model 16000

product guide

features

- 400 t (440 USt)
- 2 599 mton-m (18,800 ft-kips) Maximum Load Moment
- 96 m (315') Heavy-Lift Boom
- 138 m (453') Luffing Jib on Heavy-Lift Boom
- 372 kW (500 HP) engine
- EPIC controls with CANbus technology
- 212 m/m (697 fpm) line speed standard
- 155 kN (35,000 lb.) line pull standard
- Designed to meet US weight and European width requirements
- Manitowoc Crane CARE comprehensive support

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Manitowoc Crane Group

Above. Beyond. Everywhere

Upperworks

Engine

Cummins Model QSX15 – C500 diesel, 6 cylinder, 372 kW (500 BHP) at 1800 governed RPM.

Includes pump drive disconnect for easier starting, engine block heater (120V), ether starting aid, high silencing muffler, hydraulic oil cooler, radiator and fan.

Multiple hydraulic pump drive transmission provides power for all machine functions.

Two 12 volt maintenance-free batteries, 1155 CCA at -18°C (0° F), 24 volt system and 100 amp alternator.

One diesel fuel tank, 946 L. (250 gal.), with level indicator in operator's cab.

Optional: Cold-weather package with heater for fluids, and computer display.

Controls

Modulating electronic-over-hydraulic controls provide infinite speed response directly proportional to control lever movement. Controls include Manitowoc's exclusive **EPIC**® Electronically Processed Independent Control system with **CAN-BUS** technology 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 Rated Capacity Limiter system (RCL) is standard for main boom and upper boom point. "Function cut-out" or "warning only" operation is selected via a keyed switch on the RCL console.

Travel and swing alarms are standard.

- Optional: Anemometer (wind speed indicator). Booms and jibs are prewired for anemometer.

Hydraulic System

Six high-pressure piston pumps, driven by a multi-pump transmission, provide independent closed-loop hydraulic power for the hoisting drums, boom hoist, swing, left crawler and right crawler.

Hydraulic reservoir capacity is 719 L. (190 gal.) and is equipped with breather, clean out access, and internal diffuser.

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

System includes oil cooler and replaceable, full flow filter. All oil is filtered before entering the hydraulic pumps.

Hydraulic system also includes pump transmission disconnect and hydraulic oil cooler.

Drums

Basic machine is equipped with 108,6 cm (42-3/4") wide and 64,1 cm (25-1/4") diameter main hoist drum, mounted in the boom butt, and 82,2 cm (32-3/8") wide and 64,1 cm (25-1/4") diameter whip drum, mounted in the rotating bed. Each end of the main drum is driven by a variable-displacement hydraulic motor through a planetary reduction. The whip drum is driven by an independent variable-displacement hydraulic motor thru a planetary reduction mounted on a shaft with anti-friction bearings. Drums are grooved for 28 mm rope.

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

- Optional: High speed whip drum, each end of the whip drum is driven by a variable-displacement hydraulic motor through a planetary reduction.
- Optional: Auxiliary (third) hydraulic powered drum rated 147 kN (33,000 lb) line pull mounted in boom butt. Includes third drum control system.
- Optional: Auxiliary drum preparation includes electric wiring, controls, hydraulic pump and plumbing.

Swing System

Bearing adapter-mounted independent swing is powered by a fixed-displacement hydraulic motor coupled to an internal brake and planetary reduction. Includes Manitowoc Patented gear-segment type swing lock.

Swing system maximum speed: 2.2 rpm.

specifications

4

Moving Mast Hoist System

Independent moving mast hoist with two grooved drums, each 32,5 cm (12-13/16") wide and 64,1 cm (25-1/4") diameter drum grooved for 1-1/8" diameter wire rope. Includes 498 m (1,620') of 1-1/8" wire rope for 26-part line reeving.

Drum is powered by 2 variable-displacement hydraulic motors coupled to integral brake and planetary reduction gearboxs. Ratcheting pawl and rotation indicator are standard.

Moving Mast Hoist Speed

Raise 96 m (315') full main boom from 0° - 82° in 3 minutes, 48 seconds.

Boom Support System

Moving Mast

Moving Mast is 9,75 m (32') long and connects the boom hoist reeving to the steel boom suspension strap rigging. When used with the optional self-erect package, the mast is used for crane assembly and disassembly. It is capable of lifting and positioning the crawler assemblies, stacking the counterweights, and assembling the boom and jib.

Spring cushioned boom stop and automatic boom stop are standard.

Counterweight

Counterweight tray and counterweights for the upperworks attaches to the rotating bed with power actuated pins.

QYT.	ITEM	UNIT WEIGHT		TOTAL WEIGHT	
		kg	lb	kg	lb
10	Upperworks Upper Side Box	8 164	18,000	81 640	180,000
1	Counterweight Tray	19 958	44,000	19 958	44,000
		Series 1 Total		101 598	224,000
4	Upperworks Upper Side Box	8 164	18,000	32 656	72,000
2	Carbody Center Box	13 608	30,000	27 216	60,000
		Series 2 Total		161 470	356,000
2	Upperworks Upper Side Box	8 164	18,000	16 328	36,000
4	Carbody Side Box	6 804	15,000	27 216	60,000
		Series 3 Total		205 014	452,000

Vision Operator's Cab

The Vision CabTM is a fully enclosed and insulated steel module mounted to the left front corner of rotating bed. Module is equipped with power tilt, sliding door, large safety glass win d roof windshield wipers, dome light, sun visor and shade, fire extinguisher, air conditioning, swing and travel alarms, and radio/CD player are standard equipment. Operator's station swings over front of rotating bed for transportation.

Optional: Nylon protective window covers.

Lowerworks

Carbody

Connects rotating bed to crawler assemblies. High strength fabricated steel assembly with FACT connection system for fast installation and removal of crawler assemblies.

Crawlers

Crawler assemblies are 10,4 m (34' 2") long with 1,5 m (60") wide cast steel crawler pads and automatically lubricated intermediate rollers. Each crawler is identical and can be mounted on either side of the carbody. Each crawler is powered independently by a variable displacement hydraulic motor and includes two hydraulically powered pin actuators for fast installation and removal from carbody. Carbody mounted drive motors are connected to crawler final reduction via drive shaft with guard. Crawlers provide ample tractive effort for counter rotation with full rated load.

Maximum ground speed of 1,24 kph (0.77 mph).

Attachments

No. 58 Heavy-Lift Boom

The liftcrane is equipped with 30 m (98') No. 58 basic boom consisting of 8 m (26' 3") butt, 12 m (39' 5") insert with luffing hoist sheaves, 5 m (16' 5") transition insert, and 5 m (16' 5") top with thirteen 76,2 cm (30") diameter tapered roller bearing sheaves. Includes rope guides, boom hoist wire rope, boom angle indicator and 771 kg (1,700 lb) hook and weight ball. The boom connectors utilize Manitowoc's patented exclusive FACT™ connection system boom

connector. Spring cushioned boom stop. Automatic boom stop.
Powered boom hinge system including cylinder, piping, operating controls, and locking device standard.

Luffing jib preparation included as standard.

- Optional: 6 m (19' 8") and 12 m (39' 5") No. 58 boom inserts with steel boom suspension straps and FACT connection system.

Utilize main boom inserts in combination with No. 58 basic main boom for total length up to 96 m (315').

- Optional: No. 58 detachable upper boom point with one 76,2 cm (30") diameter tapered roller bearing steel sheave grooved for 28 mm rope with rope guard for liftcrane.
- Optional: Heavy-duty 97,6 t (107.6 USt) detachable upper boom point with three 76,2 cm (30") diameter tapered roller bearing steel sheave grooved for 28 mm rope with rope guard for liftcrane.



No. 59 Luffing Jib

- Optional: 24 m (78') basic No. 59 luffing jib with LMI hardware for “lay out" assembly including PIN connected 7 m (23') butt, (1) 6 m (19' 8") inserts and 11 m (36') top, basic pendants, fixed strut, jib strut, backstay pendants, boom point guide wheel, luffing jib hoist with ratchet and pawl; quick disconnect for jib hoist piping, and 1" luffing jib hoist line (luffing jib preparation is standard).
- Optional: 6 m (19' 8") and 12 m (39' 5") No. 59 luffing jib inserts with steel boom suspension straps and FACT connection system.

Utilize luffing jib inserts in combination with the No. 59 basic luffing jib for total lengths up to 84 m (275').

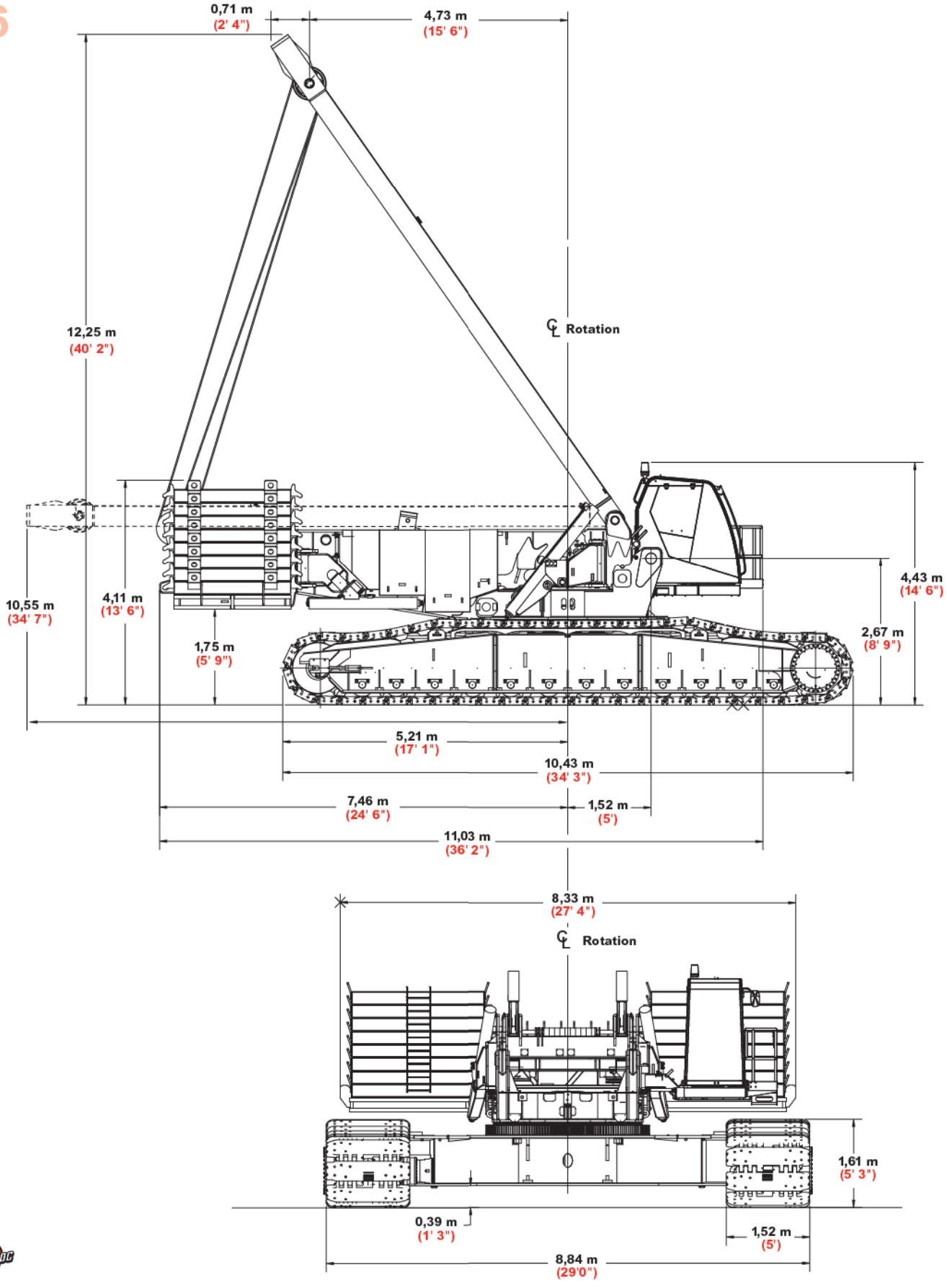
Lift - Enhancing Attachment

- Optional: Intergral MAX-ER attachment, utilizing base crane boom to increase capacities at radius.

Optional Equipment

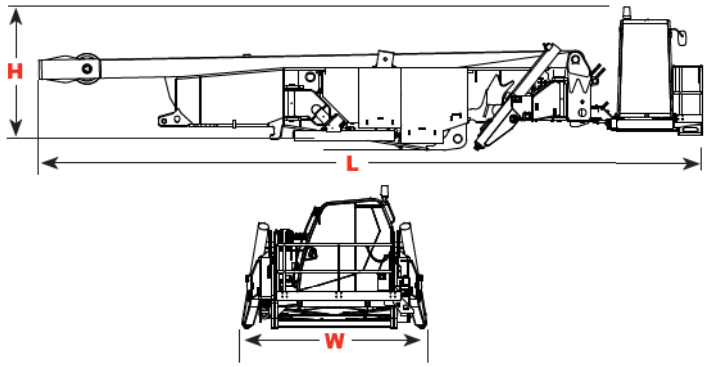
- Optional: Blocks and Hooks, each with roller-bearing sheaves for 28 mm wire rope, a roller-bearing swivel hook, a hook latch, and a swivel lock.
- Optional: 18,1 t (20 USt) swivel hook and weight ball.
- Optional: 41 t (45 USt) hook block with single roller bearing sheave and roller bearing swivel hook with hook latch and swivel lock (assembly block).
- Optional: 100 t (110 USt) hook block with three roller bearing sheaves and roller bearing swivel hook with hook latch and swivel lock.
- Optional: 180 t (200 USt) hook block with five roller bearing sheaves and roller bearing swivel hook with hook latch and swivel lock.
- Optional: 226 t (250 USt) hook block with seven roller bearing sheaves and roller bearing swivel hook with hook latch and swivel lock.
- Optional: 317 t (350 USt) hook block with seven roller bearing sheaves and roller bearing swivel hook with hook latch and swivel lock.
- Optional: 408 t (450 USt) hook block with thirteen roller bearing sheaves and roller bearing swivel hook with hook latch and swivel lock.
- Optional: Self-erect system includes, jacking cylinders with pads, 41 t (45 USt) assembly block and crawler handling chains.
- 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 dealer for available options.
- Optional: Special Paint [color(s) other than Manitowoc standard red and black].
- Optional: Custom vinyl decal(s) of customer name and/or logo from artwork supplied by customer.
- Optional: Export Packaging: basic crane, boom and jib sections.

outline dimensions

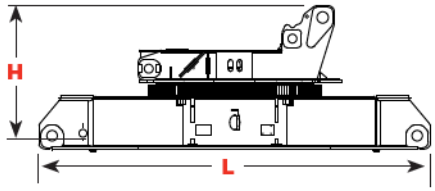


Manitowoc

outline dimensions

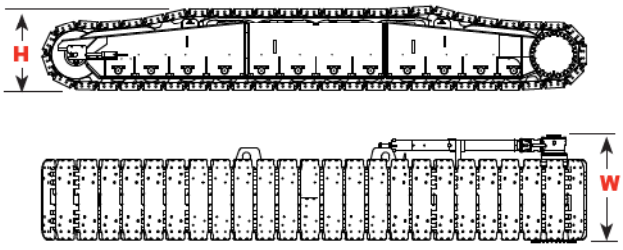


Rotaing Bed Assembly		
Length	13,25 m	43' 6"
Width	3,20 m	10' 6"
Height	2,87 m	9' 5"
Weight	39 612 kg	87,330 lb

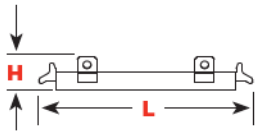


Carbody Assembly		
Length	6,78 m	22' 3"
Width	3,00 m	9' 10"
Height	2,52 m	8' 3"
Weight	28 161 kg	62,085 lb

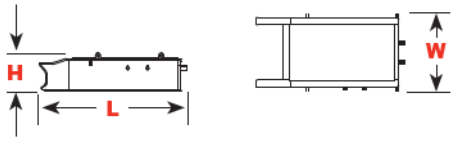
Note: Weight includes rotating bed adapter frame with bearing turntable, four swing drives, and carbody.



