

# model 180

## product guide

### features

- 80 ton capacity
- 2,224 ft-kips  
Maximum Load Moment
- 200' Heavy-Lift Boom
- 250' Fixed Jib  
on Heavy-Lift Boom
- 230 HP engine  
standard
- EPIC® controls
- 570 fpm line speed
- 17,000 lb line pull  
standard
- 17,000 lb Clamshell capacity
- Fast, efficient self-assembly
- Complete crane, maximum boom,  
fixed jib and counterweight  
ships on only 3 trucks
- Manitowoc Crane CARE®  
comprehensive support

### contents

Specifications	3
Outline Dimensions	6
Transport Data	10
Crane Assembly	11
Performance Data	12
Boom Combinations	14
Heavy-Lift Boom Range Diagram	15
Heavy-Lift Boom Load Charts	16
Fixed Jib Range Diagram	17
Fixed Jib Load Charts	18
Crane CARE®	20



# specifications

## Upperworks



### Engine

Cummins 6 CTA 8.3C diesel, 6 cylinder, 230 BHP @ 2200 governed RPM.

One 12 volt maintenance-free, Group 8D battery, 1400 CCA at -0° F, 12 volt starting and 80 amp alternator.

Manually operated disconnect clutch for cold weather starting. Multiple hydraulic pump drive transmission provides independent power for all machine functions.

One 90 gal capacity diesel fuel tank, mounted on rear of upperworks, with level indicator in operator's cab.



### Controls

Modulating electronic-over-hydraulic controls provide infinite speed response directly proportional to control lever movement. Controls include Manitowoc's exclusive EPIC® *Electronic Processed Independent Controls* system providing microprocessor driven control logic, pump control, on-board diagnostics, and service information.

Block-up limit control is standard for hoist and whip lines.

Integrated Load Moment Indicator system (LMI) is standard for main boom, upper boom point, and fixed jib. "Function cut-out" or "warning only" operation is available via a keyed switch on the LMI console.

Optional travel and swing alarms are available.



### Hydraulic System

Six high-pressure piston pumps are driven through a multi-hydraulic pump transmission. These six pumps provide independent "closed loop" hydraulic power for front drum, rear drum, boom hoist system, swing system, and both left and right crawler operation.

System	psi	gpm
Front Drum	6,000	75
Rear Drum	6,000	75
Boom Hoist	6,000	41
Swing System	4,500	41
Left Crawler	6,000	41
Right Crawler	6,000	41

Hydraulic reservoir capacity is 568 l (150 gal) and is equipped with breather, dipstick, clean out access, and internal diffuser.

Each function is equipped with relief valves to protect the hydraulic circuit from overload or shock.

Replaceable, spin on ten micron (absolute) full flow line

filter is furnished in the hydraulic circuit. All oil is filtered prior to return to the hydraulic reservoir.

Hydraulic system also includes pump transmission disconnect clutch & hydraulic oil cooler.



### Drums

Two equal width winches 543 mm (21-3/8") wide are driven by independent variable displacement axial piston hydraulic motors through planetary reduction mounted on separate front and rear shafts with anti-friction bearings.

Front Hoist	Diameter	Max Line Pull
180	19"	17,000 lb

Rear Hoist	Diameter	Max Line Pull
180	19"	18,700 lb

Powered hoisting/lowering and free-fall operation is standard with automatic (spring applied, hydraulically released) multi-disc brakes, clutches, and drum rotation indicators.

Free-fall operation for front and rear drums includes internally expanding clutch assembly and external contracting band brake manually applied by foot pedal with locking latch in operator's cab. Operator may select free-fall or powered lowering mode using a selector switch.

Optional auxiliary (third) hydraulic powered drum rated at 15,000 lb line pull for third line over upper boom point, or luffing jib intermediate fall, mounted on front of rotating bed. Includes third sheave with boom top wire rope guide and boom butt wire rope guide and third drum control system.

Optional auxiliary drum rated at 15,000 lb line pull as described above, mounted in boom butt.

Optional auxiliary drum preparation includes electric wiring and hydraulic plumbing.

Optional bolt-on liftcrane laggings.

Optional bolt-on clamshell laggings.

Optional wire rope for various applications (see pages 13).



### Boom Hoist

Independent two-drum boom hoist with grooved drums including 430' of 5/8" diameter wire rope reeved with 10 parts of line.

Drums are powered by a fixed displacement hydraulic motor coupled to an internal brake and planetary gearbox equipped with ratcheting pawl.

# specifications

Boom hoist speed: raise 200' full main boom from 0° - 82° in 80 seconds.

4

## Swing System

High strength fabricated steel alloy rotating bed is mounted on 64-3/4" diameter turntable bearing.

Independent swing powered by a fixed displacement hydraulic motor coupled to a planetary gearbox with internal brake. 360° positive swing lock.

Swing system maximum speed: 3.6 rpm.

## Counterweight

QTY.	ITEM	UNIT WEIGHT	TOTAL WEIGHT
		lb	lb
4	Crawler Frame Counterweight - Each	1,750	7,000
<b>Crawler Frame Counterweight Total</b>			<b>7,000</b>
<b>Upperworks</b>			
1	Counterweight A	9,150	9,150
1	Counterweight B	12,680	12,680
<b>Upperworks Total</b>			<b>21,830</b>
<b>Counterweight TOTAL</b>			<b>28,830</b>



## Operator's Cab

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. Signal horn, cab space heater, front and roof windshield wipers, dome light, sun visor and shade, fire extinguisher and air circulating fan are standard equipment.

- ▶ Optional air conditioning for operator's cab.
- ▶ Optional nylon protective window covers for operator's cab.

## Attachments



## No. 180 Heavy-Lift Main Boom

The base 180 liftcranes come standard with a 40' No. 180 basic heavy-lift tubular chord boom consisting of a 19' butt and 21' open throat top with four 20" diameter roller bearing sheaves on one shaft.

The basic heavy-lift boom also includes a boom angle indicator, pendant rigging, cushioned boom stops, and automatic boom hoist stop.

Anti-two block limit controls for main and whip lines.

15' 6" gantry and telescopic backhitch with anti-friction bearings and nylon sheaves in gantry and equalizer system.

- ▶ Optional No. 180 10', 20', and 40' main boom inserts with pendants.

- ▶ Optional 180 detachable upper boom point with one 20" roller bearing steel sheave grooved for 7/8" diameter rope with rope guard for lift crane.



## No. 10 Fixed Jib

- ▶ Optional No. 10 basic fixed jib 30' length consisting of 15' jib butt and 15' jib top with 12' jib strut, pendants and backstay.

- ▶ Optional No. 10 fixed jib inserts 10'.

Utilize up to three fixed jib inserts in combination with the No. 10 basic fixed jib for total lengths of 40', 50', and 60'.

- ▶ Optional jib point roller assembly for use on No. 10 fixed jib extension on No. 180 luffing jib.

## Lowerworks



## Carbody

Steel fabricated carbody with wide flange wings for mounting to crawler side frames.

Two variable displacement travel motors driven through planetary gearboxes provide narrow-profile mounting within the crawler modules.

## Crawlers

Crawler assemblies are 22' 5" long with 36" wide cast steel crawler pads.

Crawlers have full counter-rotation capability.

