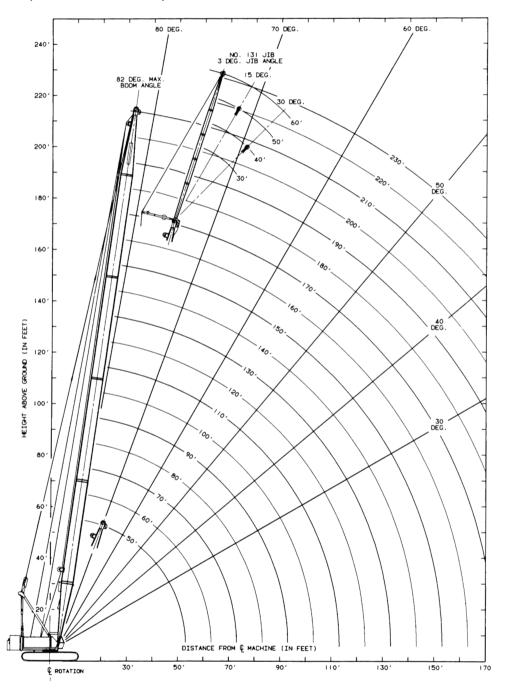
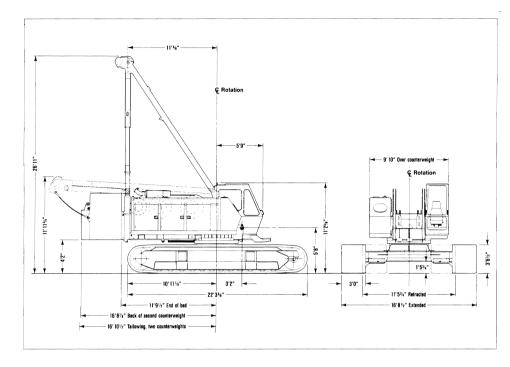
# MANITOWOC M-85W - 95-Ton liftcrane

### 20,000 lb CLAMSHELL 18,000 lb DRAGLINE





#### **SPECIFICATIONS**

#### **BASIC MACHINE**

#### Upperworks

**ROTATING BED:** Fabricated steel rotating bed is mounted on 64¾" diameter turntable bearing.

**DRUMS:** Basic machine is equipped with two full-width drums. Drums are 25° wide and 19¼" diameter. Each drum is antifriction mounted on a separate shaft and is driven independently by a fixed-displacement hydraulic motor through a reduction gear. Internal-expanding drum clutches are spring set, air released. External-contracting drum brakes are air applied, spring released. Parking brakes are spring set, air released.

**BOOM HOIST:** Rear-mounted independent two-drum boom hoist is powered by a fixed-displacement hydraulic motor coupled to a planetary reduction, and is equipped with ratchet and pawl.

**SWING SYSTEM:** Front-mounted independent swing is powered by a fixed-displacement hydraulic motor coupled to an internal brake and planetary reduction. Includes gear-segment type swing lock.

**OPERATOR'S STATION:** Fully enclosed and insulated steel module mounted to the left front corner of rotating bed. Module is equipped with sliding door, large safety glass windows on all sides and roof. Electric signal horn, cab space heater, upper front windshield wiper, dome light, and air circulating fan are standard equipment.

#### Lowerworks

**CARBODY:** Single-piece steel fabricated carbody incorporates wide wings that facilitate removal from pockets in crawler frames. Crawlers hydraulically extend to 16' 8½" and hydraulically retract to 11' 5¾".

**CRAWLERS:** Crawler assemblies are 22' 3\%" long reinforced steel fabrications with 36" closed treads and sealed "low-maintenance" rollers. Each crawler is powered independently by a variable-displacement hydraulic motor driving through a planetary reduction. Crawlers provide counter-rotation capability.

**ENGINE/TRANSMISSION:** Cummins 6 CTA 8.3 diesel engine rated at 234 HP at 2200 RPM provides independent power for all machine operations through the multi-hydraulic-pump transmission. Power system also includes engine block heater (120V), high silencing muffler, hydraulic oil cooler, radiator, and fan.

**CONTROLS:** Modulating electric-over-hydraulic controls provide infinite function speed response directly proportional to control movement. Selector switch permits hoisting drums to be operated in power-down (liftcrane), freefall (excavator), or clamshell mode.

Wire Rope Spec	cificatio	ns					
Application	Dia.	Description	escription Breaking Strength		Max. Operating Length		
Lift	7/8"	6 x 25 EIPS Regular Lay	79,600 Lbs.	1.42 Lbs./Ft.	779' Hoist 779' Whip		
Clam	7/8"	6 x 25 EIPS Regular Lay	79,600 Lbs.	1.42 Lbs./Ft.	300' Closing 240' Holding		
Drag	7/8"	6 x 25 EIPS Lang Lay	79,600 Lbs.	1.42 Lbs./Ft.	215' Hoist 135' Drag		
Boom Hoist	5/8"	6 x 26 EIPS Alternate Lay	41,200 Lbs.	0.72 Lbs./Ft.	690′		

Line Pull Vs. Line Spee	Line Pull Vs. Line Speed* — Line Pull Infinitely Variable From 0 to 20,000 Lbs.										
Line Pull	Line Speed	Divert 1 Travel Pump	Divert 2 Travel Pumps								
0 Lbs.	217 FPM	354 FPM	488 FPM								
5,000 Lbs.	213 FPM	343 FPM	470 FPM								
10,000 Lbs.	210 FPM	337 FPM	452 FPM								
15,000 Lbs.	208 FPM	310 FPM	310 FPM								
20,000 Lbs.	204 FPM	231 FPM	231 FPM								

<sup>\*</sup>Chart data based on 191/4" diameter smooth drum, 5th layer.

SWING SPEED: 3.5 RPM. TRAVEL SPEED: 1.0 MPH. **GRADEABILITY: 30%.** 

**BOOM HOIST SPEED:** 210' boom,  $0^{\circ}$  to  $82^{\circ} - 1$  minute, 38 seconds.

#### LIFTCRANE ATTACHMENT

BASIC BOOM: The liftcrane is equipped with 50' No. 47 basic boom consisting of 25' butt and 25' top with five 22" diameter antifriction-bearing-mounted steel sheaves. Includes rope guides, boom hoist wire rope, boom angle indicator, and hook and weight ball.

Gantry with telescopic backhitch and power operated backhitch pins.

Telescopic air-cushioned boom stop.

Automatic boom stop.

COUNTERWEIGHT: Two-piece removable counterweight, total 46,500 lbs., with power-operated pins and with counterweight-handling pendants.

### **OPTIONAL EQUIPMENT**

#### BOOM AND JIB:

10' No. 47 Boom insert with pendants 20' No. 47 Boom insert with pendants 40' No. 47 Boom insert with pendants

30' No. 131 Jib with mounting parts 10' Jib insert with pendants

# ATTACHMENTS:

Manitowoc 95-ton five-sheave load block Single-sheave upper boom point (whipline) Pendant links for load-moment sensor pin Dragline fairlead

Tagline, Rud-O-Matic No. 1248, two barrel Liftcrane lagging, 203/4" diameter, grooved for

⅓" diameter rope — front/rear Clamshell/dragline lagging, 203/4" diameter, grooved

for \%" diameter rope — front/rear Lift/clam/drag wire rope, 1/8" diameter, 6x25 EIPS

Machine preparation for X-SPANDER®

X-SPANDER attachment

Other attachments on request

#### BASIC MACHINE OPTIONS:

Split drum shaft assembly in place of single drum shaft Drum rotation indicators (2) Windshield wiper, lower front window Windshield wiper, roof window Ether starting aid

Alcohol injector in air line

Fire extinguisher

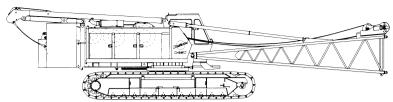
Air conditioner in operator's cab

Hydraulic third drum on front of rotating bed, 11,000 lb. line pull

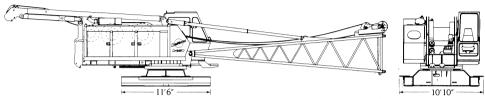
Special paint - machinery enamel in color other than Manitowoc standard

Block up limit control for load or auxiliary line Bail limit control for hoist drums

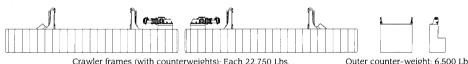
## MANITOWOC M-85W - Shipping data (all dimensions length x width x height)



Complete liftcrane less boom top: 149,880 Lbs. 49'5" x 11'6" x 12'0"



Basic machine with boom butt & gantry: 57,695 Lbs.  $49'5'' \times 10'10'' \times 10'6''$ 

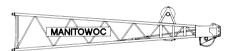


Crawler frames (with counterweights): Each 22,750 Lbs.  $22'4" \times 5'9" \times 3'7"$ 

Outer counter-weight: 6,500 Lbs. 4'7" x 4'2" x 2'0"



Inner counterweight: 40,000 Lbs. 9'10" x 4'8" x 5'9"



Boom top: 3,290 Lbs. 25'0" x 5'0" x 5'4"

Unit	Weight (Lbs.)	Dimensions (L x W x H)
10' Boom insert	715	10'4" x 5' x 5'4"
20' Boom insert	1,195	20'4" x 5' x 5'4"
40' Boom insert	2,260	40'4" x 5' x 5'4"
30' Basic jib	2,035	Pack inside 40' boom insert
10' Jib insert	205	Pack inside 40' boom insert
95-Ton hook block with steel sheaves	2,180	6'6" x 2'6" x 2'4"
Weight ball	610	4'2" x 2'4" x 2'4"
Pendant box	1,200	5' x 5' x 2'
Miscellaneous box	2,700	8' x 4' x 4'

#### boom no. 47 3 080 KG CRAWLER FRAME COUNTERWEIGHT

#### 21 090 KG COUNTERWEIGHT

#### 6 807 MM CRAWLERS EXTENDED

360° RATING

Capacities for various boom lengths and operating radii are for freely suspended loads and are calculated to comply with BS 1757-1986 clause 9, I.S.O. 4305 and BS 2573 part I-1983 tables 5(a) and 6(a). Capacities based on structural competence are denoted by an asterisk(\*).

Upper boom point capacity for liftcrane service with single part whip line is 9 070kg. In all cases, upper boom point capacities cannot exceed those listed for the main boom capacity.

Weight of jib, all load blocks, hooks, weight ball, slings hoist lines, etc., beneath boom and jib point sheaves, is considered part of the main boom load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

Machine to operate in a level position on a firm uniformly supporting surface with crawlers fully extended (5 093mm) and gantry up. Refer to boom rigging no. 169352 and wire rope specification chart no. 7554-A. Crane operator judgement must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation.

Machine may be operated in winds up to those shown in table provided crane operator judgement is

used to allow for wind effect on the lifted load and other considerations noted on the capacity chart are followed. Wind will have a considerable effect on a load with a large 'sail area' and must be compensated for accordingly by reducing load ratings, reducing operating speeds or by a combination of both. Recommend stopping operation when wind is above those shown in table and tieing off or lowering boom when wind is above 16 m/s.

Machine to travel on a firm, level and uniformly supporting surface and boom within the boom angle range shown in capacity chart.

Operating radius is the horizontal distance from the axis of rotation to the centre of vertical hoist line or load block. Boom angle is the angle between horizontal and centreline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity. Boom point elevation is vertical distance from ground level to centreline of boom point shaft.

Machine equipped with 6 807mm extendible crawlers, 914mm treads, 5 791mm retractable gantry, 12 part boom hoist reeving, two 35mm boom pendants, 1st counterweight = 18 140kg, and 2nd counterweight = 2 950kg and two 1 540kg crawler frame counterweights.

WIND LIMITS	OURING OPERATION	MAXIMUM BO	OM AND JIB LEN					
MAXIMUM		OVER E	ND OF		SIDE OF	DEDUCT FROM CAPACITIES		
WIND	BOOM	BLOCKED CRAWLERS EXTENDED CRAWLERS				WHEN JIB IS ATTACHED		
VELOCITY	LENGTH	BOOM LGTH.	JIB NO. 131	BOOM LGTH.	JIB NO. 131	JIB LGTH.	JIB NO. 131	
m/s	METERS	64.0m		54.9m		9.lm	1 000 kg	
14	15.2 - 45.7	61.0m		51.8m		12.2m	1 180 kg	
10	48.8 - 57.9	57.9m		48.8m	15.2m	15.2m	1 410 kg	
7	61.0 - 64.0	54.9m	15.2m	45.7m	18.3m	18.3m	1 630 kg	
		51.8m	18.3m					
		LOAD BLOCK,	HOOK AND WEIGH	HT BALL ON GRO	DUND AT START.			

CONSULT JIB CHART FOR JIB CAPACITIES.

		Γ		воом						воом	
воом	воом	OPER.	воом	POINT		воом	воом	OPER.	воом	POINT	
LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY	LGTH.	LGTH.	RADIUS		ELEV.	CAPACITY
METERS	FEET	METERS	DEG.	METERS	KILOGRAMS	METERS	FEET	METERS	DEG.	METERS	KILOGRAMS
		3.7	80.7	16.7	86 100•			4.0	81.3	19.8	78 100*
		4.0	79.6	16.7	80 000+			4.5	79.8	19.7	69 500●
4	5	4.5	77.7	16.6	69 600•	l _		5.0	78.2	19.6	62 300*
7		5.0	75.7	16.4	62 500•	1		5.5	76.5	19.4	56 400*
		5.5	73.8	16.3	56 500+		g 6	6.0	74.9	19.3	49 900
5		6.0	71.8	16.1	50 000			7.0	71.6	19.0	39 000
O	_	7.0	67.8	15.7	39 100	<b>X</b>		8.0	68.3	18.6	31 900
•	n	8.0	63.6	15.2	32 100		$\mathbf{a}$	9.0	64.8	18.2	26 900
	U	9.0	59.3	14.7	27 000		U	10.0	61.3	17.6	23 200
2		10.0	54.7	14.0	23 300		_	11.0	57.6	17.0	20 300
		11.0	49.9	13.2	20 400	3		12.0	53.8	16.3	18 000
		12.0	44.7	12.2	18 100			14.0	45.4	14.6	14 500
		14.0	32.3	9.6	14 700			16.0	35.6	12.1	12 100
					······			18.0	22.2	8.4	10 300

#### MANITOWOC M-85W - Liftcrane capacities boom no. 47

3 080 KG CRAWLER FRAME COUNTERWEIGHT

69.1

66.9

62.2

57.4

52.2

46.7

40.5

33.5

24.7

11.0

12.0

14.0

16.0

18.0

22.0

24.0

26.0

27.3

26.8

25.9

24.7

23.2

21.5

19.3

16.6

12.9

19 900

14 200

9 900

8 400

7 300

6

5 600

17 600

700

400

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED 360° RATING BOOM BOOM BOOM BOOM OPER. BOOM POTNT BOOM BOOM OPER. воом POINT LGTH. LGTH. RADIUS ANG. ELEV. CAPACITY LGTH. LGTH. RADIUS ANG. ELEV. CAPACITY METERS KILOGRAMS METERS FEET **METERS** DEG. **METERS** KILOGRAMS METERS FEET **METERS** DEG. 000 4.3 81.8 22.8 70 700\* 5.5 82.0 31.9 51 49 000 4.5 81.2 22.8 68 700\* 6.0 81.0 31.8 79.1 7.0 31.6 38 600 5.0 79.9 22.7 62 000\* 77.2 31 500 5.5 78.5 22.6 56 100\* 8.0 31.4 77.1 75.3 500 22.5 49 900 9.0 31.1 26 6.0 73.3 22 74.3 38 900 10.0 30.8 700 7.0 22.2 7 1 71.5 31 800 11.0 71.3 30.5 19 800 8.0 21.9 500 9.0 68.6 800 12.0 69.3 30.1 17 21.5 26 0 0 65.2 29.3 14 000 10.0 65.7 14.0 21.1 23 100 62.7 20.6 20 200 16.0 61.0 28.2 600 11.0 0 9 12.0 17 900 18.0 56.6 27.0 700 59.6 20.0 20.0 51.9 25.5 8 300 14.0 53.1 18.6 14 400 16.9 12 000 22.0 46.9 23.8 7 200 16.0 46.0 37.8 14.6 100 24.0 41.5 21.7 300 18.0 IΩ 19.1 20.0 700 26.0 35.3 5 500 27.6 11.4 8 28.0 28.0 15.8 4 800 4.9 81.4 25.8 62 600\* 30.0 18.3 11.0 4 200 5.0 81.1 25.8 61 400\* 80.0 25.7 34.9 45 900\* 5.5 56 000\* 6.1 81.7 38 600 6.0 78.8 25.6 49 800 7.0 80.1 34.7 78.4 25.4 900 34.5 31 400 7.0 76.3 38 8.0 76.6 34.3 400 8.0 73.9 25.1 31 700 9.0 26 34.0 71.4 24.8 74.9 600 8 9.0 26 700 10.0 22 73.1 33.7 19 700 10.0 68.9 24.4 11.0 23 000 71.3 33.4 17 400 11.0 66.4 24.0 20 100 12.0 O 13 900 12.0 63.8 23.5 17 800 14.0 67.6 32.6 31.7 500 300 16.0 63.8 14.0 58.4 22.3 14 1.1 52.6 30.6 9 700 20.9 800 18.0 60.0 16.0 11 55.9 29.3 8 200 18.0 19.2 10 000 20.0 46.4 27.8 17.0 22.0 51.6 7 100 20.0 39.4 8 600 31.1 14.1 7 500 24.0 47.1 26.1 6 100 22.0 19.8 9.7 6 500 26.0 42.2 24.0 5 400 24.0 36.8 28.0 21.6 Δ 700 30.0 5.2 81.7 28.8 56 600\* 30.5 18.5 4 200 3 700 5.5 81.1 28.8 55 700\* 32.0 22.7 14.4 6.0 80.0 28.7 49 800 28.5 38 700 6.4 81.9 37.9 41 500\* 7.0 77.9 300 37.8 75.7 28.2 31 600 7.0 81.0 38 8.0 79.4 37.6 9.0 73.6 8.0 **3** I 300 26 28.0 600 10.0 71.4 27.6 22 800 9.0 77.8 37.4 26 300