Crawlers		
Length	10,43 m	34' 3"
Width	2,03 m	6' 8"
Height	1,61 m	5' 3"
Weight	32 665 kg	72,015 lb



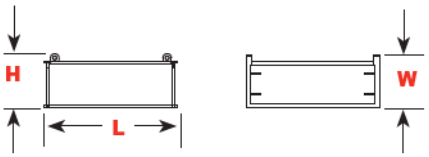
Upper Counterweight		
Series 1		x 10
Series 2		x 14
Series 3		x 16
Length	2,54 m	8' 4"
Width	2,61 m	8' 7"
Height	0,41 m	1' 4"
Weight	8 164 kg	18,000 lb



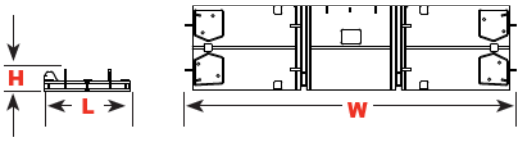
Carbody Center Counterweight		
Series 2		x 2
Series 3		x 2
Length	3,45 m	11' 4"
Width	1,80 m	5' 11"
Height	0,89 m	2' 11"
Weight	13 607 kg	30,000 lb

Option

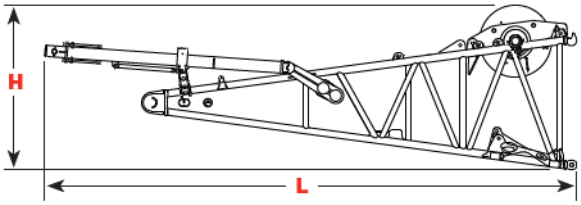
outline dimensions



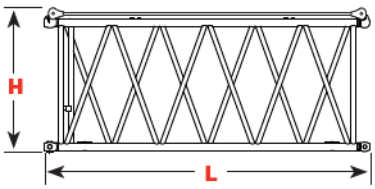
Carbody Side Counterweight Series 3		x 4
Length	2,18 mm	7' 2"
Width	0,86 m	2' 10"
Height	0,89 m	2' 11"
Weight	6 803 kg	15,000 lb



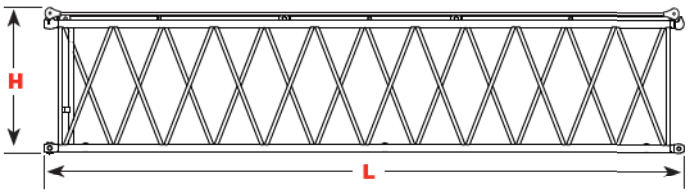
Upper Counterweight Tray		
Length	2,14 m	7' 0"
Width	8,33 m	27' 4"
Height	0,53 m	1' 9"
Weight	19 958 kg	44,000 lb



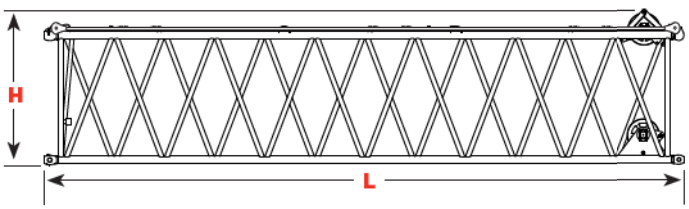
No. 58 Boom Butt, Drum 1, Luffing Drum, Wire Rope		x 1
Length	10,13 m	33' 3"
Width	2,96 m	9' 9"
Height	3,10 m	10' 2"
*Weight	21 609 kg	47,640 lb



No. 58 Boom Insert 6,0m (19' 8") & Straps		x 1
Length	6,19 m	20' 3"
Width	2,96 m	9' 9"
Height	2,67 m	8' 9"
Weight	2 562 kg	5,650 lb



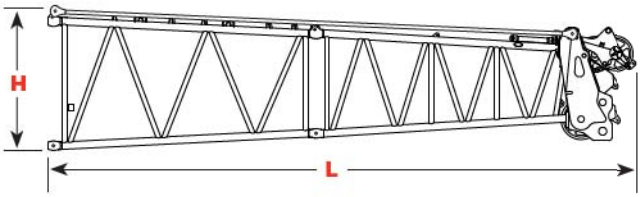
No. 58 Boom Insert 12,0m (39' 5") & Straps		x 1
Length	12,19 m	40' 0"
Width	2,96 m	9' 9"
Height	2,65 m	8' 8"
Weight	4 236 kg	9,340 lb



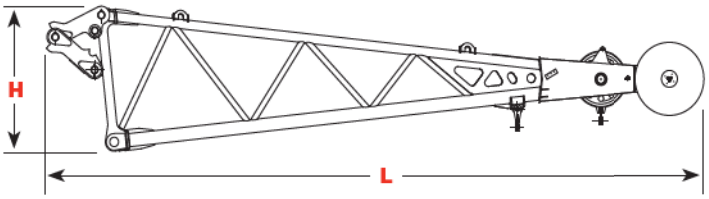
No. 58 Boom Insert Heavy 12,0 (39' 5") with Sheave		x 1
Length	12,19 m	40' 0"
Width	2,96 m	9' 9"
Height	2,67 m	8' 9"
Weight	5 595 kg	12,335 lb

Option

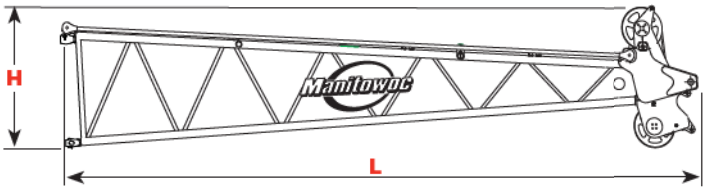
outline dimensions



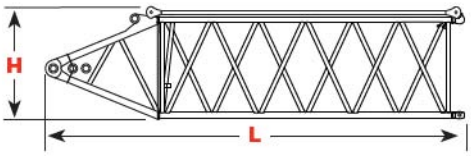
No. 58 Boom Top 5,0 m (16' 5") with 5,0 (16' 5") Transitional Insert & Straps		x 1
Length	11,41 m	37' 5"
Width	2,96 m	9' 9"
Height	2,67 m	8' 9"
Weight	11 373 kg	25,075 lb



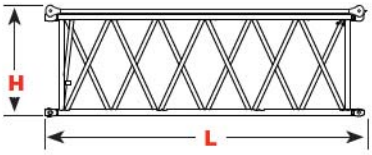
No. 58 Extended Upper Boom Point 7,0 m (23' 0")		x 1
Length	9,52 m	31' 3"
Width	2,60 m	8' 6"
Height	1,99 m	6' 6"
Weight	3 674 kg	8,100 lb



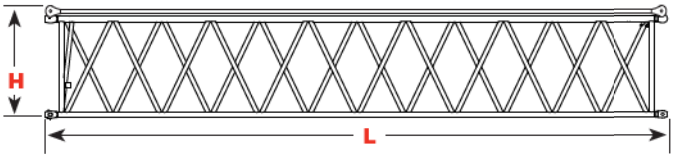
No. 59 Luffing Jib Top 11,0 (36' 1")		x 1
Length	11,95 m	39' 2"
Width	2,69 m	8' 10"
Height	2,54 m	8' 4"
Weight	6 015 kg	13,260 lb



No. 59 Luffing Jib Butt 7,0 (23' 0")		x 1
Length	7,15 m	23' 6"
Width	2,69 m	8' 10"
Height	2,17 m	7' 1"
Weight	2 722 kg	6,000 lb



No. 59 Jib Insert 6,0 (19' 8")		x 1
Length	6,19 m	20' 3"
Width	2,69 m	8' 10"
Height	2,17 m	7' 1"
Weight	1 685 kg	3,715 lb

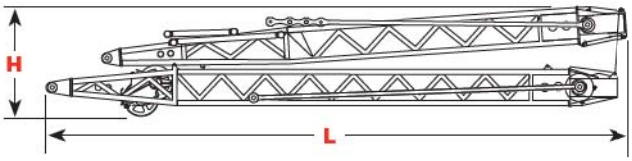


No. 59 Jib Insert 12,0 (39' 5")		x 1
Length	12,19 m	40' 0"
Width	2,69 m	9' 9"
Height	2,17 m	7' 1"
Weight	2 928 kg	6,455 lb

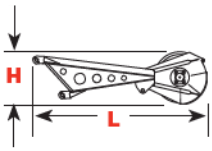
Option

outline dimensions

10



No. 59 Jib Strut with point sheaves and straps 11,5 m (37' 9")		x 1
Length	12,46 m	40' 11"
Width	2,69 m	8' 10"
Height	2,27 m	7' 5"
Weight	9 287 kg	20,475 lb



No. 59 Luffing Jib Upper Point Roller Assembly 11,5 m (37' 9")		x 1
Length	2,64 m	8' 8"
Width	0,41 m	1' 4"
Height	0,81 m	2' 8"
Weight	460 kg	1,014 lb

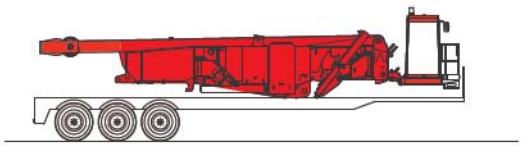
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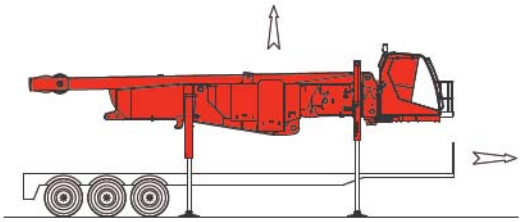
Model 16000 Trailer Load Out Summary

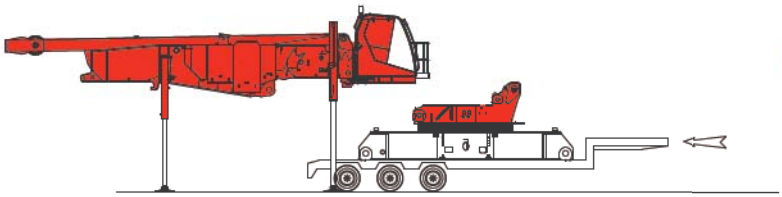
Item	Weight Each Item kg (lb)	No. 58 Boom 108 m (354') with No. 58 Extended Upper Boom Point 7 m (23') — Quantity on Trailer Load #																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Upperworks Module	39 612 (87,330)	1																		
Carbody and Adapter	28 161 (62,085)		1																	
Crawler Assembly	32 665 (72,015)			1	1															
Counterweight Tray	19 958 (44,000)																	1		
Upper Counterweight (Box)	8 164 (18,000)					1		1	1	2	1	2	1	1	2	2	2			
Carbody Center Counterweight	13 607 (30,000)																		1	1
Carbody Side Counterweight	6 803 (15,000)							1	1										1	1
8,0 m (26'2") No. 58 Boom Butt, Drum 1 w/ Wire Rope	21 609 (47,640)						1													
5,0 m (16'5") No. 58 Boom Top & Straps	9 169 (20,215)					1														
5,0 m (16'5") No. 58 Boom Trans. Insert & Straps	2 204 (4,860)					1														
6,0 m (19'8") No. 58 Boom Insert & Straps	2 562 (5,650)														1					
12,0 m (39'5") No, 58 Boom with WRG Boom Insert & Straps	5 595 (12,335)							1												
12,0 m (39'5") No. 58 Boom Insert & Straps	4 236 (9,340)								1	1	1	1	1	1						
No. 59 Upper Boom Point	460 (1,014)														1					
No, 58 Extended Upper Boom Point 7 m (23' 0")	3 674 (8,100)															1				
180 t (200 USt) 5 Sheave Load Block	4 309 (9,500)										1									
100 t (110 USt) 3 Sheave Load Block	3 402 (7,500)													1						
Reel Cable - 701 m (2,300')	3 629 (8,000)												1							
Miscellaneous	907 (2,000)																1			
		39 612 (87,330)	28 161 (62,085)	32 665 (72,015)	32 665 (72,015)	19 538 (43,075)	21 609 (47,640)	20 562 (45,335)	19 203 (42,340)	20 564 (45,340)	16 705 (36,840)	20 564 (45,340)	16 029 (35,340)	15 802 (34,840)	19 350 (42,664)	20 002 (44,100)	18 414 (40,600)	19 958 (44,000)	20 410 (45,000)	20 410 (45,000)
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

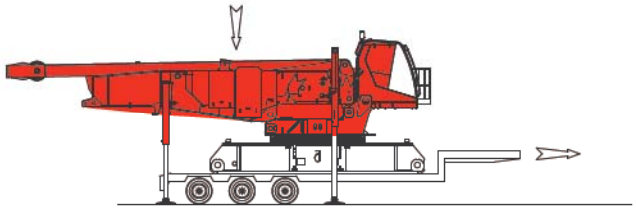
* Note: Does not include blocking, straping ect.

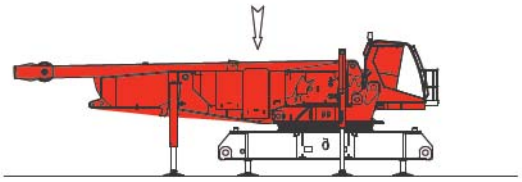
crane assembly - undecked

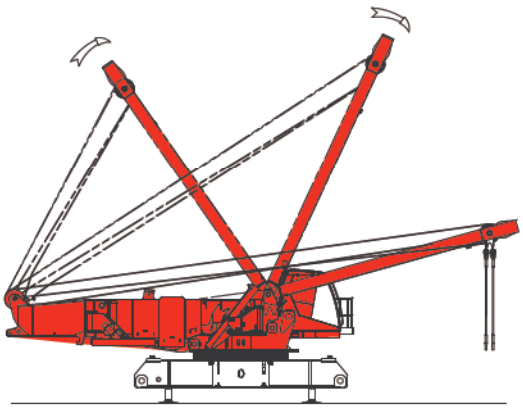


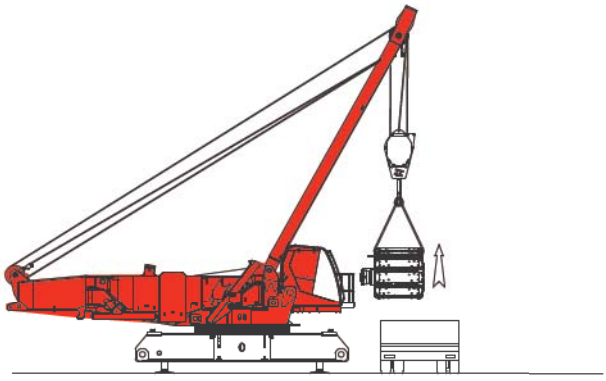


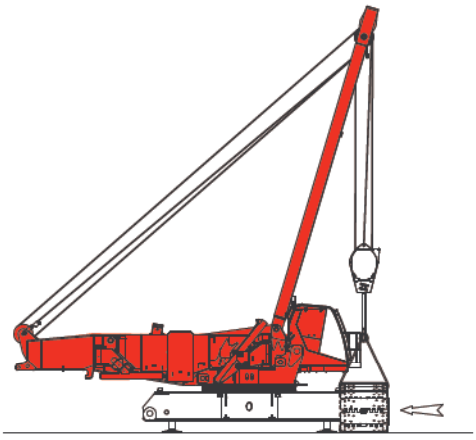






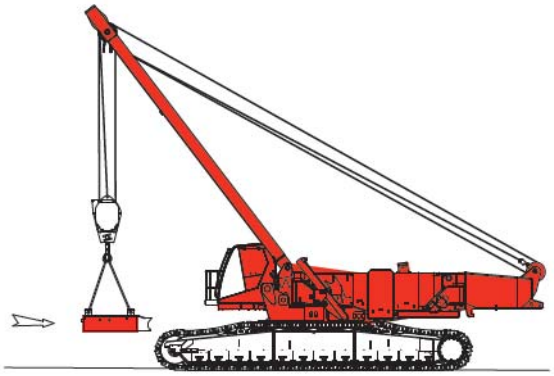


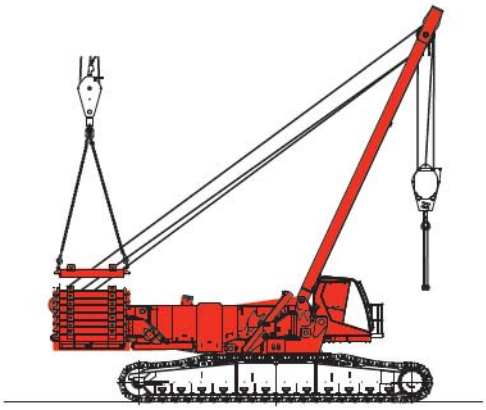


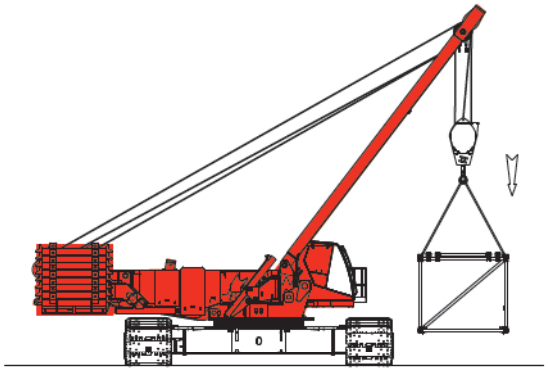


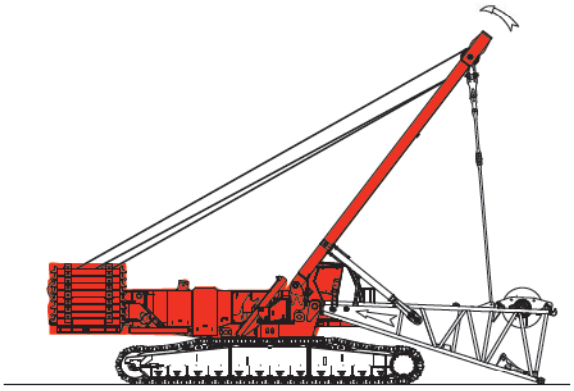
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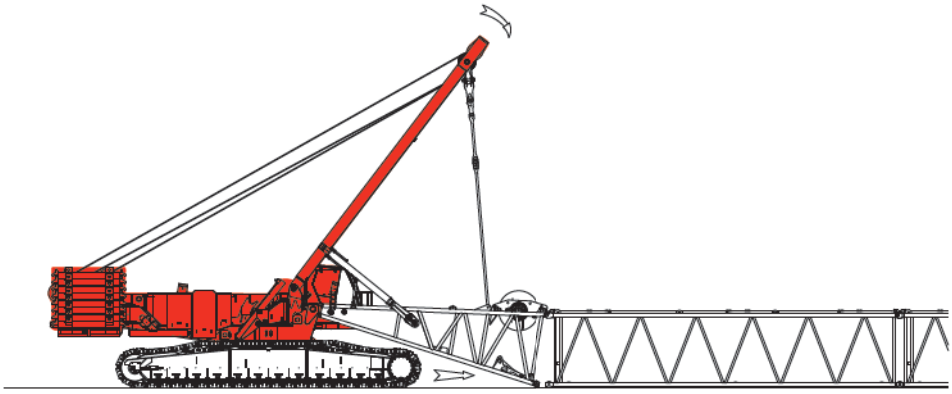
crane assembly - undecked