Hydraulic extension/retraction of crawler assemblies with tethered remote control.

Maximum ground speed of 0.97 mph.

- ▶ Optional crawler handling package includes a high capacity wire rope guide mounted on the boom butt, sheave frame that attaches to the boom butt, single sheave 22 ton self assembly block for 7/8" or 1-1/4" wire rope, and four 6' nylon eye round slings.

## Optional Equipment

- ▶ Optional 180 Blocks and hooks –

12 ton Swivel hook  
with 740 lb weight ball

12 ton Non-swivel hook  
with 740 lb weight ball

30 ton hook block with two 20" sheaves for 7/8" wire rope with swivel hook, hook latch, and swivel lock

40 ton hook block with two 20" sheaves for 7/8" wire rope with swivel hook, hook latch, and swivel lock

50 ton hook block with three 20" sheaves for 7/8" wire rope with swivel hook, hook latch, and swivel lock

60 ton hook block with three 20" sheaves for 7/8" wire rope with swivel hook, hook latch, and swivel lock

70 ton hook block with four 20" sheaves for 7/8" wire rope with swivel hook, hook latch, and swivel lock

80 ton hook block with four 20" sheaves for 7/8" wire rope with swivel hook, hook latch, and swivel lock

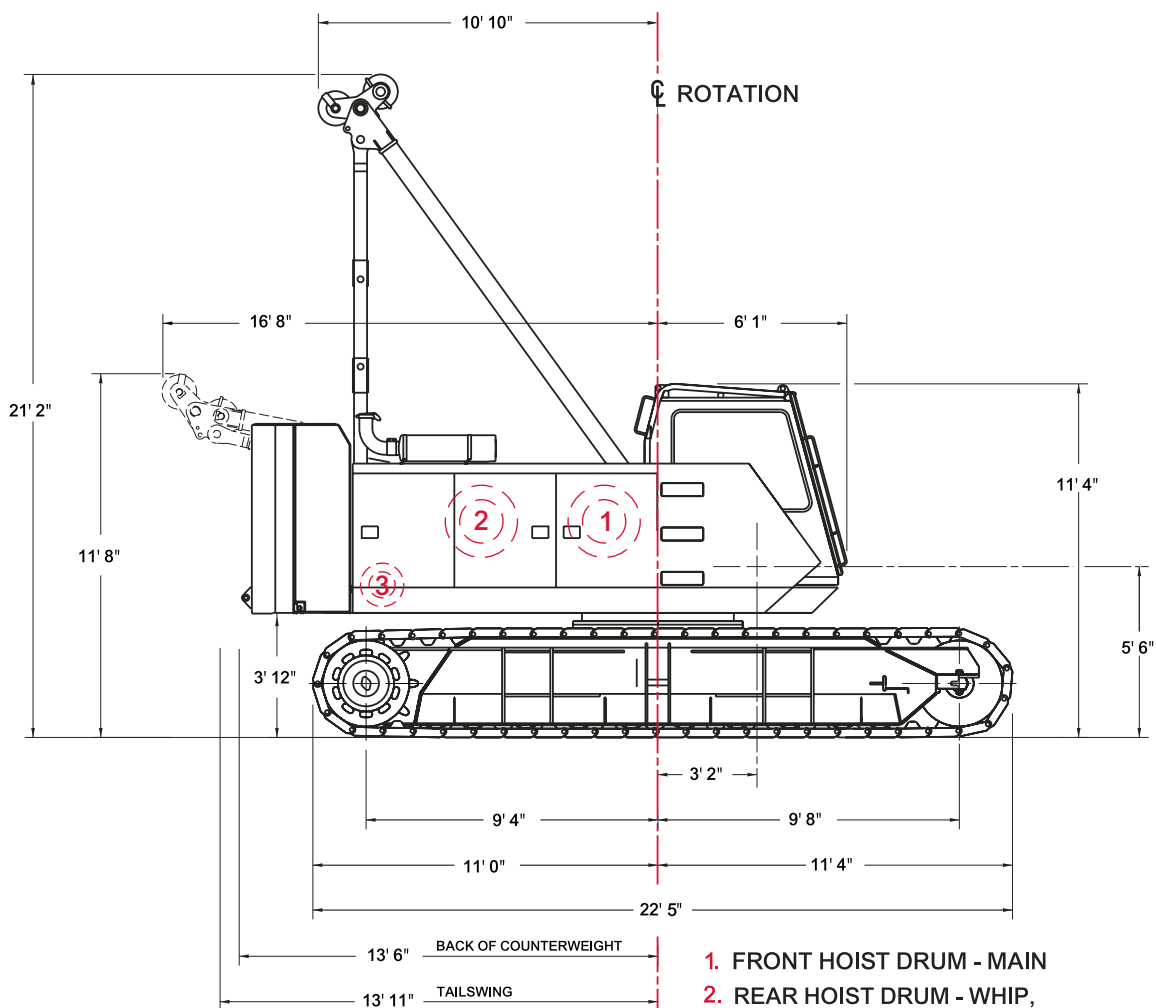
- ▶ Optional US Standard Tool Kit: includes all US tools required for routine maintenance (with the exception of a torque wrench).
- ▶ Optional Hydraulic Test Kit: required to properly analyze the performance of the EPIC® control system.
- ▶ Optional Service Interval Kits: for the regularly scheduled maintenance of general crane operations.
- ▶ Optional Lighting Packages: consult Factory for available options.
- ▶ Optional Special Paint: in color(s) other than Manitowoc standard red and black.
- ▶ Optional Special Customer Decals: custom vinyl decal(s) of name and/or logo from artwork supplied by customer.
- ▶ Optional Export Packaging: basic crane, boom and jib sections.

## Optional Applications

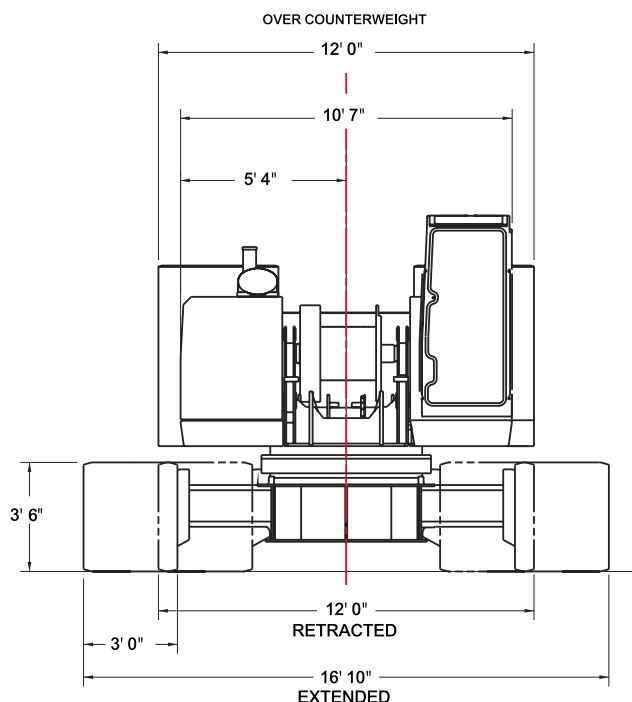
- ▶ Optional **180** Clamshell: includes 20-7/16" diameter laggings with helical grooves for 7/8" rope for front and rear drums. Tagline, Rud-O-Matic® No. 1248 two barrel with 20" wheel for maximum 80' boom. Boom point roller guide. Pressure rollers on both drums. Clamshell control system - upgrade to basic machine.
- ▶ Optional Pile Driving: includes extended lower boom point shaft for attachment of fixed pile leads.

