

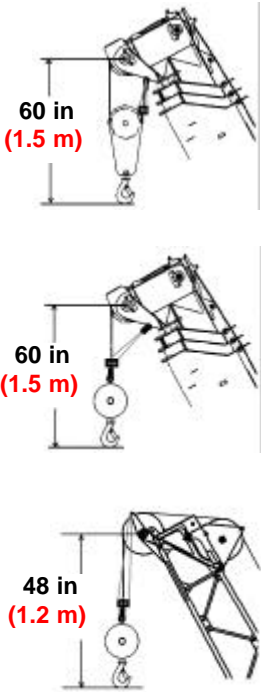
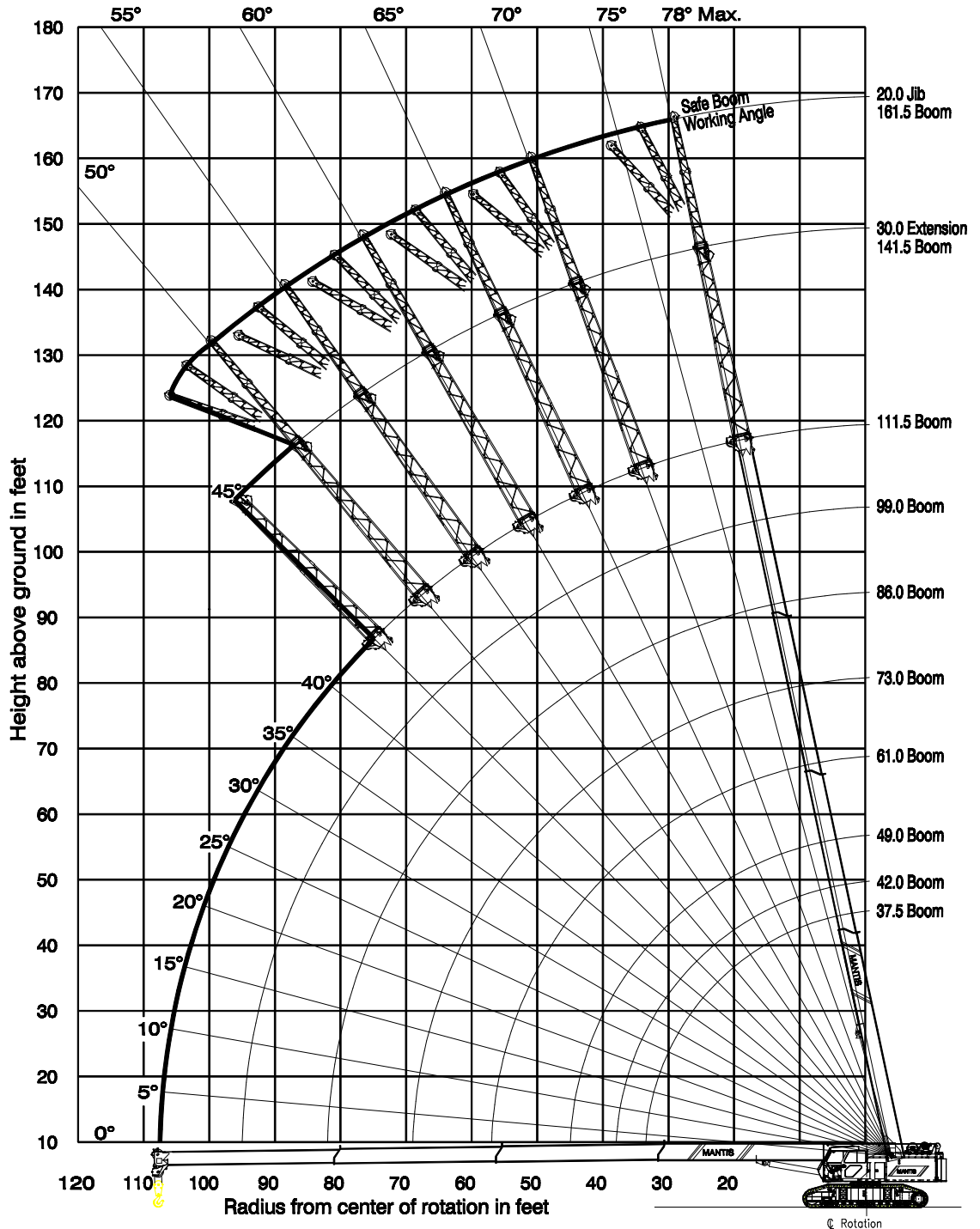
# MANTIS<sup>®</sup> 10010Mx