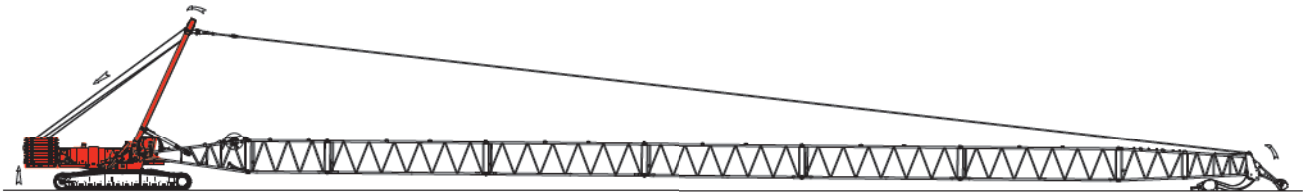




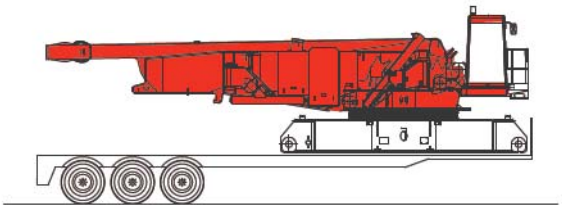


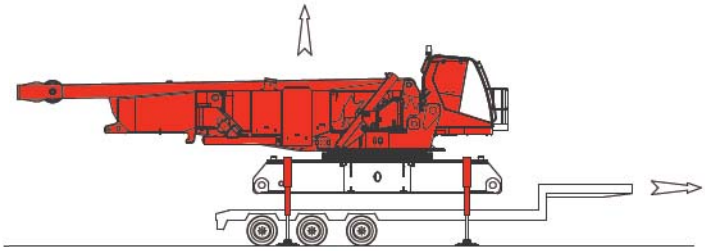


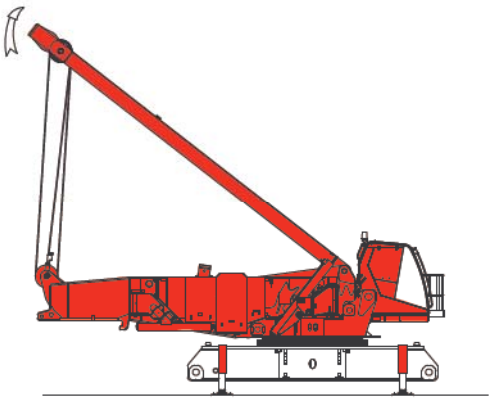


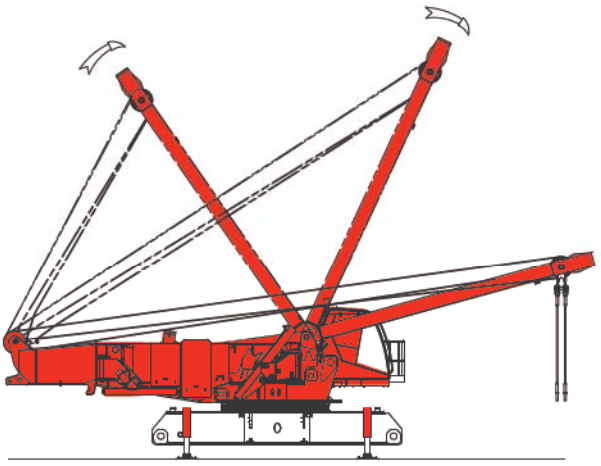


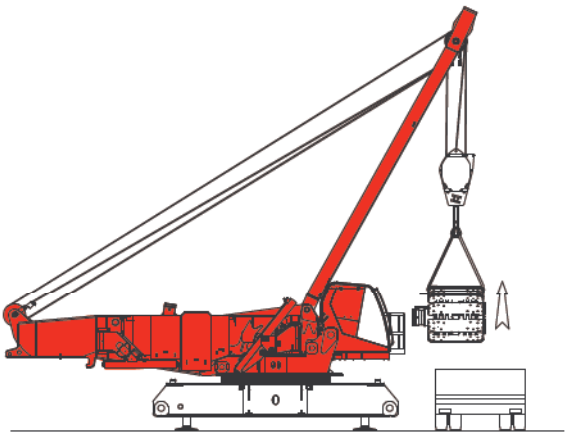
crane assembly - decked

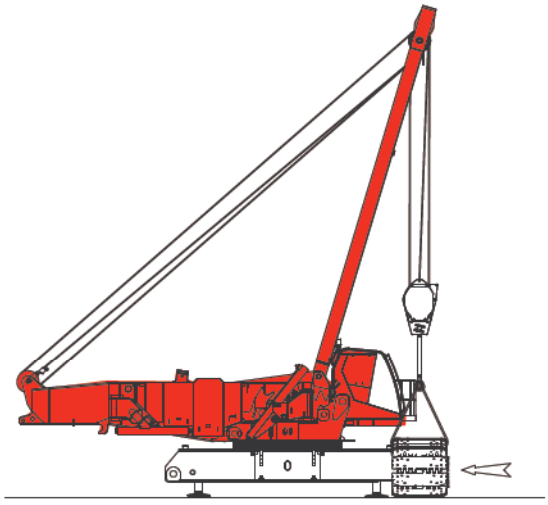




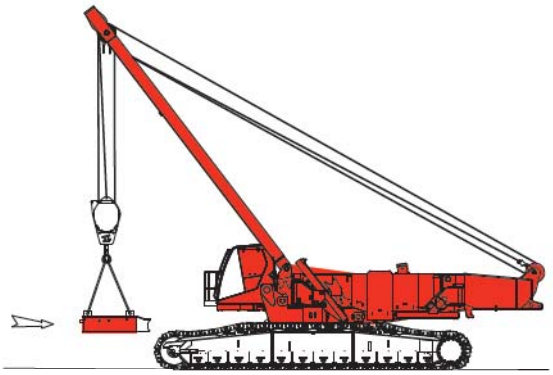


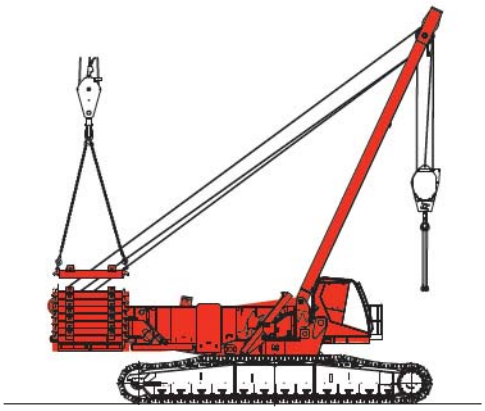


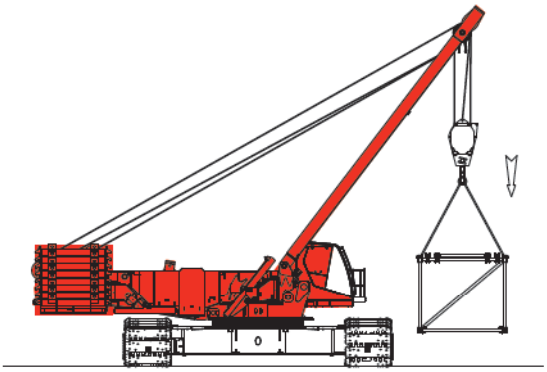


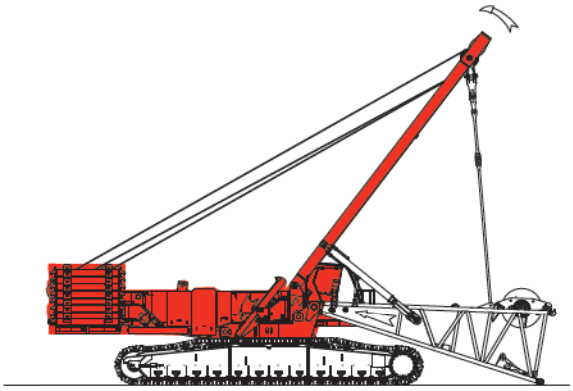


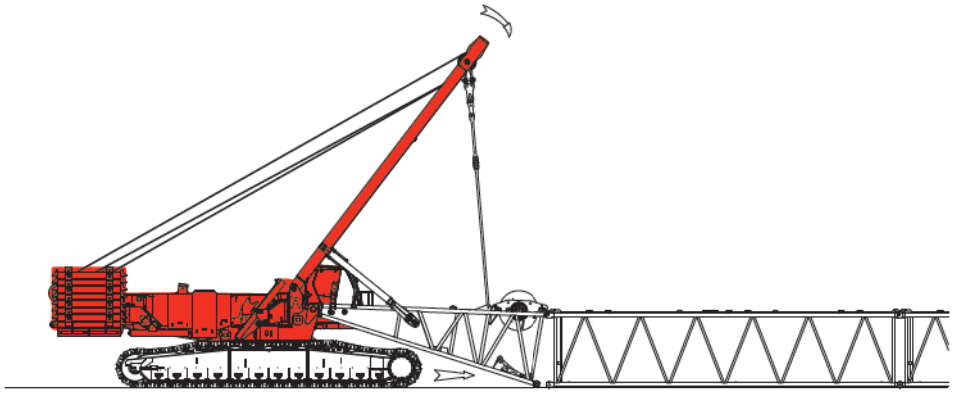
crane assembly - decked

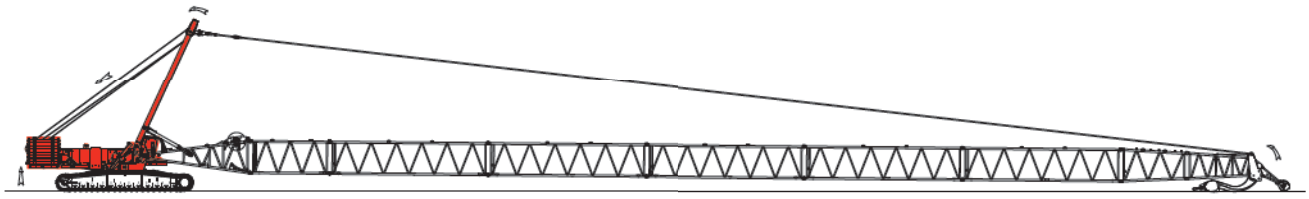










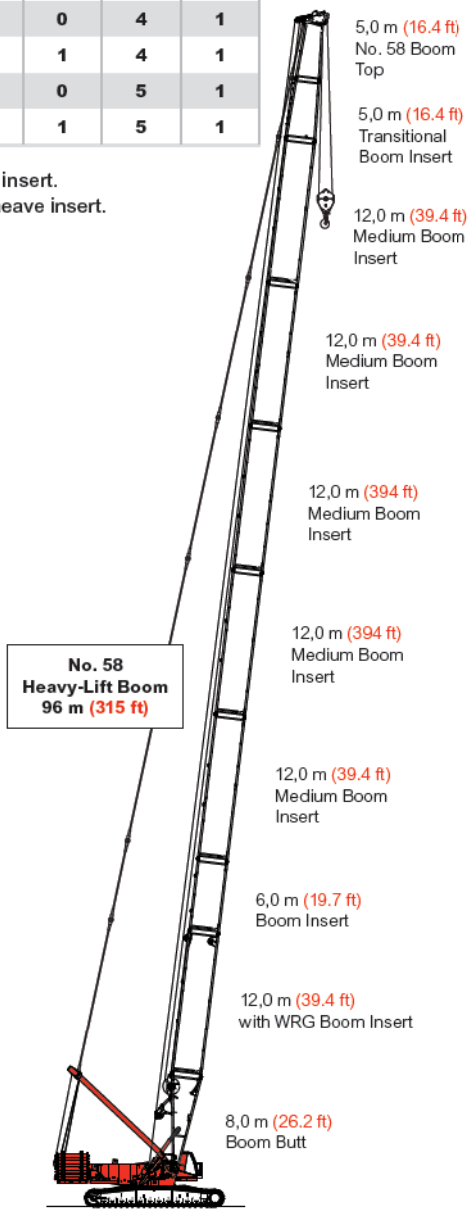


boom combinations

No. 58 Main Boom with Heavy-Lift Top Combinations

Boom Length m (ft)	Boom Inserts m (ft) 5,0* (6.4)	6,0 (9.7)	12,0 (39.4)	12,0** (39.4)
30 (98.4)	1	–	–	1
36 (118.1)	1	1	–	1
42 (137.8)	1	0	1	1
48 (157.5)	1	1	1	1
54 (177.2)	1	0	2	1
60 (196.9)	1	1	2	1
66 (216.5)	1	0	3	1
72 (236.2)	1	1	3	1
78 (255.9)	1	0	4	1
84 (275.6)	1	1	4	1
90 (295.3)	1	0	5	1
96 (315.0)	1	1	5	1

* transition boom insert.
** with auxiliary sheave insert.

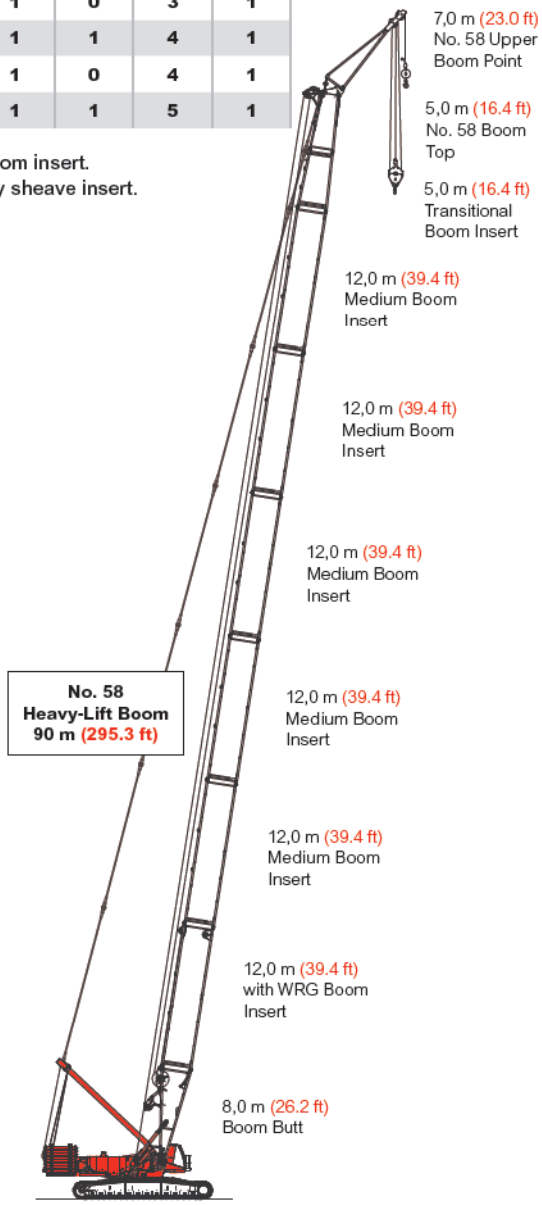


Model 16000
No. 58 Heavy-Lift Main Boom
96 m (315 ft)

No. 58 Main Boom with 95 t (104.7 USt) Upper Boom Point Combinations

Boom Length m (ft)	Boom Inserts m (ft) 5,0* (6.4)	6,0 (9.7)	12,0 (39.4)	12,0** (39.4)
30 (98.4)	1	–	–	1
36 (118.1)	1	1	–	1
42 (137.8)	1	0	1	1
48 (157.5)	1	1	1	1
54 (177.2)	1	0	2	1
60 (196.9)	1	1	2	1
66 (216.5)	1	1	3	1
72 (236.2)	1	0	3	1
78 (255.9)	1	1	4	1
84 (275.6)	1	0	4	1
90 (295.3)	1	1	5	1

* transition boom insert.
** with auxiliary sheave insert.