# outline dimensions

6

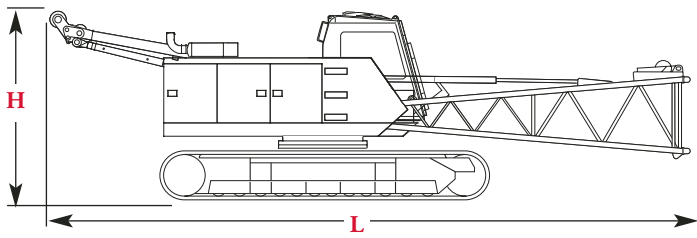


- 1. FRONT HOIST DRUM - MAIN
- 2. REAR HOIST DRUM - WHIP, SERVES AS LUFFING DRUM WHEN LUFFING JIB IS ATTACHED
- 3. BOOM HOIST DRUM



# outline dimensions

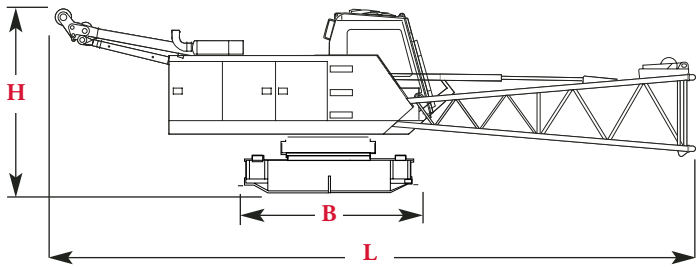
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## Basic Crane x 1

Length	38' 11"
Width (retracted)	12' 0"
Height	11' 8"
Weight	92,818 lb

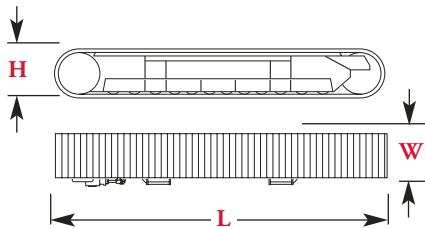
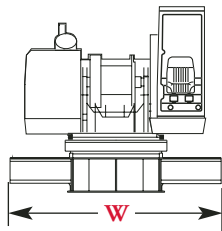
Note: Weight includes crawlers, counterweights, gantry, carbody, and upperworks with hydraulic fluid, half tank of fuel, standard wire rope, gantry, and boom butt.



## Basic Crane with crawlers removed x 1

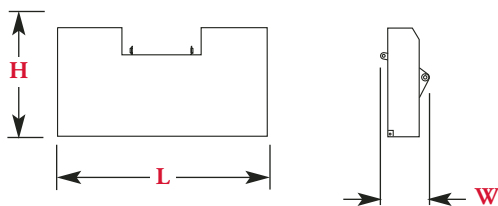
Length	38' 11"
Width	12' 0"
Height	10' 8"
Base	10' 7"
Weight	55,655 lb

Note: Weight includes carbody, and upperworks with two drums, operators cab, gantry, backhitch, equalizer and boom hoist line, boom butt, boom stops, and maximum length hoist and whip lines.



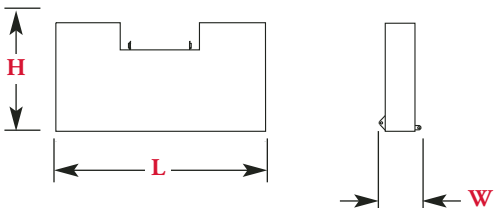
## Crawlers x 2

Length	22' 4"
Width	3' 6"
Height	3' 7"
Weight	19,080 lb



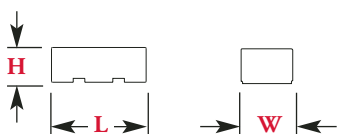
## Inner Counterweight x 1

Length	12' 0"
Width	2' 9"
Height	6' 1"
Weight	28,500 lb



## Outer Counterweight x 1

Length	12' 0"
Width	2' 3"
Height	6' 1"
Weight	24,800 lb

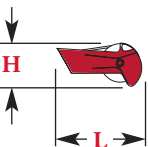
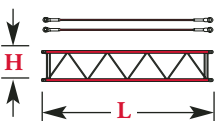
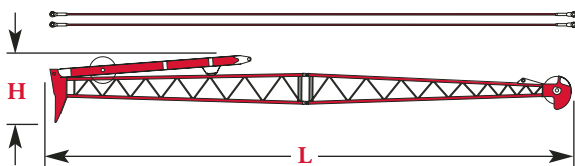
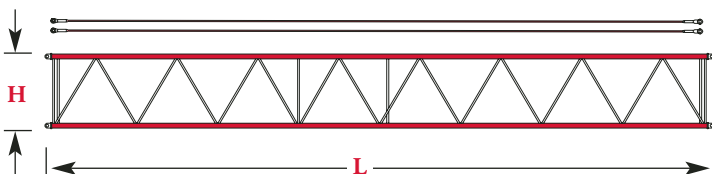
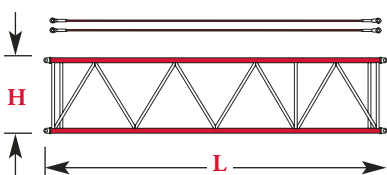
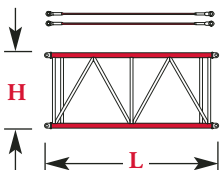
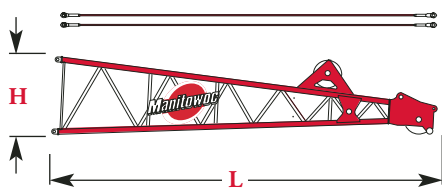


## Crawler Frame Counterweights x 4

Length	2' 11"
Width	1' 1"
Height	1' 4"
Weight each	1,750 lb

# outline dimensions

8



## 180 Boom top & Pendants x 1

Length	22' 2"
Width	4' 3"
Height	4' 6"
Weight	2,190 lb

## No. 180 Main Boom 10' Insert & Pendants x 1, 2

Length	10' 4"
Width	4' 3"
Height	5' 0"
Weight	635 lb

## No. 180 Main Boom 20' Insert & Pendants x 1, 2

Length	20' 4"
Width	4' 3"
Height	5' 0"
Weight	1,085 lb

## No. 180 Main Boom 40' Insert & Pendants x 1, 2, 3

Length	40' 4"
Width	4' 3"
Height	5' 0"
Weight	2,050 lb

## No. 10 Fixed Jib 30' Strut & Pendants x 1

Length	31' 4"
Width	2' 4"
Height	4' 1"
Weight	1,604 lb

## No. 10 Jib Inserts 10' Strut & Pendants x 1, 2, 3

Length	10' 3"
Width	2' 0"
Height	2' 0"
Weight	190 lb

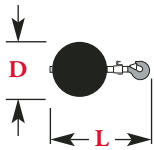
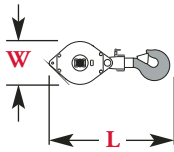
## Upper Boom Point x 1