500

600

400

100

22

19

17 300

13 900

11

9 500

8

7 000

6 100

5 300

4 600

4 100

3 100

3 600

76.1

74.5

72.9

69.6

66.2

62.7

59.1

55.3

51.4

47.3

42.8

37.9

32.4

25.9

37.2

36.9

36.6

35.9

35.1

34.1

33.0

31.7

30.1

28.4

26.4

24.0

21.1

17.4

10.0

11.0

12.0

14.0

16.0

18.0

20.0

22.0

24.0

26.0 28.0

30.0

32.0

34.0

2

### 3 080 KG CRAWLER FRAME COUNTERWEIGHT

21 090 KG COUNTERWEIGHT 6 807 MM

6 807	мм	CRAWL	ERS E	XTEN	DED

360° RATING

		1		B0014						воом	
воом	800M	OPER.	ROOM	BOOM POINT		воом	воом	OPER.	BOOM	POINT	
LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY	LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY
METERS	FEET	METERS	DEG.	METERS	KILOGRAMS		FEET	METERS	DEG.	METERS	KILOGRAMS
INC TERO	,,	7.0	81.7	40.9	37 400*			8.2	81.8	50.0	27 800*
		8.0	80.2	40.7	31 200 ,	1		9.0	80.9	49.8	25 900
		9.0	78.7	40.5	26 200			10.0	79.7	49.7	22 100
		10.0	77.2	40.3	22 400			11.0	78.5	49.5	19 200
		11.0	75.7	40.1	19 500			12.0	77.3	49.2	16 900
0		12.0	74.2	39.8	17 200	A		14.0	74.8	48.7	13 400
5	4	14.0	71.2	39.1	13 700	4	4	16.0	72.4	48.1	10 900
3 9 6	1 3 0	16.0	68.1	38.4	11 200		1	18.0	69.9	47.4	9 100
a		18.0	65.0	37.5	9 400	8	6	20.0	67.4	46.6	7 600
J	3	20.0	61.7	36.5	7 900		6	22.0	64.8	45.7	6 500 5 600
•	Õ	22.0	58.4	35.3	6 800	•	0	24.0 26.0	62.2 59.4	44.7 43.6	4 800
	U	24.0	54.9	34.0 32.4	5 900 5 100	0	U	28.0	56.7	42.3	4 100
מ	_	26.0 28.0	51.2 47.4	30.7	4 400		_	30.0	53.8	40.9	3 500
		30.0	43.3	28.7	3 900			32.0	50.8	39.3	3 000
		32.0	38.9	26.4	3 400			34.0	47.7	37.6	2 600
		34.0	33.9	23.6	3 400 3 000			36.0	44.4	35.7	2 300
1		36.0	28.3	20.2	2 600			38.0	40.9	33.5	1 900
1		38.0	21.2	15.8	2 200			40.0	37.2	31.0	1 600
											0.1.00
1		7.3	81.8	43.9	34 000*			8.5	82.0	53.0	24 100*
		8.0	80.9	43.8	30 900			9.0	81.4	52.9	24 100* 22 100
l		9.0	79.5	43.6	26 000	1		10.0	80.3	52.8 52.6	19 100
		10.0	78.2	43.4	22 300 19 400	1		11.0	79.1 78.0	52.4	16 700
		11.0	76.8 75.4	43.2	17 000	_		14.0	75.7	51.9	13 200
A		14.0	72.6	42.4	13 600	5	_	16.0	73.4	51.3	10 700
4	4	16.0	69.8	41.7	11 100		1	18.0	71.1	50.7	8 900
	1	18.0	66.9	40.9	9 200	-4	_ <u>.</u>	20.0	68.8	49.9	7 400
4 2 7	A	20.0	63.9	39.9	7 800	1	7	22.0	66.4	49.1	6 300
_	<b>4</b> 0	22.0	60.9	38.9	6 700	1 .		24.0	63.9	48.1	5 400
•		24.0	57.7	37.6	5 700		0	26.0	61.4	47.1	4 600
7	U	26.0	54.5	36.3	5 000	8	•	28.0	58.9	45.9	3 900
	_	28.0	51.1	34.7	4 300			30.0	56.2	44.6	3 400
•		30.0	47.5	33.0	3 700			32.0	53.5	43.2	2 900
		32.0	43.7	31.0	3 300			34.0	50.7	41.6	2 500 2 100
		34.0	39.7	28.7	2 800			36.0	47.8	39.9 38.0	1 700
		36.0	35.2	26.1	2 500			38.0 40.0	41.4	35.8	1 400
		38.0 40.0	30.2	22.9 19.0	2 100 1 800			40.0		33.0	1 400
		40.0	24.2	19.0	1 300			8.8	82.1	56.0	21 100*
		7.6	82.0	47.0	31 100*			9.0	81.9	56.0	21 100*
		8.0	81.5	46.9	30 500*	1		10.0	80.8	55.8	20 900*
		9.0	80.2	46.7	25 <del>9</del> 00			11.0	79.8	55.7	18 900
		10.0	79.0	46.5	22 200			12.0	78.7	55.5	16 600
1		11.0	77.7	46.3	19 300	5 4 9		14.0	76.6	55.0	13 100
		12.0	76.4	46.1	17 000		1	16.0	74.4	54.5 53.9	10 600 8 800
1		14.0	73.8	45.6	13 500	1		18.0	72.2 70.0	53.9	7 400
4 5 7	1	16.0	71.2	44.9 44.2	11 000 9 200	4	8	22.0	67.8	52.4	6 200
	5 0	18.0	68.5 65.8	43.3	7 800	•		24.0	65.5	51.5	5 200
5	5	22.0	63.0	42.3	6 600		0	26.0	63.1	50.5	4 500
	9	24.0	60.1	41.2	5 700	9		28.0	60.8	49.5	3 800
•	$\mathbf{\cap}$	26.0	57.2	40.0	4 900			30.0	58.3	48.3	3 200
7	U	28.0	54.1	38.6	4 200	1		32.0	55.9	47.0	2 800
		30.0	50.9	37.0	3 700			34.0	53.3	45.5	2 300
1		32.0	47.6	35.3	3 200	1		36.0	50.6	43.9	2 000
1		34.0	44.1	33.3	2 800			38.0	47.8	42.2	1 600
		36.0	40.3	31.1	2 400						
		38.0	36.3	28.5	2 100						
		40.0	31.7	25.5	1 800						
1		42.0	26.5	21.9	1 500						

# MANITOWOC M-85W - Liftcrane capacities boom no. 47

### 3 080 KG CRAWLER FRAME COUNTERWEIGHT

21 09	0 кд с	COUNTE	RWE	GHT	6 8	307 M	IM	CRAW	LERS	EXTEND	ED
BOOM LGTH. METERS	BOOM LGTH. FEET	OPER. RADIUS METERS 9.8 10.0 12.0 14.0 16.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0	BOOM ANG. DEG. 81.3 80.3 77.3 75.2 71.1 69.0 66.8 64.5 60.2 57.9 555.5	ELEV. METERS 59.0 58.9 58.6 58.2 57.7 57.1 56.4 55.7 54.9 52.9 51.8	18 18 16 13 10 8 7 6 5 4 3 3 2 2			BOOM LGTH. METERS	BOOM LGTH. FEET	OPER. RADIUS METERS 10.4 11.0 12.0 14.0 16.0 20.0 22.0 24.0 26.0 30.0 32.0 32.0 34.0 36.0	
6 1 0	2 0 0	38.0 9.8 10.0 11.0 12.0 16.0 18.0 20.0 24.0 26.0 28.0 30.0 32.0 34.0 35.0 38.0	50.5 81.9 81.7 80.8 77.9 76.0 74.0 72.1 70.1 66.0 63.9 61.8 59.7 57.5 55.2	46.3 62.0 62.0 61.9 61.7 61.3 60.8 60.3 59.6 58.9 58.2 57.3 56.4 55.3	166166165120100887775544333332221	100 • 100 • 100 • 900 • 900					

			l	ВООМ	
воом	BOOM	OPER.	BOOM	POINT	
LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY
METERS	FEET	METERS	DEG.	METERS	KILOGRAMS
		10.4	81.8	65.0	14 200*
		11.0	81.2	64.9	14 100*
1		12.0	80.3	64.8	14 000*
		14.0	78.5	64.4	12 900
6	_	16.0	76.7	63.9	10 200
	2	18.0	74.8	63.4	8 400
A	_	20.0	73.0	62.8	6 900
4	1	22.0	71.1	62.2	5 800
	_	24.0	69.2	61.4	4 900
_	0	26.0	67.2	60.6	4 100
0		28.0	65.3	59.7	3 400
		30.0	63.3	58.8	2 800
		32.0	61.3	57.7	2 400
		34.0	59.2	56.6	1 900
		36.0	57.1	55.3	1 500

360° RATING

#### MANITOWOC M-85W - Liftcrane jib capacities jib no. 131

#### with 3 658mm strut on boom no. 47 3 080 kg crawler frame counterweight

#### 21 090 KG COUNTERWEIGHT 6 807

#### 6 807 MM CRAWLERS EXTENDED

360° RATING

Chart supplements boom capacity chart no. 7534-AM. Capacities for various boom lengths, jib lengths and jib operating radii are for freely suspended loads and are calculated to comply with BS 1757-1986 clause 9, I.S.O. 4305 and BS 2573 part I – 1983 tables 5(a) and 6(a). Capacities based on structural competence are denoted by an asterisk(\*).

Weight of all load blocks, hooks, weight ball, slings hoist lines, etc., beneath boom and jib point sheaves, is considered part of the jib load. Boom and jib are not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

Machine to operate in a level position on a firm uniformly supporting surface with crawlers fully extended (5 093mm) and gantry up. Refer to boom rigging no. 169352, jib assembly no. 169356 and wire rope specification chart no. 7554-A. Crane operator judgement must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation.

Machine may be operated in winds up to those shown in table provided crane operator judgement is used to allow for wind effect on the lifted load and other considerations noted on the capacity chart are followed. Wind will have a considerable effect on a load with a large 'sail area' and must be compensated for accordingly by reducing load ratings, reducing operating speeds or by a combination of both. Recommend stopping operation when wind is above those shown in table and tieing off or lowering boom when wind is above 16 m/s.

Machine to travel on a firm, level and uniformly supporting surface and boom within the boom angle range shown in capacity chart.

Operating radius is the horizontal distance from the axis of rotation to the centre of vertical hoist line or load block. Boom angle is the angle between horizontal and centreline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity. Jib point elevation is vertical distance from ground level to centreline of jib point shaft.

Machine equipped with 6 807mm extendible crawlers, 914mm treads, 5 791mm retractable gantry, 12 part boom hoist reeving, two 35mm boom pendants, 1st counterweight = 18 140kg, and 2nd counterweight = 2 950kg, and two 1 540kg cralwer frame counterweights.

#### Maximum capacity on 22mm British Dyform 34LR 1960 N/mm<sup>2</sup> wire rope is 9 000kg.

WIND L	WIND LIMITS DURING OPERATION										
MAXIMUM											
WIND	BOOM	JIB									
VELOCITY	LENGTH	LENGTH									
m/s	METERS	METERS									
14	27.4 - 45.7	9.1 - 18.3									
10	48.8 - 51.8	9.1 - 18.3									
10	54.9	9.1 - 15.2									
1		1									

	MAXIMUM B	OOM AND JIB LE	NGTHS LIFTED	UNASSISTED				
	OVER E		OVER SIDE OF					
	BLOCKED	CRAWLERS	EXTENDED	CRAWLERS				
	BOOM LGTH.	JIB NO. 131	BOOM LGTH.	JIB NO. 131				
	64.0m		54.9m					
	61.0m		51.8m					
	57.9m		48.8m	15.2m				
	54.9m	15.2m	45.7m	18.3m				
	51.8m	18.3m						
-	LOAD BLOCK,	HOOK AND WEIG	SHT BALL ON GF	ROUND AT START.				

## 9.1m (30 FT.) JIB

			3 (	DEGREE (	DFFSET	15	DEGREE I	OFFSET	30 1	DEGREE (	OFFSET	
		JIB		JIB		1	JIB			JIB		JIB
BOOM	BOOM	OPER.	BOOM	POINT			POINT			POINT		OPER.
LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY	RADIUS
METERS	FEET	METERS	DEG.		KILOGRAMS		METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	METERS
		9.1	78.8	37.9		1			1	l		9.1
1		10.0	77.3		9 000*	1			l	ĺ	1	10.0
1		11.0	75.7	37.5	9 000*		37.2	9 000*	1		l	11.0
1		12.0	74.1	37.2	9 000*	77.0		9 000+	l			12.0
	l	13.0	72.5	36.9	9 000				78.4	35.8		13.0
2		14.0	70.9	36.5		73.7	36.2		76.7		9 000*	14.0
_		15.0	69.2	36.1	9 000*			9 000*	75.0		9 000*	15.0
	9	16.0	67.5	35.7	9 000•	70.3	35.4		73.3		9 000*	16.0
	J	17.0	65.8	35.3	9 000*	68.6	35.0	9 000*	71.5	34.2	9 000*	17.0
		18.0	64.1	34.8		66.9			69.7	33.7		18.0
•	U	19.0	62.4	34.2	9 000•	65.1	33.9		67.9		9 000•	19.0
	_	20.0	60.6	33.7	8 900	63.3	33.4	8 900*	66.	32.5	8 900*	20.0
П		21.0	58.8	33.1	8 300	61.5	32.8	8 400	64.2	31.9	8 600	21.0
		22.0	56.9	32.4	7 700	59.6	32.1	7 900	62.3	31.2	8 100	22.0
		24.0	53.1	31.0	6 800	55.7	30.6	6 900	58.3	29.7	7 100	24.0
		26.0	49.1	29.3	6 000	51.7	28.9	6 100	54.1	28.0	6 200	26.0
1		28.0	44.8	27.3	5 300	47.3	27.0	5 400	49.5	25.9	5 500	28.0
		30.0	40.1	25.1	4 700	42.5	24.7	4 800				30.0
		34.0	28.8	19.0	3 800	1						34.0

# MANITOWOC M-85w - Liftcrane jib capacities jib no. 131

with 3 658mm strut on boom no. 47 3 080 kg crawler frame counterweight

360° RATING

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

9.1m (30 FT) JIB

	T	T T	3 [	DEGREE (	DFFSET	15 [	DEGREE (	OFFSET	30 [	DEGREE (	DFFSET	
		JIB		JIB			JITB			JIB POINT		JIB
ВООМ	BOOM	OPER.		POINT		ВООМ	POTNT		ВООМ	POINT		OPER.
LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY	ANG. DEG.	ELEV.	CAPACITY KILOGRAMS	ANG. DEG.	IELEV.	CAPACITY	RADIUS
METERS	FEET	METERS 9.1	DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	METERS 9.1
		9.1	79.6	41.0	9 000*							1 19.1
Į		10.0	78.3	40.9	9 000* 9 000*	70 =	40.7	0.000=				10.0
1		11.0	76.8	40.6 40.4	9 000*	79.5 78.0	40.3	9 000* 9 000*				12.0
1		12.0	75.4 73.9	40.4	9 000*	76.5	39.8	9 000*	79.3	39.0	9 000+	10.0 11.0 12.0 13.0
	1	14.0	72.4	39.7	9 000*	75.0	39.5	9 000*	77.8	38.7	9 000*	14.0
3	4	15.0	170 9	39.4	9 000*	73.5	39 1	9 000*	76.2	38.3	9 000* 9 000*	15.0
	1	16.0	69.3	39.0	9 000*	71.9	38.7	9 000+	74.7	37.9	9 000*	16.0
	_	16.0 17.0	67.8	38.6	9 000*	70.4	38.3	9 000*	73.1	37.5	9 000*	17.0
0.5	0	18.0	69.3 67.8 66.2	38.1	9 000*	68.8	38.7 38.3 37.9 37.4	9 000* 9 000* 9 000*	71.5 69.8	37.1	9 000 <b>=</b> 9 000 <b>=</b>	18.0
		19.0	64.6	37.7 37.2	8 900•	67.2 65.6	37.4	9 000*	69.8	36.6	9 000•	19.0
_	0	20.0	165.0	37.2	8 800	65.6	36.9 36.3 35.7	8 900•	68.2 66.5	36.0	8 900* 8 500	20.0
5		21.0	61.4	36.6	8 200 7 600	63.9 62.3	36.3	8 300 7 700	66.5	30.0	8 500 8 000	22.0
		22.0 24.0	61.4 59.7 56.3	36.0 34.7	7 600 6 600	58.8	34.4	6 800	64.8 61.3	77 5	6 900	24.0
		26.0	52.8	33.3	5 900	55 2	34.4	6 000	57.6	35.5 34.9 33.5 32.0 30.2 28.2	6 100	26.0
		1 28.0	49.1	31.6	5 200	55.2 51.5	32.9 31.2 29.3	5 300 4 700	53.7	30.2	5 400	28.0
		30.0	45.1	29.7	4 600	47.4	29.3	4 700	49.5	28.2	4 800	28.0 30.0
		34.0	36.1	24.8	3 700	38.3	24.4	3 800				34.0
1	1	38.0	24.4	17.7	3 700 3 000				l			38.0
		<del></del>				<del>                                     </del>						<u> </u>
1	1	9.1	80.4	44.1	9 000•	l			l			9.1 10.0
		10.0	79.1 77.8	44.0	9 000* 9 000*	د مها	17 5	9 000*	l			110
1		12.0	76 /	43.8 43.5	9 000*	80.2 78.9	43.5 43.2 43.0 42.7 42.3	9 000*				12.0
_		13.0	75.0 73.7 72.3 70.9	43.2	9 000*	77.5	43.0	9 000*				12.0
<b>7</b>		14.0	73.7	43.2 42.9 42.6	9 000*	76.1	42.7	9 000*	78.7	41.9	9 000*	14.0
J	4	15.0	72.3	42.6	9 000*	74.7	42.3	9 000*	77.3	41.5 41.2	9 000*	15.0 16.0
		16.0	70.9	42.3	9 000*	73.3	42.0	9 000*	75.8	41.2	9 000* 9 000*	16.0
<b>'</b> 2	4	17.0	169.4	41.9	9 000*		41.6	9 000•	74.4	40.8	9 000*	17.0
33.5		17.0	68.0	41.5	9 000*	70.4	41.6 41.2 40.7	9 000 <b>•</b> 9 000 <b>•</b>	72.9	40.4 39.9	9 000* 9 000*	18.0
•	-	19.0	66.6	41.0	8 900• 8 700	68.9	40.7	9 000 <b>*</b> 8 900	71.4 69.9	39.4	9 000* 8 900*	19.0 20.0
_	0	20.0	65.1 63.6	40.6 40.1	8 700 8 100	67.5 66.0	39.8	8 300	68.4	38.9	8 900+ 8 400	21.0
	_	22.0	62.1	39.5	7 400	64.4	39.2	7 700	66.8	38.4	7 800	22.0
	ĺ	24.0	59.0	38.4	6 500	61.3	38.1	6 700	63.7	37.2	6 800	22.0 24.0
		24.0 26.0	55.8	37.1	5 700	58.1	36.7	5 900	63.7	35.8	6 000	26.0
1	1	28.0	52.5	35.6	5 000	54.8	35.2 33.5	5 200	56.9	34.3	5 300	28.0
1		30.0	49.1	33.9	4 500	51.3	33.5	4 600 3 600	53.3	32.5	4 700	30.0 34.0
	ĺ	34.0	41.5	29.8	3 500	43.6	29.4	3 600				34.0
		38.0	32.4	24.3	2 800	34.4	23.8	2 900				38.0
		9.1	81.0	47.2	9 000*							9.1
1		1 10 0	79.9	47.1	9 000*							9.1
	1	11.0	78.6	46.9	9 000*							
	l	11.0 12.0 13.0	77.3	46.6	9 000*							12.0
l _	1	13.0	76.1	46.4	9 000*	78.3	46.1	9 000*	70 5			12.0 13.0
9	1	14.0	74.8	46.1	9 000*	77.0	45.8	9 000*	79.5	45.1	9 000*	14.0
J	4	15.0	73.5	45.8	9 000 <b>*</b> 9 000 <b>*</b>	75.7	45.5 45.2	9 000* 9 000*	78.2 76.9	44.7 44.4	9 000 <b>•</b> 9 000 <b>•</b>	15.0 16.0
		16.0	72.2	45.5 45.1	9 000*	74.4	45.2	9 000*	75.5	44.4	9 000	17.0
		17.0 18.0	70.9 69.5 68.2	44.8	9 000*	71.8	44.5	9 000*	74.1	43.7	9 000*	18.0
U	2	19.0	68.2	44.4	8 800*	70.4	44.1	8 900*	72.8 71.4 70.0	43.2 42.8 42.3	9 000*	19.0 20.0 21.0
•	_	20.0	66.8	43.9	8 500	69.1	43.6	8 800	71.4	42.8	8 900*	20.0
	l ()	21.0	65.5	43.5 43.0	7 900	67.7	43.2 42.7	8 200	70.0	42.3	8 900* 8 300 7 700	21.0
3 6 6		22.0	64.1	43.0	7 300	66.3	42.7	7 500	68.61	41.8 40.7		22.0
		24.0	61.3	41.9 40.7	6 400 5 600	63.5 60.5 57.5	41.6 40.4	6 500 5 700	65.7 62.7	39.5	6 700 5 900	24.0 26.0
		26.0	58.4	39.4	5 600 4 900	57 6	70.4	5 700 5 100	59.6	38.1	5 900 5 200	28.0
1		28.0 30.0	55.4 52.3	37.9	4 300	54.4	37.5	4 500	56.4	36.5	4 600	30.0
	1	34.0	45.6	34.3		47.7	39.0 37.5 33.9	3 500	49.4	32.8	3 600	30.0 34.0
1		38.0	38.1	29.7	2 700	40.0	29.2	4 500 3 500 2 700				38.0
		42.0	28.9	23.4	2 100							42.0
	L	لـــــــــــــــــــــــــــــــــــــ										