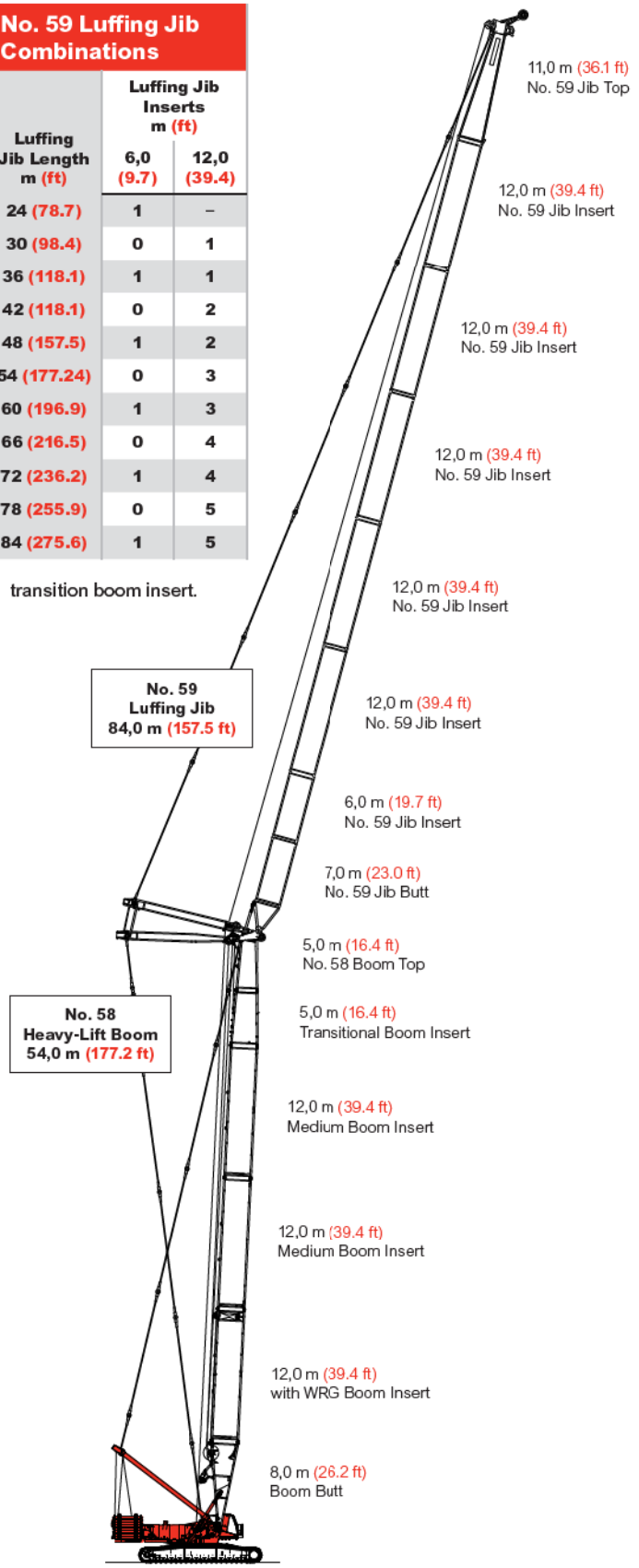
Model 16000
No. 58 Heavy-Lift Main Boom with
90 t (104.7 USt) Detachable Upper Boom
90 m (295.3 ft)

boom combinations

No. 59 Luffing Jib Combinations

Luffing Jib Length m (ft)	Luffing Jib Inserts m (ft) 6,0 (9.7)	12,0 (39.4)
24 (78.7)	1	–
30 (98.4)	0	1
36 (118.1)	1	1
42 (118.1)	0	2
48 (157.5)	1	2
54 (177.24)	0	3
60 (196.9)	1	3
66 (216.5)	0	4
72 (236.2)	1	4
78 (255.9)	0	5
84 (275.6)	1	5

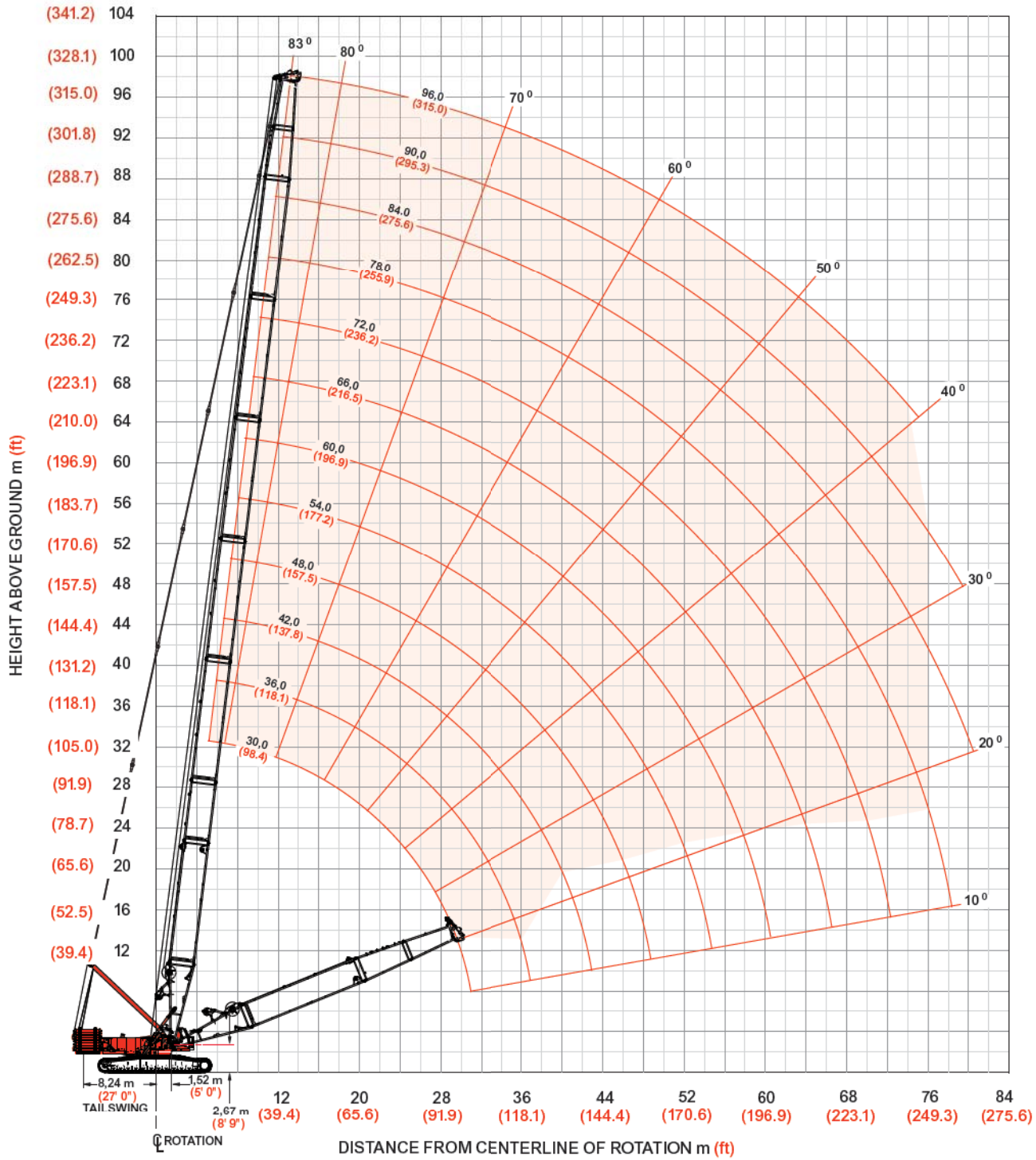
* transition boom insert.



Model 16000
No. 59 Luffing Jib on
No. 58 Heavy-Lift Main Boom
132 m (433.1 ft)

heavy-lift boom range diagrams

Liftcrane Boom Capacities - Model 16000 Series 3
No. 58 Heavy -lift Main Boom with 9,75 m (32 ft) Live mast with 2 Lead Lines



Liftcrane Boom Capacities - Model 16000 Series 3
No. 58 Heavy -lift Main Boom with 9,75 m (32 ft) Live mast with 2 Lead Lines

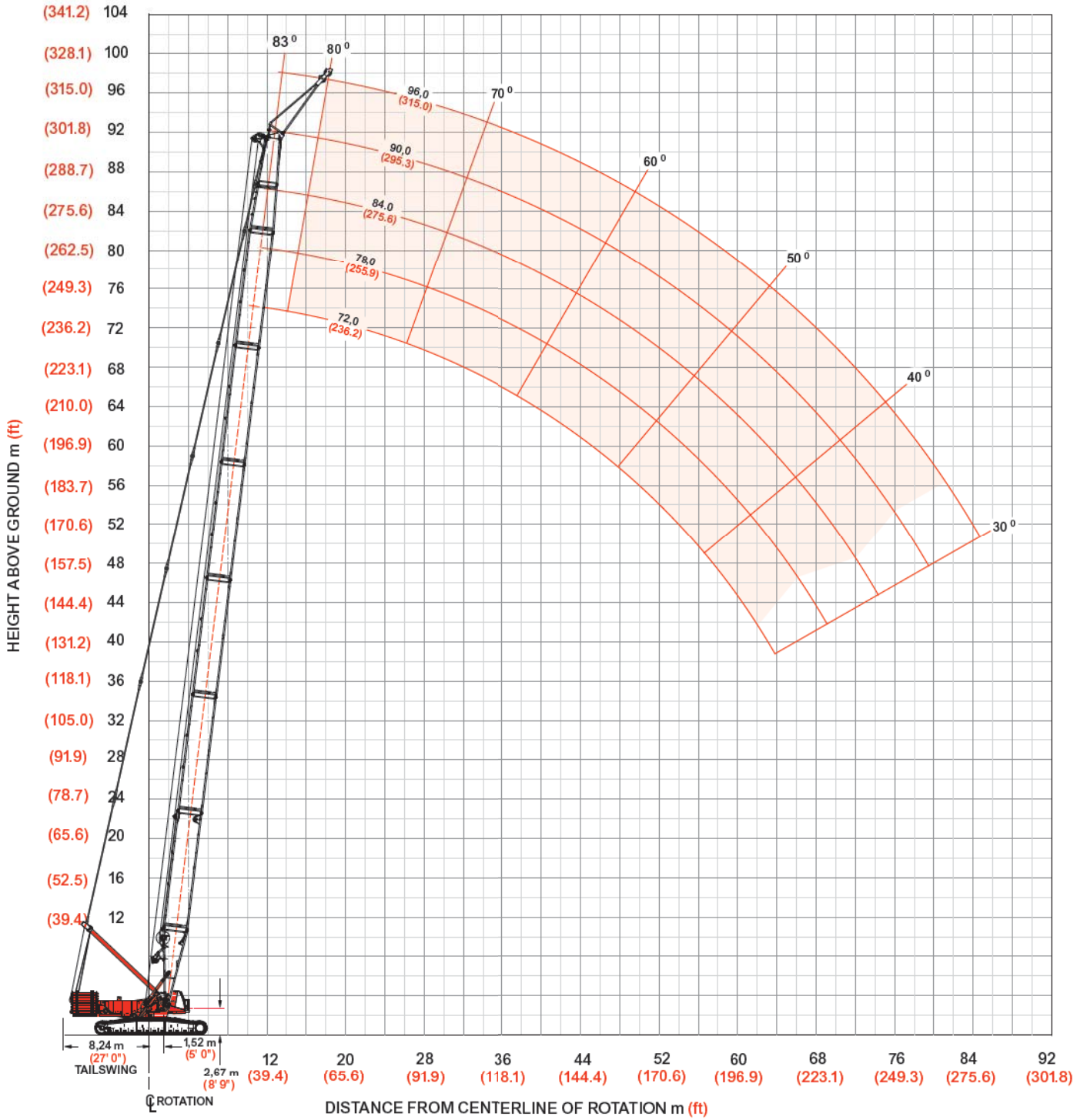
150 590 kg (332,000 lb) Counterweight 54 430 kg (120,000 lb) Carbody Counterweight

360° Rating — **kg (lb) x 1 000**

Boom m (ft)	30,0 (98.4)	36,0 (118.1)	42,0 (137.8)	48,0 (157.5)	54,0 (177.2)	60,0 (196.9)	66,0 (216.5)	72,0 (236.2)	78,0 (255.9)	84,0 (275.6)	90,0 (295.3)	96,0 (315.0)
Radius												
6,4 (21)	400,0 (881.9)											
8,0 (26)	323,8 (720.5)	323,3 (719.3)	283,4 (625.7)									
10,0 (32)	256,4 (581.7)	256,1 (581.0)	256,6 (580.8)	257,2 (579.6)	216,1 (483.0)							
12,0 (40)	194,8 (419.1)	195,1 (419.7)	195,5 (420.5)	195,4 (420.4)	193,2 (420.4)	181,9 (397.4)	159,6 (348.9)	147,0 (321.3)	— (302.9)			
14,0 (45)	153,7 (349.9)	153,9 (350.3)	154,2 (351.0)	154,1 (350.7)	154,0 (350.6)	154,5 (350.0)	145,6 (325.9)	134,0 (299.5)	129,7 (288.7)	113,7 (252.0)	95,5 (211.6)	
18,0 (60)	106,3 (229.3)	106,4 (229.5)	106,6 (229.9)	106,3 (229.3)	106,2 (229.0)	105,8 (228.1)	105,5 (227.5)	105,7 (226.4)	105,4 (225.6)	103,4 (224.5)	89,4 (196.3)	77,2 (169.5)
22,0 (70)	79,6 (183.6)	79,7 (183.8)	79,9 (184.2)	79,5 (183.4)	79,4 (183.1)	78,9 (182.0)	78,5 (181.3)	78,0 (180.2)	77,6 (179.2)	77,0 (178.0)	76,8 (176.9)	72,5 (161.6)
26,0 (85)	62,4 (138.5)	62,5 (138.7)	62,7 (139.1)	62,4 (138.3)	62,1 (137.8)	61,6 (136.7)	61,3 (135.9)	60,7 (134.6)	60,2 (133.5)	59,6 (132.2)	59,0 (131.0)	58,4 (129.6)
30,0 (100)	50,3 (108.2)	50,5 (108.9)	50,7 (109.3)	50,3 (108.5)	50,1 (108.0)	49,6 (106.8)	49,2 (106.0)	48,6 (104.6)	48,1 (103.5)	47,5 (102.1)	46,9 (100.9)	46,2 (99.4)
34,0 (110)		41,6 (93.9)	41,9 (94.5)	41,5 (93.7)	41,3 (93.2)	40,8 (92.0)	40,3 (91.1)	39,8 (89.8)	39,2 (88.6)	38,5 (87.1)	38,0 (85.9)	37,3 (84.4)
38,0 (120)		— (81.5)	35,0 (82.3)	34,7 (81.6)	34,5 (81.1)	33,9 (79.9)	33,6 (79.0)	32,9 (77.6)	32,4 (76.4)	31,7 (74.9)	31,1 (73.7)	30,4 (72.1)
40,0 (130)			32,1 (72.1)	31,9 (71.5)	31,7 (71.1)	31,1 (69.8)	30,7 (69.0)	30,1 (67.5)	29,5 (66.3)	28,8 (64.8)	28,3 (63.6)	27,6 (62.0)
44,0 (140)				27,0 (62.9)	26,8 (62.5)	26,2 (61.3)	25,9 (60.5)	25,2 (59.0)	24,7 (57.8)	24,0 (56.3)	23,4 (55.0)	22,7 (53.4)
48,0 (155)				— (52.1)	22,8 (52.0)	22,3 (50.8)	21,9 (49.9)	21,2 (48.5)	20,7 (47.2)	20,0 (45.7)	19,4 (44.5)	18,7 (42.8)
52,0 (170)					19,4 (43.2)	18,9 (42.2)	18,5 (41.3)	17,9 (39.9)	17,4 (38.7)	16,6 (37.1)	16,1 (35.9)	15,3 (34.2)
56,0 (180)						16,1 (37.2)	15,7 (36.5)	15,1 (35.0)	14,5 (33.8)	13,8 (32.2)	13,3 (31.0)	12,5 (29.3)
60,0 (195)						— (30.7)	13,3 (30.1)	12,6 (28.7)	12,1 (27.5)	11,4 (25.9)	10,8 (24.7)	10,1 (23.0)
64,0 (210)							11,1 (24.6)	10,5 (23.3)	10,0 (22.1)	9,3 (20.5)	8,7 (19.3)	7,9 (17.6)
68,0 (220)								8,6 (20.0)	8,1 (18.9)	7,4 (17.3)	6,8 (16.1)	6,1 (14.5)
70,0 (230)								7,7 (17.1)	7,2 (16.0)	6,5 (14.4)	6,0 (13.2)	5,3 (11.6)
76,0 (255)									4,9 —	4,2 (8.1)	3,7 (7.0)	

upper boom point range diagram

Liftcrane Boom Capacities - Model 16000 Series 3
No. 58 Heavy -lift Main Boom with Extended Upper Boom Point 7 m (23')