Length	4' 2"
Width	2' 2"
Height	1' 9"
Weight	705 lb

Optional



# outline dimensions



## 180 Hook block for 22,23 mm (7/8") wire rope

Capacity	80 t	Length	4' 4"
Weight	2,470 lb	Width	2' 1"
Capacity	60 t	Length	4' 4"
Weight	1,400 lb	Width	2' 1"
Capacity	50 t	Length	4' 4"
Weight	1,310 lb	Width	2' 1"
Capacity	40 t	Length	4' 1"
Weight	1,300 lb	Width	2' 1"
Capacity	30 t	Length	3' 9"
Weight	1,178 lb	Width	2' 1"

## 180 Weight Ball

Capacity/Swivel	12 t	Diameter	1' 6"
Weight	740 lb	Length	4' 0"
Capacity/Non-Swivel	12 t	Diameter	1' 6"
Weight	740 lb	Length	4' 0"

9

Optional

# transport data

10

## Trailer Load Out Summary

**Model 180**  
**No. 10 Fixed Jib 18,3 m (60') on**  
**No. 180 Main Boom 57,9 m (190')**

Item	Weight each Item lb	Quantity on Trailer Load #		
		1	2	3
No. 180 Basic Crane with Crawlers	92,980	1		
Standard Outer Counterweight	24,800		1	
Standard Inner Counterweight	28,500			1
Crawler Frame Counterweight	1,750		1	3
40' No. 180 Boom Insert, Pendants	2,400		2	1
20' No. 180 Boom Insert, Pendants	1,345			1
10' No. 180 Boom Insert, Pendants	826			1
Standard Boom Top 5,9 m (19')	2,375			1
Upper Boom Point	705	1		
9,1 m (30') No. 10 Fixed Jib Basic	1,604		1	
3,0 m (10') No. 10 Jib Insert, Pendants	232		3	
Hook Block 80 ton	2,472	1		
Weight Ball	610	1		
<b>Approximate Total Shipping Weight lb</b>		<b>96,769</b>	<b>33,650</b>	<b>40,696</b>

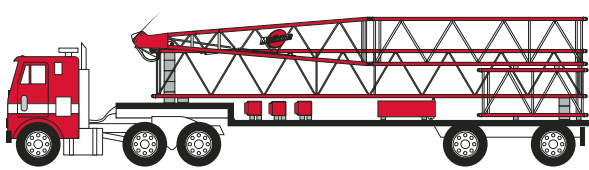
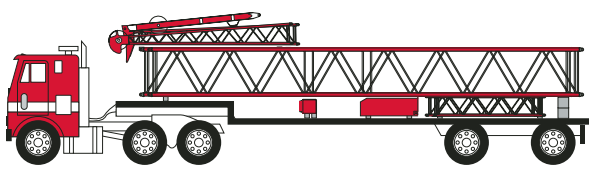
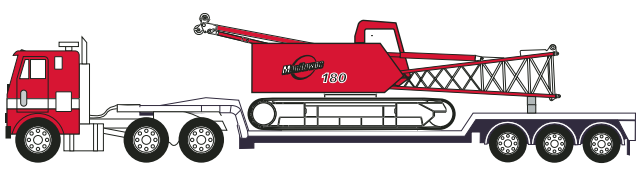
# crane assembly

## Fast Self Assembly

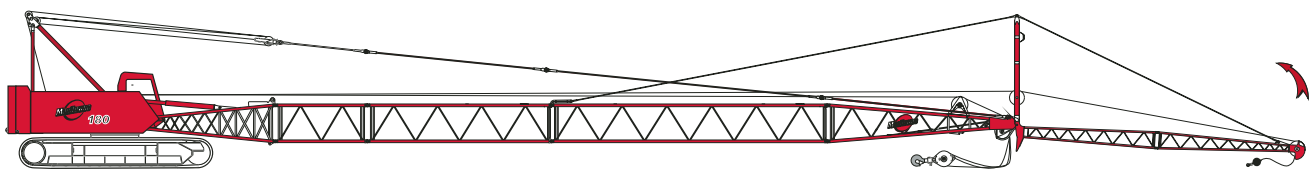
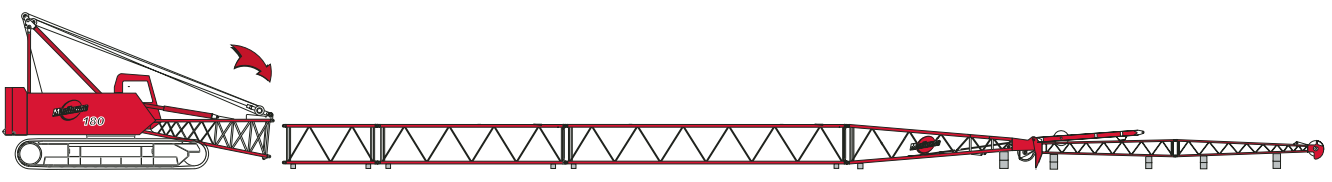
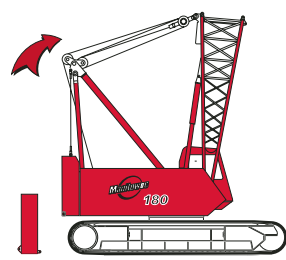
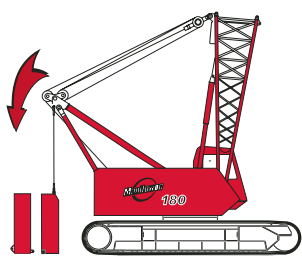
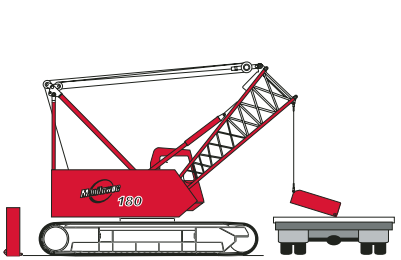
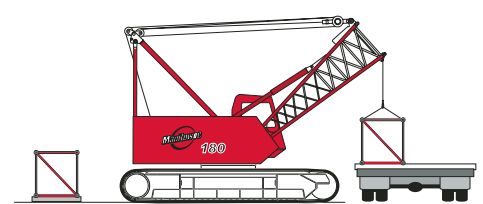
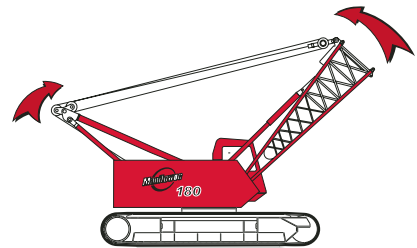
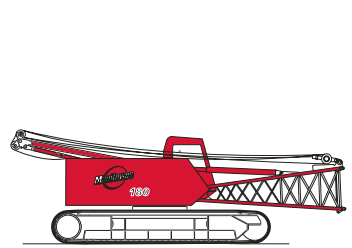
### Three Trucks, Three People, Three Hours

Extremely well designed and utilizing efficient use of space allows the Manitowoc Model 180 to be mobilized with only three people using three trucks in three hours - or less - with maximum boom, fixed jib and counterweight.

