Tel: (888) 337-BIGGE or (510) 638-8100

Web: www.bigge.com

**MANTIS Model 15010** 

111.6 ft STANDARD BOOM

## LOAD CHART

## MANTIS Model 15010

75 ton Hydraulic Crawler Crane

as originally manufactured and equipped by Tadano Mantis Corporation

with Standard 111.6 ft Main Boom

## **Capacity Limitations and General Conditions.**

This MANTIS CRANE as manufactured by Tadano Mantis Corporation meets the requirements of ASME B30.5. Structure and stability have been tested in accordance with SAE J1063 and SAE J765, respectively. Lifting capacities as determined by boom length, angle or radius, apply only to machines as originally equipped by manufacturer and in a properly maintained condition. Capacities given are maximum covered by the manufacturers warranty and are based on a freely suspended load with NO allowance for factors 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.

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. **DO NOT** lift load or extend boom without counterweight in place. Deductions from rated capacities must be made for the weight of the hook block, hook/ball, slings, spreader bar, or other suspended equipment.

Side pull on boom is extremely dangerous and must be avoided.

DO NOT exceed manufacturers maximum specified reeving.

**DO NOT** use this chart if wind speed exceeds 20 mph. Consult the manufacturer for specialized load ratings.

Load radius is defined as the horizontal distance from the axis of rotation (with no load) to the center of the lifting device after load is applied.

Boom angle is the included angle between the Longitudinal axis of the boom base section and the Horizontal axis, after lifting load. The boom angle before lifting should be slightly greater than desired to account for boom deflection.

Boom angle/boom length relationships given are an approximation of the resulted load radius, which should be an accurate measurement.

Boom height dimensions are measured from ground to center of lower boom head sheave.

It is permissible to attempt to telescope boom with a load within the limits of rated capacities. However, boom angle system hydraulic pressure, and/or boom lubrication may affect operation.

It is permissible to travel with loads within the rated capacity of the crane. Travel speeds should be greatly reduced to reflect terrain limitations and minimize dynamic loads applied to the crane structure.



## 111.6 ft STANDARD BOOM

## **LOAD CHART SELECTION & LOAD MOMENT INDICATOR SETTING** INFORMATION

Each Load Chart in this document corresponds to a particular crane configuration. The Load Moment Indicator system must be set to match the configuration in use. If it is set improperly, the crane may function poorly or not at all

The chart below shows the Operating Modes configurations and corresponding crane available.

#### NOTE:

If you are certain that a load is within load chart limits but the crane will not lift it, check the selected reeving and crane configuration.

Operating Mode Number	Crane Configuration	Track Position	Counter- weight (lb)	Allowable Reeving (Parts of Line)	Load Chart Number
1	Main Boom	Fully Extended	35,000	1 to 10	1
2	Main Boom	Fully Extended	17,500	1 to 10	2
3	Main Boom	Fully Extended	NO CWT	1 to 10	3
4	Main Boom	Retracted	35,000	1 to 10	4
5	Main Boom	Retracted	17,500	1 to 10	5
6	Auxiliary Boom Nose Sheave	Fully Extended	35,000	1	6
7	Auxiliary Boom Nose Sheave	Fully Extended	17,500	1	7
16	Auxiliary Boom Nose Sheave	Fully Extended	NO CWT	1	8
17	Auxiliary Boom Nose Sheave	Retracted	35,000	1	9
18	Auxiliary Boom Nose Sheave	Retracted	17,500	1	10
19	30ft Extension	Fully Extended	35,000	1 or 2	11
20	30ft Extension	Fully Extended	17,500	1 or 2	12
21	20ft Jib - 0° Offset	Fully Extended	35,000	1	13
22	20ft Jib - 15° Offset	Fully Extended	35,000	1	13
23	20ft Jib - 30° Offset	Fully Extended	35,000	1	13
24	20ft Jib - 0° Offset	Fully Extended	17,500	1	13

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## 111.6 ft STANDARD BOOM

34	20ft Jib - 15° Offset	Fully Extended	17,500	1	13
35	20ft Jib - 30° Offset	Fully Extended	17,500	1	13
36	Work Platform on Main Boom	Fully Extended	35,000	NA	See Operating Range Chart
37	Work Platform on 30ft Extension	Fully Extended	35,000	NA	See Operating Range Chart

# LIFTING CAPACITY DEDUCTIONS FOR LOAD HANDLING DEVICES

#### **MANTIS Model 15010**

#### 75 ton Crawler Crane

as originally manufactured and equipped by Tadano Mantis Corporation.