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upper boom point load charts

Liftcrane Boom Capacities - Model 16000
No. 58 Heavy Lift Main Boom with 7,0 m (23') Extended Upper Boom Point

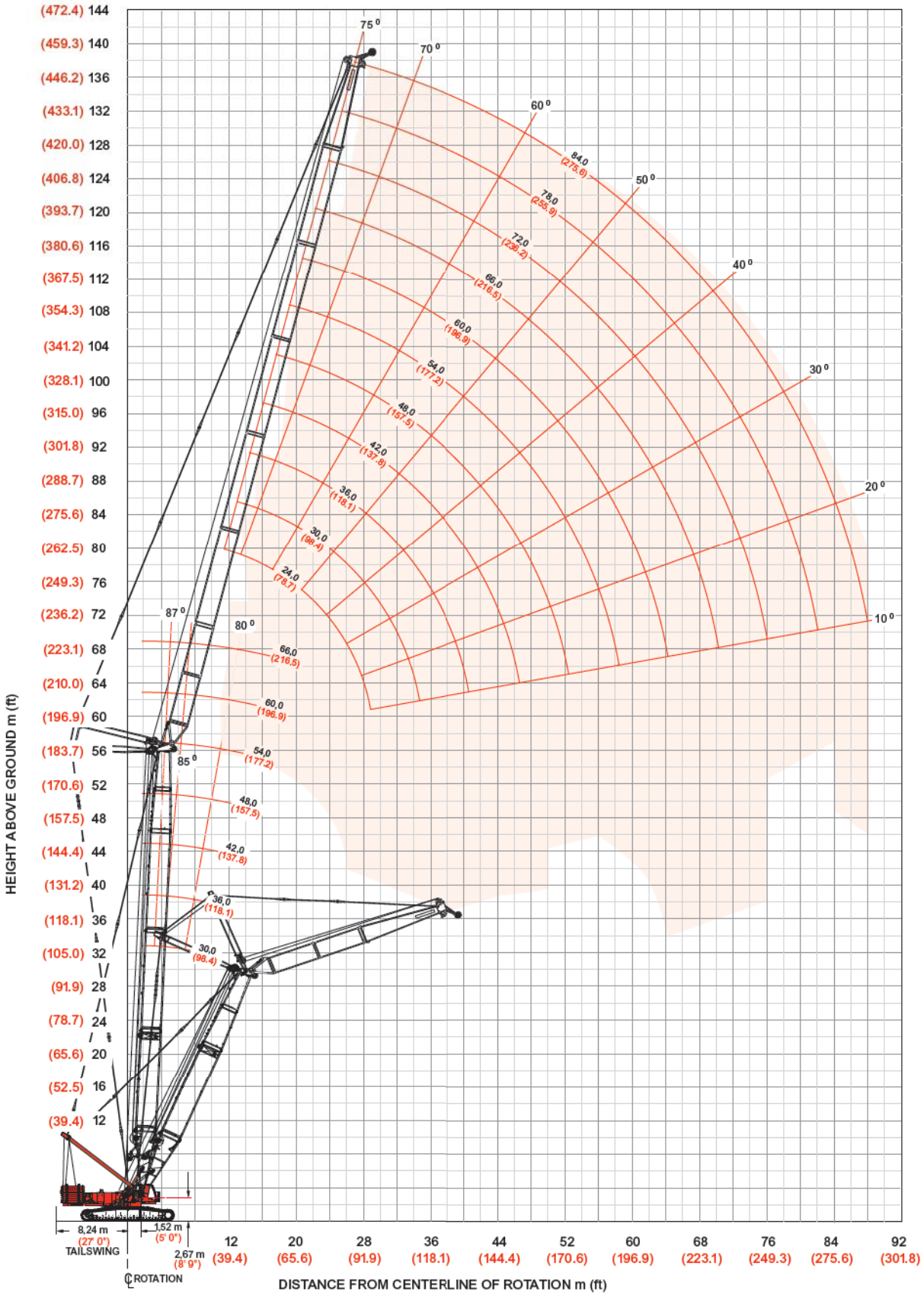
150 590 kg (332,000 lb) Counterweight
54 430 kg (120,000 lb) Carbody Counterweight

360° Rating **kg (lb) x 1 000**

Boom m (ft)	66,0 (216.5)	72,0 (236.2)	78,0 (255.9)	84,0 (275.6)	90,0 (295.3)
Radius					
15,2 (50)	97,6 (215.2)				
16,8 (55)	97,6 (215.2)	97,6 (215.2)	91,3 (201.5)	87,8 (193.7)	
18,0 (60)	97,6 (215.2)	97,6 (215.2)	89,6 (196.8)	86,5 (190.1)	
20,0 (65)	95,5 (212.3)	95,1 (211.5)	87,1 (192.6)	84,4 (186.6)	74,6 (165.0)
22,0 (75)	82,7 (172.6)	82,3 (171.7)	82,7 (170.8)	81,1 (169.8)	72,5 (158.2)
24,0 (80)	72,9 (157.2)	72,4 (156.1)	72,0 (155.2)	71,8 (154.2)	70,1 (153.2)
26,0 (90)	64,8 (132.2)	64,4 (131.1)	63,9 (130.1)	63,4 (128.9)	63,0 (127.9)
28,0 (95)	58,1 (122.0)	57,6 (120.8)	57,1 (119.8)	56,6 (118.6)	56,1 (117.5)
30,0 (100)	52,4 (112.9)	51,9 (111.7)	51,4 (110.7)	50,8 (109.4)	50,3 (108.3)
32,0 (105)	45,5 (104.9)	47,0 (103.6)	46,5 (102.5)	45,9 (101.3)	45,4 (100.2)
34,0 (115)	43,3 (91.0)	42,7 (89.7)	42,2 (88.6)	41,6 (87.3)	41,1 (86.2)
38,0 (125)	36,2 (79.6)	35,6 (78.3)	35,1 (77.2)	34,5 (75.8)	33,9 (74.6)
40,0 (135)	33,3 (70.1)	32,7 (68.7)	32,2 (67.6)	31,5 (66.2)	31,0 (65.0)
44,0 (145)	28,3 (62.0)	27,7 (60.6)	27,1 (59.4)	26,5 (58.0)	25,9 (56.8)
48,0 (160)	24,2 (51.8)	23,5 (50.4)	23,0 (49.2)	22,3 (47.7)	21,8 (46.5)
52,0 (175)	20,7 (43.5)	20,1 (42.1)	19,5 (40.8)	18,9 (39.4)	18,3 (38.2)
56,0 (185)	17,8 (38.7)	17,1 (37.3)	16,6 (36.1)	15,9 (34.6)	15,4 (33.4)
60,0 (200)	15,2 (32.4)	14,6 (31.1)	14,0 (29.8)	13,4 (28.4)	12,8 (27.1)
64,0 (210)		12,4 (27.4)	11,8 (26.2)	11,2 (24.7)	10,6 (23.5)
68,0 (225)			9,9 (21.3)	9,2 (19.8)	8,7 (18.7)
72,0 (240)			8,1 (17.1)	7,5 (15.6)	7,0 (14.4)
76,0 (250)				5,9 (13.0)	5,4 (11.9)
82,0 (270)					3,4 (7.4)

luffing jib range diagram

Liftcrane Boom Capacities - Model 16000 Series 3
No. 58 Heavy -lift Main Boom with No. 59 Luffing Jib



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Liftcrane Boom Capacities - Model 16000 Series 3
No. 59 Luffing Jib on No. 58 Heavy Lift Main Boom

150 590 kg (332,000 lb) Counterweight 54 430 kg (120,000 lb) Carbody Counterweight

360° Rating **kg (lb) x 1 000**

87° Boom Angle

Luffing Jib Length 24,0 m (78.7 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	66,0 (216.5)
Radius				
11,6 (38)	185,2 (408.5)			
14,0 (45)	157,7 (354.2)	151,0 (333.0)	117,4 (262.3)	99,6 (222.2)
18,0 (60)	121.1 (260.7)	112,6 (244.8)	97,8 (213.0)	84,8 (184.8)
22,0 (75)	92,7 (194.7)	92,7 (194.5)	82,2 (174.9)	72,3 (154.3)
26,0 (90)	74,6 (147.9)	73,9 (147.8)	69,5 (144.3)	62,1 (129.5)
32,0 (105)				
38,0 (125)				
44,0 (145)				
52,0 (175)				
56,0 (185)				
60,0 (195)				

Luffing Jib Length 36,0 m (118.1 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	60,0 (196.9)
Radius				
15,2 (50)	136,1 (300.2)	116,8 (252.6)		
16,0 (55)	131,2 (278.3)	113,3 (242.0)	— (205.4)	— (194.5)
18,0 (60)	118,9 (258.6)	104,3 (227.5)	89,0 (194.3)	84,5 (184.4)
22,0 (75)	92,3 (193.7)	89,1 (190.3)	77,1 (165.1)	73,3 (157.0)
26,0 (90)	74,4 (153.3)	74,3 (152.9)	67,1 (141.2)	64,0 (134.6)
32,0 (105)	57,0 (125.8)	56,9 (125.5)	55,2 (121.7)	52,5 (115.8)
38,0 (125)	45,6 (100.2)	45,5 (100.0)	44,8 (98.5)	43,0 (94.7)
44,0 (145)				
52,0 (175)				
56,0 (185)				
60,0 (195)				

Luffing Jib Length 48,0 m (157.5 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	60,0 (196.9)
Radius				
18,3 (60)	107,4 (236.8)	92,1 (203.2)		
22,0 (75)	91,9 (191.9)	81,6 (175.1)	70,3 (151.1)	66,6 (142.9)
24,0 (80)	81,6 (176.5)	75,6 (166.8)	66,2 (144.3)	62,6 (136.6)
30,0 (100)	61,2 (132.2)	61,0 (131.8)	55,5 (120.9)	52,6 (144.6)
34,0 (115)	52,0 (110.2)	51,8 (109.9)	49,5 (106.2)	47,0 (100.7)
38,0 (125)	44,9 (98.8)	44,8 (98.6)	44,4 (97.7)	42,0 (92.5)
42,0 (140)	39,3 (85.0)	39,2 (84.8)	39,1 (84.4)	37,6 (81.5)
46,0 (155)	34,8 (74,0)	34,7 (73.8)	34,5 (73.4)	33,7 (71.7)
52,0 (175)				27,0 (54.3)
56,0 (185)				
60,0 (195)				

Luffing Jib Length 60,0 m (196.9 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	60,0 (196.9)
Radius				
21,3 (70)	86,0 (189.7)	73,5 (162.2)		
24,0 (80)	79,1 (172.5)	69,3 (151.1)	58,2 (128.1)	51,8 (114.1)
28,0 (95)	65,9 (139.2)	62,1 (133.6)	53,2 (114.7)	49,6 (107.3)
34,0 (115)	51,1 (108.2)	50,9 (107.8)	45,8 (98.3)	43,2 (92.8)
40,0 (135)	41,1 (87.2)	40,9 (86.9)	39,4 (84.4)	37,2 (79.7)
48,0 (160)	31,9 (69.0)	31,8 (68.7)	31,7 (68.3)	30,4 (65.9)
56,0 (185)	25,6 (55.9)	25,5 (355.7)	35,3 (55.3)	24,9 (54.4)
64,0 (210)	18,4 (40.7)	18,3 (40.5)	18,2 (40.3)	18,1 (40.1
72,0 (240)				
84,0 (280)				
88,0 (290)				

Luffing Jib Length 72,0 m (236.2 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)
Radius			
21,3 (70)			
24,0 (80)	— (132.1)	— (115.1)	
28,0 (95)	58.3 (127.7)	51,2 (112.4)	43,1 (94.6)
34,0 (115)	49.9 (105.8)	48,2 (103.7)	40,6 (88.0)
40,0 (135)	40.0 (84.8)	39,8 (84.5)	36,3 (78.1)
48,0 (160)	30.9 (66.6)	30.7 (66.3)	30.3 (65.7)
56,0 (185)	24.5 (53.5)	24.4 (53.3)	24.2 (52.9)
64,0 (210)	19.8 (43.7)	19.7 (43.5)	19.5 (43.2)
72,0 (240)	16.1 (34.6)	15,7 (32.5)	15,2 (31.6)
84,0 (280)			
88,0 (290)			

Luffing Jib Length 84,0 m (275.6 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)
Radius			
21,3 (70)			
24,0 (80)			
28,0 (95)	42,6 (93.3)	37,9 (83.3)	— (70.9)
34,0 (115)	40,7 (89.2)	36,7 (80.5)	31,4 (68.9)
40,0 (135)	38,7 (82.5)	35,4 (77.7)	30,0 (65.2)
48,0 (160)	29,8 (64.2)	29,6 (63.9)	26,4 (57.4)
56,0 (185)	23,4 (51.2)	23,3 (50.9)	22,7 (49.8)
64,0 (210)	18,8 (41.5)	18,6 (41.2)	18,5 (40.9)
72,0 (240)	15,2 (32.5)	15,1 (32.3)	14,9 (32.0)
84,0 (280)	10,6 (21.4)	9,6 (19.5)	9,1 (18.4)
88,0 (290)		6,8 (14.2)	6,6 (14.0)

luffing jib load charts

Liftcrane Boom Capacities - Model 16000 Series 3
No. 59 Luffing Jib on No. 58 Heavy Lift Main Boom

150 590 kg (332,000 lb) Counterweight 54 430 kg (120,000 lb) Carbody Counterweight

360° Rating — **kg (lb) x 1 000**

75° Boom Angle

Luffing Jib Length 24,0 m (78.7 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	66,0 (216.5)
Radius				
24,0 (80)	75,6 (163.2)			
26,0 (90)	68,1 (140.3)	65,0 (133.9)		
28,0 (95)	61,9 (130.9)	59,1 (124.9)		
32,0 (105)	52,1 (114.9)	49,7 (109.7)	46,9 (103.4)	43,5 (96.0)
36,0 (120)		42,5 (91.8)	40,2 (213.0)	37,2 (80.5)
38,0 (125)			37,3 (82.1)	32,3 (76.3)
42,0 (140)				30,2 (65.1)
46,0 (155)				
52,0 (175)				
54,0 (180)				
56,0 (185)				

Luffing Jib Length 36,0 m (118.1 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	60,0 (196.9)
Radius				
24,0 (80)				
26,0 (90)				
28,0 (95)	61,1 (128.9)			
32,0 (105)	51,4 (113.3)	48,7 (107.4)		
36,0 (120)	44,0 (95.2)	41,7 (90.2)	39,1 (84.4)	— (81.0)
38,0 (125)	41,0 (90,3)	38,9 (125.5)	36,3 (79.9)	34,9 (76.7)
42,0 (140)	35,9 (77.5)	34,0 (85.5)	31,8 (68.6)	30,4 (65.8)
46,0 (155)		30,0 (63.7)	28,0 (59.5)	26,8 (57.1)
52,0 (175)				22,4 (47.5)
54,0 (180)				
56,0 (185)				

Luffing Jib Length 48,0 m (157.5 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	60,0 (196.9)
Radius				
34,0 (110)	46,4 (104.2)			
36,0 (120)	43,0 (92.9)	— (87.5)		
38,0 (125)	40,0 (87.9)	37,6 (82.8)		
40,0 (135)	37,3 (79.3)	35,1 (74.6)	32,6 (69.2)	
42,0 (140)	34,9 (75.5)	32,9 (71.0)	30,5 (65.8)	29,1 (62.8)
44,0 (145)	32,8 (71.9)	30,8 (67.6)	28,5 (62.6)	27,2 (59.8)
46,0 (155)	30,8 (65.6)	29,0 (61.6)	26,8 (56.9)	25,6 (54.3)
50,0 (165)	27,4 (60,0)	25,7 (56.3)	23,7 (52.0)	22,6 (49.6)
56,0 (185)	23,2 (50.6)	21,7 (47.5)	20,0 (43.7)	19,0 (41.6)
60,0 (200)		19,5 (41.8)	17,9 (38.6)	17,0 (36.7)
64,0 (215)			16,0 —	15,2 (32.2)

