixed Jib

- Up to 25 mph (11 m/s) —
Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 83° and luffing jib at 65°.
- 25 mph (11 m/s) and Above —
Lower boom and jibs onto blocking at ground level.

Boom with Luffing Jib and 50-80 ft (15.2-24.4 m) Fixed Jib

- Up to 20 mph (9 m/s) —
Park crane (upper in line with crawlers) with load blocks and weight balls on ground or secured and position boom at 83° and luffing jib at 65°.
- 20 mph (9 m/s) and Above —
Lower boom and jibs onto blocking at ground level.

#82LR Boom Only**Rating Reductions for Various Wind Speeds and Wind Gusts****Table 9**

Boom Length ft (m)		120-180 (36.6-54.9)	190-240 (57.9-73.2)	250-290 (76.2-88.4)	300-340 (91.4-103.6)
Maximum Wind Speed		Percent Rating Reduction			
mph	m/s				
15	7	0	0	0	0
20	9	0	0	10	10
25	11	0	0	20	40
30	13	0	10	40	60
35	16	0	20	60	
Above 35 mph (16 m/s)		OPERATION NOT PERMITTED			

For operation in steady winds or wind gusts above 25 mph (40 km/hr) at front of boom, do not operate boom higher than 70° with loads less than 6,000 lb (2 722 kg). **Boom could be blown over backwards if this precaution is not observed.**

Operation Not Permitted**120-290 ft (36.6-88.4 m) Boom**

- Up to 50 mph (22 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 50 mph (22 m/s) and Above —
Lower boom onto blocking at ground level.

300-330 ft (91.4-100.6 m) Boom

- Up to 40 mph (18 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 40 mph (18 m/s) and Above —
Lower boom onto blocking at ground level.

340 ft (103.6 m) Boom

- Up to 35 mph (16 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 35 mph (16 m/s) and Above —
Lower boom onto blocking at ground level.

#82LR Boom with #123 Fixed Jib**Rating Reductions for Various Wind Speeds and Wind Gusts****Table 10**

Jib Length ft (m)		30-60 (9.1-18.3)	
Boom Length ft (m)		120-250 (36.6-76.2)	260-300 (79.3-91.4)
Maximum Wind Speed		Percent Rating Reduction	
mph	m/s		
15	7	0	0
20	9	0	10
25	11	0	30
30	13	0	
35	16	0	
Above 35 mph (16 m/s)		OPERATION NOT PERMITTED	

For operation in steady winds or wind gusts above 25 mph (40 km/hr) at front of boom, do not operate boom higher than 70° with total loads on boom and jib less than 6,000 lb (2 722 kg). **Boom and jib could be blown over backwards if this precaution is not observed.**

Operation Not Permitted**120-250 ft (36.6-76.2 m) Boom with Fixed Jib**

- Up to 50 mph (22 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 50 mph (22 m/s) and Above —
Lower boom and jib onto blocking at ground level.

260-290 ft (79.3-88.4 m) Boom with Fixed Jib

- Up to 40 mph (18 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 40 mph (18 m/s) and Above —
Lower boom and jib onto blocking at ground level.

300 ft (91.4 m) Boom with Fixed Jib

- Up to 35 mph (16 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 35 mph (16 m/s) and Above —
Lower boom and jib onto blocking at ground level.

#82LR Boom with #134 Fixed Jib***Rating Reductions for Various Wind Speeds and Wind Gusts*****Table 11**

Jib Length ft (m)		30-60 (9.1-18.3)			70-80 (21.3-24.4)		
Boom Length ft (m)		120-200 (36.6-60.9)	210-250 (84-76.2)	260-300 (79.2-91.4)	120-200 (36.6-60.9)	210-250 (84-76.2)	260-300 (79.2-91.4)
Maximum Wind Speed		Percent Rating Reduction					
mph	m/s						
15	7	0	0	0	0	0	0
20	9	0	0	10	0	0	10
25	11	0	0	30	0	10	30
30	13	0	10		0	20	
35	16	0	20		20	30	
Above 35 mph (16 m/s)		OPERATION NOT PERMITTED					

For operation in steady winds or wind gusts above 25 mph (40 km/hr) at front of boom, do not operate boom higher than 70° with total loads on boom and jib less than 6,000 lb (2 722 kg). **Boom and jib could be blown over backwards if this precaution is not observed.**

Operation Not Permitted**120-250 ft (36.6-76.2 m) Boom with Fixed Jib**

- Up to 50 mph (22 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 50 mph (22 m/s) and Above —
Lower boom and jib onto blocking at ground level.

260-290 ft (79.3-88.4 m) Boom with Fixed Jib

- Up to 40 mph (18 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 40 mph (18 m/s) and Above —
Lower boom and jib onto blocking at ground level.

300 ft (91.4 m) Boom with Fixed Jib

- Up to 35 mph (16 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 35 mph (16 m/s) and Above —
Lower boom and jib onto blocking at ground level.

#22E Boom with Light Tapered Top Only**Rating Reductions for Various Wind Speeds and Wind Gusts****Table 12**

Boom Length ft (m)		110-180 (33.5-54.9)	190-240 (57.9-73.2)	250-290 (76.2-88.4)	300-310 (91.4-94.5)
Maximum Wind Speed (mph) (m/s)		Percent Rating Reduction			
15	7	0	0	0	0
20	9	0	0	10	20
25	11	0	10	20	20
30	13	0	20	30	40
35	16	10	20	40	50
Above 35 mph (16 m/s)		OPERATION NOT PERMITTED			

For operation in steady winds or wind gusts above 25 mph (40 km/hr) *at front of boom*, do not operate boom higher than 70° with loads less than 6,000 lb (2 722 kg). **Boom could be blown over backwards if this precaution is not observed.**

Operation Not Permitted

- Up to 50 mph (22 m/s) —
Park crane (upper in line with crawlers) and position boom at 70° with load blocks and weight balls on ground or secured.
- 50 mph (22 m/s) and Above —
Lower boom onto blocking at ground level.

REFERENCE
ONLY!