Weight Reductions for Load Han	dling Devices
Hookblocks	
75 Ton - 5 Sheave	1750 lb
12 Ton Overhaul Ball w/Swivel	440 lb
Optional Load Handling Devices	
30ft Extension - Stowed*	400 lb
30ft Extension - Erected*	2000 lb
30ft Ext. and 20ft Jib - Stowed*	850 lb
30ft Ext. and 20ft Jib - Erected*	3500 lb
Auxiliary Nose Sheave*	250 lb
Auger Ready Package*	220 lb
Auger Package Complete - Stowed*	450 lb
Auger Package Complete - Erected*	1120 lb
*Reduction of main boom capacities	

#### NOTE:

All values shown apply to original equipment as supplied by Tadano Mantis Corporation. The above deductions should be taken into account when calculating the load to be lifted. If lifting devices other than those supplied by the manufacturer are used, deductions should be made based the weights of those components.

A properly calibrated and maintained Load Moment Indicating (LMI) system will indicate boom mounted and other suspended equipment.



## CHART #1

## **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

## 360 DEGREE RATING - LOADS IN Ib x 1000

	N	IAIN BO	OM wit	h TRAC	KS FU	LLY EX	TENDE	D	
			35,000	Ib COU	NTERWI	EIGHT			
RADIUS			MAII	ВООМ	LENGT	Ⅎ (ft)			RADIUS
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10	154.0	107.5	105.0	103.0					10
12	136.5	104.0	100.0	90.0					12
15	114.0	102.0	94.0	82.0	64.5				15
20	81.8	81.0	79.0	68.0	59.0	51.0	46.0		20
25	59.7	59.4	59.0	58.7	50.0	42.0	38.5	36.0	25
30	44.2	44.0	43.7	43.4	44.5	36.8	33.2	31.0	30
35		34.2	33.9	33.7	34.8	34.3	29.0	26.7	35
40		27.5	27.2	27.0	28.0	28.6	25.5	23.0	40
45			22.3	22.0	23.1	23.6	24.0	21.9	45
50				18.3	19.3	19.8	20.4	19.7	50
55				15.3	16.3	16.8	17.4	17.5	55
60					13.9	14.4	15.0	15.0	60
65					12.0	12.4	13.0	13.0	65
70						10.8	11.3	11.4	70
75						9.3	9.9	9.9	75
80						8.1	8.6	8.7	80
85							7.6	7.6	85
90							6.6	6.7	90
95							5.8	5.9	95
100								5.1	100
105								4.5	105
Parts of line	10	8	7	7	5	4	4	3	Parts of line

#### NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



## CHART #2

#### **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

#### 360 DEGREE RATING - LOADS IN lb x 1000

	N	IAIN BO	OOM wit	th TRAC	CKS FU	LLY EX	TENDE	D	
			17,500	lb COU	NTERW	EIGHT			
RADIUS			MAII	N BOOM	LENGTI	H (ft)			RADIUS
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10	154.0	107.5	105.0	103.0					10
12	136.5	104.0	100.0	90.0					12
15	114.0	102.0	94.0	82.0	64.5				15
20	63.6	64.1	63.9	63.3	59.0	51.0	46.0		20
25	42.3	42.7	42.6	42.1	43.9	42.0	38.5	36.0	25
30	30.5	30.9	30.8	30.4	32.1	33.2	33.2	31.0	30
35		23.5	23.4	23.0	24.6	25.7	26.2	26.5	35
40		18.3	18.3	17.9	19.4	20.5	20.9	21.3	40
45			14.5	14.1	15.6	16.7	17.1	17.4	45
50				11.3	12.7	13.8	14.2	14.5	50
55				9.0	10.5	11.5	11.9	12.2	55
60					8.6	9.6	10.0	10.3	60
65					7.1	8.1	8.5	8.8	65
70						6.8	7.2	7.5	70
75						5.7	6.1	6.4	75
80						4.8	5.2	5.4	80
85							4.4	4.6	85
90							3.6	3.9	90
95							3.0	3.3	95
100								2.7	100
105								2.2	105
Parts of line	10	8	7	7	5	4	4	3	Parts of line

#### NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



## CHART#3

## **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

#### 360 DEGREE RATING - LOADS IN lb x 1000

	N	IAIN BO	OOM wi	th TRAC	CKS FU	LLY EX	TENDE	D	
			NO	COUNT	ERWEIG	HT			
RADIUS			MAII	N BOOM	LENGT	H (ft)			RADIUS
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10	143.0	107.5	105.0	103.0					10
12	119.0	104.0	100.0	90.0					12
15	80.0	79.6	79.3	78.8	64.5				15
20	43.5	43.3	43.1	42.7	44.1	44.9	45.8		20
25	28.2	28.0	27.9	27.6	28.7	29.4	30.3	31.0	25
30	19.8	19.6	19.5	19.3	20.3	20.9	21.7	22.4	30
35		14.3	14.2	14.0	15.0	15.6	16.3	16.9	35
40		10.6	10.6	10.4	11.3	11.9	12.6	13.2	40
45			7.9	7.7	8.6	9.1	9.8	10.4	45
50				5.7	6.5	7.1	7.7	8.3	50
55				4.0	4.9	5.4	6.1	6.6	55
60					3.6	4.1	4.8	5.3	60
65					2.5	3.0	3.7	4.2	65
70						2.1	2.7	3.3	70
75						1.3	2.0	2.5	75
80						NR	1.3	1.8	80
85							NR	1.2	85
90							NR	NR	90
95							NR	NR	95
100								NR	100
105								NR	105
Parts of line	10	8	7	7	5	4	4	3	Parts of line

#### NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



111.6 ft STANDARD BOOM

## CHART#4

#### **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

#### 360 DEGREE RATING - LOADS IN Ib x 1000

		MAIN	воом	with TF	RACKS	RETRA	CTED		
			35,000	lb COU	NTERW	EIGHT			
RADIUS			MAII	N BOOM	LENGT	H (ft)			RADIUS
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10.0	*	*	*	*					10.0
12.0	*	*	100.0	90.0					12.0
15.0	85.0	84.0	83.4	82.0	64.5				15.0
20.0	53.8	53.0	52.4	52.1	53.4	51.0	46.0		20.0
25.0	38.1	37.4	37.0	36.6	37.8	38.7	38.5	36.0	25.0
30.0	28.8	28.1	27.7	27.4	28.5	29.3	29.9	30.3	30.0
35.0		21.9	21.5	21.2	22.3	23.1	23.6	24.1	35.0
40.0		17.4	17.1	16.8	17.9	18.6	19.2	19.6	40.0
45.0			13.7	13.5	14.5	15.3	15.8	16.2	45.0
50.0				10.9	11.9	12.7	13.2	13.6	50.0
55.0				8.8	9.9	10.6	11.1	11.5	55.0
60.0					8.2	8.9	9.4	9.8	60.0
65.0					6.8	7.5	8.0	8.4	65.0
70.0						6.3	6.8	7.2	70.0
75.0						5.2	5.7	6.1	75.0
80.0						4.3	4.9	5.2	80.0
85.0							4.1	4.5	85.0
90.0							3.4	3.8	90.0
95.0							2.8	3.2	95.0
100.0								2.6	100.0
105.0								2.1	105.0
Parts of line	7	7	7	7	5	4	4	3	Parts of line

## WARNING

WITH TRACKS RETRACTED AND BOOM POSITIONED "OVER THE SIDE", THIS EQUIPMENT IS LIMITED BY **BACKWARD STABILITY!** 

BACKWARD STABILITY OF THIS EQUIPMENT IS ITS ABILITY TO RESIST OVERTURNING IN THE DIRECTION OPPOSITE THE BOOM POINT WHILE IN THE <u>UNLOADED</u> CONDITION.