11



# 3 hours



# performance data

12

## Wire Rope Lengths - No. 180 Main Boom

Boom or Boom and Fixed Jib Length ft	Whip Line		Hoist line	
	Rear Drum (1 part of line) ft	Front Drum ft	Front Drum ft	Maximum Required parts of line*
40	105	500	10	
50	125	600	10	
60	145	700	10	
70	165	700	8	
80	185	700	7	
90	205	700	6	
100	225	725	6	
110	245	725	5	
120	265	725	4	
130	285	725	4	
140	305	725	4	
150	325	725	3	
160	345	725	3	
170	365	725	3	
180	385	725	2	
190	405	725	2	
200	425	725	2	
210	445	-	-	
220	465	-	-	
230	485	-	-	
240	505	-	-	
250	525	-	-	

**Note:** Hoist line and whip line lengths given in table will allow hook to touch ground. When block travel below ground is required, add additional rope equal to parts of line times added travel distance. Hoisting distance or line pull may be limited when block travel below ground is required.

\* Based on 89 kN (20 kips) maximum single line pull.

## Drum Capacities - Wire Rope

	Maximum Length	
	No Lagging	With Lagging
<b>Front or Rear Drum 22,23 mm (7/8") Wire Rope*</b>	<b>819 ft 6 Layers</b>	<b>870 ft 6 Layers</b>
<b>Auxiliary Drum 15,88 mm (5/8") Wire Rope**</b>	<b>264 ft 4 Layers</b>	-
<b>Boom Hoist Drum 15,88 mm (5/8") Wire Rope</b>	<b>430 ft 5 Layers</b>	-

\* 16' is deducted from maximum spooling capacities for 3 dead wraps per drum or lagging for 7/8" wire rope.

\*\* 9' is deducted from maximum spooling capacities for 3 dead wraps on Auxiliary Drum for 5/8" wire rope.

## Wire Rope Specifications

Part Number Function	3.5:1 Safety Factor Regular Lay, 6x25 Filler Wire, Extra Improved Plow Steel, IWRC		5:1 Safety Factor Rotation Resistant, 2 160 N/mm <sup>2</sup> DYFORM 34LR 2160	
	No. 719111 Hoist Line	No. 719111 Whip Line	No. 719414 Hoist Line	No. 719414 Whip Line
Size Wire Rope	7/8"	7/8"	7/8"	7/8"
Minimum Breaking Strength	79,600 lb	79,600 lb	106,120 lb	106,120 lb
Maximum Load Per Line	17,000 lb	18,700 lb	17,000 lb	18,700 lb
Approximate Weight	1.42 lb/ft	1.42 lb/ft	1.65 lb/ft	1.65 lb/ft

# performance data

13

## Front Hoist Drum

Layer	Full Power Drum - Continuous Duty Single Line Pull/Single Line Speed					
	ft/min					
	1	2	3	4	5	6
Line Pull lb						
0	395	430	465	500	535	570
5,000	369	399	429	458	487	515
10,000	343	368	389	394	399	404
15,000	272	276	281	286	291	296
17,000	245	250	254	259	264	269

NOTE: Line pull is infinitely variable.

## Rear Hoist Drum

Layer	Full Power Drum - Continuous Duty Single Line Pull/Single Line Speed					
	ft/min					
	1	2	3	4	5	6
Line Pull lb						
0	395	430	465	500	535	570
5,000	369	399	429	458	487	515
10,000	343	368	389	394	399	404
15,000	272	276	281	286	291	296
18,700	231	236	240	245	250	255

NOTE: Line pull is infinitely variable.

## Maximum Length - Unassisted Raising

Method Over end of blocked crawlers ft	No. 10 Fixed Jib on No. 180 Main Boom 180	
	Main Boom	Fixed Jib
	200	-
	190	60
Over side of extended crawlers ft	200	-
	190	-
	180	40
	170	60
Over side of retracted crawlers ft	-	-
	-	-
	170	-
	160	-
	150	50
	140	60

NOTE: Load block(s), hook(s) and weight ball(s) on ground at start.

## Auxiliary Drum - 15 kips

Layer	Full Power Drum - Continuous Duty Single Line Pull/Single Line Speed			
	ft/min			
	1	2	3	4
Line Pull lb				
0	196	215	234	252
5,000	191	209	228	245
10,000	188	204	218	232
15,000	176			

NOTE: Line pull is infinitely variable.

## Working Weight

Configuration	lb 180
12,2 m (40') No. 180 Main Boom	135,330
57,9 m (190') No. 180 Main Boom combined with 18,3 m (60') No. 10 Fixed Jib	146,714

Typical working weight consists of: hydraulic reservoirs full, fuel half-full, drums loaded with standard lengths of wire rope, upper boom point, 80t hook block, and standard weight ball.

Note: Upper boom point not used with fixed jib.