Luffing Jib Length 60,0 m (196.9 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	60,0 (196.9)
Radius				
40,0 (135)	36,1 (76.7)			
44,0 (145)	31,6 (69.4)	29,6 (64.9)		
48,0 (160)	27,9 (60.3)	26,0 (56.2)	23,9 (51.5)	22,7 (48.9)
54,0 (180)	23,5 (50.6)	21,8 (47.0)	19,9 (42.9)	18,8 (40.6)
60,0 (200)	19,9 (42.9)	18,4 (39.8)	16,8 (36.1)	15,8 (34.0)
66,0 (220)	17,0 (36.6)	15,7 (33.8)	14,2 (30.5)	13,3 (28.7)
72,0 (240)		13,4 (28.6)	12,0 (25.8)	11,3 (24.2)
76,0 (250)			10,7 (23.6)	10,0 (22.1)
80,0 (265)				
84,0 (280)				
88,0 (300)				

Luffing Jib Length 72,0 m (236.2 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	48,0 (157.5)
Radius			
40,0 (135)			
44,0 (145)			
48,0 (160)	26,6 (57.4)	24,7 (53.1)	
54,0 (180)	22,2 (47.8)	20,5 (44.1)	19,5 (41.9)
60,0 (200)	18,7 (40.2)	17,1 (36.9)	16,3 (35.0)
66,0 (220)	15,9 (31.4)	14,5 (31.1)	13,6 (29.3)
72,0 (240)	13,5 (28.9)	12,2 (26.2)	11,5 (24.7)
76,0 (250)	12,1 (26.7)	10,9 (24.1)	10,3 (22.6)
80,0 (265)		9,8 —	9,1 —
84,0 (280)		8,7 (18,2)	8,1 (17,1)
88,0 (300)			

Luffing Jib Length 84,0 m (275.6 ft)

Boom m (ft)	30,0 (98.4)
Radius	
40,0 (135)	
44,0 (145)	
48,0 (160)	
54,0 (180)	21,0 (45.1)
60,0 (200)	17,5 (37.6)
66,0 (220)	14,7 (31.5)
72,0 (240)	12,3 (26.4)
76,0 (250)	11,0 (24.2)
80,0 (265)	9,8 —
84,0 (280)	8,7 (18.5)
88,0 (300)	7,7 (15.2)

Liftcrane Boom Capacities - Model 16000 Series 3
No. 59 Luffing Jib on No. 58 Heavy Lift Main Boom

150 590 kg (332,000 lb) Counterweight 54 430 kg (120,000 lb) Carbody Counterweight

360° Rating — **kg (lb) x 1 000**

65° Boom Angle

Luffing Jib Length 24,0 m (78.7 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	66,0 (216.5)
Radius				
32,0 (105)	47,9 (105.7)			
36,0 (120)	41,0 (88.7)	— (80.8)		
40,0 (135)	61,9 —	32,4 (68.9)		
44,0 (145)		28,2 (61.9)	25,0 (60.6)	
48,0 (160)			21,9 (47.2)	18,5 (39.8)
52,0 (175)				16,2 (34.3)
56,0 (185)				
60,0 (200)				
62,0 (205)				
68,0 (225)				
72,0 (240)				

Luffing Jib Length 36,0 m (118.1 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)	60,0 (196.9)
Radius				
32,0 (105)				
36,0 (120)				
40,0 (135)	34,8 (74.0)			
44,0 (145)	30,6 (67.1)	27,4 (60.1)		
48,0 (160)	27,0 (58.4)	24,2 (52.2)	— (44.9)	
52,0 (175)		21,5 (45.7)	18,4 (39.2)	16,6 (35.4)
54,0 (180)		20,3 (43.7)	17,4 (34.3)	15,7 (33.8)
60,0 (200)			14,6 (31.2)	13,1 (28.2)
62,0 (205)				12,3 (26.9)
68,0 (225)				
72,0 (240)				

Luffing Jib Length 48,0 m (157.5 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)	54,0 (177.2)
Radius			
32,0 (105)			
36,0 (120)			
40,0 (135)			
44,0 (145)			
48,0 (160)	26,0 (56.1)		
52,0 (175)	23,1 (49.2)	20,3 (43.1)	
54,0 (180)	21,9 (47.1)	19,1 (41.2)	
60,0 (200)	18,5 (39.9)	16,2 (34.8)	13,3 (28.7)
62,0 (205)	17,5 (38.2)	15,3 (33.3)	12,6 (27.5)
68,0 (225)			10,6 (23.0)
72,0 (240)			9,3 (19.8)

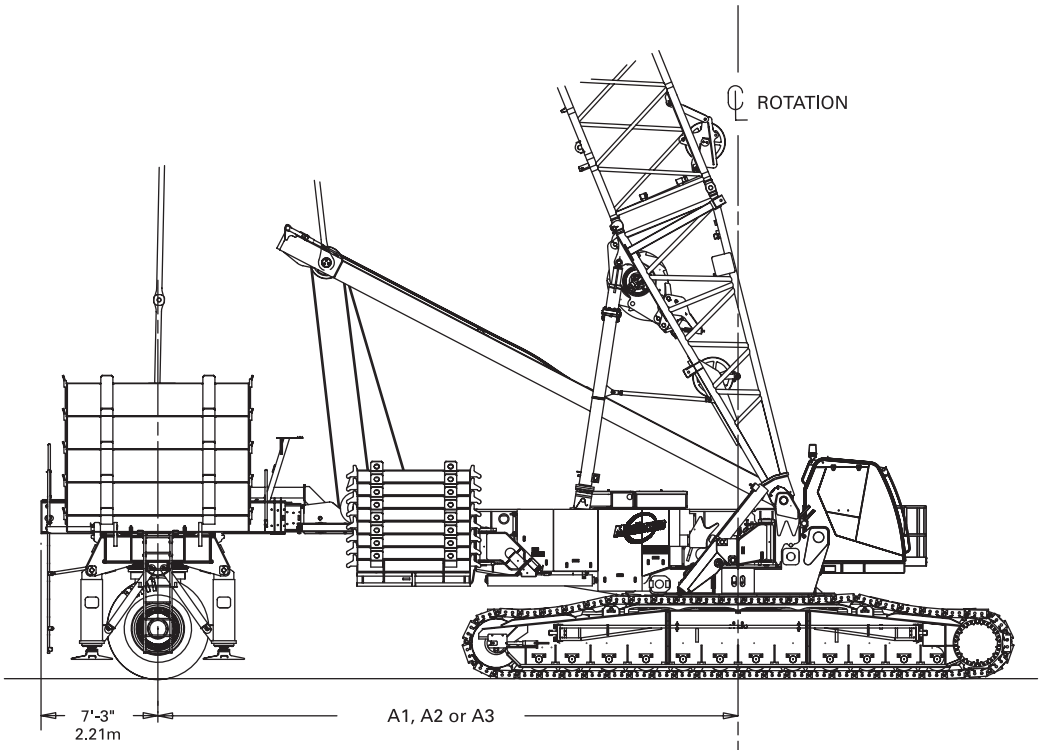
Luffing Jib Length 60,0 m (196.9 ft)

Boom m (ft)	30,0 (98.4)	42,0 (137.8)
Radius		
54,0 (180)	20,6 (44.5)	
56,0 (185)	19,5 (42.6)	
58,0 (190)	18,4 (40.8)	15,7 (34.9)
60,0 (200)	17,4 (37.5)	14,8 (31.9)
64,0 (210)	15,6 (34.5)	13,2 (29.3)
68,0 (225)	14,0 (30.5)	11,8 (25.7)
72,0 (240)	12,6 (26.9)	10,5 (22.5)
74,0 (245)	11,8 (25.7)	9,9 (21.5)
76,0 (250)		9,3 (20.6)
80,0 (260)		— (18.7)
84,0 (280)		

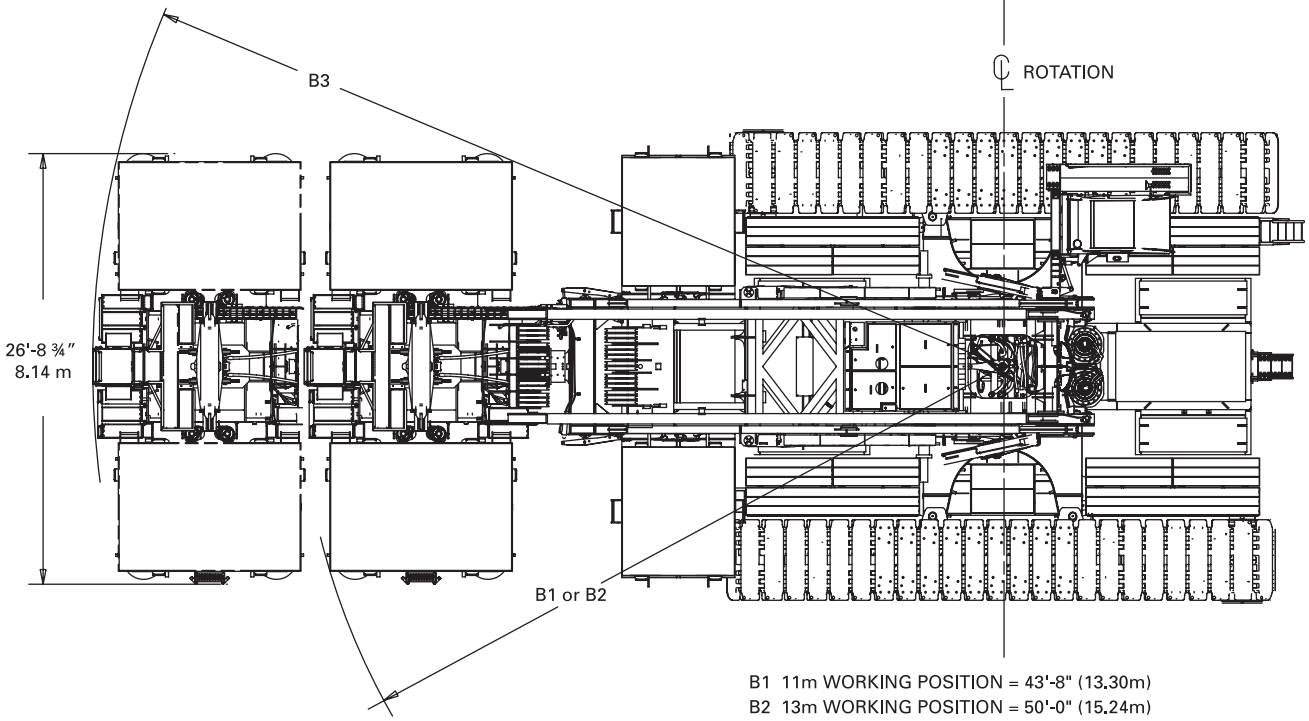
Luffing Jib Length 72,0 m (236.2 ft)

Boom m (ft)	30,0 (98.4)
Radius	
54,0 (180)	
56,0 (185)	
58,0 (190)	
60,0 (200)	16,1 (34.5)
64,0 (210)	14,3 (31.6)
68,0 (225)	12,7 (27.7)
72,0 (240)	11,3 (24.3)
74,0 (245)	10,7 (23.2)
76,0 (250)	10,1 (22.2)
80,0 (260)	9,0 (20.3)
84,0 (280)	7,9 (16.8)

MAX-ER® outline dimensions



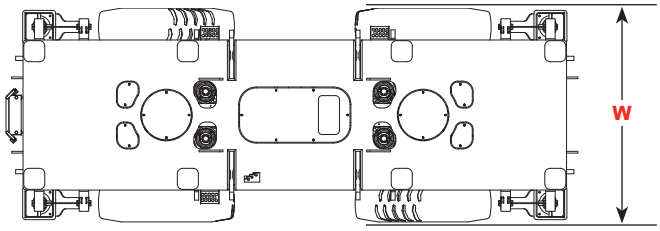
A1 36'-1" (11m WORKING POSITION)
A2 42'-8" (13m WORKING POSITION)
A3 49'-3" (15m WORKING POSITION)

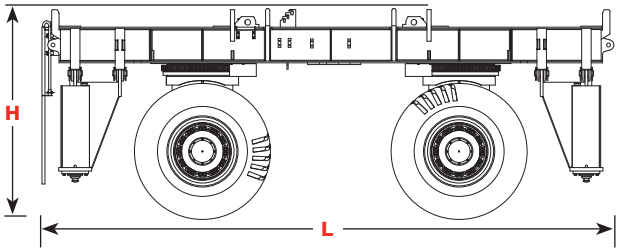


B1 11m WORKING POSITION = 43'-8" (13.30m)
B2 13m WORKING POSITION = 50'-0" (15.24m)
B3 15m WORKING POSITION = 56'-6" (17.22m)

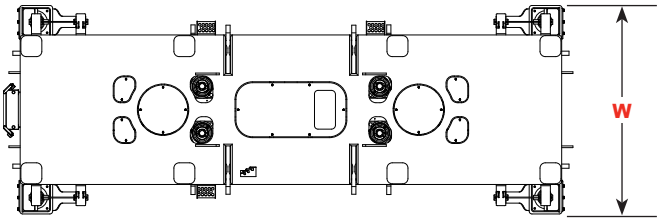
PROVISIONAL

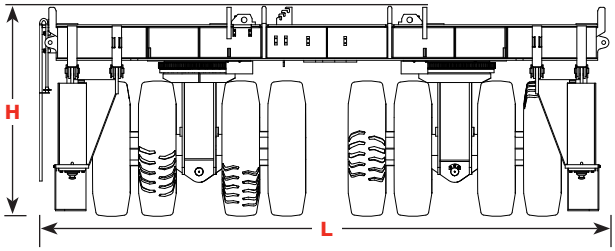
outline dimensions



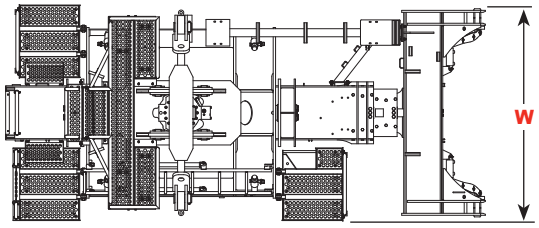


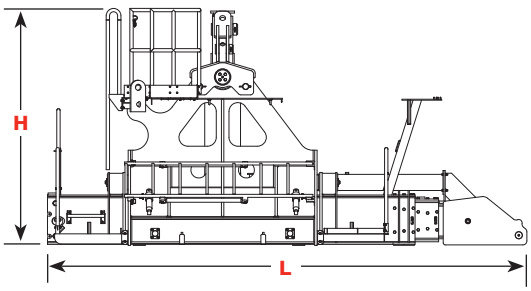
Wheeled Carrier (US)		
Length	8,15 m	26' 9"
Width	3,05 m	10' 0"
Height	3,00 m	9' 10"
Weight	28 304 kg	62,400 lb





Wheeled Carrier (European)		
Length	8,15 m	26' 9"
Width	2,98 m	9' 9"
Height	3,00 m	9' 10"
Weight	28 622 kg	63,100 lb

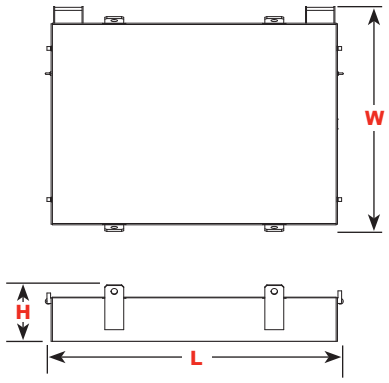




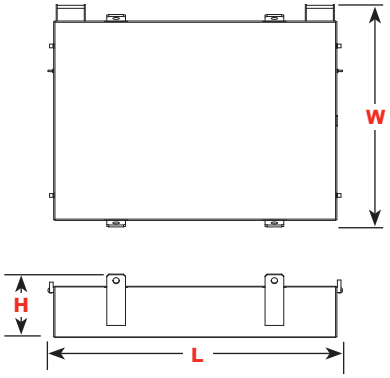
Lifting Frame and Telescopic Beam		
Length	6,04 m	19' 10"
Width	2,73 m	8' 11"
Height	2,99 m	9' 9"
Weight	16 828 kg	37,100 lb

PROVISIONAL

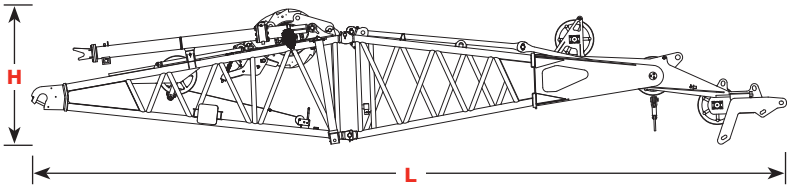
outline dimensions



Side Counterweight		x 2
Length	3,59 m	11' 9"
Width	2,72 m	8' 11"
Height	0,69 m	2' 3"
Weight	13 608 kg	30,000 lb