BOOM POSTIONS MARKED WITH AN \* ON THE CHART INDICATE AN AREA LIMITED BY BACKWARD STABILITY. IF THE CRANE IN THIS CONFIGURATION WITH BOOM UNLOADED THE ESTABLISHED LIMITS OF BACKWARD STABILITY WILL BE EXCEEDED AND BACKWARD OVERTURNING MAY OCCUR !!!!

#### NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



#### 111.6 ft STANDARD BOOM

## CHART #5

#### **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

## 360 DEGREE RATING - LOADS IN Ib x 1000

		MAIN	воом	with TF	RACKS	RETRA	CTED		
			17,500	lb COU	NTERW	EIGHT			
RADIUS			MAII	N BOOM	LENGTI	H (ft)			RADIUS
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10.0	130.5	107.5	105.0	103.0					10.0
12.0	90.6	89.5	88.8	88.2					12.0
15.0	60.8	59.9	59.3	58.8	60.3				15.0
20.0	37.7	36.9	36.4	36.0	37.2	38.1	38.8		20.0
25.0	26.1	25.4	24.9	24.6	25.7	26.5	27.1	27.6	25.0
30.0	19.2	18.5	18.1	17.8	18.8	19.6	20.2	20.6	30.0
35.0		13.9	13.5	13.2	14.2	15.0	15.5	16.0	35.0
40.0		10.6	10.2	10.0	10.9	11.6	12.2	12.6	40.0
45.0			7.8	7.5	8.5	9.2	9.7	10.1	45.0
50.0				5.6	6.6	7.2	7.8	8.2	50.0
55.0				4.1	5.0	5.7	6.2	6.6	55.0
60.0					3.8	4.4	5.0	5.4	60.0
65.0					2.7	3.4	3.9	4.3	65.0
70.0						2.5	3.0	3.4	70.0
75.0						1.7	2.3	2.7	75.0
80.0						1.1	1.6	2.0	80.0
85.0							1.0	1.4	85.0
90.0							NR	NR	90.0
95.0							NR	NR	95.0
100.0								NR	100.0
105.0								NR	105.0
Parts of line	10	8	7	7	5	3	3	3	Parts of line

## NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



## CHART#6

#### **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

#### 360 DEGREE RATING - LOADS IN lb x 1000

AUX	ILIARY	воом	NOSE S	SHEAVE	with T	RACKS	FULLY	EXTEN	DED
			35,000	lb COU	NTERW	EIGHT			
RADIUS			MAII	и воом	LENGTI	H (ft)			RADIUS
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10	11.0	11.0	11.0	11.0					10
12	11.0	11.0	11.0	11.0					12
15	11.0	11.0	11.0	11.0	11.0				15
20	11.0	11.0	11.0	11.0	11.0	11.0	11.0		20
25	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25
30	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	30
35		11.0	11.0	11.0	11.0	11.0	11.0	11.0	35
40		11.0	11.0	11.0	11.0	11.0	11.0	11.0	40
45			11.0	11.0	11.0	11.0	11.0	11.0	45
50				11.0	11.0	11.0	11.0	11.0	50
55				11.0	11.0	11.0	11.0	11.0	55
60					11.0	11.0	11.0	11.0	60
65					11.0	11.0	11.0	11.0	65
70						10.6	11.0	11.0	70
75						9.1	9.7	9.7	75
80						7.9	8.4	8.5	80
85							7.4	7.4	85
90							6.4	6.5	90
95							5.6	5.7	95
100								4.9	100
105								4.3	105
Parts of line	1	1	1	1	1	1	1	1	Parts of line

## NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.

## CHART #7

#### **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

## 360 DEGREE RATING - LOADS IN Ib x 1000

AUX	ILIARY	воом	NOSE S	SHEAVE	with T	RACKS	FULLY	EXTEN	DED
			17,500	lb COU	NTERW	EIGHT			
RADIUS			MAII	N BOOM	LENGTI	H (ft)			RADIUS
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10	11.0	11.0	11.0	11.0					10
12	11.0	11.0	11.0	11.0					12
15	11.0	11.0	11.0	11.0	11.0				15
20	11.0	11.0	11.0	11.0	11.0	11.0	11.0		20
25	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25
30	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	30
35		11.0	11.0	11.0	11.0	11.0	11.0	11.0	35
40		11.0	11.0	11.0	11.0	11.0	11.0	11.0	40
45			11.0	11.0	11.0	11.0	11.0	11.0	45
50				11.0	11.0	11.0	11.0	11.0	50
55				8.8	10.3	11.0	11.0	11.0	55
60					8.4	9.4	9.8	10.1	60
65					6.9	7.9	8.3	8.6	65
70						6.6	7.0	7.3	70
75						5.5	5.9	6.2	75
80						4.6	5.0	5.2	80
85							4.2	4.4	85
90							3.4	3.7	90
95							2.8	3.1	95
100								2.5	100
105								2.0	105
Parts of line	1	1	1	1	1	1	1	1	Parts of line

#### NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



## **CHART #8**

## **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

## 360 DEGREE RATING - LOADS IN Ib x 1000

AUX	ILIARY	воом	NOSE S	SHEAVE	with T	RACKS	FULLY	EXTEN	DED
			NO	COUNT	ERWEIG	НТ			
RADIUS			MAII	N BOOM	LENGTI	H (ft)			RADIUS
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10	11.0	11.0	11.0	11.0					10
12	11.0	11.0	11.0	11.0					12
15	11.0	11.0	11.0	11.0	11.0				15
20	11.0	11.0	11.0	11.0	11.0	11.0	11.0		20
25	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25
30	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	30
35		11.0	11.0	11.0	11.0	11.0	11.0	11.0	35
40		10.4	10.4	10.2	11.0	11.0	11.0	11.0	40
45			7.7	7.5	8.4	8.9	9.6	10.2	45
50				5.5	6.3	6.9	7.5	8.1	50
55				3.8	4.7	5.2	5.9	6.4	55
60					3.4	3.9	4.6	5.1	60
65					2.3	2.8	3.5	4.0	65
70						1.9	2.5	3.1	70
75						1.1	1.8	2.3	75
80						NR	1.1	1.6	80
85							NR	1.0	85
90							NR	NR	90
95							NR	NR	95
100								NR	100
105								NR	105
Parts of line	1	1	1	1	1	1	1	1	Parts of line

#### NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



#### CHART #9

#### **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

#### 360 DEGREE RATING - LOADS IN lb x 1000

Α	UXILIAI	RY BOC	M NOS	E SHEA	VE with	n TRAC	KS RET	RACTE	D
			35,000	lb COU	NTERW	EIGHT			
RADIUS			MAII	N BOOM	LENGTI	H (ft)			RADIUS
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10	*	*	*	*					10
12	*	*	11.0	11.0					12
15	11.0	11.0	11.0	11.0	11.0				15
20	11.0	11.0	11.0	11.0	11.0	11.0	11.0		20
25	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25
30	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	30
35		11.0	11.0	11.0	11.0	11.0	11.0	11.0	35
40		11.0	11.0	11.0	11.0	11.0	11.0	11.0	40
45			11.0	11.0	11.0	11.0	11.0	11.0	45
50				10.7	11.0	11.0	11.0	11.0	50
55				8.6	9.7	10.4	10.9	11.0	55
60					8.0	8.7	9.2	9.6	60
65					6.6	7.3	7.8	8.2	65
70						6.1	6.6	7.0	70
75						5.0	5.5	5.9	75
80						4.1	4.7	5.0	80
85							3.9	4.3	85
90							3.2	3.6	90
95							2.6	3.0	95
100								2.4	100
105								1.9	105
Parts of line	11	1	1	11	1	1	1	1	Parts of line

## **WARNING**

WITH TRACKS RETRACTED AND BOOM POSITIONED "OVER THE SIDE", THIS EQUIPMENT IS LIMITED BY BACKWARD STABILITY!