## 50 TON TELE-BOOM CRAWLER CRANE

### LOAD CHART



111 FT 6 IN MAIN BOOM, 30 FT EXTENSION and 20 FT FLY JIB



# MAIN BOOM LIFTING CAPACITIES

IN THOUSANDS OF POUNDS, 360°, 75% OF TIPPING, FIRM & LEVEL GROUND

<b>TRACKS FULLY EXTENDED 20,000 lb COUNTERWEIGHT</b>									
<b>RADIUS</b>	<b>MAIN BOOM LENGTH</b>								<b>RADIUS</b>
	<b>37 FT 6 IN</b>	<b>42 FT</b>	<b>49 FT</b>	<b>61 FT</b>	<b>73 FT</b>	<b>86 FT</b>	<b>99 FT</b>	<b>111 FT 6 IN</b>	
<b>10 FT</b>	100.0	90.0	86.0	79.0					<b>10 FT</b>
<b>12 FT</b>	82.5	80.0	76.0	72.0					<b>12 FT</b>
<b>15 FT</b>	66.0	64.0	61.0	59.5	48.0	44.0			<b>15 FT</b>
<b>20 FT</b>	53.2	51.1	49.1	51.4	43.0	40.0	38.0		<b>20 FT</b>
<b>25 FT</b>	39.6	38.7	37.3	38.0	38.6	39.0	36.0	35.0	<b>25 FT</b>
<b>30 FT</b>	29.5	29.0	28.7	28.5	29.2	29.9	30.2	30.5	<b>30 FT</b>
<b>35 FT</b>		22.3	22.0	21.8	22.5	23.3	23.7	24.1	<b>35 FT</b>
<b>40 FT</b>			16.8	16.6	17.3	17.9	18.6	19.1	<b>40 FT</b>
<b>45 FT</b>			12.8	13.2	13.7	14.3	15.0	15.5	<b>45 FT</b>
<b>50 FT</b>				10.5	11.1	11.7	12.4	13.0	<b>50 FT</b>
<b>55 FT</b>				8.4	8.9	9.7	10.4	10.8	<b>55 FT</b>
<b>60 FT</b>					8.0	8.4	8.7	9.0	<b>60 FT</b>
<b>65 FT</b>					6.7	7.0	7.3	7.6	<b>65 FT</b>
<b>70 FT</b>						5.7	6.0	6.3	<b>70 FT</b>
<b>75 FT</b>						4.6	5.0	5.3	<b>75 FT</b>
<b>80 FT</b>						3.7	4.1	4.4	<b>80 FT</b>
<b>85 FT</b>							3.2	3.6	<b>85 FT</b>
<b>90 FT</b>							2.7	3.0	<b>90 FT</b>
<b>95 FT</b>							2.1	2.4	<b>95 FT</b>
<b>100 FT</b>								1.9	<b>100 FT</b>
<b>105 FT</b>								1.1	<b>105 FT</b>

<b>TRACKS RETRACTED 20,000 lb COUNTERWEIGHT</b>					
<b>RADIUS</b>	<b>MAIN BOOM LENGTH</b>		<b>RADIUS</b>	<b>MAIN BOOM LENGTH</b>	
	<b>37.5 FT to 111.5 FT</b>			<b>37.5 FT to 111.5 FT</b>	
<b>15 FT</b>	42.6		<b>38 FT</b>	7.4	
<b>17 FT</b>	34.3		<b>40 FT</b>	6.4	
<b>19 FT</b>	28.2		<b>42 FT</b>	5.7	
<b>21 FT</b>	23.7		<b>44 FT</b>	4.9	
<b>23 FT</b>	20.2		<b>46 FT</b>	4.3	
<b>25 FT</b>	17.4		<b>48 FT</b>	3.7	
<b>27 FT</b>	15.1		<b>50 FT</b>	3.2	
<b>29 FT</b>	13.1		<b>52 FT</b>	2.7	
<b>30 FT</b>	12.3		<b>54 FT</b>	2.3	
<b>32 FT</b>	10.8		<b>56 FT</b>	1.8	
<b>34 FT</b>	9.5		<b>58 FT</b>	1.5	
<b>36 FT</b>	8.3		<b>60 FT</b>	1.2	