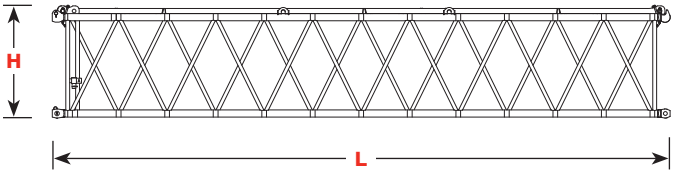
Side Counterweight		x 8
Length	3,59 m	11' 9"
Width	2,72 m	8' 11"
Height	0,78 m	2' 6"
Weight	19 958 kg	44,000 lb



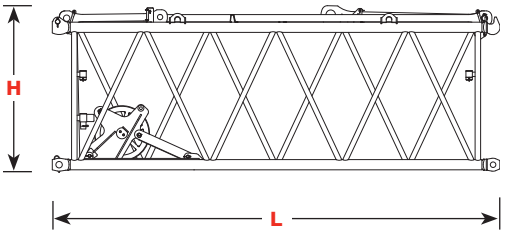
No. 59A Mast Butt & Top Package, Drum, Wire Rope, Equilizer		x 1
Length	14,84 m	48' 8"
Width	2,99 m	9' 10"
Height	2,66 m	8' 9"
Weight	20 593 kg	45,400 lb

PROVISIONAL

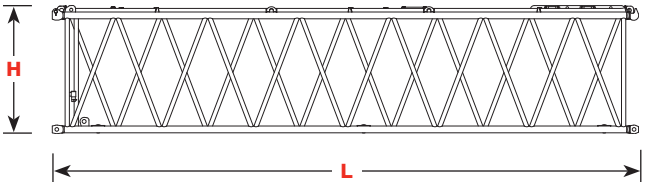
outline dimensions



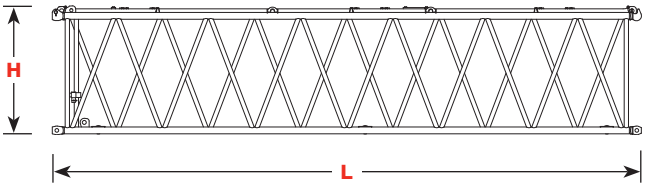
No. 59A Mast Insert 12 m (394)		x 1
Length	12,19 m	40' 0"
Width	2,72 m	8' 11"
Height	2,23 m	7' 4"
Weight	4 375 kg	9,645 lb



No. 59A Mast Insert 6 m (198)		x 1
Length	6,19 m	20' 4"
Width	2,72 m	8' 11"
Height	2,29 m	7' 6"
Weight	3 366 kg	7,420 lb



No. 58 Heavy Boom Insert with Equiliizer Rails 12 m (394)		x 1
Length	12,19 m	40' 0"
Width	2,98 m	9' 9"
Height	2,67 m	8' 9"
Weight	4 602 kg	10,145 lb



No. 58 Heavy Boom Insert 12 m (394)		x 1
Length	12,19 m	40' 0"
Width	2,98 m	9' 9"
Height	2,67 m	8' 9"
Weight	5 087 kg	11,215 lb

boom combinations

ANSI B30.5

No. 58 Main Boom with Heavy-Lift Top Combinations

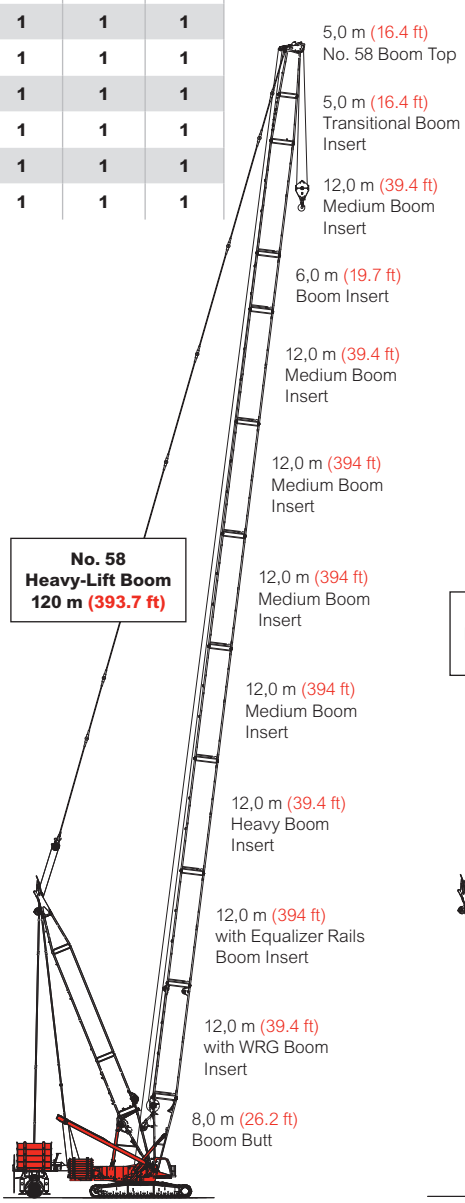
Boom Length m (ft)	Boom Inserts m (ft)					
	5,0* (6.4)	6,0 (9.7)	12,0 medium (39.4)	12,0** (39.4)	12,0*** (39.4)	12,0 heavy (39.4)
42 (137.8)	1	0	0	1	1	0
48 (157.5)	1	1	0	1	1	0
54 (177.2)	1	0	0	1	1	1
60 (196.9)	1	1	0	1	1	1
66 (216.5)	1	0	1	1	1	1
72 (236.2)	1	1	1	1	1	1
78 (255.9)	1	0	2	1	1	1
84 (275.6)	1	1	2	1	1	1
90 (295.3)	1	0	3	1	1	1
96 (315.0)	1	1	3	1	1	1
102 (334.6)	1	0	4	1	1	1
108 (354.3)	1	1	4	1	1	1
114 (374.0)	1	0	5	1	1	1
120 (393.7)	1	1	5	1	1	1

* transition boom insert.
** with auxiliary sheave insert.
*** with equalizer rails insert.

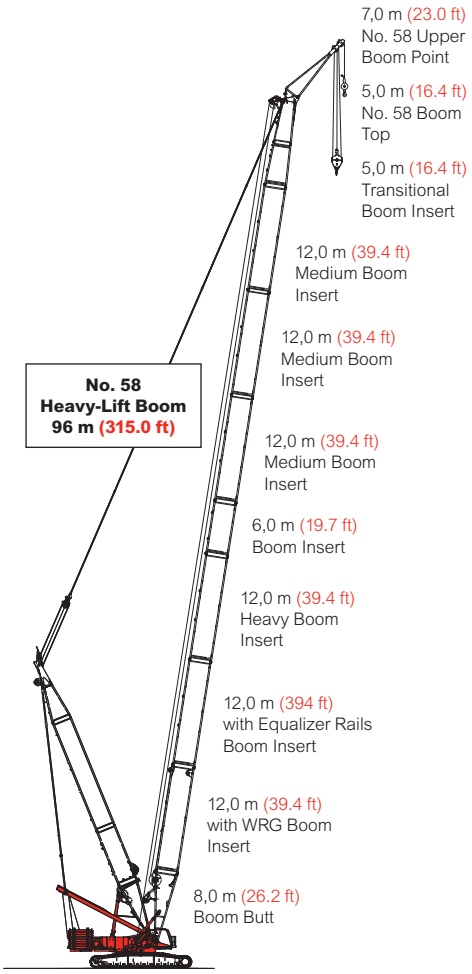
No. 58 Main Boom with Heavy-Duty Extended Upper Boom Point Combination

Boom Length m (ft)	Boom Inserts m (ft)					
	5,0* (6.4)	6,0 (9.7)	12,0 medium (39.4)	12,0** (39.4)	12,0*** (39.4)	12,0 heavy (39.4)
96 (315.0)	1	1	3	1	1	1

* transition boom insert.
** with auxiliary sheave insert.
*** with equalizer rails insert.



Model 16000
No. 58 Heavy-Lift Main Boom
120 m (393.7 ft)



Model 16000
No. 58 Heavy-Lift Main Boom with Heavy-Duty Detachable Upper Boom Point
96 m (315.0 ft)

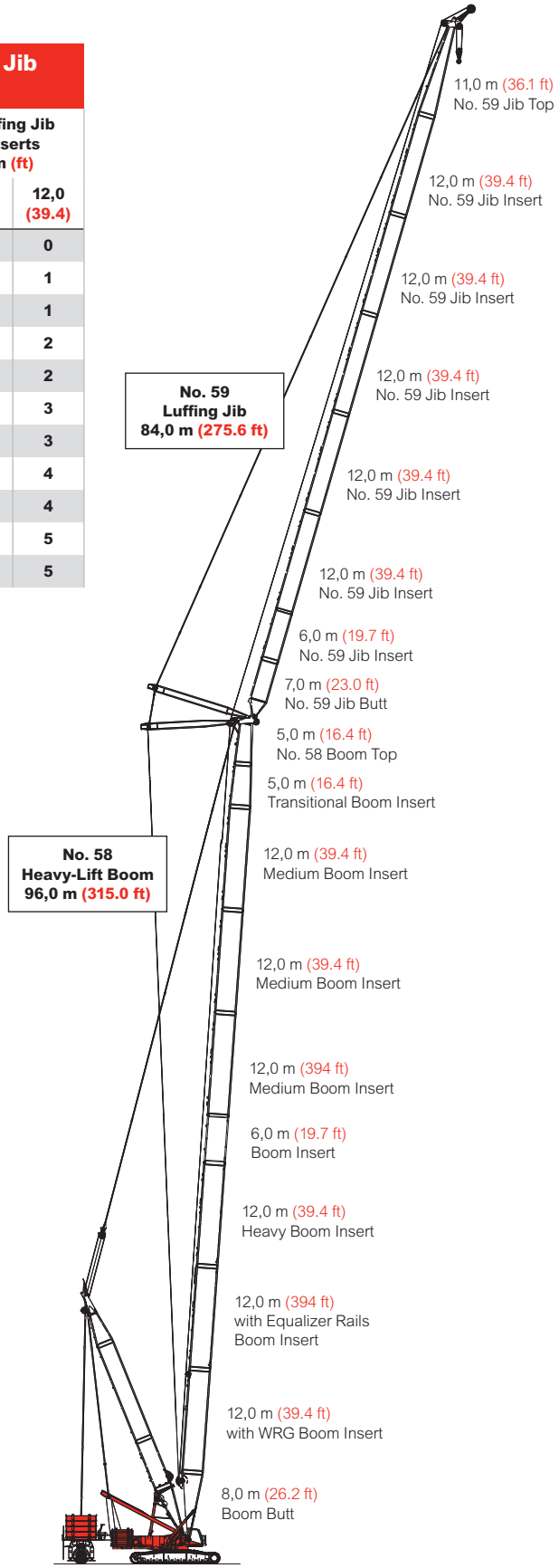
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boom combinations

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No. 59 Luffing Jib Combinations

Luffing Jib Length m (ft)	Luffing Jib Inserts m (ft) 6,0 (9.7)	12,0 (39.4)
24 (78.7)	1	0
30 (98.4)	0	1
36 (118.1)	1	1
42 (118.1)	0	2
48 (157.5)	1	2
54 (177.24)	0	3
60 (196.9)	1	3
66 (216.5)	0	4
72 (236.2)	1	4
78 (255.9)	0	5
84 (275.6)	1	5



Model 16000
No. 59 Luffing Jib on
No. 58 Heavy-Lift Main Boom
180 m (590.5 ft)

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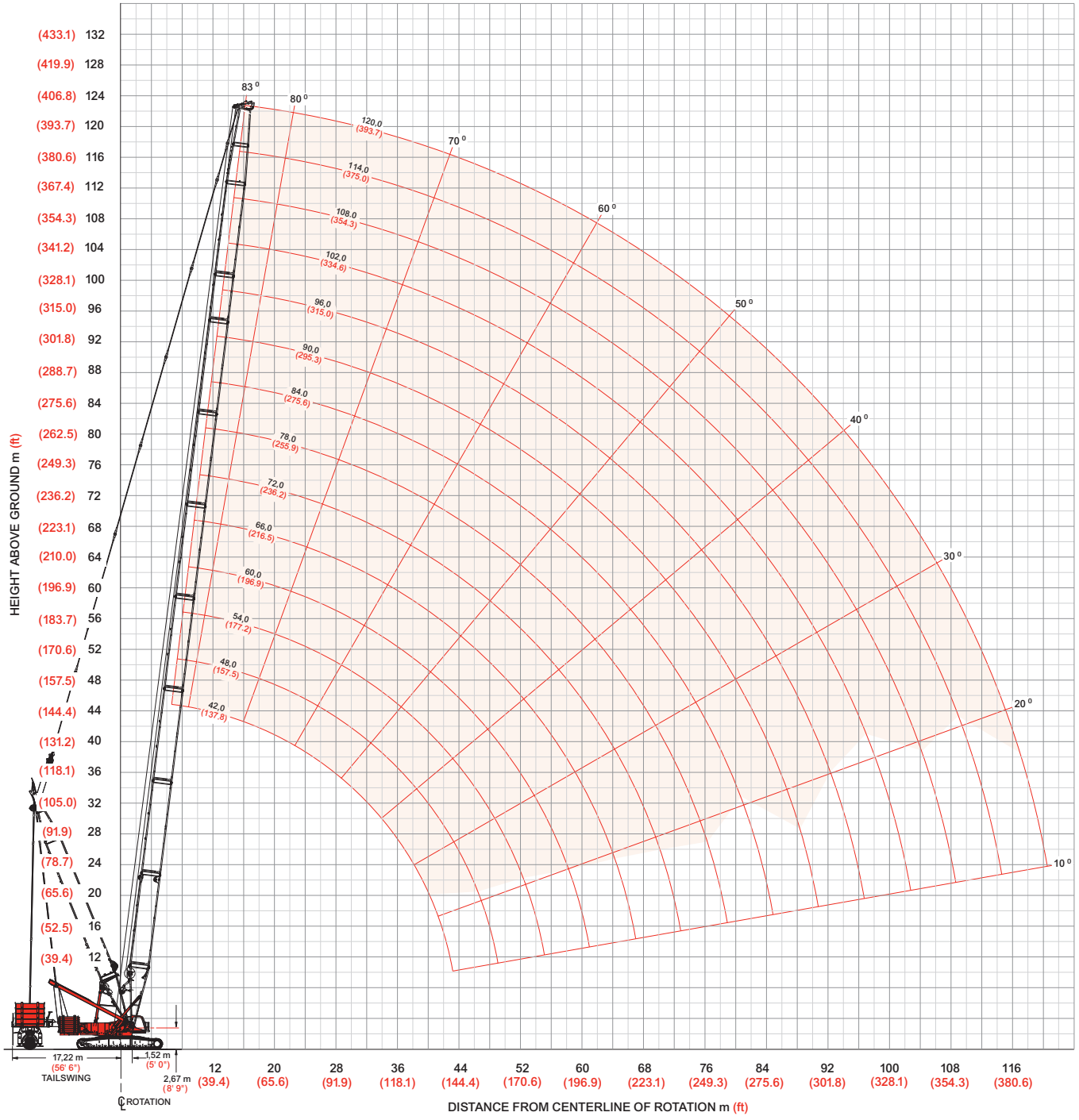
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heavy-lift boom range diagrams

ANSI B30.5

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Liftcrane Boom Capacities - Model 16000 MAX-ER®
No. 58 Heavy-Lift Main Boom with 30,0 m (98.4 ft) Mast No.59A



model 16000 MAX-ER®

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Liftcrane Boom Capacities - Model 16000 MAX-ER® with MAX-ER® at 15 m (49.2 ft) position No. 58 Heavy-Lift Main Boom with 30,0 m (98.4 ft) Mast No. 59A

150 590 kg (332,000 lb) Counterweight 54 430 kg (120,000 lb) Carbody Counterweight 231 970 kg (511,400 lb) Wheeled Counterweight