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

360° RATING

9.1m (30 FT) JIB

7.1111	(30.	1 / 110		SECONE (	OFFICET.	15 1	DECDEE (	OFFSET	30 [	DEGREE (	OFFSET	
ļ		JIB	31	JIB	DFFSET	15 [	JIB POINT	JFF SE. I	30 1	JEGREE	JFF 3E 1	JIB
воом	воом	OPER.	BOOM	DOTNIT		BOOM	POINT		воом	JIB POINT		INPER
LGTH.	LGTH.	RADIUS METERS	ANG.	E. E.	CAPACITY KILOGRAMS 9 000* 9 000*	ANG.	ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY KILOGRAMS	RADIUS
METERS	FEET	METERS	DEG.	METERS 50.0 50.0 49.8 49.5 49.3 49.0 48.7 48.4	KILOGRAMS	DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	METERS
		10.7 11.0 12.0 13.0 14.0 15.0 16.0 19.0 20.0 21.0 22.0 24.0 26.0 30.0 33.0 42.0 46.0	79.7 79.3	50.0	9 000*			ļ.				10.7
1		11.0	79.3	50.0	9 000*							12.0
		12.0	78.1	49.8		70.	40.7	0 000-				12.0
		13.0	78.1 76.9 75.7	49.5	9 000*	77.1	49.3	9 0000	80 2	48.2	9 000•	14.0
		15.0	74.5	49.3	9 000* 9 000* 9 000*	79.1 77.9 76.7	49.0 48.7	9 000*	79.0	48.2 47.9	9 000*	14.0
3 9 6		16.0	74.5 73.3 72.1 70.9	48.7	9 000*	75.4	18 1	9 000* 9 000* 9 000* 9 000* 9 000* 8 900* 8 600 8 000 7 400 6 400 5 600	80.2 79.0 77.7 76.5 75.2 73.9 72.6 71.3 70.0	47.6 47.3	9 000* 9 000* 9 000*	16.0
J	1	17.0	72.1	48.4	9 000* 9 000* 9 000*	75.4 74.2 73.0	48.1 47.7 47.3 46.9	9 000*	76.5	47.3	9 000*	17.0
		18.0	70.9	48.0	9 000* 9 000*	73.0	47.7	9 000*	75.2	46.9	9 000	18.0
u	3	19.0	169.6	47.6 47.2 46.8	8 /00*	1 / 1 . /	47.3	8 900*	73.9	46.5	9 000* 8 900 8 300	18.0 19.0 20.0
	<b>5</b>	20.0	68.4	47.2	8 300 7 700 7 100	70.5 69.2 67.9	46.9	8 600	72.6	46.1 45.7	8 900	20.0
•	_	21.0	67.1	46.8	7 700	69.2	46.5	8 000	71.3	45./	8 300 7 600	21.0
	U	22.0	65.8	46.4	7 100	67.9	46.1 45.1	6 400	67.4	45.2 44.2		24.0
n		24.0	63.2 60.6	45.4	6 200	65.3	45.1	6 400 5 600	64.6	44.2	6 600 5 800	26.0
		26.0	57.8	44.3	5 400 4 700	65.3 62.6 59.8	44.0	4 900	61.8	41.8	6 600 5 800 5 100	22.0 24.0 26.0 28.0
I		30.0	55.0	45.4 45.4 44.3 43.1 41.7 38.5 34.5 29.3	8 300 7 700 7 100 6 200 5 400 4 700 4 200 3 200 2 500 I 900	57.0	41.3	4 900 4 300 3 300 2 600 2 000	58.9	40.4	4 400 3 400	30.0 34.0 38.0 42.0 46.0
1		34.0	49.0	38.5	3 200	51.0	38.1	3 300	58.9 52.7	37.1	4 400 3 400	34.0
		38.0	42.5	34.5	2 500	51.0 44.3	38.1 34.0	2 600				38.0
		42.0	34.9	29.3	1 900	36.6	28.8	2 000				42.0
		46.0	25.4	22.2	1 500				1			46.0
		10.7	20. 7	F7 0	0.000+							10.7 11.0 12.0 13.0 14.0
	ĺ	10.7	80.3	53.2	9 000* 9 000*							li.o
		12.0	80.0	53.1 52.9 52.7 52.4 52.2 51.9 51.3 50.5 50.1 49.7	9 000*							12.0
		13.0	77.7	52.7	9 000*	79.7	52.4	9 000*	l			13.0
		14.0	76.6	52.4	9 000* 9 000* 9 000*	78.6	52.1 51.9	9 000+ 9 000+				14.0
1		15.0	75.5	52.2	9 000*	77.5	51.9	9 000+				15.0
· 4	4	16.0	74.3	51.9	9 000*	76.3	51.6	9 000+	78.5	50.8	9 000*	10.0
		17.0	73.2	51.6	9 000* 9 000*	75.2	51.3	9 000+	77.3	50.5	9 000* 9 000*	17.0
9	4	18.0	72.0	51.3	9 000*	78.6 77.5 76.3 75.2 74.0	51.0	9 000*	76.1	50.1 49.8	9 000* 9 000*	18.0
_	4	19.0	78.8 77.7 76.6 75.5 74.3 73.2 72.0 70.9 69.7 68.5 67.3	50.9	8 700*	72.8 71.7	50.6	9 000* 8 800* 8 500 7 900	77 7	49.4	8 800	20.0
	~	20.0	68 5	50.5	8 200 7 600 7 000	70.5	49.8	7 900	72.5	49.0	8 800 8 200 7 500	21.0
	U	22.0	67.3	49.7	7 000	69.3	49.4	7 200	71.3	48.6	7 500	22.0
4 2 7	_	24.0	64.9	48.8	6 100	70.5 69.3 66.9	48.5	6 300 5 400	68.8	47.6	6 500	24.0
	İ	14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 24.0 26.0	62.4	48.8 47.8 46.6	5 300	64.4	51.6 51.3 51.0 50.2 49.4 48.5 47.5 45.3 42.1	7 200 6 300 5 400 4 800 4 200 3 200 2 500 1 900	77.3 76.1 74.9 73.7 72.5 71.3 68.8 66.3	46.6	8 800 8 200 7 500 6 500 5 700 4 900	19.0 20.0 21.0 22.0 24.0 26.0
	i	28.0	59.9 57.3	46.6	4 600	61.8	46.3	4 800	63.7	45.4	4 900	28.0
1		30.0	57.3	1 45 4	4 000	59.2	45.0	4 200	01.		4 300	30.0
1		30.0 34.0 38.0	51.9	42.5	3 100 2 400	53.8 47.8	38.5	4 200 3 200 2 500	55.5 49.4	41.1 37.4	4 300 3 300 2 600	30.0 34.0 38.0
		38.0	46.0	42.5 38.9 34.5	1 800	41.2	34.0	1 900	47.4	37.4	2 000	42.0
		42.0	39.5	34.5	1 000	-1.2	04.0		ļ			
		10.7	80.8	56.2	9 000*				l			10.7 11.0 12.0 13.0 14.0 15.0 16.0 17.0
1	1	11.0	80.5 79.5	56.2	9 000* 9 000*	l			1			11.0
	1	12.0	79.5	56.0	9 000* 9 000* 9 000*			}	l			12.0
		10.7 11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0	78.4 77.3 76.3 75.2 74.1	56.2 56.2 56.0 55.8 55.6 55.3 55.1 54.8 54.5 54.1	9 000*	70.0	55.7	9 000+	ĺ			13.0
	1	14.0	11.3	55.6	9 000* 9 000* 9 000* 9 000*	79.2 78.2 77.1	55.3 55.0	9 000± 9 000±	<del></del>	-		15.0
1		15.0	75.3	55.3	9 000	77.1	54.8	9 000 <b>•</b> 9 000 <b>•</b>	79.1	53.9	9 000*	16.0
	1	17.0	74.1	54.8	9 000*		54.8 54.5 54.2	9 000* 9 000* 9 000*	78.0 76.9 75.8 74.7	53.7 53.3 53.0	9 000*	17.0
		18.0	73.0	54.5	9 000*	74.9 73.8 72.7 71.6	54.2	9 000*	76.9	53.3	9 000*	18.0
$\Box$	5	19.0	73.0 72.0	54.1	8 600*	73.8	53.8 53.5	8 800*	75.8	53.0	9 000* 8 900* 8 700	19.0
		20.0	70.9		8 100	72.7	53.5	8 400 7 800 7 200	74.7	52.6 52.3 51.9	8 700	20.0
1 <u>-</u>	0	21.0	69.8	53.4	7 500	71.6	53.1	7 800	73.6 72.4	52.3	8 100 7 500	21.0
5.7		22.0	68.6	53.0	6 900	70.5	52.7	8 800* 8 400 7 800 7 200 6 200	70.1	51.9	8 100 7 500 6 400	17.0 18.0 19.0 20.0 21.0 22.0 24.0
	-	24.0 26.0 28.0 30.0 34.0	66.4 64.1	53.4 53.0 52.2 51.2 50.2 49.0 46.3	6 900 6 000 5 100 4 500	70.5 68.2 65.9 63.6	51.8 50.9 49.8 48.7	5 400	67.8	50.0	5 600	26.0
		28.0	61.8	50.2	4 500	63.6	49.8	5 400 4 700	65.4	48.9	4 800 4 200 3 200 2 500	26.0 28.0 30.0
1		30.0	59.4	49.0	3 900	61.2	48.7	4 100	62.9	48.9 47.7	4 200	30.0
	1	34.0	54.4	46.3	3 600	56.1	46.0	3 100	57.8 52.3	45.0	4 200 3 200	34.0
		38.0	49.0	43.1 39.1	3 900 3 000 2 200 1 700	50.8	46.0 42.7	3 100 2 400 1 700	52.3	41.6	2 500	38.0
		38.0 42.0	43.2	39.1	I 700	44.9	38.7	1 700	l			42.0
L	L		L	L	L		L	<u> </u>			L	

# MANITOWOC M-85w - Liftcrane jib capacities jib no. 131

with 3 658mm strut on boom no. 47 3 080 kg crawler frame counterweight

360° RATING

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

## 9.1m (30 FT) JIB

	r		3 1	DEGREE (	DEFSET	15.1	DEGREE (	DFFSET	30	DEGREE I	DEESET	T
BOOM LGTH. METERS	BOOM LGTH. FEET	JIB OPER. RADIUS METERS		JIB POINT ELEV. METERS	CAPACITY KILOGRAMS	BOOM ANG.	JIB POINT ELEV.	CAPACITY KILOGRAMS		JIB POINT ELEV. METERS	CAPACITY KILOGRAMS	JIB OPER. RADIUS METERS
4	_	12.2 13.0 14.0 15.0 16.0	79.8 79.0 78.0 77.0 76.0	59.1 58.9 58.7 58.5	9 000* 9 000* 9 000* 9 000*	79.8 78.8 77.8	58.4 58.2 57.9	9 000* 9 000* 9 000*	79.7	57.1	9 000*	12.2 13.0 14.0 15.0 16.0
8 8	6	17.0 18.0 19.0 20.0 21.0	75.0 74.0 72.9 71.9 70.9 69.8 67.7	58.2 57.9 57.7 57.3 57.0 56.7	9 000* 9 000* 8 600* 8 000 7 300 6 800	76.8 75.7 74.7 73.7 72.6	57.6 57.3 57.0 56.7 56.4 56.0	9 000* 9 000* 8 700* 8 300 7 700 7 100	78.7 77.7 76.6 75.6 74.5 73.4	56.8 56.5 56.2 55.9 55.5	9 000* 9 000* 8 900* 8 600 8 000 7 300	17.0 18.0 19.0 20.0 21.0
8	0	24.0 26.0 28.0 30.0 34.0 38.0 42.0	67.7 65.5 63.4 61.1 56.5 51.6	55.5 54.6 53.6 52.5 50.0 47.1 43.5	5 800 5 000 4 400 3 800 2 800 2 100 1 500	71.6 69.4 67.3 65.1 62.8 58.2 53.3 48.0	55.2 54.3 53.3 52.2 49.7 46.7 43.1	7 100 6 100 5 200 4 500 3 900 3 000 2 200 1 600	71.3 69.1 66.8 64.5 59.8 54.8 49.3	54.3 53.4 52.4 51.3 48.7 45.7	7 300 6 300 5 400 4 700 4 100 3 100 2 300 1 700	24.0 26.0 28.0 30.0 34.0 38.0 42.0
5 1 8	1 7 0	12.2 13.0 14.0 15.0 17.0 18.0 19.0 20.0 21.0 24.0 26.0 28.0 30.0 38.0	80.3 79.6 78.6 77.7 76.7 75.7 75.7 74.8 73.8 71.8 70.9 68.9 66.8 64.8 64.8 64.8	62.2 62.0 61.8 61.6 61.4 60.8 60.5 59.9 59.5 58.8 57.9 57.0 56.0 50.9	9 000* 9 000* 9 000* 9 000* 9 000* 9 000* 9 000 8 500 7 800 7 200 6 600 4 900 4 200 3 600 2 700 2 000	80.3 79.4 78.4 77.4 76.5 75.5 74.5 72.5 68.5 66.4 66.3 55.4	61.5 61.3 61.8 60.5 59.9 59.6 59.2 58.5 57.7 55.7 53.3	9 000* 9 000* 9 000* 9 000* 8 700 8 700 5 900 5 900 4 400 3 800 2 800 2 100	79.3 78.3 76.3 76.3 75.3 72.3 70.2 68.1 66.0 56.9	60.0 59.7 59.4 59.1 58.7 58.4 57.6 55.8 55.8 54.8	9 000 • 9 000 • 8 800 • 8 500 7 900 7 200 6 200 5 400 4 600 4 000 3 000 2 200	12.2 13.0 14.0 15.0 17.0 18.0 20.0 21.0 22.0 24.0 26.0 30.0 34.0 38.0
54.9	1 8 0	12.2 13.0 14.0 15.0 16.0 17.0 20.0 21.0 22.0 24.0 26.0 28.0 30.0 34.0 38.0 42.0	80.8 80.1 79.2 78.3 76.4 75.5 74.6 73.7 71.8 69.9 68.0 66.1 60.0 55.8	65.3 65.1 64.9 64.7 64.5 64.0 63.4 63.1 62.1 61.3 62.1 61.3 59.4	9 000* 9 000* 9 000* 9 000* 9 000* 8 500 7 600 6 500 4 700 4 000 2 500 I 800	79.0 78.1 77.1 76.2 74.3 73.4 719.6 67.6 65.7 61.6 57.3	64.2 63.9 63.7 63.4 62.8 62.5 61.7 60.9 60.1 59.1	9 000* 9 000* 9 000* 8 600* 8 000 7 400 6 800 5 800 4 900 4 300	79.8 78.9 77.9 77.0 76.1 75.1 73.2 71.2 69.2 67.2 67.2 58.8 54.2	63.1 62.9 62.6 62.3 61.9 60.1 59.2 58.2 56.0 53.4 50.3	9 000 • 9 000 • 8 800 • 8 400 7 700 7 100 4 500 4 500 2 900 2 100 1 500	12.2 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 24.0 26.0 28.0 30.0 34.0 38.0 42.0