BACKWARD STABILITY OF THIS EQUIPMENT IS ITS ABILITY TO RESIST OVERTURNING IN THE DIRECTION OPPOSITE THE BOOM POINT WHILE IN THE UNLOADED CONDITION.

BOOM POSTIONS MARKED WITH AN \* ON THE CHART INDICATE AN AREA LIMITED BY BACKWARD STABILITY. IF THE CRANE IN THIS CONFIGURATION WITH BOOM UNLOADED THE ESTABLISHED LIMITS OF BACKWARD STABILITY WILL BE EXCEEDED AND BACKWARD OVERTURNING MAY OCCUR !!!!

#### NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



## **CHART #10**

#### **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

#### 360 DEGREE RATING - LOADS IN Ib x 1000

AUXILIARY BOOM NOSE SHEAVE with TRACKS RETRACTED									
17,500 Ib COUNTERWEIGHT									
RADIUS	ADIUS MAIN BOOM LENGTH (ft)							RADIUS	
(ft)	37.5	45.4	53.3	61.2	73.8	86.4	99.0	111.6	(ft)
10	11.0	11.0	11.0	11.0					10
12	11.0	11.0	11.0	11.0					12
15	11.0	11.0	11.0	11.0	11.0				15
20	11.0	11.0	11.0	11.0	11.0	11.0	11.0		20
25	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25
30	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	30
35		11.0	11.0	11.0	11.0	11.0	11.0	11.0	35
40		10.4	10.0	9.8	10.7	11.0	11.0	11.0	40
45			7.6	7.3	8.3	9.0	9.5	9.9	45
50				5.4	6.4	7.0	7.6	8.0	50
55				3.9	4.8	5.5	6.0	6.4	55
60					3.6	4.2	4.8	5.2	60
65					2.5	3.2	3.7	4.1	65
70						2.3	2.8	3.2	70
75						1.5	2.1	2.5	75
80						0.9	1.4	1.8	80
85							0.8	1.2	85
90							NR	NR	90
95							NR	NR	95
100								NR	100
105								NR	105
Parts of line	1	1	1	1	1	1	1	1	Parts of line

#### NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation.

Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



## **CHARTS #11 & 12**

#### **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

#### 360 DEGREE RATING - LOADS IN Ib x 1000

30' EXTENSION							
with TRACKS FULLY EXTENDED							
	6,000 lb						
COUNTERWEIGHT			17,500 Ib COUNTERWEIGHT				
			Total Boo				
Boom	All Boom		67.5' to		Boom		
Angle	Lengths		129'	> 129'	Angle		
78º	18.0*		18.0*	18.0*	78º		
75º	13.6		13.6	13.6	75º		
72º	11.5		11.5	11.5	72º		
70°	10.1		10.1	10.1	70°		
68º	8.9		8.9	8.9	68º		
65°	8.0		8.0	8.0	65°		
62º	7.2		7.2	7.2	62º		
60°	6.7		6.7	6.7	60°		
58º	6.1		6.1	6.1	58º		
55°	5.8		5.8	5.8	55°		
52º	5.3		5.3	5.3	52º		
50°	5.1		5.1	4.8	50°		
48º	4.9		4.9	4.2	48°		
45°	4.6		4.6	3.5	45°		

<sup>\* 2</sup> part reeving required

### NOTE:

Capacities appearing above the bold line are based on structural strength; tipping should not be relied upon as a capacity limitation. Capacities appearing below the bold line are based on stability and do not exceed 75% of tipping.



## **CHART #13**

#### **MANTIS Model 15010**

as originally manufactured and equipped by Tadano Mantis Corporation.