<b>MAXIMUM CAPACITY AT ZERO DEGREE BOOM ANGLE LOAD CHART</b>															
<b>BOOM LENGTH 37 FT 6 IN</b>		<b>BOOM LENGTH 42 FT</b>		<b>BOOM LENGTH 49 FT</b>		<b>BOOM LENGTH 61 FT</b>		<b>BOOM LENGTH 73 FT</b>		<b>BOOM LENGTH 86 FT</b>		<b>BOOM LENGTH 99 FT</b>		<b>BOOM LENGTH 111 FT 6 IN</b>	
<b>RADIUS</b>	<b>LOAD</b>	<b>RADIUS</b>	<b>LOAD</b>	<b>RADIUS</b>	<b>LOAD</b>	<b>RADIUS</b>	<b>LOAD</b>	<b>RADIUS</b>	<b>LOAD</b>	<b>RADIUS</b>	<b>LOAD</b>	<b>RADIUS</b>	<b>LOAD</b>	<b>RADIUS</b>	<b>LOAD</b>
33 FT 6 IN	28.5	38 FT	17.1	45 FT	12.8	57 FT	7.8	69 FT	5.6	82 FT	3.3	95 FT	2.2	107 FT 5 IN	1.0

# LIFTING CAPACITIES

IN THOUSANDS OF POUNDS, 360°, 75% OF TIPPING, FIRM & LEVEL GROUND

## AUXILIARY BOOM HEAD

TRACKS FULLY EXTENDED 20,000 lb COUNTERWEIGHT									
RADIUS	MAIN BOOM LENGTH								RADIUS
	37 FT 6 IN	42 FT	49 FT	61 FT	73 FT	86 FT	99 FT	111 FT 6 IN	
10 FT	11.0	11.0	11.0	11.0					10 FT
12 FT	11.0	11.0	11.0	11.0					12 FT
15 FT	11.0	11.0	11.0	11.0	11.0	11.0			15 FT
20 FT	11.0	11.0	11.0	11.0	11.0	11.0	11.0		20 FT
25 FT	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25 FT
30 FT	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	30 FT
35 FT		11.0	11.0	11.0	11.0	11.0	11.0	11.0	35 FT
40 FT			11.0	11.0	11.0	11.0	11.0	11.0	40 FT
45 FT			11.0	11.0	11.0	11.0	11.0	11.0	45 FT
50 FT				10.5	11.0	11.0	11.0	11.0	50 FT
55 FT				8.4	8.9	9.7	10.4	10.8	55 FT
60 FT					8.0	8.4	8.7	9.0	60 FT
65 FT					6.7	7.0	7.3	7.6	65 FT
70 FT						5.7	6.0	6.3	70 FT
75 FT						4.6	5.0	5.3	75 FT
80 FT						3.7	4.1	4.4	80 FT
85 FT							3.2	3.6	85 FT
90 FT							2.7	3.0	90 FT
95 FT							2.1	2.4	95 FT
100 FT								1.9	100 FT
105 FT								1.1	105 FT

### 30 FT LATTICE EXTENSION

TRACKS FULLY EXTENDED 20,000 lb COUNTERWEIGHT		
MAIN BOOM LENGTH	37 FT 6 IN	110 FT
	TO 109 FT 11 IN	111 FT 6 IN
BOOM ANGLE	LOAD	LOAD
78°	18.0	18.0
75°	13.6	13.6
72°	11.5	11.5
70°	10.1	10.1
68°	8.9	8.9
65°	8.0	7.8
62°	7.2	6.0
60°	6.7	4.8
58°	6.1	3.9
55°	5.8	3.0
52°	5.3	2.4
50°	5.1	2.1
48°	4.9	1.7
45°	4.6	1.3

### 30 FT LATTICE EXTENSION & 20 FT FLY JIB

TRACKS FULLY EXTENDED 20,000 lb COUNTERWEIGHT			
MAIN BOOM LENGTH	37 FT 6 IN TO 111 FT 6 IN		
	JIB OFFSET ANGLE	0°	15°
BOOM ANGLE	LOAD	LOAD	LOAD
78°	6.6	4.0	2.2
75°	6.5	4.0	2.1
72°	5.6	3.5	2.0
70°	5.1	3.2	1.9
68°	4.6	3.0	1.8
65°	4.2	2.8	1.8
62°	3.9	2.6	1.7
60°	3.5	2.4	1.7
58°	3.2	1.9	1.4
55°	2.6	1.3	1.0
52°	2.0	0.6	0.4
50°	1.3	0.3	0.2