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

360° RATING

12.2m (40 FT) JIB

		. (	<i>, ,</i> ,										
Cath				3 [	DEGREE (	DFFSET	15 [	DEGREE (	DFFSET	30 1	DEGREE_	OFFSET	
Cath			JIB		JIB			JIB			JIB		JIB
Cath	BOOM		OPER.							BOOM	POINT		OPER.
## TERS   FEET   METERS   DEC.   METERS   KIL OGRAMS   DEC.   METERS   KIL OGRAMS   DEC.   METERS   KIL OGRAMS   METERS   METERS   METERS   KIL OGRAMS   METERS   MET	LGTH.	LGTH.	RADIUS			CAPACITY	ANG.	ELEV.			ELEV.	CAPACITY	RADIUS
7	METERS	FEET	METERS	DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	METERS
7			9.1	80.2	41.0	9 000*	1			1			9.1
7			10.0	78.8	40.8	9 000*				l		i	10.0
7 O 16.0 63.7 39.4 9 0000 73.3 38.6 9 0000 77.5 33.7 9 0000 16.0 16.0 16.0 16.0 16.0 16.0 16.0			11.0	//.4	40.6	9 000*				1			11.0
7 O 16.0 63.7 39.4 9 0000 73.3 38.6 9 0000 77.5 33.7 9 0000 16.0 16.0 16.0 16.0 16.0 16.0 16.0			12.0	75.9	40.3	9 000*	77.0	70.7	0.000=	l			12.0
7 O 16.0 63.7 39.4 9 0000 73.3 38.6 9 0000 77.5 33.7 9 0000 16.0 16.0 16.0 16.0 16.0 16.0 16.0		[	13.0	70 0	70.0	9 000*				80 3	79 /	9 000	13.0
7 9 16.0 69.9 39.0 9 000. 73.3 38.6 9 000. 77.1 37.7 9 000. 16.0 16.0 17.0 18.0 66.7 38.1 9 000. 71.8 38.2 9 000. 77.1 37.7 9 000. 17.0 18.0 66.7 38.1 9 000. 71.8 38.2 9 000. 71.8 36.3 9 000. 17.0 18.0 66.7 38.1 9 000. 71.8 38.2 9 000. 71.8 36.3 9 000. 17.0 18.0 18.0 66.7 38.1 9 000. 71.8 36.2 8 70.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 1			14.0	71.4	39.7	9 0000	74 0	39.4	9 0000	78 7	38.0	9 000*	15.0
34.0   56.9   34.7   6 900   60.2   34.3   7 100   63.5   33.2   5 300   24.0   26.0   28.0   49.6   31.6   5 400   52.8   31.1   5 600   55.9   29.9   5 700   28.0   34.0   36.6   24.8   3 900   39.6   24.2   4 000   34.0   36.6   24.8   3 900   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   17.7   3 200   39.6   24.2   2 4.0   000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   000   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0			15.0	60 0	39.4	9 000*			9 0000	77.1	37.7	9 000*	16.0
34.0   56.9   34.7   6 900   60.2   34.3   7 100   63.5   33.2   5 300   24.0   26.0   28.0   49.6   31.6   5 400   52.8   31.1   5 600   55.9   29.9   5 700   28.0   34.0   36.6   24.8   3 900   39.6   24.2   4 000   34.0   36.6   24.8   3 900   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   17.7   3 200   39.6   24.2   2 4.0   000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   000   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0	7	Q	17.0	68 3	38.6		71 8	38.2	9 000*	75.5	37 2	9 000*	17.0
34.0   56.9   34.7   6 900   60.2   34.3   7 100   63.5   33.2   5 300   24.0   26.0   28.0   49.6   31.6   5 400   52.8   31.1   5 600   55.9   29.9   5 700   28.0   34.0   36.6   24.8   3 900   39.6   24.2   4 000   34.0   36.6   24.8   3 900   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   17.7   3 200   39.6   24.2   2 4.0   000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   000   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0			18.0	66.7	38.1	9 000	70.2	37.8	9 000*	73.8	36.8	9 000*	18.0
34.0   56.9   34.7   6 900   60.2   34.3   7 100   63.5   33.2   5 300   24.0   26.0   28.0   49.6   31.6   5 400   52.8   31.1   5 600   55.9   29.9   5 700   28.0   34.0   36.6   24.8   3 900   39.6   24.2   4 000   34.0   36.6   24.8   3 900   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   17.7   3 200   39.6   24.2   2 4.0   000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   000   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0		$\cap$	19.0	65.2	37.7	9 000•	68.6	37.3	9 000+	72.2	36.3		19.0
34.0   56.9   34.7   6 900   60.2   34.3   7 100   63.5   33.2   5 300   24.0   26.0   28.0   49.6   31.6   5 400   52.8   31.1   5 600   55.9   29.9   5 700   28.0   34.0   36.6   24.8   3 900   39.6   24.2   4 000   34.0   36.6   24.8   3 900   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   17.7   3 200   39.6   24.2   2 4.0   000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   000   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0	•	U	20.0	63.6	37.1	8 900*	167.0	36.8	8 900*	70.5	35.7		20.0
34.0   56.9   34.7   6 900   60.2   34.3   7 100   63.5   33.2   5 300   24.0   26.0   28.0   49.6   31.6   5 400   52.8   31.1   5 600   55.9   29.9   5 700   28.0   34.0   36.6   24.8   3 900   39.6   24.2   4 000   34.0   36.6   24.8   3 900   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   17.7   3 200   39.6   24.2   2 4.0   000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   000   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0	A		21.0	61.9	36.6	8 400	65.3	36.2	1 8 600	68.8	35.2	8 700*	21 0
34.0   56.9   34.7   6 900   60.2   34.3   7 100   63.5   33.2   5 300   24.0   26.0   28.0   49.6   31.6   5 400   52.8   31.1   5 600   55.9   29.9   5 700   28.0   34.0   36.6   24.8   3 900   39.6   24.2   4 000   34.0   36.6   24.8   3 900   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   38.0   24.9   17.7   3 200   39.6   24.2   4 000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   17.7   3 200   39.6   24.2   2 4.0   000   51.6   27.8   5 100   30.0   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   000   34.0   38.0   24.9   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   39.00   39.6   24.2   2 4.0   2 4.0   39.00   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0   39.6   2 4.0   39.00   39.0	1 4		22.0	60.3	36.0	7 900	63.6	35.6	8 100	67.1	34.6	8 300*	22.0
30			24 0	56.9	34.7	6 900	160.2	34.3	7 100	63.5	33.2	7 300	24.0
30. 45.6 29.6 49.0 31.6 5 400 52.8 31.1 5 600 55.9 29.9 5 700 28.0 30.0 34.0 36.6 24.8 3 900 39.6 24.2 4 000 51.6 27.8 5 100 30.0 34.0 36.6 24.9 17.7 3 200 39.6 24.2 4 000 51.6 27.8 5 100 30.0 34.0 36.0 24.9 17.7 3 200 39.6 24.2 4 000 51.6 27.8 5 100 30.0 34.0 36.0 24.9 17.7 3 200 39.6 24.2 4 000 51.6 27.8 5 100 30.0 34.0 36.0 24.9 17.7 3 200 39.6 24.2 4 000 51.6 27.8 5 100 30.0 34.0 34.0 11.0 78.3 43.7 9 000 11.0 78.3 43.7 9 000 11.0 78.3 43.7 9 000 11.0 78.3 43.7 9 000 11.0 78.3 43.7 9 000 11.0 78.3 43.7 9 000 11.0 78.3 43.7 9 000 11.0 78.3 43.7 9 000 11.0 78.2 42.9 9 000 77.4 42.6 9 000 77.1 42.2 9 000 11.0 78.2 42.9 9 000 77.4 42.6 9 000 78.1 40.0 9 000 15.0 15.0 15.0 15.0 15.0 15.0 15.0	1		26.0	53.3	33.2	6 100	56.6	32.8	6 300	59.8	31.6	6 400	26.0
34.0 36.6 24.9 17.7 3 200 38.0 39.6 24.2 4 000 38.0 38.0 38.0 38.0 24.9 17.7 3 200 38.0 38.0 38.0 38.0 24.9 17.7 3 200 38.0 38.0 38.0 38.0 38.0 38.0 38.0 38	1		28.0	49.6	31.6	5 400	52.8	31.1	5 600		29.9	5 700	28.0
34.0 36.6 24.9 17.7 3 200 38.0 39.6 24.2 4 000 38.0 38.0 38.0 38.0 24.9 17.7 3 200 38.0 38.0 38.0 38.0 24.9 17.7 3 200 38.0 38.0 38.0 38.0 38.0 38.0 38.0 38		i	30.0		29.6	4 900			5 000	51.6	27.8	5 100	30.0
3 1   9.1   80.9   44.1   9   000   10.0   79.6   44.0   9   900   11.0   79.6   11.0   78.3   43.5   9   900   78.8   42.9   9   9   9   12.0   13.0   75.5   43.2   9   9   9   9   77.4   42.6   9   9   9   9   15.0   72.8   42.6   9   9   9   9   9   15.0   72.8   42.6   9   9   9   9   15.0   72.8   42.6   9   9   15.0   72.8   42.6   9   9   15.0   72.8   42.6   9   9   15.0   73.1   41.5   9   9   9   78.1   40.9   9   9   9   15.0   73.1   41.5   9   9   9   78.1   40.9   9   9   9   15.0   73.1   41.5   9   9   9   9   9   17.0   16.0   17.0   69.9   41.9   9   9   9   9   9   17.0   17.0   65.6   40.6   8   900   68.7   40.2   8   9   9   72.1   39.1   9   9   9   9   9   17.0   9   17.0   65.6   40.6   8   900   68.7   40.2   8   9   9   72.1   39.1   9   9   9   9   9   9   9   9   9			34.0		24.8	3 900	39.6	24.2	4 000				34.0
3 1 10.0 79.6 44.0 9 9000 11.0 11.0 78.3 43.7 7 9 0000 12.0 11.0 78.3 43.7 9 0000 12.0 11.0 78.3 43.5 9 0000 77.4 42.6 9 0000 11.0 12.0 76.9 43.5 9 0000 77.4 42.6 9 0000 11.0 12.0 72.8 42.6 9 0000 77.4 42.2 9 0000 78.1 40.9 9 0000 15.0 16.0 71.3 42.3 9 0000 74.6 41.9 9 0000 78.1 40.9 9 0000 17.0 12.0 17.0 69.9 41.9 9 0000 77.1 41.1 9 0000 75.1 40.1 9 9 0000 17.0 18.0 68.5 41.5 9 0000 71.7 41.1 9 0000 75.1 40.1 9 9 0000 17.0 19.0 67.0 41.0 9 0000 70.2 40.6 9 9000 75.1 40.1 9 9000 17.0 19.0 67.0 41.0 9 0000 70.2 40.6 9 9000 75.1 40.1 9 9000 12.0 12.0 62.0 65.6 40.6 8 900 68.7 40.2 8 9000 72.1 39.1 9 0000 20.0 22.0 62.6 39.5 7 700 65.7 39.1 8 500 70.6 38.6 8 700 21.0 22.0 62.6 39.5 7 700 65.7 39.1 8 500 70.6 38.6 8 700 21.0 22.0 62.6 39.5 7 700 62.6 37.9 7 000 65.8 36.8 7 200 22.0 22.0 22.0 56.3 33.0 35.5 5 300 56.0 35.1 5 40.0 59.5 33.9 4 700 52.5 33.4 4 800 55.3 32.1 5 000 30.0 34.0 41.9 29.8 3 800 44.8 29.2 3 9000 12.0 34.0 41.9 29.8 3 800 44.8 29.2 3 9000 12.0 12.0 12.0 77.8 46.6 9 0000 77.6 45.4 9 0000 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 12.0 13.0 13.0 14.0 75.2 46.1 9 0000 77.6 45.4 9 0000 77.6 43.3 9 0000 12.0 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 12.0 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 12.0 13.0 14.0 75.2 46.1 9 0000 77.6 45.4 9 0000 77.6 43.3 9 0000 12.0 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 12.0 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.1			38.0	24.9	17.7	3 200	l			l			38.0
3 1 10.0 79.6 44.0 9 9000 11.0 11.0 78.3 43.7 7 9 0000 12.0 11.0 78.3 43.7 9 0000 12.0 11.0 78.3 43.5 9 0000 77.4 42.6 9 0000 11.0 12.0 76.9 43.5 9 0000 77.4 42.6 9 0000 11.0 12.0 72.8 42.6 9 0000 77.4 42.2 9 0000 78.1 40.9 9 0000 15.0 16.0 71.3 42.3 9 0000 74.6 41.9 9 0000 78.1 40.9 9 0000 17.0 12.0 17.0 69.9 41.9 9 0000 77.1 41.1 9 0000 75.1 40.1 9 9 0000 17.0 18.0 68.5 41.5 9 0000 71.7 41.1 9 0000 75.1 40.1 9 9 0000 17.0 19.0 67.0 41.0 9 0000 70.2 40.6 9 9000 75.1 40.1 9 9000 17.0 19.0 67.0 41.0 9 0000 70.2 40.6 9 9000 75.1 40.1 9 9000 12.0 12.0 62.0 65.6 40.6 8 900 68.7 40.2 8 9000 72.1 39.1 9 0000 20.0 22.0 62.6 39.5 7 700 65.7 39.1 8 500 70.6 38.6 8 700 21.0 22.0 62.6 39.5 7 700 65.7 39.1 8 500 70.6 38.6 8 700 21.0 22.0 62.6 39.5 7 700 62.6 37.9 7 000 65.8 36.8 7 200 22.0 22.0 22.0 56.3 33.0 35.5 5 300 56.0 35.1 5 40.0 59.5 33.9 4 700 52.5 33.4 4 800 55.3 32.1 5 000 30.0 34.0 41.9 29.8 3 800 44.8 29.2 3 9000 12.0 34.0 41.9 29.8 3 800 44.8 29.2 3 9000 12.0 12.0 12.0 77.8 46.6 9 0000 77.6 45.4 9 0000 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 12.0 13.0 13.0 14.0 75.2 46.1 9 0000 77.6 45.4 9 0000 77.6 43.3 9 0000 12.0 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 12.0 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 12.0 13.0 14.0 75.2 46.1 9 0000 77.6 45.4 9 0000 77.6 43.3 9 0000 12.0 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 12.0 12.0 13.0 76.5 46.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.4 9 0000 77.6 45.1				90 C	44 1	0.000-							0 1
3 1 11.0 78.3 43.7 9 000 12.0 76.9 43.5 9 000 12.0 76.6 40.5 9 000 13.0 77.4 42.6 9 000 77.4 42.6 9 000 15.0 15.0 15.0 72.8 42.6 9 000 77.4 42.6 9 000 77.4 42.6 15.0 72.8 42.6 15.0 72.8 42.6 9 000 77.4 42.2 9 000 77.5 14.0 15.0 15.0 15.0 15.0 15.0 16.0 71.3 42.3 9 000 74.6 41.9 9 000 76.6 40.5 9 000 15.0 15.0 16.0 71.3 42.3 9 000 73.1 41.5 9 000 76.6 40.5 9 000 15.0 18.0 68.5 41.5 9 000 71.7 41.1 9 000 75.1 40.1 9 000 17.0 18.0 68.5 41.5 9 000 71.7 41.1 9 000 75.1 40.1 9 000 19.0 19.0 19.0 19.0 19.0 19.0			1 19.1	70.4	44.1								12.7
O         17.0         68.5         41.5         9 000*         71.7         41.5         9 000*         75.1         40.1         9 000*         18.0           9         19.0         67.0         41.0         9 000*         70.2         40.6         9 000*         73.6         39.6         9 000*         19.0           20.0         65.6         40.6         8 900         68.7         40.2         8 900*         72.1         39.1         9 000*         20.0           21.0         64.1         40.1         8 300         67.2         39.7         8 500         70.6         38.6         8 700         21.0           22.0         62.6         39.5         7 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           24.0         59.5         38.4         6 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           26.0         56.3         37.0         5 900         59.4         36.6         6 100         62.5         35.5         6 300         26.0           28.0         53.0         35.5         5 300         59.4         36.6			1 11 0	70 7	44.0	9 000*	l						10.0
O         17.0         68.5         41.5         9 000*         71.7         41.5         9 000*         75.1         40.1         9 000*         18.0           9         19.0         67.0         41.0         9 000*         70.2         40.6         9 000*         73.6         39.6         9 000*         19.0           20.0         65.6         40.6         8 900         68.7         40.2         8 900*         72.1         39.1         9 000*         20.0           21.0         64.1         40.1         8 300         67.2         39.7         8 500         70.6         38.6         8 700         21.0           22.0         62.6         39.5         7 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           24.0         59.5         38.4         6 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           26.0         56.3         37.0         5 900         59.4         36.6         6 100         62.5         35.5         6 300         26.0           28.0         53.0         35.5         5 300         59.4         36.6			12.0	76.3	43.7	9 000*							12.0
O         17.0         68.5         41.5         9 000*         71.7         41.5         9 000*         75.1         40.1         9 000*         18.0           9         19.0         67.0         41.0         9 000*         70.2         40.6         9 000*         73.6         39.6         9 000*         19.0           20.0         65.6         40.6         8 900         68.7         40.2         8 900*         72.1         39.1         9 000*         20.0           21.0         64.1         40.1         8 300         67.2         39.7         8 500         70.6         38.6         8 700         21.0           22.0         62.6         39.5         7 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           24.0         59.5         38.4         6 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           26.0         56.3         37.0         5 900         59.4         36.6         6 100         62.5         35.5         6 300         26.0           28.0         53.0         35.5         5 300         59.4         36.6	_	İ	13.0	75.5	43.2	9 000*	78.8	42.9	9 000*				13.0
O         17.0         68.5         41.5         9 000*         71.7         41.5         9 000*         75.1         40.1         9 000*         18.0           9         19.0         67.0         41.0         9 000*         70.2         40.6         9 000*         73.6         39.6         9 000*         19.0           20.0         65.6         40.6         8 900         68.7         40.2         8 900*         72.1         39.1         9 000*         20.0           21.0         64.1         40.1         8 300         67.2         39.7         8 500         70.6         38.6         8 700         21.0           22.0         62.6         39.5         7 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           24.0         59.5         38.4         6 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           26.0         56.3         37.0         5 900         59.4         36.6         6 100         62.5         35.5         6 300         26.0           28.0         53.0         35.5         5 300         59.4         36.6	<b>9</b>		14.0	74.2	42.9	9 000*	77.4	42.6	9 000*				14.0
O         17.0         68.5         41.5         9 000*         71.7         41.5         9 000*         75.1         40.1         9 000*         18.0           9         19.0         67.0         41.0         9 000*         70.2         40.6         9 000*         73.6         39.6         9 000*         19.0           20.0         65.6         40.6         8 900         68.7         40.2         8 900*         72.1         39.1         9 000*         20.0           21.0         64.1         40.1         8 300         67.2         39.7         8 500         70.6         38.6         8 700         21.0           22.0         62.6         39.5         7 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           24.0         59.5         38.4         6 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           26.0         56.3         37.0         5 900         59.4         36.6         6 100         62.5         35.5         6 300         26.0           28.0         53.0         35.5         5 300         59.4         36.6	l J	4	15.0	72.8	42.6	9 000*	76.0	42.2	9 000*	İ			15.0
O         17.0         68.5         41.5         9 000*         71.7         41.5         9 000*         75.1         40.1         9 000*         18.0           9         19.0         67.0         41.0         9 000*         70.2         40.6         9 000*         73.6         39.6         9 000*         19.0           20.0         65.6         40.6         8 900         68.7         40.2         8 900*         72.1         39.1         9 000*         20.0           21.0         64.1         40.1         8 300         67.2         39.7         8 500         70.6         38.6         8 700         21.0           22.0         62.6         39.5         7 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           24.0         59.5         38.4         6 700         65.7         39.1         8 000         69.0         38.1         8 200         22.0           26.0         56.3         37.0         5 900         59.4         36.6         6 100         62.5         35.5         6 300         26.0           28.0         53.0         35.5         5 300         59.4         36.6	_		16.0	71.3	42.3	9 000•	74.6	41.9	9 000*	78.I			16.0
18.0   68.0   41.0   9   900   70.2   40.6   9   900   72.1   39.1   9   900   19.0	$\cap$	-	17.0	69.9	41.9	9 000*	73.	41.5	9 000*	76.6		9 000*	17.0
30.0 49.5 33.9 4 700 59.6 33.4 4 800 59.0 33.9 5 600 26.0 30.0 49.5 33.9 5 600 28.0 30.0 49.5 33.9 4 700 52.5 33.4 4 800 59.0 33.9 5 600 28.0 34.0 41.9 29.8 3 800 44.8 29.2 3 900 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 34.0 46.9 9 000• 11.0 79.1 46.9 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.1 9 000• 79.6 46.0 9 000• 12.0 13.0 75.2 46.1 9 000• 77.0 45.4 9 000• 12.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 14.0 15.0 73.9 45.5 9 000• 77.0 45.4 9 000• 15.0 15.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 77.6 43.7 9 000• 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	l U		18.0	68.5	41.5	9 000*	71.7		9 000*	75.1		9 000*	18.0
30.0 49.5 33.9 4 700 59.6 33.4 4 800 59.0 33.9 5 600 26.0 30.0 49.5 33.9 5 600 28.0 30.0 49.5 33.9 4 700 52.5 33.4 4 800 59.0 33.9 5 600 28.0 34.0 41.9 29.8 3 800 44.8 29.2 3 900 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 34.0 46.9 9 000• 11.0 79.1 46.9 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.1 9 000• 79.6 46.0 9 000• 12.0 13.0 75.2 46.1 9 000• 77.0 45.4 9 000• 12.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 14.0 15.0 73.9 45.5 9 000• 77.0 45.4 9 000• 15.0 15.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 77.6 43.7 9 000• 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	I .	•	19.0	67.0	41.0	9 000*	70.2	40.6		73.6			19.0
30.0 49.5 33.9 4 700 59.6 33.4 4 800 59.0 33.9 5 600 26.0 30.0 49.5 33.9 5 600 28.0 30.0 49.5 33.9 4 700 52.5 33.4 4 800 59.0 33.9 5 600 28.0 34.0 41.9 29.8 3 800 44.8 29.2 3 900 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 34.0 46.9 9 000• 11.0 79.1 46.9 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.1 9 000• 79.6 46.0 9 000• 12.0 13.0 75.2 46.1 9 000• 77.0 45.4 9 000• 12.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 14.0 15.0 73.9 45.5 9 000• 77.0 45.4 9 000• 15.0 15.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 77.6 43.7 9 000• 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	Ľ	$\cap$	20.0	65.6	40.6	8 900	68.7	40.2	8 900*	72.		9 000*	
30.0 49.5 33.9 4 700 59.6 33.4 4 800 59.0 33.9 5 600 26.0 30.0 49.5 33.9 5 600 28.0 30.0 49.5 33.9 4 700 52.5 33.4 4 800 59.0 33.9 5 600 28.0 34.0 41.9 29.8 3 800 44.8 29.2 3 900 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 34.0 46.9 9 000• 11.0 79.1 46.9 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.1 9 000• 79.6 46.0 9 000• 12.0 13.0 75.2 46.1 9 000• 77.0 45.4 9 000• 12.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 14.0 15.0 73.9 45.5 9 000• 77.0 45.4 9 000• 15.0 15.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 77.6 43.7 9 000• 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	<b> </b>		21.0	64.1	40.1	8 300	67.2	39.7	8 500	70.6		8 /00	21.0
30.0 49.5 33.9 4 700 59.6 33.4 4 800 59.0 33.9 5 600 26.0 30.0 49.5 33.9 5 600 28.0 30.0 49.5 33.9 4 700 52.5 33.4 4 800 59.0 33.9 5 600 28.0 34.0 41.9 29.8 3 800 44.8 29.2 3 900 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 24.3 3 000 35.5 23.6 3 100 38.0 32.9 34.0 46.9 9 000• 11.0 79.1 46.9 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.6 9 000• 12.0 77.8 46.1 9 000• 79.6 46.0 9 000• 12.0 13.0 75.2 46.1 9 000• 77.0 45.4 9 000• 12.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 14.0 15.0 73.9 45.5 9 000• 77.0 45.4 9 000• 15.0 15.0 15.0 73.9 45.8 9 000• 77.0 45.4 9 000• 77.6 43.7 9 000• 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	U		22.0	62.6	39.5	7 700	65.7	39.1	8 000	169.0	38.1	8 200	22.0
34.0 41.9 29.8 3 800 44.8 29.2 3 900 33.0 33.0 33.0 33.0 33.0 33.0 33.	-		24.0	59.5	38.4	6 700	62.6	37.9		65.8	35.8 75.5	7 200	24.0
34.0 41.9 29.8 3 800 44.8 29.2 3 900 33.0 33.0 33.0 33.0 33.0 33.0 33.			26.0	57.0	37.0	5 700	54.4		6 100 6 400	50.0	33.3	5 600	28.0
34.0   34.9   29.8   3 800   34.8   29.2   3 900   38.0			20.0	49.5	33.5	4 700	52.5	33.1	4 800	55 3	30.7	5 000	30.0
3 1 10.7 79.4 46.9 9 000 11.0 7 11.0 12.0 77.8 46.6 9 000 12.0 77.8 46.6 9 000 13.0 76.5 46.1 9 000 77.0 45.4 9 000 13.0 13.0 14.0 75.2 46.1 9 000 77.0 45.4 9 000 77.0 45.4 9 000 13.0 14.0 75.2 46.1 9 000 77.0 45.4 9 000 77.0 45.4 9 000 15.0 15.0 73.9 45.8 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 44.1 9 000 15.0 15.0 15.0 15.0 15.0 15.0 15.0			30.0	41 9	29 8	3 800	14 8		3 900	33.3	02.1	5 000	34.0
3 1 10.7 79.4 46.9 9 000 11.0 7 11.0 12.0 77.8 46.6 9 000 12.0 77.8 46.6 9 000 13.0 76.5 46.1 9 000 77.0 45.4 9 000 13.0 13.0 14.0 75.2 46.1 9 000 77.0 45.4 9 000 77.0 45.4 9 000 13.0 14.0 75.2 46.1 9 000 77.0 45.4 9 000 77.0 45.4 9 000 15.0 15.0 73.9 45.8 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 45.4 9 000 77.0 44.1 9 000 15.0 15.0 15.0 15.0 15.0 15.0 15.0	1		38.0	32.9	24.3	3 000	35.5	23.6	3 100				
1   19.0   68.6   44.4   8   900   71.6   44.0   9   900   73.4   42.5   9   900   19.0   20.0   67.3   43.9   8   800   70.3   43.5   8   900   73.4   42.5   9   900   20.0   21.0   65.9   43.5   8   200   68.9   43.1   8   400   72.0   42.0   8   600   21.0   22.0   64.6   43.0   7   600   67.5   42.6   7   800   70.6   41.5   8   100   22.0   24.0   61.7   41.9   6   600   64.7   41.5   6   800   67.7   40.4   7   100   24.0   26.0   58.8   40.7   7   5   800   61.7   40.3   6   600   64.6   39.1   6   200   26.0   28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   46.1   34.3   3   36.0   48.8   33.7   3   37.0   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   68.8   33.7   3   3   700   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   48.8   33.7   3   3   3   3   3   3   3   3   3						-							
1   19.0   68.6   44.4   8   900   71.6   44.0   9   900   73.4   42.5   9   900   19.0   20.0   67.3   43.9   8   800   70.3   43.5   8   900   73.4   42.5   9   900   20.0   21.0   65.9   43.5   8   200   68.9   43.1   8   400   72.0   42.0   8   600   21.0   22.0   64.6   43.0   7   600   67.5   42.6   7   800   70.6   41.5   8   100   22.0   24.0   61.7   41.9   6   600   64.7   41.5   6   800   67.7   40.4   7   100   24.0   26.0   58.8   40.7   7   5   800   61.7   40.3   6   600   64.6   39.1   6   200   26.0   28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   46.1   34.3   3   36.0   48.8   33.7   3   37.0   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   68.8   33.7   3   3   700   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   48.8   33.7   3   3   3   3   3   3   3   3   3			10.7	79.4	46.9	9 000*							10.7
1   19.0   68.6   44.4   8   900   71.6   44.0   9   900   73.4   42.5   9   900   19.0   20.0   67.3   43.9   8   800   70.3   43.5   8   900   73.4   42.5   9   900   20.0   21.0   65.9   43.5   8   200   68.9   43.1   8   400   72.0   42.0   8   600   21.0   22.0   64.6   43.0   7   600   67.5   42.6   7   800   70.6   41.5   8   100   22.0   24.0   61.7   41.9   6   600   64.7   41.5   6   800   67.7   40.4   7   100   24.0   26.0   58.8   40.7   7   5   800   61.7   40.3   6   600   64.6   39.1   6   200   26.0   28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   46.1   34.3   3   36.0   48.8   33.7   3   37.0   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   68.8   33.7   3   3   700   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   48.8   33.7   3   3   3   3   3   3   3   3   3			11.0	79.1	46.9	9 000*							11.0
1   19.0   68.6   44.4   8   900   71.6   44.0   9   900   73.4   42.5   9   900   19.0   20.0   67.3   43.9   8   800   70.3   43.5   8   900   73.4   42.5   9   900   20.0   21.0   65.9   43.5   8   200   68.9   43.1   8   400   72.0   42.0   8   600   21.0   22.0   64.6   43.0   7   600   67.5   42.6   7   800   70.6   41.5   8   100   22.0   24.0   61.7   41.9   6   600   64.7   41.5   6   800   67.7   40.4   7   100   24.0   26.0   58.8   40.7   7   5   800   61.7   40.3   6   600   64.6   39.1   6   200   26.0   28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   46.1   34.3   3   36.0   48.8   33.7   3   37.0   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   68.8   33.7   3   3   700   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   48.8   33.7   3   3   3   3   3   3   3   3   3			12.0	77.8	46.6	9 000*							12.0
1   19.0   68.6   44.4   8   900   71.6   44.0   9   900   73.4   42.5   9   900   19.0   20.0   67.3   43.9   8   800   70.3   43.5   8   900   73.4   42.5   9   900   20.0   21.0   65.9   43.5   8   200   68.9   43.1   8   400   72.0   42.0   8   600   21.0   22.0   64.6   43.0   7   600   67.5   42.6   7   800   70.6   41.5   8   100   22.0   24.0   61.7   41.9   6   600   64.7   41.5   6   800   67.7   40.4   7   100   24.0   26.0   58.8   40.7   7   5   800   61.7   40.3   6   600   64.6   39.1   6   200   26.0   28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   46.1   34.3   3   36.0   48.8   33.7   3   37.0   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   68.8   33.7   3   3   700   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   48.8   33.7   3   3   3   3   3   3   3   3   3			13.0	76.5	46.4	9 000•	79.6	46.0	9 000•				13.0
1   19.0   68.6   44.4   8   900   71.6   44.0   9   900   73.4   42.5   9   900   19.0   20.0   67.3   43.9   8   800   70.3   43.5   8   900   73.4   42.5   9   900   20.0   21.0   65.9   43.5   8   200   68.9   43.1   8   400   72.0   42.0   8   600   21.0   22.0   64.6   43.0   7   600   67.5   42.6   7   800   70.6   41.5   8   100   22.0   24.0   61.7   41.9   6   600   64.7   41.5   6   800   67.7   40.4   7   100   24.0   26.0   58.8   40.7   7   5   800   61.7   40.3   6   600   64.6   39.1   6   200   26.0   28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   46.1   34.3   3   36.0   48.8   33.7   3   37.0   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   68.8   33.7   3   3   700   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   48.8   33.7   3   3   3   3   3   3   3   3   3			14.0	/5.2	46.1	9 000*	18.3	45.7	9 000*	<u> </u>			14.0
1   19.0   68.6   44.4   8   900   71.6   44.0   9   900   73.4   42.5   9   900   19.0   20.0   67.3   43.9   8   800   70.3   43.5   8   900   73.4   42.5   9   900   20.0   21.0   65.9   43.5   8   200   68.9   43.1   8   400   72.0   42.0   8   600   21.0   22.0   64.6   43.0   7   600   67.5   42.6   7   800   70.6   41.5   8   100   22.0   24.0   61.7   41.9   6   600   64.7   41.5   6   800   67.7   40.4   7   100   24.0   26.0   58.8   40.7   7   5   800   61.7   40.3   6   600   64.6   39.1   6   200   26.0   28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   46.1   34.3   3   36.0   48.8   33.7   3   37.0   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   68.8   33.7   3   3   700   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   48.8   33.7   3   3   3   3   3   3   3   3   3	:≺		15.0	73.9	45.8	9 000*	75.0	45.4	9 000*	78 0	44 1	9 000=	15.0
1   19.0   68.6   44.4   8   900   71.6   44.0   9   900   73.4   42.5   9   900   19.0   20.0   67.3   43.9   8   800   70.3   43.5   8   900   73.4   42.5   9   900   20.0   21.0   65.9   43.5   8   200   68.9   43.1   8   400   72.0   42.0   8   600   21.0   22.0   64.6   43.0   7   600   67.5   42.6   7   800   70.6   41.5   8   100   22.0   24.0   61.7   41.9   6   600   64.7   41.5   6   800   67.7   40.4   7   100   24.0   26.0   58.8   40.7   7   5   800   61.7   40.3   6   600   64.6   39.1   6   200   26.0   28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   46.1   34.3   3   36.0   48.8   33.7   3   37.0   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   68.8   33.7   3   3   700   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   48.8   33.7   3   3   3   3   3   3   3   3   3		1	15.0	72.6	45.5	9 000*	70.0		9 000*	77 6	44.1	9 000*	17.0
1   19.0   68.6   44.4   8   900   71.6   44.0   9   900   73.4   42.5   9   900   19.0   20.0   67.3   43.9   8   800   70.3   43.5   8   900   73.4   42.5   9   900   20.0   21.0   65.9   43.5   8   200   68.9   43.1   8   400   72.0   42.0   8   600   21.0   22.0   64.6   43.0   7   600   67.5   42.6   7   800   70.6   41.5   8   100   22.0   24.0   61.7   41.9   6   600   64.7   41.5   6   800   67.7   40.4   7   100   24.0   26.0   58.8   40.7   7   5   800   61.7   40.3   6   600   64.6   39.1   6   200   26.0   28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   46.1   34.3   3   36.0   48.8   33.7   3   37.0   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   68.8   33.7   3   3   700   51.2   32.4   3   900   34.0   34.0   46.1   34.3   3   600   48.8   33.7   3   3   3   3   3   3   3   3   3		ı	17.0	70.0	40.1	9 000	77 0		9 000	76.0	43.7	9 000	16.0
28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   37.4   3   900   34.0   37.4   3   900   34.0   37.4   3   900	1.3	1	10.0	68 6	44.0		71.6	44.4	9 000*	74 8	42.9		19.0
28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   37.4   3   900   34.0   37.4   3   900   34.0   37.4   3   900		ı	20.0	67 7	43.4		70 3	43.5	8 900*	73.4	42.5	9 000*	20.0
28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   37.4   3   900   34.0   37.4   3   900   34.0   37.4   3   900	•	^	21.0	65.9	43.5	8 200	68.9	43.11	8 400	172.0	42.0		21.0
28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   37.4   3   900   34.0   37.4   3   900   34.0   37.4   3   900		U	22.0	64.6	43.0	7 600	67.5	12 6	7 800	70.6	41.5	8 100	22.0
28.0   55.9   39.4   5   100   58.7   38.9   5   300   61.5   37.7   5   500   28.0   30.0   52.7   37.8   4   600   55.6   37.4   4   700   58.3   36.2   4   900   30.0   34.0   37.4   3   900   34.0   37.4   3   900   34.0   37.4   3   900	5	_	24 0	61.7	41.9	6 600	64.7	41.5	6 800	67.7	40.4	7 100	24.0
30.0 52.7 37.8 4 600 55.6 37.4 4 700 58.3 36.2 4 900 30.0 30.0 30.0 46 1 34 3 3 500 48 8 33 7 3 700 51.2 32.4 3 900 34.0			26.0	58.8	40.7	5 800	61.7	40.3	6 000	64.6	39.1	6 200	26.0
30.0 52.7 37.8 4 600 55.6 37.4 4 700 58.3 36.2 4 900 30.0 30.0 30.0 46 1 34 3 3 500 48 8 33 7 3 700 51.2 32.4 3 900 34.0			28.0	55.9	39.4	5 100	58.7	38.9		61.5		5 500	28.0
1   1   34   0   146   1   34   31   3   600   148   81   33   71   3   700   151   21   32   41   3   900   34   0			30.0	52.7	37.8	4 600	55.6	37.4	4 700	58.3	36.2	4 900	30.0
38.0   38.5   29.7   2 900   41.1   29.1   3 000   38.0   42.0   29.3   23.4   2 300   42.0			34.0		34.3	3 600		33.7	3 /00	51.2	32.4	J 900	34.0
42.0 29.3 23.4 2 300 42.0			38.0		29.7	2 900	41.1	29.1	3 000				38.0
			42.0	29.3	23.4	2 300							42.0