#### 360 DEGREE RATING - LOADS IN Ib x 1000

30' EXTENSION + 20' JIB with TRACKS FULLY EXTENDED 35,000 lb or 17,500 lb COUNTERWEIGHT							
20' JIB							
Boom	Jib	Boom					
Angle	0°	15°	30°	Angle			
78º	6.6	4.0	2.2	78º			
75°	6.3	4.0	2.1	75°			
72º	5.6	3.5	2.0	72º			
70°	5.1	3.2	1.9	70°			
68º	4.6	3.0	1.8	68º			
65°	4.2	2.8	1.8	65º			
62º	3.9	2.6	1.7	62º			
60°	3.5	2.4	1.7	60°			
58°	3.2	1.9	1.4	58º			
55°	2.6	1.3	1.0	55°			
52º	2.0	0.6	NR	52º			
50°	1.5	NR	NR	50°			

## NOTE:

All capacities are based on structural strength; tipping should not be relied upon as a capacity limitation.

Never use jib without rearmost counterweight in place.

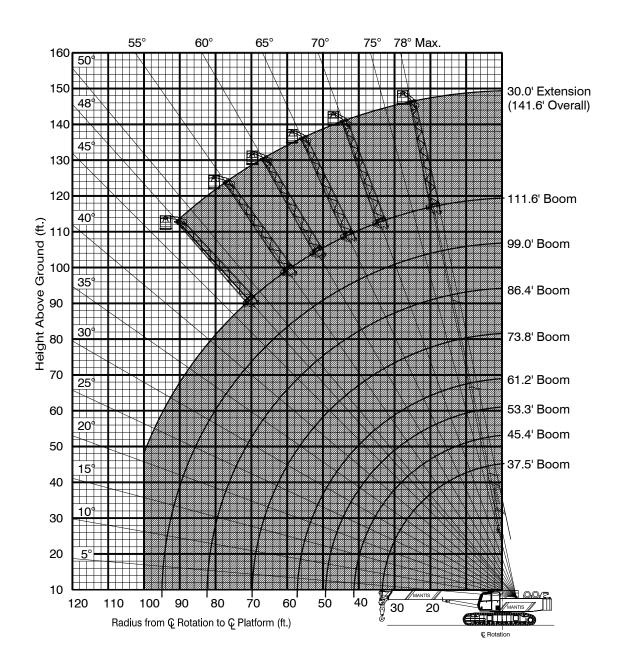


**MANTIS Model 15010** 111.6 ft STANDARD BOOM

## **RANGE CHART 750 WORK PLATFORM**

#### **Installed on MANTIS MODEL 15010**

as originally manufactured and equipped by Tadano Mantis Corporation

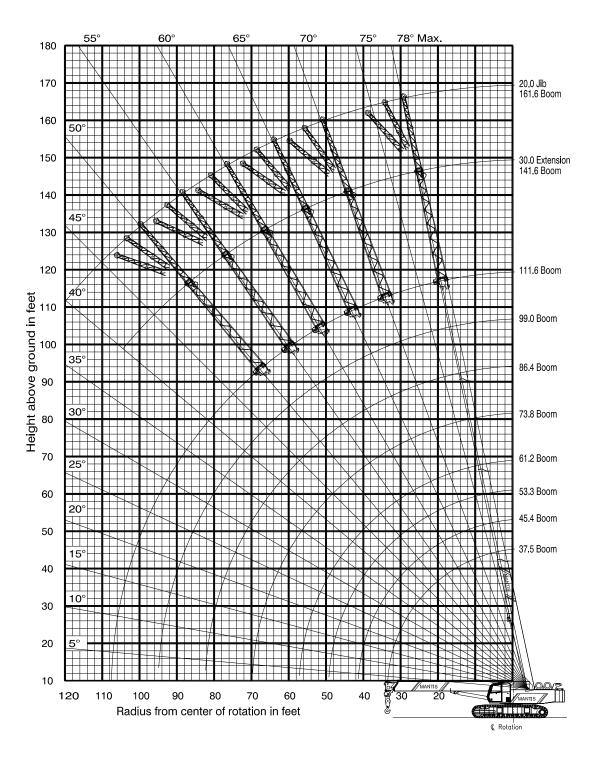


Limits of operation: Maximum load capacity = 750 lb Maximum radius when mounted on main boom = 100 ft Minimum boom angle when mounted on 30 ft extension = 48°

111.6 ft STANDARD BOOM

# RANGE CHART MANTIS MODEL 15010

as originally manufactured and equipped by Tadano Mantis Corporation



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