# boom combinations

14

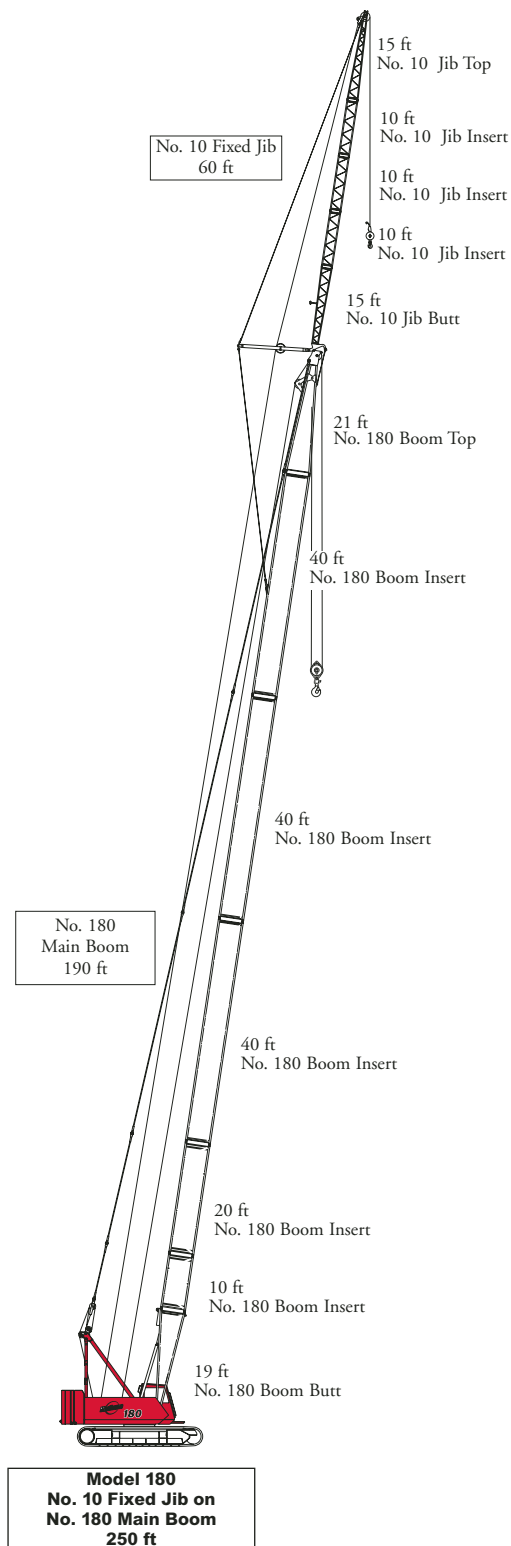
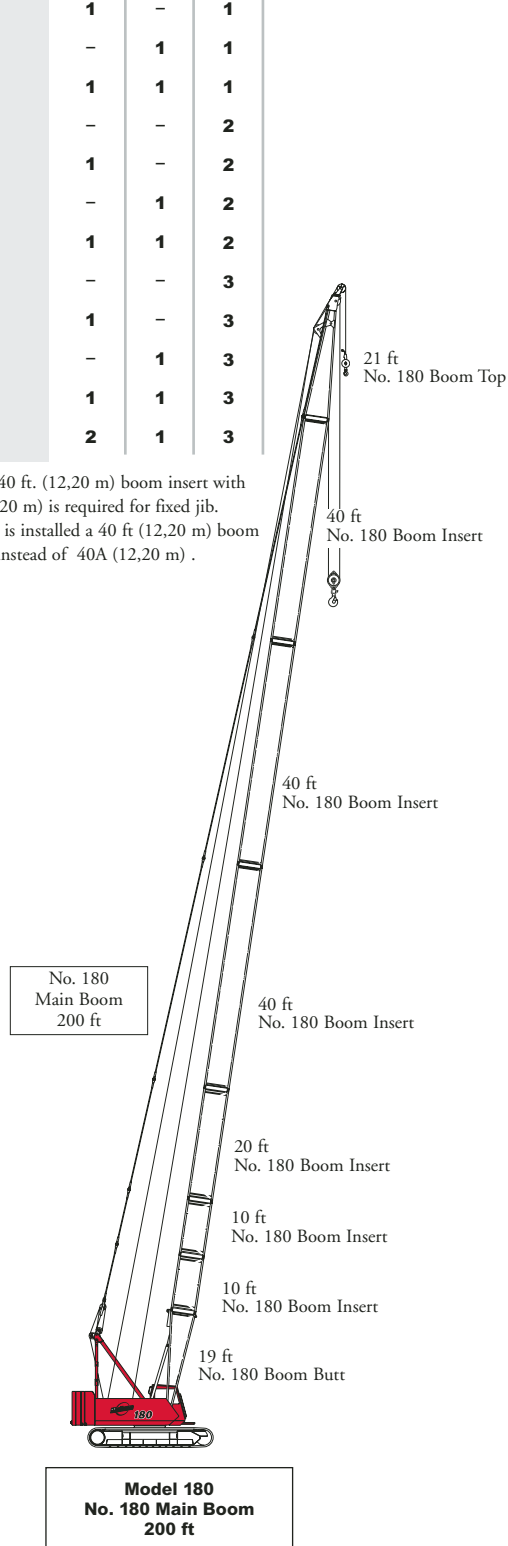
## No. 180 Heavy-Lift Boom Combinations

Boom Length	Boom Inserts		
	10 ft	20 ft	40 ft
40	-	-	-
50	1	-	-
60	-	1	-
70	1	1	-
80	-	-	1
90	1	-	1
100	-	1	1
110	1	1	1
120	-	-	2
130	1	-	2
140	-	1	2
150	1	1	2
160	-	-	3
170	1	-	3
180	-	1	3
190	1	1	3
200	2	1	3

\*Note: One 40 ft. (12,20 m) boom insert with lug 40A (12,20 m) is required for fixed jib. When no jib is installed a 40 ft (12,20 m) boom can be used instead of 40A (12,20 m) .

## No. 10 Fixed Jib Combinations

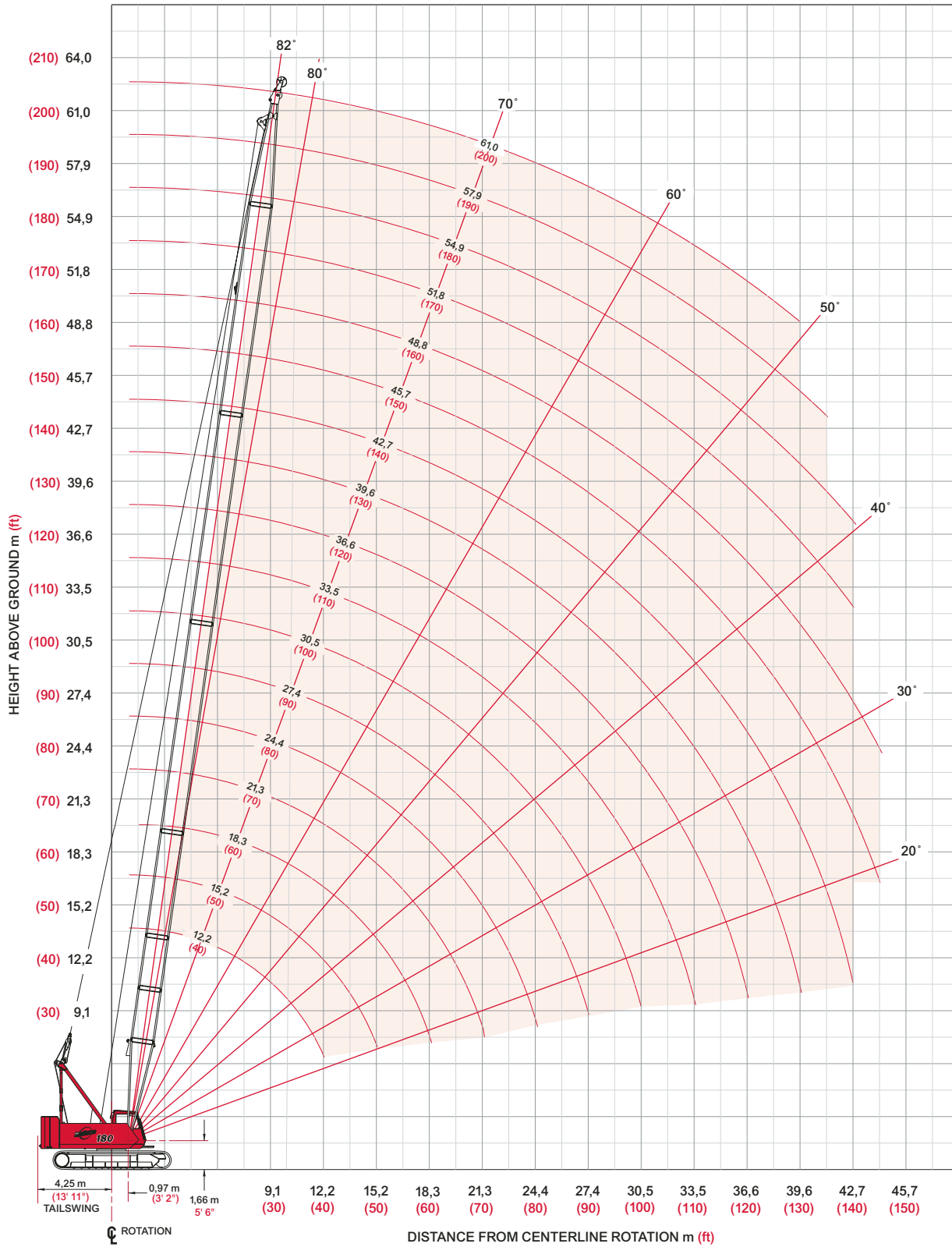
Jib Length	Fixed Jib Inserts
	10 ft
30	-
40	1
50	2
60	3