# MANITOWOC M-85W - Liftcrane jib capacities jib no. 131

with 3 658mm strut on boom no. 47 3 080 kg crawler frame counterweight

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

360° RATING

### 12.2m (40 FT) JIB

	Ī	T	3 [	DEGREE (	DFFSET	15 1	DEGREE (	DFFSET	30 1	DEGREE (	OFFSET	
		JIB		LITE		1	JIB			LITE		JIB
BOOM	BOOM	JIB OPER.	BOOM	POINT		BOOM	POINT		BOOM	POINT		OPER. RADIUS
LGTH.	LGTH.	RADIUS	ANG	FIFV	CAPACITY	ANG.	ELEV.	CAPACITY	ANG.	IELEV.	CAPACITY	RADIUS
METERS	FEET	METERS	DEG.	METERS 50.0	KILOGRAMS	DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	METERS 10.7
		10.7	80.1	50.0	9 000* 9 000*	I			I			10.7
		11.0	79.8	50.0	9 000*	l	l					1 11.0 1
1		12.0	78.6	49.8	9 000*	1						12.0
		13.0	77.4	49.5	9 000*		l					13.0
		12.0 13.0 14.0	76.2	49.5 49.3	9 000*	79.0	48.9	9 000*				12.0 13.0 14.0
		15.0	76.2 75.0 73.7	49.0	9 000*	77.8	48.6	9 000*	i			15.0
3		16.0	73.7	48.7	9 000*	76.6	48.3	9 000*	79.7	47.3	9 000*	16.0
	1	17.0	172.5	48.4	9 000*	75.3	48.0	9 000*	78.4	46.9	9 000+	17.0
36.6		18.0	71.3 70.0	48.0	9 000*	74.1	47.6	9 000*	77.1	46.6	9 000*	18.0
n	2	19.0	70.0	47.6	8 900*	72.8	47.2	9 000*	75.9	46.2 45.8	9 000≉	19.0
		20.0	68.8 67.5	47.2 46.8	8 600	71.6	46.8	8 900	74.6 73.3	45.8	8 900*	20.0
•	_	21.0	67.5	46.8	8 000	70.3	46.4	8 300	73.3	45.3	8 500	21.0
		22.0	66.2	46.4	7 400	169.0	45.9	7 700	[71.9	44.9	8 000	22.0
<b>n</b>	_	21.0 22.0 24.0	63.6	45.4	6 500 5 700	66.4	45.0	6 700	69.2	43.9	7 000	24.0
		26.0	61.0	44.3	5 700 5 000	66.4 63.7	43.8	5 900	66.5	42.7	6 100 5 400	26.0
1		28.0	58.3	43.0	5 000	60.9	45.0 43.8 42.6	5 200	63.6	41.4	5 400	28.0
1		30.0	55.4	41.7	4 400	58.1	41.2 38.0	4 600	60.7	40.0	4 800	30.0
1		34.0 38.0	49.5	38.5	3 500	52.0	38.0	3 600 2 900	54.5	36.6	3 700 3 000	34.0
		38.0	42.9	38.5 34.5 29.3	2 800	45.4	33.9	2 900	47.5	32.4	3 000	38.0
	İ	42.0	35.3	29.3	2 200 1 700	37.6	28.6	2 300				42.0
1		46.0	25.8	22.2	I 700	l			l			46.0
	<del>                                     </del>	10 7	20 =	E 7 .	0.000	l			<b> </b>			10 7
		10.7	80.7 80.4	53.1	9 000* 9 000*	l			ı			10.7
i		11.0	79.2	53.1	9 000* 9 000*		l					12.0
		12.0	78.1	52.9 52.7	9 000*							12.0
		14.0	77.0	52.7	9 000*	79.7	52.0	9 000*				14.0
		15.0	75 0	52.4 52.2 51.9	9 000*	78.5	51.8	9 000*				15.0
'4		16.0	75.9 74.7	51 9	9 000*	77.4	51.8 51.5	9 000*				15.0
	1	17.0	73.6	51.6	9 000*	76.2	51.2	9 000*	79.1	50.1	9 000*	17.0
		18.0	72.4	51.2	9 000*	75.1	50.8	9 000*	77.9	49.8	9 000*	18.0
39.6	3	18.0	71.3	51.2 50.9 50.5	8 800*	7.7 9	50.8 50.5	9 000*	76.7	49.4	9 000*	19.0
	<b>3</b>	1 20.0 1	70 1	50.5	8 500	72.7	50.1	8 800	75.5	49.1	8 900*	20.0
		21.0	68.9	50.1 49.7	7 900	71.5 70.3	49.7	8 200	74.3	48.6	8 500	21.0
	0	22.0	67.7	49.7	7 300	70.3	49.3	7 600	73.1	48.2	7 900	22.0
<i> </i>		24.0	68.9 67.7 65.3	48.8	7 300 6 300	67.9	48.4	6 600	70.6	48.2 47.3	6 900	24.0
U		26.0 28.0	62.8 60.3 57.7	47.8	5 500	65 1	47.3 46.2 44.9	5 800	68.1	46.2	6 000	26.0
1 :		28.0	60.3	46.6	4 800	62.9	46.2	5 100	65.5	45.0	5 300	28.0
į.		30.0	57.7	45.4	4 200	60.3	44.9	4 400	62.8	43.7	4 700 3 600	30.0
1		34.0	52.3	42.5	3 300	54.8	42.0	3 500	57.1	40.7	3 600	34.0
1		38.0 42.0	46.4	38.9	2 600	48.8	38.3	2 700 2 100	50.9	36.9	2 800	38.0
		42.0	39.9	34.4	2 000	42.2	33.8	2 100				42.0
<u> </u>		46.0	32.2	28.7	1 600							46.0
		12.2	70 6	56.0	9 000*					Í		12.2
		12.2 13.0	79.6 78.8	56.0 55.8	9 000•							13.0
		14.0	77 71	55.6	9 000*	80.3	55.2	9 000+				4.0
]		15.0	76.7	55.3	9 000*	79.2	55.2 54.9	9 000•			l	15.0
		16.0	75.6	55.0	9 000*	79.2 78.1	54.6	9 000*				16.0
1		17.0	74.5	54.8	9 000*	77.0	54.4	9 000*	79.8	53.3	9 000•	17.0
-	1	18.0	73.4	54.4	9 000*	75.9	54.0	9 000*	78.7	53.0	9 000*	18.0
		19.0	72.3	54.1	8 700*	74.8	53.7	8 900*	77.5	52.7	9 000*	19.0
	1	18.0 19.0 20.0	71.2	53.8	8 300	74.8 73.7	53.4	8 700	76.4	53.0 52.7 52.3	8 900*	20.0
4 2 7	4	1 21.0 1	70.1	53.4 53.0	7 700	72.6	53.0 52.6 51.7	8 100	75.3	51.9	8 400	21.0
•		22.0	69.0	53.0	7 100	71.5 69.2	52.6	7 500	74.1	51.5	7 800	22.0
	0	24.0	66.8	52.1	6 200	69.2	51.7	6 500	71.8	50.6	6 800	24.0
	_	26.0	64.5	51.2	5 400	66.9	וא מכי	5 600	69.4	49.6	5 900	26.0
] #		28.0	62.1	50.1	4 700	64.5 62.1	49.7	4 900	67.0	48.6 47.3	5 200 4 500	28.0
		28.0 30.0 34.0	59.7	49.0 46.3	4 100 3 200	62.	49.7 48.5 45.8	4 300	64.5		4 500	30.0
		34.0	54.7 49.4	46.3	3 200 2 500	57.1 51.7	40.6	3 300 2 600	59.4 53.8	44.6	3 500 2 700	34.0 38.0
] [		42.0	43.6	39.1	1 900	45.8	42.5 38.5	2 600 2 000	47.7	41.2 37.0	2 700 2 100	42.0
1 1		46.0	40.0	37.1	1 700	39.1	33.6	1 500	7/./	37.0	2 100	46.0
		40.0				U9.1	55.6	1 300				-0.0