## LIFTING CAPACITY DEDUCTION CHART

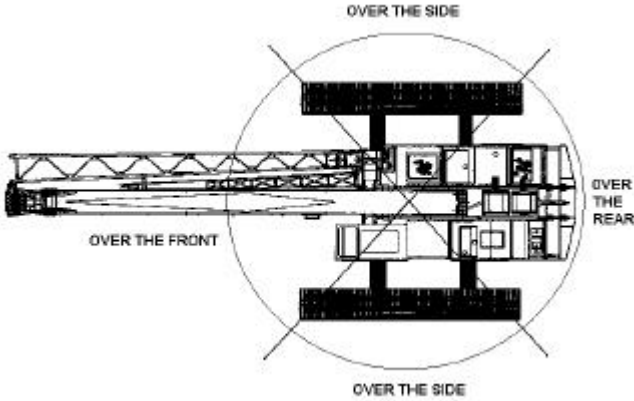
#### REDUCTION IN MAIN BOOM LIFTING CAPACITY

30 ft Extension - Stowed	350 lb
30 ft Extension - Erected	2000 lb
30 ft Extension & 20 ft Fly Jib - Stowed	750 lb
30 ft Extension & 20 ft Fly Jib - Erected	3500 lb
Auxiliary Boom Head	250 lb

#### HOOK BLOCK WEIGHTS

12 ton Headache Ball w/ Swivel	220 lb
55 ton Hook Block w/ 5 Sheave	1627 lb

# GENERAL NOTES



WIRE ROPE LINE PULL CAPACITIES					
PARTS OF LINE	MAIN WINCH (pounds)	AUX WINCH (pounds)	PARTS OF LINE	MAIN WINCH (pounds)	AUX WINCH (pounds)
1	11,771	11,771	6	70,626	
2	23,542	23,542	7	82,397	
3	35,313		8	94,168	
4	47,084				
5	58,855				

5/8 inch diameter wire rope, 6 x 37 Class, EIP, IWRC

## **WARNING**

**PLEASE READ, UNDERSTAND AND FOLLOW THE MANUALS FURNISHED WITH THE CRANE (OPERATOR'S AND SAFETY) AS WELL AS THE CAPACITY LIMITATIONS AND GENERAL CONDITIONS LISTED BELOW PRIOR TO OPERATION OF THE CRANE. FAILURE TO DO SO MAY RESULT IN AN ACCIDENT.**



**CAUTION: THESE CHART VALUES ARE ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. USE ONLY THE IN CAB LOAD CHARTS AND OPERATOR'S MANUAL FURNISHED WITH THE CRANE.**

### Capacity Limitations and General Conditions:

1. This MANTIS CRANE as manufactured, meets the requirements of ANSI B30.5 (2000). Structure and stability have been tested in accordance with SAE J1063 and SAE J765, respectively. Modifications to the crane or use of optional equipment other than specified by the manufacturer can result in a reduction of capacity.
2. The main boom and auxiliary boom head lifting capacities are determined by boom length and load radius. The extension and jib lifting capacities are determined by boom angle.
3. Rated capacity loads given are maximum covered by the manufacturer's warranty and are based on a freely suspended load with NO allowance for factors such as out-of-level operation, supporting surface conditions, hazardous surroundings, experience of personnel, etc. The operator shall establish practical working loads based on prevailing operating conditions, such as, but not limited to the above.
4. All rated capacity loads shown apply to original equipment as supplied by SpanDeck, Inc.
5. All rated capacity loads appearing *above* the **bold line** are based on structural strength; tipping should not be relied upon as a capacity limitation.
6. All rated capacity loads appearing *below* the **bold line** are based on stability and do not exceed 75% of tipping.
7. Deductions from rated capacities must be made for the weight of the hook block, headache ball, slings, spreader bar, and any other suspended equipment. See Lifting Capacity Deduction Chart for load handling devices supplied by SpanDeck, Inc.
8. A properly calibrated and maintained Load Moment Indicator (LMI) system will indicate boom mounted and other suspended equipment.
9. When making lifts where capacities may be within a zone limited by structural strength, the operator shall determine that the weight of the load is known within plus or minus (+/-) ten percent (10%) before making lift.
10. It is permissible to attempt to telescope boom with a load within the limits of rated capacities. However, boom telescope system hydraulic pressure, and/or boom lubrication may affect operation.
11. Side pull on boom is extremely dangerous and must be avoided.
12. DO NOT exceed manufacturer's maximum specified reeving.
13. DO NOT lift load or extend boom without proper configuration of crane per load chart selected.
14. DO NOT attempt to lift any load when wind speed exceeds 20 mph.

## MANTIS® CRANES

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METRIC LOAD CHARTS AVAILABLE UPON REQUEST