# heavy-lift boom range diagram

## No. 180 Main Boom

15



# heavy-lift boom load charts

16

## Liftcrane Boom Capacities

### Boom No. 180 with Open Throat Top

53,300 lb Counterweight 7,000 lb Crawler Frame Counterweight

22' 4" Crawlers extended

360° Rating

lb x 1 000

Boom ft	40	60	80	100	120	140	160	180	200
Radius 14	158.8	155.9							
15	148.2	142.6	119.0						
20	97.1	97.0	95.8	90.1					
24	73.5	73.3	73.1	72.9	68.0				
30	53.5	53.3	53.0	52.7	52.4	52.0	46.7	34.0	
36	41.8	41.5	41.2	41.0	40.6	40.3	39.6	32.9	24.1
40	35.4	36.1	35.8	35.5	35.1	34.8	34.4	32.0	23.3
50		26.9	26.6	26.3	25.9	25.5	25.1	24.7	21.5
60		21.2	20.8	20.5	20.1	19.8	19.3	18.9	18.5
70			16.9	16.6	16.2	15.8	15.4	15.0	14.5
80			14.0	13.8	13.3	13.0	12.5	12.1	11.7
90				11.6	11.2	10.8	10.4	9.9	9.5
100				9.9	9.5	9.1	8.6	8.2	7.8
110					8.1	7.7	7.3	6.9	6.4
120					6.7	6.6	6.1	5.7	5.3
130						5.6	5.2	4.8	4.3
140						4.3	4.4	4.0	
145							4.0		

### No. 10 Fixed Jib on No. 180 Boom

Jib Length ft	Deduct from Capacity with fixed jib attached lb
30	1,700
40	2,100
50	2,600
60	3,100

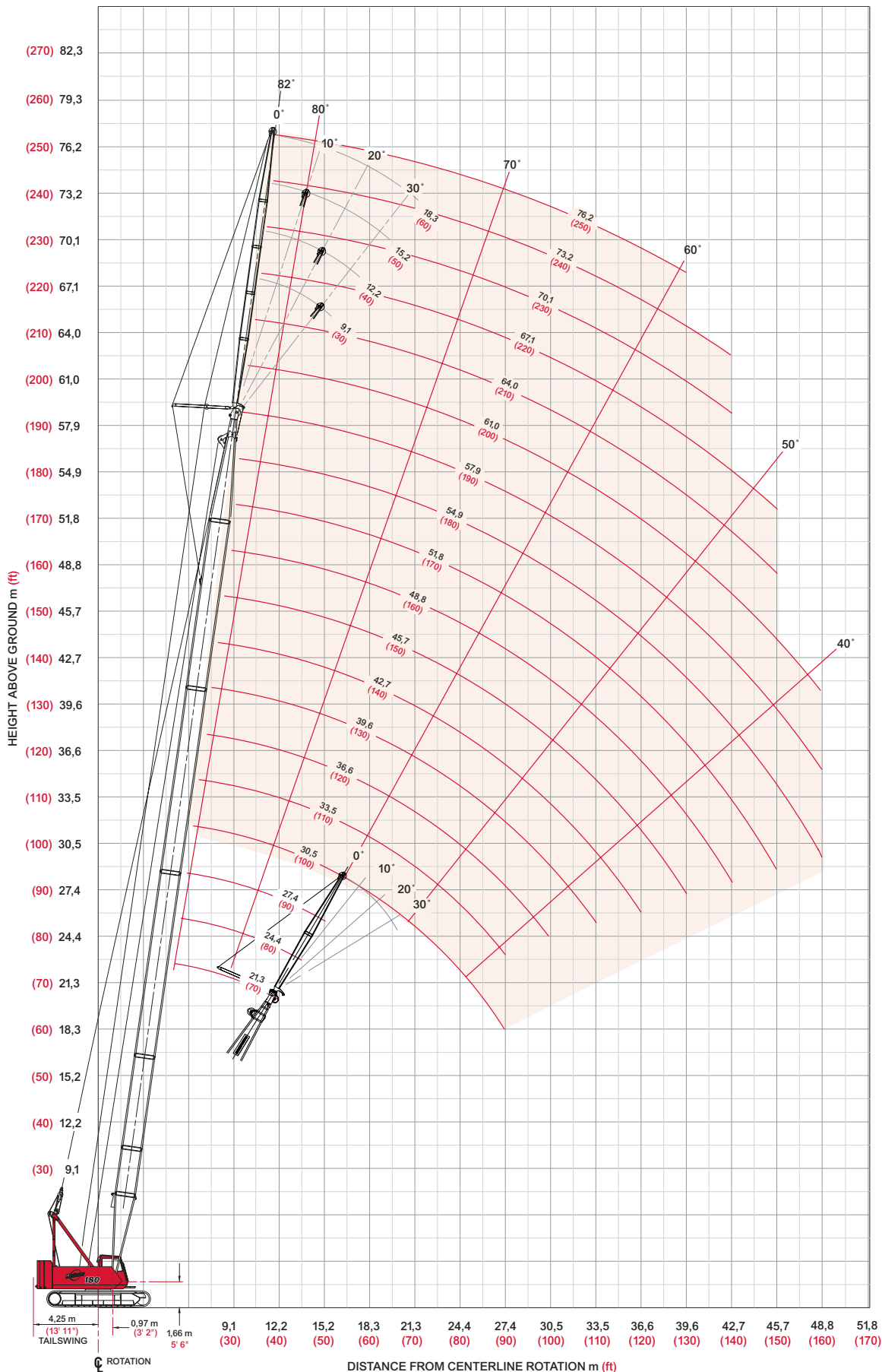
model 180





# fixed jib range diagram

## No. 10 Fixed Jib on No. 180 Main Boom



# fixed jib load charts

18

## Liftcrane Jib Capacities Jib No. 10 with 3,81 m (12' 0") Strut on Boom No. 180 with Open Throat Top

53,300 lb Counterweight 7,000 lb Crawler Frame Counterweight

22' 4" Crawlers extended

360° Rating

lb x 1 000

Jib Length 30 ft	Boom ft	0° Offset					30° Offset				
		70	100	130	160	190	70	100	130	160	190
Radius 25	25	18.7									
30	30	18.7	18.7	18.7							
40	40	18.7	18.7	18.7	18.7	17.2	18.1	18.7			
50	50	18.7	18.7	18.7	18.7	16.6	15.9	17.5	18.6	18.7	
60	60	18.7	18.7	18.7	18.7	16.6	14.3	15.9	17.1	18.0	18.7
70	70	18.0	17.3	16.6	16.0	15.1		14.6	15.8	16.8	16.2
90	90	12.8	12.1	11.4	10.8	10.1			11.9	11.4	10.9
110	110		8.9	8.2	7.6	6.9				8.0	7.5
140	140			5.2	4.6						
150	150										
160	160										