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

360° RATING

# 12.2m (40 FT) JIB

Γ		Ţ	3 1	DEGREE (	OFFSET	15 (	DEGREE (	OFFSET	30 [	DEGREE (	DFFSET	
		JIB		JIB		1	JIB			JIB		JIB
BOOM	BOOM	OPER.	BOOM			BOOM	POINT		BOOM	POINT ELEV.	CAPACITY	OPER. RADIUS
LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY	ANG. DEG.	ELEV.	CAPACITY KILOGRAMS	ANG. DEG.	METERS	KILOGRAMS	METERS
METERS	FEET	METERS	DEG. 80.2	METERS 59.1	KILOGRAMS 9 000*	DEG.	METERS	KILOGKANS	DLG.	METERS	KILOOKANO	12.2
1		12.2	79.4	58.9	9 000*	1			1			13.0
		14.0	78.4	58.7	9 000*							14.0
		15.0	77.4	58.4	9 000*							15.0
Λ	_	16.0	76.4 75.3	58.2 57.9	9 000*	78.8	57.8	9 000*	00 7	E/ E	9 000*	16.0
7	1	17.0	75.3	57.9	9 000* 9 000*	77.7 76.7	57.5 57.2	9 000* 9 000*	80.3 79.3	56.5 56.2	9 000* 9 000*	18.0
		18.0	74.3 73.3	57.6 57.3	8 700*	75.7	56.9	8 900	78.2	55.8	9 000*	19.0
<b>5</b>	5	20.0	72.3	57.0	8 200	74.6	56.6	8 600	77.2	55.5	8 900*	20.0
	J	21.0	71.2	56.6	7 600	73.6	56.2	8 000	76.1	55.2 54.8	8 300 7 700	21.0
4 5 7	0	22.0	70.2	56.3	7 000	72.5	55.9	7 400	75.0	54.8		22.0
<b>7</b>	U	24.0	68.1	55.5	6 100	70.4	55.0	6 400	72.9	53.9	6 700 5 800	24.0
		26.0	65.9 63.7	54.6 53.6	5 300 4 600	68.2 66.0	54.2	5 500 4 800	70.6 68.4	53.0 52.0	5 100	28.0
	1	28.0 30.0	61.5	52.5	4 000	63.8	54.2 53.2 52.1	4 200	66.1	50.9		30.0
		34.0	56.9	50.0	3 100	59.1	49.6	3 200	61.3	50.9 48.3	3 400	34.0
		38.0	52.0	47.1	2 300	54.2	46.6	2 500	56.2	45.2	2 600 2 000	38.0
		42.0	46.7	43.5	I 700	48.8	42.9	1 900	50.7	41.5	2 000	42.0
	<del>                                     </del>	12.2	80.7	62.2	9 000*				<u> </u>			12.2
		13.0	79.9	62.0	9 000*							13.0
		14.0	79.0	61.8	9 000*							14.0
		15.0	78.0	61.6 61.3	9 000*							15.0
1	_	16.0	77.0	61.3	9 000+	79.3	60.9	9 000•	<u> </u>			16.0
<b>—</b>	1	17.0	76. I 75. I	60.8	9 000* 9 000*	78.4 77.4	60.7 60.4	9 000 <b>*</b> 9 000 <b>*</b>				18.0
0		18.0	74.1	60.5	8 600*	76.4	60.1	8 800*	78.9	59.0	9 000*	19.0
0	6	20.0	73.2	60.2	8 100	75.4	59.8	8 500	77.9	58.7	8 900*	20.0
8 8	1 6 0	21.0	72.2	59.9	7 500	74.4	59.5	7 900	76.8	58.4	8 200	21.0
-	$\cap$	22.0	71.2	59.5	6 900	73.4	59.1	7 200	75.8	58.0	7 600	22.0
R	U	24.0	69.2	58.8	5 900 5 100	71.4 69.4	58.3 57.5	6 200 5 400	73.8 71.7	57.2 56.4	6 600 5 700	24.0
U		26.0 28.0	67.2 65.1	57.9 57.0	4 400	67.3	56.6	4 700	69.6	55.4	5 000	28.0
		30.0	63.0	56.0	3 900	65.2	55.5	4 100	67.4	54.4	4 400	30.0
		34.0	58.7	53.7	2 900	65.2 60.9	55.5 53.2	3 100	63.0	52.0	3 300	34.0
		38.0	54.2	50.9	2 200	56.3	50.4	2 400	58.3	49.1	2 500	38.0
		42.0	49.4	47.7	1 600	51.4	47.1	1 700	53.3	45.7	1 900	42.0
		13.7	79.8	65.0	9 000+							13.7
1		14.0	79.5	64.9	9 000*							14.0
		15.0	78.6	64.7	9 000+				l			15.0
5		16.0	77.7	64.5	9 000*	79.9	64.1	9 000* 9 000*				16.0
5	4	17.0	76.8 75.8	64.2 64.0	9 000*	78.9 78.0	63.8	9 000*	<del>                                     </del>	<del> </del>		18.0
	1	19.0	74.9	63.7	8 600*	77.1	63.6 63.3	8 800*	79.4	62.2	9 000*	19.0
1	7	20.0	74.0	63.4	7 900	76.1	63.0	8 400	78.5	61.9	8 900	20.0
	7	21.0	73.1	63.1	7 300	75.2 74.3	62.7 62.3	7 700	77.5	61.6	8 200	21.0
8		22.0	72.1	62.8	6 700	74.3	62.3	7 100	76.6 74.6	61.2 60.5	7 500 6 500	22.0
0	0	24.0	70.2 68.3	62.0 61.2	5 800 5 000	72.4 70.4	61.6 60.8	6 100 5 300	72.7	59.7	5 600	26.0
		28.0	66.4	60.4	4 300	68.5	60.8 59.9	4 600	70.7	58.8	4 900	28.0
		30.0	64.4	59.4	3 700	66.5	59.0	4 000	68.6	57.8	4 200	30.0
	1	34.0	60.4	57.2	2 700	62.4	56.8	3 000	64.5	55.6	3 200 2 400	34.0
		38.0	56.1	54.7	2 100	58.2 53.7	54.2	2 200 I 600	60.1 55.5	52.9 49.8	2 400 1 700	38.0 42.0
		42.0	51.7	51.7	1 500	33.7	51.1	1 600	133.3	49.0	. ,,,,	

			3 [	DEGREE (	DFFSET	15 [	DEGREE (	OFFSET	30 1	DEGREE (	DFFSET	
1	Į.	JIB		JIB			JIB			JIB		JIB
BOOM	BOOM	OPER.	BOOM	POINT		BOOM	POINT		ВООМ	POINT		OPER.
LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY	RADIUS
METERS	FEET	METERS	DEG.			DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	
		13.7	80.2	68.1	9 000*							13.7
1		14.0	80.0	68.0	9 000•	}						14.0
1		15.0	79.1	67.8	9 000*						1	15.0
		16.0	78.2	67.6	9 000*		67.2	9 000+				16.0
		17.0	77.4	67.4	9 000*	79.4	67.0	9 000*				17.0
	7	18.0	76.5	67.1	9 000*	78.6	66.7	9 000*				18.0
A		19.0	75.6	66.9	8 500*	77.7	66.4	8 700*		65.4	8 900*	19.0
4	Ω	20.0	74.7	66.6	7 800	76.8	66.2	8 200	79.0	65.1	8 800	20.0
-	O	21.0	73.8	66.3	7 100	75.9	65.9	7 600	78.1	64.8	8 200	21.0
•	$\sim$	22.0	73.0	66.0	6 600	75.0	65.5	7 000	77.2	64.4	7 400	22.0
		24.0	71.2	65.3	5 600	73.2	64.9	6 000	75.4	63.7	6 400	24.0
<b>U</b>	_	26.0	69.4	64.5	4 800	71.4	64.1	5 200	73.5	63.0	5 500	26.0
		28.0	67.5	63.7	4 200	69.5	63.3	4 400	71.6	62.1	4 700	28.0
l		30.0	65.7	62.8	3 600	67.7	62.4	3 800	69.7	61.2	4 100	30.0
1		34.0	61.8	60.8	2 600	63.8	60.3	2 800	65.8	59.1	3 100	34.0
1		38.0	57.9	58.3	1 900	59.8	57.9	2 100	61.7	56.6	2 300	38.0
		42.0				55.6	55.0	I 500	57.4	53.7	1 600	42.0

# MANITOWOC M-85W - Liftcrane jib capacities jib no. 131

with 3 658mm strut on boom no. 47 3 080 kg crawler frame counterweight

360° RATING

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

15.2m (50 FT) JIB

	1	T	3 [	DEGREE (	OFFSET	15	DEGREE	OFFSET	30 1	DEGREE (	OFFSET	I
		JIB		JIB	J. I OL I		JIB	T	1	JIB POINT ELEV. METERS	I DE T	JIB
воом	воом	OPER.	воам	POINT		ВООМ	JIB POINT		Воом	POINT		OPER.
LGTH.	LGTH.	RADTUS	ANG.	FLEV.	CAPACITY	LANG	ELEV.	CAPACITY	BOOM ANG.	ELEV.	CAPACITY	RADTUS
METERS	FEET	METERS 9.1	DEG.	METERS	9 000 9 000	SIDEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	9.1 10.0
	<u> </u>	9.1	81.0 79.8 78.5	44.1	9 000				1			9.1
		10.0	79.8	44.0 43.7	9 000	*	1		1			10.0
		1110	78.5	4.5./	9 000	•			i			1 11.0
		120	77 1	43.5	9 000	•						12.0
1		12.0	77.1 75.7 74.3	43.5 43.2	9 000	· 79.8	12 B	9 000+	1			12.0 13.0
	1	14.0	74 3	42.9	9 000		42.8 42.5	9 000*	<del> </del>			14.0
		15.0	72.9	42.5	9 000		42.2	9 000*	l	ļ		15.0
_	_	15.0 16.0 17.0	71.5	42.6 42.3	9 000	75.6	42.2	9 000*		ĺ		16.0
	9	17.0	70.1	41.9	9 000	74.2	41.9	9 000* 8 900*	78.6	40.4	8 100+	16.0 17.0
2 7 4		18.0	68.7	41.5	9 000		41.1	8 800	77.1	39.9	7 800	18.0
"	0	19.0	47 2	41.5	9 000	• 71.2	40.6	8 700*	75.6	39.5	7 600•	19.0
•	U	20.0	67.2 65.7	40.6	8 800	69.8	40.1	8 500	74.1	39.0	7 400	20.0
4	_	21.0	64.3	40.1	8 500	68.3	39.6	8 400*	72.6	38.5	7 400* 7 200*	21.0
1	i	22.0	64.3	39.5	8 000	66.7	39.6	8 200*	71.0	37.9	6 900*	22.0
		22.0	62.8 59.7	39.5	7 000		39.1 37.9	8 200* 7 200	67.8	3/.9		24.0
	1	24.0	59.7	38.4	/ 000	63.6	3/.9	7 200	6/.8	36.7	6 600*	24.0
		26.0	56.5	37.0	6 200	60.4	36.6	6 400	64.4	35.3 33.7	6 300*	26.0
	İ	28.0	53.2 49.7	35.5 33.9	5 500 4 900	57.0 53.5	35.1	5 700 5 100	60.9	33./	5 900 5 300	28.0
	i	30.0					33.4		57.2	32.0	5 300	30.0
		34.0	42.1	29.8	4 000	45.8	29.2	4 100	49.1	27.6	4 200	34.0
Ĭ		38.0	33.1	24.3	3 300	36.5	23.5	3 300				38.0
			70 1	11	0.000	.						
I	1	10.7	79.6	46.9	9 000	*	1	1	1			10.7
1		11.0	79.2	46.9	9 000	*			1			11.0
		12.0	78.0	46.6	9 000 9 000 9 000	*						12.0
		13.0	76.7	46.4	9 000	*						13.0
		14.0	75.4	46.1	9 000	• 79.2	45.7	9 000*				14.0
:≺	_	15.0	74.1	45.8	9 000	• 77.9	45.4	9 000•				15.0
	1	16.0 17.0	72.8 71.5	45.5	9 000 9 000	* 76.6 * 75.3 * 73.9	45.1	9 000* 9 000*				16.0 17.0
		17.0	71.5	45.1	9 000	•   75.3	44.7	9 000*	79.5	43.6	8 100*	17.0
30.5	$\wedge$	18.0	70.1	44.8	9 000	•   73.9	44.3	8 800*	78.1	43.2	8 000*	18.0
U	0	19.0	68.8	44.4	9 000	* 72.6	43.9 43.5	8 700*	76.7 75.3	42.8	7 800*	19.0
	Ŏ	20.0	67.5	43.9	8 900 8 300	* 71.2	43.5	8 600*	15.3	42.3	7 500• 7 300•	20.0
_	n	21.0	66.1	43.5	8 300 7 800	69.8	43.0	8 500	73.9	41.8	7 300•	21.0
5	U	22.0 24.0	64.7	43.0	7 800	68.4	42.5	8 100 7 100	72.4	41.3	7 100+	22.0
U		24.0	61.9	41.9 40.7	6 800	65.6 62.7	41.5	7 100	69.5	40.2	6 800+	24.0 26.0
-		26.0	59.0	40.7	6 000	62.7	42.5 41.5 40.2 38.9	6 300	69.5 66.5 63.3	39.0	6 500*	26.0
		28.0	56.0	39.4	5 300	59.6	38.9	5 600	63.3	37.6	5 800	28.0
1		30.0	52.9	37.8 34.3	4 800	56.5 49.7	37.3 33.7	4 900	60.1	36.0	5 100	30.0
		34.0	52.9 46.2 38.7	34.3	3 800 3 100	49./	33.7	4 000 3 200	53.0	32.2	4 100	34.0
		38.0	38.7	29.7	3 100	42.0	29.0	3 200				38.0
		42.0	29.5	23.4	2 500	1						42.0
		10.7	90 7	50 A	0.000	.1						10.7
		10.7	80.3 79.9 78.7	50.0	9 000 9 000							11.0
		12.0	77.7	40.0	9 000							13.0
		11.0 12.0 13.0	77 6	47.0	9 000						}	12.0
		14.0	77.5 76.3	47.0	9 000	79.9	40 0	9 000*				14.0
		14.0	10.3	50.0 49.8 49.5 49.3 49.0 48.7	9 000 9 000 9 000 9 000		48.9 48.6	9 000*				14.0
33.5		15.0 16.0	75.I 73.9	49.0	9 000	77.5	40.0	9 000* 9 000*			ŀ	15.0 16.0 17.0
	4	17.0	72.7	48.4	9 000	76.2	48.3 47.9	9 000* 9 000*	80.2	46.8	8 100=	17.0
		18.0	71.4	48.0	9 000	75.0	47.6	8 900*	78.9	46.4	8 100+	18.0
2	ق ا	19.0	70.2	47.6	9 000	73.7	47.0	8 800=	77 6	46.0	8 100+ 7 900+	19.0
	7	20.0	70.2 68.9	47.2	8 900	72.5	47.2 46.8	8 800* 8 700*	77.6 76.3	45.6	7 700*	20.0
	•	21.0	67.7	46.8	8 300	175.3	46.0	8 400	75.0	45.2	7 500*	21.0
i <u> </u>	0	21.0	66.4	46.4	7 600	71.2 69.9	45.4	8 000	77 7	44.7	7 300*	22.0
	U	24.0	63.8	46.4	8 300 7 600 6 700	67.3	46.4 45.9 44.9	8 000 7 000	71.0	43.7	7 000*	22.0
$\Box$		26.0	61.1	40.4	5 900	64.6	43.8	6 100	68.3	42.5	6 400	26.0
		26.0 28.0	58.4	45.4 44.3 43.0	5 200	61.8	42.6	5 400	68.2 65.3	41.2	5 700	28.0
		20.0	55.6	41.7		59.0	42.0	4 800	62.4	39.8	5 000	30.0
1		30.0	49.6	70 5	4 700 3 700	52.9	41.2 37.9	7 800	56.1	36.4	4 000	34.0
		34.0	43.0	30.0	3 000	132.9	77.9	3 600	49.1	32.2	3 200	38.0
		34.0 38.0 42.0		38.5 34.5 29.3	3 000 2 400	46.2 38.5	33.8	4 800 3 800 3 100 2 500	49.1	32.2	3 200	
		42.0	35.4 25.9	29.3	1 900	130.5	28.6	2 500				42.0 46.0
L I		46.0	20.9	22.2	1 900							40.0

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

360° RATING

15.2m (50 FT) IIB

13.211	1 (30	F I ) JI										
			3 [		OFFSET	15 1		OFFSET	30 I	DEGREE	OFFSET	
		JIB		JIB			JIB			JIB POINT		JIB
BOOM LGTH.	BOOM LGTH.	OPER. RADIUS	ANG.	POINT	CAPACITY	ANG.	POINT ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY	OPER. RADIUS
METERS	EEET.	METERS	DEG.	METERS	KTI OGDAMS	DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	METERS
INC I ERS	1	METERS 10.7 11.0	DEG. 80.8 80.5	ELEV. METERS 53.1 53.1	#ILOGRAMS 9 000* 9 000*	DLG.	I'LL ILKS	KILOGKANS	DLG.	I-IL I LKS	KILOGKANG	10.7
i		11.0	80.5	53.1	9 000							11.0
1		12.0	179.4	52.9	9 000*	l			l			12.0
1		13.0	78.3	52.7	9 000 <b>*</b> 9 000 <b>*</b>						1	13.0
ı		14.0	77.1	52.4	9 000•	80.5	52.0	9 000*				14.0
0		15.0 16.0 17.0	76.0	52.9 52.7 52.4 52.2	9 000* 9 000*	79.4 78.2	51.7 51.4	9 000* 9 000*	1			15.0
1.5		17.0	74.9 73.7			77 1	51.1	9 000*				17.0
	1	1 18.0	72.6	51.2	9 000*	75.9	50.8	8 900*				18.0
3 6 6	_	19.0	71.4	51.2 50.9 50.5	9 000* 8 900* 8 700	75.9 74.7 73.6	50.4	8 800*	78.4 77.2	49.3	8 000*	15.0 16.0 17.0 18.0 19.0
U	2	20.0	70.2	50.5	8 700	73.6	50.1	8 700*	77.2	48.9	7 900•	20.0
	_	21.0	69.1	50.1 49.7	8 100 7 500	72.4	49.7	8 300	76.0 74.7	48.5 48.0	7 700*	21.0
	()	24.0	67.9 65.5	48.8	8 100 7 500 6 600	72.4 71.2 68.7	49.7 49.2 48.3	8 300 7 900 6 800	72.2	47.1	7 500± 7 100	24.0
h		26.0	63.0	47.8	5 800	66.2	47.3	6 000	69 7	46.0	6 300	26.0
		26.0 28.0	63.0 60.5	47.8 46.6	5 800 5 100	66.2 63.7	46.1	5 300	69.7 67.0	44.8	5 600	28.0
1		30.0	57.9	45.4	4 500	[61.1	44.9	4 700	64.3	44.8 43.5	4 900	30.0
	ĺ	34.0	52.5	42.5 38.9	3 600 2 800	55.6	41.9	3 700 3 000	58.7	40.5	3 900 3 100	34.0 38.0
}		38.0 42.0	46.6	38.9	2 800	49.6	38.3	3 000	52.4	36.7	3 100	38.0
1		46.0	32.4	34.4 28.7 20.5	2 800 2 200 1 800	42.9 35.1	33.8 27.9	2 400	<b></b>	<b> </b>		42.0 46.0
		50.0	22.4	20.7	800   400	35.1	21.7	1 800				50.0
<u> </u>				20.0		<u> </u>			<u> </u>			
		12.2	79.8	56.0	9 000+							12.2
		13.0	78.9	55.8	9 000* 9 000*							13.0
		14.0	77.9	55.6	9 000* 9 000*							15.0
		16.0	75 7	55.6 55.3 55.0	9 000*	78.9	54.6	9 000*				16.0
[4	_	17.0	76.8 75.7 74.6	54.8	9 000* 9 000* 9 000* 9 000*	77.8	54.6 54.3	9 000*				16.0 17.0 18.0 19.0
	1	18.0 19.0	73.6 72.5	54.4	9 000* 8 800*	76.7 75.6 74.5	54.0	8 900*				18.0
	•	19.0	72.5	54 (	8 800*	75.6	53.7	8 800*	79.1	52.5	8 000*	19.0
39.6	3	20.0	71.4 70.3 69.2	53.8 53.4 53.0	8 · 500 7 900 7 300	74.5	54.0 53.7 53.3 52.9 51.7 50.7	8 700*	77.9	52.1	8 000* 7 800*	20.0 21.0 22.0 24.0 26.0
	•	21.0 22.0 24.0 26.0	60.3	57.0	7 300	73.4 72.3 70.0 67.7	52.9	8 300 7 700	76.8 75.7	51.7 51.3	7 800* 7 600*	21.0
	$\cap$	24.0	66.9	52.1	6 400	70.0	51.7	6 700	73.3	50.4	7 100	24.0
6	U	26.0	64.6	52.1 51.2	6 400 5 600	67.7	50.7	5 900	70.9	49.4	6 200	26.0
U		28.0	62.3	50.1	4900	165.3		5 200	73.3 70.9 68.5	48.3	5 500	20.0
		30.0	59.9	49.0 46.3	4 300	62.9 57.9	48.5 45.8	4 600	66.0	47.1	4 800	30.0 34.0
		34.0	54.9	46.3	3 400	57.9	45.8	3 600	60.8	44.3	3 800 3 000	34.0
		38.0	49.5 43.7	43.1 39.1	2 600 2 100	52.5 46.6	42.5 38.5	2 800 2 200	55.2 49.1	40.9 36.8	3 000 2 300	38.0 42.0
		42.0 46.0	37.2	34.2	1 600	39.9	33.5	4 600 3 600 2 800 2 200 1 700	47.1	30.0	2 300	46.0
		12.2 13.0 14.0	80.3	59.1	9 000*							12.2
		13.0	79.5 78.5	58.9 58.7	9 000* 9 000*							13.0
		15.0	77 5	58 F	9 000*						and and and and and and and and and and	14.0
		15.0 16.0 17.0 18.0	77.5 76.5	58.5 58.2	9 000 <b>*</b> 9 000 <b>*</b>	79.5	57.8	9 000*				15.0 16.0 17.0
4 2 7		17.0	75.5	57.9	9 000*	78.5	57.8 57.5	9 000*				17.0
	1	18.0	74.4	57.9 57.6 57.3	9 000*	77.5	57.2 56.9 56.5	8 900*				18.0
0	:	19.0	73.4	57.3	8 800•	76.4	56.9	8 800*	79.7	55.6	8 000* 7 900*	19.0
	4	20.0 21.0 22.0	72.4	5/01	8 400 7 800	75.4 74.3 73.3	56.5	8 600 <b>*</b> 8 200	78.6	55.3 54.9	7 900* 7 900*	20.0
-		22.0	71.3	56.5	7 800 7 200	73 7	56.2 55.8	8 200 7 600	77.6 76.5 74.3	54.6	7 800*	21.0 22.0 24.0
-	0	24.0	68.2	55.5	6 200	71.11	55.0	6 600 1	74.3	53.7	7 000	24.0
<b>  7</b>	J	26.0	66.0	54.6	6 200 5 400	69.0	54.1	5 800 5 100	72.1	52.8		26.0
		26.0 28.0	63.8	56.6 56.3 55.5 54.6 53.6	4 800	66.8	53 1	5 100	72.1 69.8	51.8	5 400	28.0 l
		30.0 34.0 38.0	61.6	52.5 50.0	4 200 3 300 2 500	66.8 64.5 59.8	52.0 49.5 46.5	4 400	67.5 62.7	50.7	4 700 3 700	30.0
		34.0	57.0	50.0	3 300	59.8 54.9	49.5	3 500	62.7	48.1	3 700	34.0
		42.0	52.1	47.1 43.5	2 500 I 900	49.6	42.9	2 700 2 100	57.6 52.0	45.0 41.2	2 900 2 200	38.0 42.0
		46.0	41.1	39.2	1 500	43.7	38.5	1 500	52.5	71.2	2 200	46.0
		· · · · · · · · · · · · · · · · · · ·						ı	ł			

# MANITOWOC M-85W – Liftcrane jib capacities jib no. 131

with 3 658mm strut on boom no. 47 3 080 kg crawler frame counterweight

360° RATING

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

15.2m (50 FT) JIB

	_ <del>`</del>	F I ) JI	7 (	DEGREE (	PEECET	1 15 1	DEGREE (	DEESET	30	DEGREE I	DEESET	Ι
		JIB	"	JIB POINT ELEV. METERS 62.2 62.0	JI, ULI		JIB		1 00	JIB	CAPACITY KILOGRAMS	JIB OPER. RADIUS METERS
BOOM	ВООМ	OPER.	ВООМ	POINT		ВООМ	POINT ELEV.		ВООМ	POINT		OPER.
LGTH. METERS	LGTH.	OPER. RADIUS METERS	ANG.	ELEV.	CAPACITY KILOGRAMS	ANG.	ELEV.	CAPACITY KILOGRAMS	ANG.	LLEV.	CAPACITY	METERS
METERS	FEET	12.2	80 B	62 2	9 000*	DEG.	METERS	KILUGRAMS	DEG.	METERS	KILUGRAMS	12.2
		13.0	80.0	62.0	9 000* 9 000*	1			1			12.2
		14.0	1/7.1						l			14.0
_		15.0	78.1	61.6	I 9.000∗	l					l	15.0
Λ		16.0	78.1 77.2 76.2 75.2 74.3 73.3 72.3 71.3 69.3 65.2 65.2 58.8 54.3	61.6 61.3	9 000 <b>*</b>	79.1	60.9	9 000* 8 900*	<u> </u>			14.0 15.0 16.0
4 5 7	1	18.0	75.2	60.8	9 000*	78.	60.4	8 800*				18.0
		19.0	74.3	60.8 60.5 60.2	9 000* 8 700*	77.1	60.1	8 700*	80.2	58.8	7 900*	18.0 19.0 20.0
	5	20.0	73.3	60.2	8 300 7 700 7 100	76.1	59.7	8 600≉	79.2	58.5	7 900*	20.0
	5	21.0	72.3	59.9	7 700	75.1	59.4	8 100 7 500	78.2	58.2	7 800*	21.0
•	5 0	22.0	11.3	59.9 59.5 58.8	7 100 6 100	72.1	59.1 58.3	7 500 6 500	79.2 78.2 77.2 75.2	57.8 57.0	7 700• 7 000	24.0
7	U	26.0	67.3	57.9	5 300	70.1	57.4	5 700	73.1	56.1	7 000 6 000	26.0
•		28.0	65.2	57.0	5 300 4 700	168.0	56.5	5 700 5 000	70.9	55.2	5 300	28.0
		30.0	63.2	56.0 53.7	4 100	65.9	55.5 53.1	4 400	68.8 64.3	54.1 51.7	4 600	30.0
		34.0	58.8	53.7	4 100 3 100 2 400	61.6	53.1	3 400	64.3	51.7	3 600	34.0
		38.0 42.0	49.5	50.9 47.7	1 800	57.0 52.1	50.4 47.1	2 600 2 000	59.6 54.5	48.9 45.5	2 800 2 100	38.0 42.0
		46.0	49.5	47.7	1 800	46.8	43.1	3 400 2 600 2 000 1 500	49.1	41.4	1 600	46.0
		13.7 14.0 15.0	79.9 79.6 78.7	65.0	9 000* 9 000* 9 000*	l						13.7 14.0 15.0
		4.0	79.6	64.9 64.7	9 000*	1						14.0
		16.0	77.8	64.5	9 000•							16.0
Λ		17.0	76.9	64.2	9 000• 9 000• 9 000•	79.6	63.8	8 800	İ			17.0
4 8 8	4	17.0	76.9 76.0 75.0	64.2 64.0	9 000•	78.7	63.8 63.5	8 800 • 8 700 •				17.0
_		100	75.0	63.7 63.4 63.1	8 700*	77.8	63.2	8 700* 8 600*				19.0
X	6	20.0	74.1	63.4	8 100	76.8 75.9	62.9	8 600*	79.8	61.7	7 800 • 7 800 •	20.0
U	6	22.0	74.1 73.2 72.2 70.3 68.4	62.8	8 700* 8 100 7 600 7 000 6 000 5 200	74 9	63.2 62.9 62.6 62.3 61.6	8 700* 8 600* 8 000 7 400	78.8 77.9 75.9 73.9	61.4	7 700	19.0 20.0 21.0 22.0 24.0 26.0
•	$\wedge$	24.0	70.3	62.0	6 000	74.9 73.0	61.6	6 400	75.9	61.0	6 900	24.0
0	U	26.0	68.4	61.2	5 200	71 1	60.8	5 500	73.9	59.5	5 900	26.0
0		1 28 0 1	hh. 1	60.4	4 500	69.2 67.2	39.91	4 800	71.9	58.6	5 200	28.0
_		30.0 34.0	64.5	59.4	5 200 4 500 3 900 3 000	67.2	58.9 56.7	4 800 4 200 3 200	69.9	57.6	5 200 4 600 3 500	28.0 30.0 34.0
		38.0	64.5 60.5 56.3	57.2 54.7	2 300	63.1 58.8	54.1	2 500	71.9 69.9 65.7 61.3 56.7	55.3 52.7	3 500 2 700	38.0
		42.0	51.8	51.7	1 700	54.3	51.1	ī 800	56.7	49.5	2 000 1 500	42.0
		46.0							51.7	45.8	1 500	46.0
		13.7 14.0	80.3 80.1	68.1 68.0	9 000* 9 000*							13.7
		15.0	79 2	67.8	9 000+							15.0
		16.0	78.3	67.6	9 000*							16.0
5		17.0	79.2 78.3 77.5 76.6 75.7 74.8	67.4	0 000	80.1	66.9 66.7 66.4 66.1	8 700*				17.0 18.0 19.0 20.0
	7	18.0	76.6	67.1 66.9	9 000* 8 600* 8 000 7 400	79.2 78.3 77.4	66.7	8 600*				18.0
4		19.0 20.0	70./	66.4	8 000	77 1	66.4	8 600* 8 500*	80.3	64.8	7 700=	20.0
	7	21.0	74.0	66.6 66.3	7 400	76.5	65.8	7 900	79.4	64.5	7 700• 7 700•	21.0
1 8		22.0	73.1	65.3 64.5 63.7	7 400 6 800 5 800 5 000	76.5 75.7	65.8 65.5 64.8 64.0 63.2 62.3	7 300	78.5	64.5 64.2 63.5	7 600*	22.0
0	0	22.0 24.0	71.3	65.3	5 800	73.8	64.8	6 200	76.6	63.5	6 800	24.0
A	•	26.0	69.5	64.5	5 000 4 400	72.0 70.2 68.3	64.0	5 400 4 700 4 100	74.7 72.8 70.9	62.7	5 900 5 100	26.0
~			67.6	62.8	4 400 3 800	68 3	63.2	4 700 4 100	70.8	61.9	5 100 4 400	28.0 30.0
l		34.0	61.9	60.8	2 800	64.4	60.2	3 100	67.0	58.8	3 400	34.0
- 1		34.0 38.0 42.0	58.0	60.8 58.3	2 800 2 100 1 500	64.4	60.2 57.8	3 100 2 300	67.0 62.9	56.3	3 400 2 600	38.0
		42.0	53.8	55.5	ī 500	56.3	55.0	1 700	58.6	53.4	1 900	42.0

			3 (	DEGREE (	DFFSET	15 [	DEGREE (	DFFSET	30 [	DEGREE (	OFFSET	
1		JIB		JIB			JIB			JIB		JIB
BOOM	BOOM	OPER.		POINT		BOOM	POINT		BOOM			OPER.
LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY	RADIUS
METERS	FEET	METERS	DEG.		KILOGRAMS	DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	METERS
		13.7	80.8	71.2	9 000*				l			13.7
1		14.0	80.5	71.1	9 000*				i	[		14.0
		15.0	79.7	70.9	8 900*							15.0
		16.0	78.9	70.7	8 900*				l			16.0
5		17.0	78.0	70.5	8 800*		70.0	8 600*				17.0
	1	18.0	77.2	70.3		79.7	69.8	8 500*		İ		18.0
		19.0	76.4	70.0	8 500*	78.8	69.5	8 400*				19.0
1 4	8	20.0	75.5	69.7	7 900	78.0	69.3	8 300+	80.7	68.0	7 600+	20.0
1 -	O	21.0	74.7	69.5	7 200	77.2	69.0	7 800	79.9		7 600+	21.0
		22.0	73.8	69.2	6 700	76.3	68.7	7 200	79.0		7 400+	22.0
		24.0	72.1	68.5	5 700	74.6	68.0	6 200	77.2	66.7	6 700	24.0
u		26.0	70.4	67.8	4 900	72.8	67.3	5 300	75.5	66.0		26.0
		28.0	68.6	67.0	4 200	71.1	66.5	4 600	73.7	65.2	5 000	28.0
		30.0	66.9	66.2	3 600	69.3	65.7	4 000	71.8	64.3	4 300	30.0
		34.0	63.3	64.2	2 700	65.7	63.7	3 000	68.1	62.3		34.0
		38.0	59.5	61.9	2 000	61.9	61.4	2 200	64.3	60.0		38.0
		42.0				58.0	58.8	1 600	60.2	57.2	1 800	42.0
				<u></u>								