Jib Length 40 ft	Boom ft	0° Offset					30° Offset				
		70	100	130	160	190	70	100	130	160	190
Radius 25	25	18.7									
30	30	18.7	18.7								
40	40	18.7	18.7	18.7	18.7		14.8				
50	50	18.7	18.7	18.7	18.7	17.0	13.0	14.0	14.6		
60	60	18.7	18.7	18.7	18.7	17.0	11.6	12.7	13.4	14.0	14.5
70	70	17.4	17.5	16.8	16.2	15.0		11.6	12.4	13.1	13.6
90	90	12.8	12.3	11.6	10.9	10.1		10.8	10.9	11.6	11.3
110	110		9.1	8.4	7.7	7.1				8.3	7.8
140	140			5.4	4.7	4.0					
150	150			4.6	4.0						
160	160										

model 180



Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

# fixed jib load charts

## Liftcrane Jib Capacities

### Jib No. 10 with 3,81 m (12' 0") Strut on Boom No. 180 with Open Throat Top

53,300 lb Counterweight 7,000 lb Crawler Frame Counterweight

22' 4" Crawlers extended

360° Rating

lb x 1 000

19

Jib Length 50 ft	Boom ft	0° Offset					30° Offset				
		70	100	130	160	190	70	100	130	160	190
Radius 30	30	18.7									
	40	18.7	18.7	18.7							
	50	18.7	18.7	18.7	18.7	16.9	11.0				
	60	18.1	18.7	18.7	18.6	16.7	9.8	10.5	11.0		
	70	14.9	17.6	17.0	16.3	14.9	8.9	9.6	10.2	10.6	10.9
	90	11.0	12.4	11.7	11.1	10.1		8.3	9.5	9.3	9.7
	110		9.2	8.5	7.8	7.0			7.9	8.4	8.1
	130		7.0	6.3	5.6	4.9					5.7
	140			5.5	4.8	4.0					4.8
	150			4.7	4.1						
	160										

Jib Length 60 ft	Boom ft	0° Offset					30° Offset				
		70	100	130	160	190	70	100	130	160	190
Radius 30	30	18.2									
	40	17.5	17.0	16.1							
	50	16.4	16.4	15.7	14.6	13.1					
	60	15.3	15.8	15.3	14.3	12.9	8.5	9.0			
	70	13.2	14.9	14.8	14.0	12.7	7.6	8.2	8.6	8.9	
	90	9.7	12.3	11.8	11.2	10.0	6.4	7.0	7.4	7.8	8.0
	110	7.6	9.3	8.6	7.9	6.9			6.6	6.9	7.2
	130		7.1	6.4	5.7	4.8				6.3	5.9
	140		6.2	5.5	4.9						5.0
	150			4.8	4.1						4.2
	160				4.2						

Meets ANSI B30.5 Requirements - Capacities do not exceed 75% of static tipping load.  
 NOTICE: This capacity chart is for reference only and must not be used for lifting purposes.

# Manitowoc Crane CARE<sup>™</sup>

20

**Crane CARE** is Manitowoc's comprehensive service and support program. It includes classroom and on-site training, prompt parts availability, expert field service, technical support and documentation — for every one of the more than 7,000 Manitowoc cranes currently in use throughout the world.

That's commitment you won't find anywhere else.

That's **Crane CARE**.

## Service Training

Manitowoc specialists work with you in our training center and in the field to make sure you know how to get maximum performance, reliability, and life from your cranes.

Manitowoc Cranes Technical Training Center provides valuable multi-level training, which is available for all models and attachments, in the following format:

- **Basic** – Provides technicians with the basic skills required in our Level I and II classes covering hydraulic and electrical theory and schematics, pump, motor, control, and LMI operation, and the use of meters and gauges.
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## Parts Availability

Genuine Manitowoc replacement parts are accessible through your distributor 24 hours a day, 7 days a week, 365 days a year.

### Service Interval Kits

Provides all the parts required by Manitowoc's Preventative Maintenance Checklist.

## Cummins 6 CTA 8.3C 172 kW (230 BHP) Diesel

### 200 Hour – Part No. 499973-0

Consists of the following:

- Engine Water Filter (Part No. 413360-0)
- Primary Fuel Filter (Part No. 413392-0)
- Secondary Fuel Filter (Part No. 413393-0)
- Engine Oil Filter (Part No. 413394-0)
- Primary Air Filter (Part No. 426721-0)
- Secondary Air Filter (Part No. 426726-0)

### 1,000 Hour – Part No. 499974-0

Consists of the entire 200 Hour Service Kit (Part No. 499973-0), plus the following:

- Hydraulic Filter in Tank (Part No. 426727-0)
- Filter, Breather (Part No. 910636-2)
- Hydraulic Filter - Spin on (Part No. 970150-2)

### 2,000 Hour – Part No. 499975-0

Consists of the entire 1,000 Hour Service Kit (Part No. 499974-0), plus the following:

- Compressor Belt (Part No. 227220-0)

### Hydraulic Test Kit – Part No. 499791-6

Protect your investment by demanding Genuine Manitowoc Parts Service Kits. The Hydraulic Service Kit consist of the following:

- All hydraulic fittings to access all pressures and flows
- Hydraulic flow meters and pressure gauges to record hydraulic data.
- Electrical "Break out" harnesses to access voltages on all electrical circuits on all machines.
- Fluke® Digital volt ohm meter, as used in all Manitowoc service literature.

### Hydraulic Test Kit with case – Part No. 499792-9

The above kit (Part No. 4299791-6) plus a custom heavy-duty carrying case.

### U.S. Standard Tools Kit – Part No. 22205-1

All standard tools needed to properly maintain and service your crane. (Does not include torque wrench.)

## Field Service

Factory-trained service experts are always ready to help maintain your crane's peak performance.

For a worldwide listing of dealer locations, please consult our website at: [www.manitowoccranes.com](http://www.manitowoccranes.com)

## Technical Support

Manitowoc's dealer network and factory personnel are available 24 hours a day, 7 days a week, 365 days a year to answer your technical questions and more, with the help of computerized programs that simplify crane selection, lift planning, and ground-bearing calculations.

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## Technical Documentation

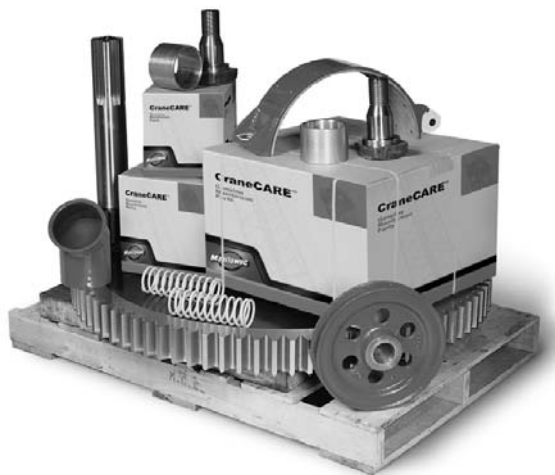
Manitowoc has the industry's most extensive documentation, and the easiest to understand, available in major languages and formats that include print, disk, and videotape.

A complete set of Operator's, Parts, Capacity, Vendor, and Service Technician's Manuals are shipped with each crane.

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- **Crane Operator's Manual – Part No. 899721**
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