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

360° RATING

# 18.3m (60 FT) JIB

		1			SECOET	1	SEARCE (	PEFORT	1 70 1	EODEE (	SECOLT	
		JIB	3 L	DEGREE (	PERSET	15 [	DEGREE (	DFFSET	30 [	DEGREE (	PFFSET	JIB
BOOM	0004	OPER.	BOOM	JIB POINT		воом	JIB POINT ELEV.		воом	JIB POINT		OPER.
ВООМ	ВООМ	RADIUS	BOOM ANG.	ELEV.	CADACTTY	BUUM	POINT	CADACTTY	ANG.	POINT	CADACTTY	RADIUS
LGTH.	LGTH.	KADIOS	DEG.	LLEV.	CAPACITY	ANG. DEG.	LLEV.	CAPACITY KILOGRAMS	DEG.	MCTEDS.	CAPACITY KILOGRAMS	METERS
METERS	FEET	METERS 10.7	DEG.	METERS 46.9 46.9	KILOGRAMS 9 000* 9 000*	DEG.	METERS	KILUGRAMS	DEG.	MEIERS	KILUGKAMS	METERS
1		10.7	79.5 79.1	46.9	9 000*	l						10.7
1		11.0	79.1	46.9	9 000*	l						11.0 12.0 13.0
Ì		12.0	77.9	46.6	9 000*							12.0
l		13.0	76.6	46.4	8 900* 8 700*			7.000				13.0
		14.0	75.3 74.0	46.1	8 700*	79.9	45.7	7 900*				14.0
2 7 4		14.0 15.0 16.0 17.0	74.0	45.8 45.5	8 600* 8 400*	78.6	45.4	7 700* 7 600* 7 400* 7 300*				14.0 15.0 16.0 17.0
_	_	16.0	72.7 71.4	45.5	8 400*	77.3	45.1	7 600*				16.0
	9	17.0	71.4	45.1	8 200*	75.9	44.7	7 400+				17.0
	マ	18.0	70.0 68.7	44.8	8 000*	74.6	44.4	7 300*	·			18.0
	_	19.0	68./	44.4	7 900*	73.3	44.0	7 200* 7 000*	78.4	42.8	6 400*	19.0
•	0	20.0	67.4	43.9	7 700•	71.9	43.5	/ 000+	77.0	42.3 41.8	6 300* 6 200*	20.0
	•	21.0	66.0 64.6 61.8	43.5	7 500* 7 300* 6 900	70.5 69.1 66.3	43.1	6 900* 6 800* 6 500*	75.5	41.0		21.0
Λ		22.0	64.6	43.0	7 300*	69.1	42.5	6 800* 6 500*	74.1 71.2	41.3	6 000*	22.0
4		24.0	61.8	41.9	6 900	66.3	41.5	6 500*	/1.2	41.3 40.2 38.9	6 000* 5 700* 5 400*	24.0
-		18.0 19.0 20.0 21.0 22.0 24.0 26.0 30.0 34.0 38.0 42.0	58.9	43.9 43.5 43.0 41.9 40.7 39.4 37.9 34.3 29.7	6 200 5 500 5 000	63.3	43.1 42.6 41.5 40.3 38.9	6 300* 5 800 5 200 4 200 3 400 2 800	68.1	38.9	5 400*	20.0 21.0 22.0 24.0 26.0
		28.0	55.9	39.4	5 500	60.3	38.9	5 800	65.0 61.7 54.7	37.5	5 100*	28.0
i		30.0	52.8	3/.9	5 000	57.2	37.4	5 200	61./	35.9	4 900*	30.0
		34.0	46.1	34.3	4 000	50.4	33.7 29.0	4 200	54./	32.1 27.1	4 400	34.0
		38.0	38.6	29.7	3 300 2 700	42.7	29.0	3 400	46.5	27.1	3 500	38.0 42.0
		42.0	29.4	23.4	4 000 3 300 2 700	63.3 60.3 57.2 50.4 42.7 33.2	22.6	5 200 4 200 3 400 2 800				42.0
		10.7	80.2	50.0	9 000*							10.7
		11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0	79.8	50.0	9 000*							11.0
		12.0	78.6	49.8 49.5 49.3 49.0 48.7	9 000*							12.0 13.0 14.0 15.0 16.0
		13.0	77.4 76.2	49.5	8 900 <b>=</b> 8 800 <b>=</b>							13.0
_		14.0	76.2	49.3	8 800*	80.5	48.9	8 000* 7 800*				14.0
7		15.0	75.0	49.0	8 600*	79.3	48.6	7 800*				15.0
J	-	16.0	73.8	48./	8 400*	78.1	48.3	7 600* 7 500*				16.0
	1	17.0	72.6	48.4	8 300*	76.9	48.0	7 500+				17.0
$\cap$		18.0	71.3	48.0	8 100*	75.6	47.6	7 400*	70.0			10.0 1
ფ 0.5	0	19.0	70.1	48.0 47.6 47.2 46.8	8 000* 7 800* 7 700* 7 500*	74.4	47.2	7 300+	79.2 77.9 76.6	46.0	6 400*	19.0
	U	20.0	68.8	4/.2	7 800* 7 700* 7 500*	73.1 71.8	46.8	7 100* 7 000*	77.9	45.6	6 300* 6 200*	20.0
•	$\mathbf{a}$	21.0	67.6	46.8	7 700*	71.8	46.4		/6.6	45.1		21.0
	U	22.0	66.3 63.7	46.4	/ 500*	70.5	45.9	6 900*	75.2 72.5	44.7	6 100+	22.0
<b>.</b>	_	24.0	63./	45.4	6 900	6/.9	44.9	6 700 <b>•</b> 6 300	/2.5	43.6	5 800 • 5 500 • 5 300 •	24.0
•		26.0	51.0	44.3	6 000 5 400	00.2	43.8		69.8	42.5	5 300	26.0
		28.0	58.5	43.1	5 400	62.5	42.0	5 600 5 000	66.9	41.2	5 000•	20.0
		30.0	22.5	41./	4 800	54.0	41.2	5 000	63.9 57.6	39.8 36.4	5 000*	30.0
		34.0	58.3 55.5 49.5 42.9	30.3	4 800 3 900 3 100	67.9 65.2 62.5 59.6 53.6	42.6 41.2 37.9 33.9	4 100 3 300	50.6	32.1	5 000* 4 200 3 400	79.0
		21.0 22.0 24.0 26.0 28.0 30.0 34.0 38.0 42.0	35.4	34.5	3 100	39.1	28.6	3 300 2 700	30.6	32.1	3 400	34.0 38.0 42.0
		42.0		29.3	2 600	39.1	20.0	2 /00				42.0
		46.0	25.8	45.4 45.4 44.3 43.1 41.7 38.5 34.5 29.3 22.2	2 100							46.0
		10.7	80.7		9 000•							10.7
		10.7	80./	53.21	9 000*		ļ					10.7
		12.0	80.4 79.3	52 0	9 000* 9 000*		}		-			12.0
		10.7 11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0	78.2	53.2 53.1 52.9 52.7	8 900*						l	12.0 13.0 14.0
		14.0	77.0		8 800*				1		l	14.0
		15.0	75.9	52.2 51.9 51.6 51.3 50.9	8 700+							15.0
0		16.0	7/ 8	51 0	8 500	78.8	51.5	7 700*	[			16.0
.5	امرا	17.0	73 6	51.5	8 400*	78.8 77.7	51.0	7 600*	1	- 1		17.0
	1	18.0	72 5	51.3	8 500* 8 400* 8 200*	76 6	50.8	7 500*	1	- 1	į	18.0
ვ 3 5	•	19.0	73.6 72.5 71.3	50.9	8 100*	76.5 75.3 74.2	51.2 50.8 50.5	7 600* 7 500* 7 300*	79.9	49.2	6 400*	16.0 17.0 18.0 19.0
.5	4	20.0	70.1	50.5	8 100* 7 900*	74.2	50.1	7 200*	78.6	49.2 48.8	6 300*	20.0
		21.0	69.0	50.1	7 800*	73.0		7 100*	78.6 77.4	48.4	6 300*	21.0
•	$\wedge$	22.0	67.8	49.7	7 500	71.8	49.3	7 000*	76.2	48.0	6 200+	22.0
	0	24.0	65.4	48.8	6 800	69 3	48.3	6 800*	73.7	47.0	6 000+	24.0
2	_	26.0	62.9	48.8 47.8	5 900	66.8	47.3	6 200	71.1	46.0	5 700*	26.0
		21.0 22.0 24.0 26.0	60.4	46.6	5 900 5 300	64.3	49.3 48.3 47.3 46.2	5 500	68.5	44.8	5 400•	28.0
		30.0	57.8	45 4	5 900 5 300 4 700	66.8 64.3 61.7	44.91	4 900	65.8	44.8 43.5	5 700* 5 400* 5 100	28.0 30.0
		34.0	52.4	42.5	3 800 1	56.2	41.9	3 900	60.1	40.4	4 100	34.0
		38.0	46.5	38.9	3 000	50.2	38.3	3 200	53.9	36.6	3 300	38.0
1		42.0	39.0	34.5	2 400	43.6	41.9 38.3 33.8	2 500	46.8	31.8	4 100 3 300 2 700	42.0
1		30.0 34.0 38.0 42.0	39.9	42.5 38.9 34.5 28.7	3 800 3 000 2 400 2 000	56.2 50.2 43.6 35.7	27.9	2 500 2 000				46.0
		50.0	22.3	20.6	1 600	/	/			-		50.0
					1	1		1	- 1			

# MANITOWOC M-85W - Liftcrane jib capacities jib no. 131

with 3 658mm strut on boom no. 47 3 080 kg crawler frame counterweight

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

2 2--- (60 ET) IID

360° RATING

18.3m (60 FT) JIB

			3 DEGREE OFFSET			15 DEGREE OFFSET			30 DEGREE OFFSET			
<b> </b>		JIB		JIB		[	JIB		20014	JIB POINT		JIB
BOOM LGTH.	BOOM LGTH.	OPER. RADIUS	BOOM	POINT ELEV.	CAPACITY	BOOM ANG.	POINT ELEV.	CAPACITY	ANG.	PUINI	CAPACITY	OPER. RADIUS
METERS	FEET	METERS	ANG. DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	DEG.	ELEV. METERS	KILOGRAMS	METERS
1.12.72.13		METERS 12.2	79.7	METERS 56.0 55.8	9 000* 8 900*							12.2
36.6	1 2 0	13.0	78.8	55.8	8 900*	İ						13.0
		14.0	77.8 76.7	55.6 55.3	8 900* 8 700*	1			1			14.0
		16.0	75.6	55.1	8 500	79.5	54.6	7 800*	ľ			16.0
		16.0	74.6	54.8	8 400*	78.4	54.3	7 600*				16.0 17.0 18.0
		18.0	73.5	54.5	8 200•	77.3	54.0	7 500*				18.0
		19.0	72.4	54.1 53.8	8 100* 8 000*	76.2 75.1	53.7	7 400* 7 300*	79.3	52.0	6 400*	19.0 20.0
n		21.0	71.3 70.2	53.4	7 800*	74.0	53.0	7 200*	78.2	51.6	6 300*	21.0
	_	20.0 21.0 22.0 24.0	69.1	53.0	7 600*	72.8 70.6	53.3 53.0 52.6	7 100+	78.2 77.0 74.7 72.3	51.2	6 200+	21.0
	$\cap$	24.0	66.8	52.2 51.2	6 600 5 800	70.6	51.7 50.7	6 800	74.7	50.3	6 100* 5 800*	24.0 26.0
6	0	26.0	64.5	50.2	5 800 5 100	68.3 65.9	197	6 100 5 400	69.9	49.4 48.3	5 800* 5 500*	28.0
U		30.0	62.2 59.8	50.2 49.0	4 500	63.5	48.5	4 800	67.4	47.1	5 100	30.0
	Ì	26.0 28.0 30.0 34.0	54.8	46.3	3 600	58.4	48.5 45.8 42.5 38.5	3 800	62.2	44.3	5 100 4 100 3 200 2 500	34.0
		38.0 42.0	49.5 43.7	43.1	2 900 2 300	53.0	42.5	3 100 2 400	56.6 50.4	40.8	3 200 2 500	38.0
		42.0	37.1	39.1	1 800	47.1 40.4	38.5	2 400	30.4	36.7	2 500	42.0 46.0
		46.0 50.0	29.3	34.2 27.9	1 400	32.4	33.5 27.0	I 900 I 500				50.0
-									<del> </del>			
	1 3 0	12.2 13.0 14.0 15.0 16.0	80.2 79.4	59.1 58.9 58.7 58.5	9 000• 8 900•							12.2
39.6		14.0	78.4	58.7	8 800							
		15.0	77.4	58.5	8 700•							15.0 16.0 17.0 18.0
		16.0	76.4	58.2	8 500*	80.0	57.8	7 800* 7 600*	ļ			16.0
		17.0	75.4 74.4	57.9	8 400* 8 300*	79.0 78.0	57.5 57.2	7 600* 7 500*				17.0
		19.0	73.3	57.3	8 100*	76.9	56.9	7 400*				1 19.0 1
		18.0 19.0 20.0	73.3 72.3 71.3 70.2	58.2 57.9 57.6 57.3 57.0 56.7 56.3 55.5 54.6 53.6	8 000*	76.9 75.9	56.9 56.6	7 300*	79.9 78.9	55.2	6 400* 6 300*	20.0
		21.0	71.3	56.7	7 800 7 500	74.9 73.8	56.2 55.8	7 200• 7 100•	78.9	54.9 54.5	6 300* 6 300*	22.0
		24.0	68.1	55.5	6 400	71.7	55.0	6 700	75.6	53.6	6 100•	24.0
		24.0 26.0 28.0	66.0	54.6	5 600	69.5 67.3	54.1 53.1	6 000	73.4	52.7 51.7	5 900*	26.0
		28.0	63.8	53.6	4 900	67.3	53.1	5 200 4 700	71.1	51.7 50.6	5 900* 5 600* 5 000	28.0 30.0
_		30.0 34.0 38.0 42.0	61.5 56.9	52.5 50.0	4 400 3 400	65.0 60.4	52.0 49.5	3 700	68.8 64.0	48.0	3 900	34.0
		38.0	52.0	47.1	2 700	55.4	46.5	3 700 2 900 2 300	58.8	44.9	3 100	38.0
		42.0	46.8	43.5	2 100	50.1	46.5 42.9		53.3	41.1	2 500 2 000	42.0 46.0
		46.0 50.0	41.0	39.2	I 600	44.2 37.5	38.5 33.0	1 800 1 300	47.1	36.5	2 000	50.0
						37.3	33.0	1 300				
		12.2 13.0 14.0 15.0	80.7	62.2 62.0	9 000*							12.2
4 2 7	1 4	13.0	80.0 79.0	62.0 61.8	8 900* 8 700*							13.0 14.0 15.0 16.0
		15.0	78.0	61.6	8 600*							15.0
		16.0	77.1	61.4	8 500*							16.0
		17.0	76.1	61.1	8 400 • 8 200 •	79.6	60.6	7 600* 7 500*				17.0
		18.0	75.2	60.8	8 200* 8 100*	78.6 77.6	60.4 60.1	7 500 <b>+</b> 7 400 <b>+</b>				18.0
		20.0	73.2	60.2	8 000•	76.6	59.8	7 300*	80.5	58.4	6 400*	20.0
		20.0 21.0 22.0	74.2 73.2 72.2 71.2 69.2	60.5 60.2 59.9	7 700	75.6	59.4	7 200+	79.5	58.1	6 300+	21.0
•	0	22.0	71.2	59.5 58.8	7 300 6 300	74.6 72.6	59.1 58.3	7 100* 6 700	78.4 76.4	57.7 56.9	6 300* 6 100*	22.0 24.0
7	U	24.0 26.0	67.2	57.9	5 500	70.6	57.5	5 900	74.3	56.1	6 000*	26.0 I
		28.0	65.2 63.1	57.9 57.0	4 800	70.6 68.5	57.5 56.5 55.5	5 200	72.2 70.0	55.I	5 500	28.0 30.0
		30.0	<u>63. I</u>	56.0	4 200 3 300	166.4	55.5	4 500	70.0	54.0	4 900 3 800	30.0
		34.0 38.0	58.8 54.2	53.7 50.9	3 300 2 600	62.1 57.5	53.2	3 600 2 800	65.5 60.8	51.6 48.8	3 800 3 000	34.0 38.0
		42.0	49.4	50.9 47.7	2 000	57.5 52.6	47.1	2 100	55.7	45.3	2 300	42.0
		46.0	44.2	43.8	ī 500	47.3	43.1	ī 600	50.2	41.2	1 800	46.0
				L						<u> </u>		

21 090 KG COUNTERWEIGHT 6 807 MM CRAWLERS EXTENDED

360° RATING

18.3m (60 FT) JIB

	( ) (	/ -	7.	NECOPE (	DEECE T	T 15 6	250055	DEFORT.	70	DECDEE /	OFFECT	
		JIB	31	DEGREE (	DFFSET	15 1	JIB	DFFSET	30	DEGREE (	UFFSE!	JIB
воом	воом	OPER.	воом	POINT		воом	POINT		воом	POTNT	ļ	OPER.
LGTH.	LGTH.	RADIUS	ANG.	ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY	ANG.	ELEV.	CAPACITY	RADIUS
METERS	FEET	METERS	DEG.	METERS	KILOGRAMS	DEG.	METERS	KILOGRAMS	DEG.	METERS	CAPACITY KILOGRAMS	METERS
		13.7	79.8	65.0	8 700*					Ī		13.7
		14.0	79.5	64.9 64.7	8 600* 8 500*	l						14.0
1	1	15.0	78.6 77.7	64.7	8 500* 8 400*							15.0
		17.0	76.8	64.0	8 300*	80.1	67.8	7 600*				17.0
4	-4	18.0	75.9	64.2 64.0	8 200*	79.2	63.8 63.5	7 500•		<del> </del>		15.0 16.0 17.0
	1	19.0	75.9 75.0	63.7	8 100*	78.2	63.2	7 400*	1			19.0
<b> </b> 5		20.0	74.0	63.4	8 000*	77.3	62.9	7 300*	l			20.0
	5	21.0	73.1	63.1	7 600	76.4	62.6	7 200+ 7 100+	۱., ۱		4 700-	21.0
•	~	22.0	72.2 70.3	62.8	7 200 6 200	75.4 73.5	62.3	7 100 <b>*</b> 6 600	79.0 77.1	60.9	6 300*	22.0 24.0
4 5 7	0	26.0	68.4	62.8 62.0 61.3	6 200 5 400	71.6	60.8	5 800	75.	59.3	6 100	26.0
	_	28.0	66.4	60.4	4 700	69.6	59.9	5 800 5 100	73.1	58.4	5 500	28.0
		30.0	64.5	59.4 57.3	4 100	67.6	58.9	4 400	71.1	57.5	4 800	30.0
		34.0	60.4	57.3	3 200	63.6	56.7	3 400	66.9	55.2	5 500 4 800 3 700 2 900	34.0
		38.0	56.2	54.7	2 400	59.3	54.1	2 700 2 000 1 500	62.5	52.5	2 900	38.0
1	-	42.0 46.0	51.7	51.7	1 800	54.8	51.1 47.5	2 000	57.8 52.8	49.4 45.6	2 200 I 700	42.0 46.0
		46.0				30.0	47.3	1 300	02.0	45.6	1 700	46.0
		13.7	80.3	68.1	8 600*							13.7
		14.0 15.0 16.0	80.0	68.0	8 500+							14.0 15.0
		15.0	79.1 78.3	67.8	8 400* 8 300*							16.0
A		17.0	77.4	67.6 67.4	8 300* 8 200*	80.5	66.9	7 500•				17.0
4	4	18.0	76.5	67.1	8 100*	79.7	66.7	7 500•				17.0 18.0 19.0
		19.0	76.5 75.7	66.9	8 000*	78.8 77.9	66.4	7 400*				19.0
Q	^	20.0	74.8	66.6 66.3	7 900*	77.9	66.1	7 300*				20.0
4 8 8	6	21.0	73.9	66.3	7 500 7 000	77.0	65.8	7 200* 7 200*	79.6		6 300*	21.0
•	<u> </u>	22.0	73.0	66.0 65.3 64.5 63.7	7 000	76.1 74.3	65.5 64.8	7 200 <b>*</b> 6 600	77.7	64.1	6 100*	24.0
0	U	24.0 26.0 28.0	71.2 69.4	64.5	6 000 5 200 4 500	72.5	64.1	5 700	75.9	62.6	6 100*	26.0
O		28.0	67.6	63.7	4 500	72.5 70.6	63.2	4 900	74.0	61.8	5 400	28.0
		30.0	65.7	62.8	4 000	68.7	62.3	4 300	72.0	60.8	4 700	30.0
		34.0 38.0	61.9	60.8	3 000 2 300	64.9	60.2 57.8	3 300 2 600	68.1	58.7	3 600 2 800	34.0 38.0
		38.0	57.9 53.8	58.4 55.6	2 300 1 700	60.9 56.7	55.0	1 900	64.0 59.7	56.2 53.3	2 800	42.0
		42.0 46.0	33.6	55.6	1 700	50.7	55.0	1 300	55.1	49.9	2 100 1 600	46.0
										,		
		13.7	80.7	71.2	8 400*							13.7
		14.0	80.4 79.6	70.0	8 400* 8 300*							14.0
I		16.0	78.8	70.7	8 200*							16.0
5		15.0 16.0 17.0	78.0	70.5	8 200* 8 100*							17.0
J	4	18.0	77.1 76.3	71.1 70.9 70.7 70.5 70.3 70.0 69.8	8 000#							18.0
	ı	19.0	76.3	70.0	7 900*	79.3	69.5	7 300*				19.0
1	7	20.0	75.4 74.6	69.8	7 800 <b>•</b> 7 400	78.4	69.3 69.0	7 200* 7 200*				20.0
1 8	1	22.0	73.8	69.5 69.2 68.5	6 900	77.6 76.7 75.0 73.3	68.7	7 100	80.1	67.3	6 200•	22.0
	$\mathbf{\cap}$	24.0	72.1	68.5	5 900	75.0	68.0	6 400	78.3	66.6	6 100*	24.0
0	0	26.0	70.3	6/.8	5 100	73.3	68.0 67.3 66.5	5 500	76.5	65.9	6 100	26.0
		28.0	68.6	67.0	4 400	71.5	66.5	4 800	74.7	65.1	5 300	28.0
-		30.0	66.8 63.2	66.2	3 800	69.7	65.7 63.7	4 200 3 200	72.9	64.2	4 600 3 500	30.0 34.0
		34.0 38.0	59.5	64.2 62.0	2 800 2 100	62.3	61.4	4 200 3 200 2 400	72.9 69.2 65.3	64.2 62.2 59.8	2 700	38.0
		42.0	55.6	59.3	1 600	58.4	58.8	1 800	61.3	57.1	2 000	42.0
		46.0					-	·	57.0	53.9	1 500	46.0
						1					i	