360° Rating kg (lb) x 1 000

Boom m (ft)	42,0 (137.8)	48,0 (157.5)	54,0 (177.2)	60,0 (196.9)	66,0 (216.5)	72,0 (236.2)	78,0 (255.9)	84,0 (275.6)	90,0 (295.3)	96,0 (315.0)	102,0 (334.6)	108,0 (354.3)	114,0 (374.0)	120,0 (393.7)
Radius														
7,9 (26)	379,8 (837.4)													
10,0 (34)	379,8 (837.4)	340,0 (749.7)	312,2 (688.1)	— (623.6)										
12,0 (40)	379,8 (837.4)	340,0 (749.7)	311,4 (686.4)	282,4 (622.6)	251,1 (553.8)	227,8 (502.3)	— (452.3)							
14,0 (50)	361,9 (728.0)	338,1 (726.9)	310,6 (675.6)	277,8 (605.4)	250,4 (545.6)	225,2 (491.5)	203,5 (445.5)	177,0 (390.3)	148,4 (327.2)	— (279.8)	— (237.7)			
18,0 (60)	278,9 (605.2)	278,4 (604.1)	279,5 (602.7)	267,1 (587.1)	241,4 (530.8)	217,8 (479.2)	198,9 (437.8)	177,0 (390.3)	148,4 (327.2)	126,9 (279.8)	107,8 (237.7)	92,9 (205.0)	79,7 (175.7)	— (152.1)
20,0 (70)	250,4 (516.4)	249,8 (515.2)	249,2 (513.9)	248,8 (512.3)	236,9 (511.7)	214,2 (466.9)	196,6 (430.3)	176,8 (386.1)	148,4 (327.2)	126,9 (279.8)	107,8 (237.7)	92,9 (204.7)	79,5 (175.4)	68,8 (151.8)
24,0 (80)	207,1 (449.1)	206,6 (448.0)	206,0 (446.7)	205,2 (445.1)	205,0 (444.5)	203,4 (442.8)	192,2 (422.9)	170,4 (374.3)	145,3 (319.1)	126,9 (279.8)	107,6 (237.4)	92,7 (204.4)	79,3 (174.9)	68,6 (151.3)
30,0 (100)	163,3 (354.1)	162,8 (352.9)	162,2 (351.6)	161,5 (350.1)	161,3 (349.6)	160,5 (347.8)	159,9 (346.5)	158,7 (344.7)	137,0 (300.8)	126,6 (278.9)	106,5 (234.5)	91,0 (200.4)	77,6 (170.8)	67,1 (147.8)
36,0 (120)	133,8 (289.9)	133,3 (288.9)	132,7 (287.6)	132,1 (286.1)	131,8 (285.6)	131,0 (283.9)	130,5 (282.6)	129,6 (280.8)	128,5 (279.8)	124,1 (273.1)	104,2 (229.4)	89,0 (195.9)	75,7 (166.7)	65,0 (142.0)
42,0 (140)		112,1 (242.7)	115,5 (241.5)	110,8 (240.0)	110,6 (239.6)	109,8 (237.9)	109,3 (236.6)	108,5 (234.8)	108,0 (233.8)	107.1 (231.8)	102,0 (224.3)	87,0 (191.4)	73,9 (162.5)	61,1 (134.0)
48,0 (160)			95,4 (206.6)	94,8 (205.2)	94,6 (204.8)	93,9 (203.2)	93,3 (202.0)	92,5 (200.1)	92,1 (199.2)	91,1 (197.2)	90,6 (196.0)	84,9 (186.8)	72,1 (158.4)	57,6 (126.0)
54,0 (180)				82,2 (177.9)	82,1 (177.6)	81,4 (176.0)	80,8 (174.8)	80,0 (173.0)	79,6 (172.1)	78,7 (170.1)	78,1 (168.9)	77,3 (167.0)	70,2 (154.4)	54,0 (118.0)
60,0 (200)					71,8 (155.2)	71,1 (153.7)	70,6 (152.6)	69,9 (150.9)	69,5 (150.0)	68,6 (148.1)	68,1 (147.0)	67,3 (145.2)	66,8 (143.9)	50,4 (110.0)
66,0 (220)						62,7 (135.3)	62,2 (134.3)	61,4 (132.7)	61,1 (131.8)	60,2 (129.9)	59,7 (128.8)	58,9 (127.0)	58,3 (125.7)	46,8 (102.0)
74,0 (240)							53,1 (119.0)	52,3 (117.4)	52,0 (116.6)	51,1 (114.7)	50,6 (113.6)	49,8 (111.8)	49,3 (110.6)	42,1 (94.0)
80,0 (260)								46,6 (104.4)	46,3 (103.7)	45,5 (101.9)	45,0 (100.8)	44,2 (99.0)	43,7 (97.8)	38,5 (86.0)
84,0 (280)									43,0 (92.6)	42,2 (90.8)	41,7 (89.8)	40,9 (88.0)	40,4 (86.8)	36,6 (80.0)
96,0 (300)										— (81.1)	33,4 (80.1)	32,6 (78.4)	32,1 (77.2)	31,1 (75.0)
100,0 (330)												30,3 (66.1)	29,8 (65.0)	28,8 (62.8)
108,0 (340)												— (56.4)	16,8 (61.2)	23,9 (58.5)
112,0 (350)													— (44.3)	21,6 (54.4)
116,0 (360)													— (27.8)	17,8 (50.6)

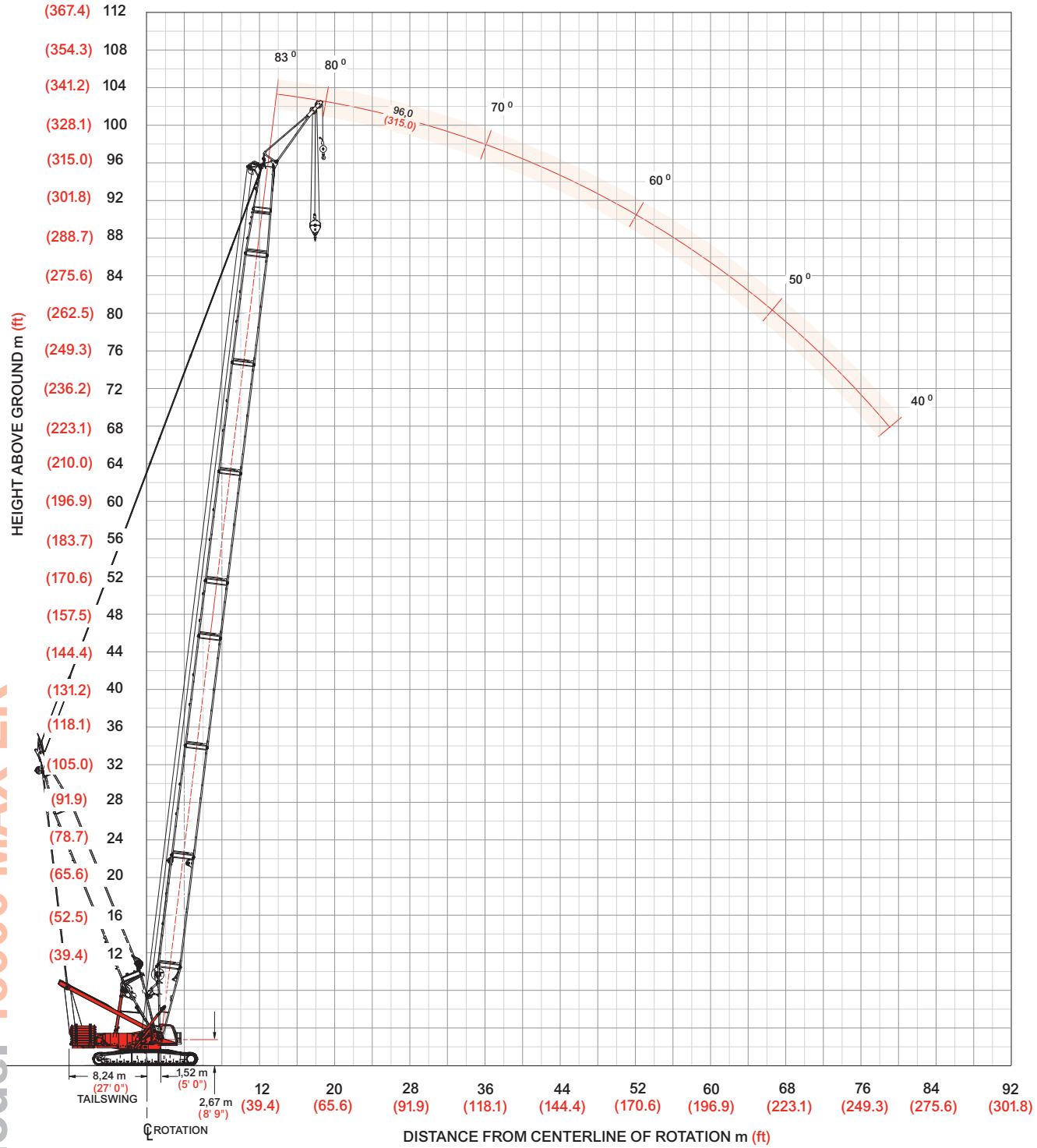
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extended upper boom point range diagram

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Liftcrane Boom Capacities - Model 16000
No. 58 Heavy Lift Main Boom with 30,0 (98.4 ft) Mast No. 59A and 7,0 m (23') Extended Uppoer Boom Point



model 16000 MAX-ER®

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extended upper boom point load charts

Liftcrane Boom Capacities - Model 16000 No. 58 Heavy Lift Main Boom with 30,0 (98.4 ft) Mast No. 59A and 7,0 m (23') Extended Upper Boom Point

150 590 kg (332,000 lb) Counterweight
54 430 kg (120,000 lb) Carbody Counterweight

360° Rating — kg (lb) x 1 000

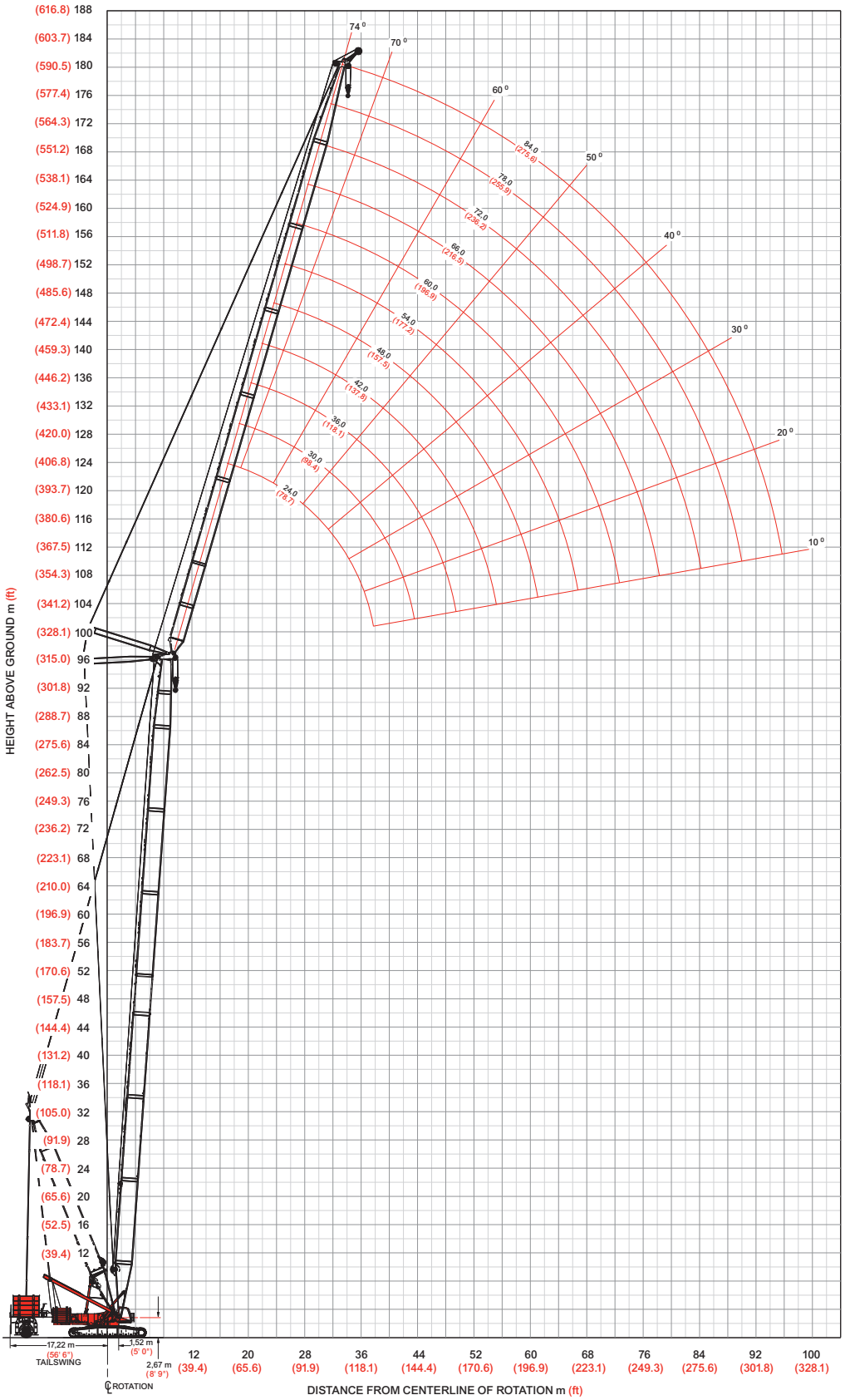
Boom m (ft)	96,0 (315.0)
Radius	
18,3 (60)	81,5 (179.8)
20,0 (65)	81,5 (179.8)
22,0 (70)	81,5 (179.8)
24,0 (80)	78,4 (170.7)
26,0 (85)	70,2 (155.8)
30,0 (100)	56,3 (121.2)
32,0 (105)	50,9 (112.2)
34,0 (110)	46,1 (104.1)
36,0 (115)	41,9 (96.8)
38,0 (125)	38,3 (84.1)
42,0 (140)	32,0 (68.7)
46,0 (150)	27,0 (60.3)
50,0 (165)	22,8 (49.8)
54,0 (175)	19,3 (43.8)
58,0 (190)	16,3 (36.1)
62,0 (200)	13,6 (31.6)
64,0 (210)	12,5 (27.6)
66,0 (215)	11,4 (25.7)
70,0 (230)	9,3 (20.6)
72,0 (235)	8,4 (19.0)
74,0 (245)	7,5 (16.0)
78,0 (255)	5,6 (12.7)
80,0 (260)	4,6 (11.1)
82,0 (270)	3,8 (8.1)

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luffing jib range diagram

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Liftcrane Luffing Jib Capacities - Model 16000 MAX-ER® with MAX-ER® at 15 m (49.2 ft) position No. 59 Luffing Jib on No. 58 Heavy-Lift Main Boom



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model 16000 MAX-ER®

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ANSI B30.5

Liftcrane Luffing Jib Capacities - Model 16000 MAX-ER® with MAX-ER® at 15 m (49.2 ft) position No. 59 Luffing Jib on No. 58 Heavy-Lift Main Boom

150 590 kg (332,000 lb) Counterweight 54 430 kg (120,000 lb) Carbody Counterweight
231 970 kg (511,400 lb) Wheeled Counterweight
360° Rating

kg (lb) x 1 000

86° Boom Angle

Luffing Jib Length 24,0 m (79.0 ft)

Boom m (ft)	42,0 (138.0)	60,0 (197.0)	78,0 (256.0)	96,0 (315.0)
Radius				
13,7 (45)	185,4 (408.9)	146,8 —		
14,0 (50)	181,7 (364.9)	129,8 (339.6)		
16,0 (55)	156,7 (308.0)	117,1 (307.6)	— (223.8)	— (142.9)
18,0 (60)	137,6 (298.5)	107,2 (281.8)	98,6 (216.0)	62,2 (135.9)
20,0 (65)	123,4 (274.7)	99,3 (260.7)	92,6 (205.6)	60,5 (133.8)
22,0 (70)	112,3 (255.1)	96,4 (243.1)	86,5 (195.3)	59,0 (131.4)
24,0 (80)	103,8 (225.8)	89,4 (216.3)	80,7 (175.6)	57,2 (125.4)
26,0 (85)	97,4 (215.3)	79,1 (206.6)	75,3 (166.7)	54,3 (120.2)
28,0 (90)	89,8 (207.8)	— (199.2)	70,8 (158.8)	51,5 (115.4)
30,0 (100)		— (160.4)	67,4 (147.4)	49,2 (107.7)
32,0 (105)				47,0 (103.8)

Luffing Jib Length 36,0 m (118.0 ft)

Boom m (ft)	42,0 (138.0)	60,0 (197.0)	78,0 (256.0)	96,0 (315.0)
Radius				
18,0 (55)	139,7 (321.0)			
20,0 (65)	124,2 (277.1)	111,3 (246.9)	76,4 (169.2)	
24,0 (80)	101,2 (219.4)	94,7 (205.7)	68,7 (149.9)	47,4 (104.4)
26,0 (85)	93,0 (205.8)	87,6 (193.8)	64,7 (143.2)	46,0 (101.7)
28,0 (90)	86,2 (194.1)	81,6 (183.6)	60,8 (136.6)	43,7 (97.9)
32,0 (105)	75,9 (167.5)	70,2 (154.8)	53,5 (118.0)	39,4 (86.9)
34,0 (110)	72,2 (161.0)	64,9 (145.7)	50,2 (112.5)	37,4 (83.6)
36,0 (120)	69,1 (150.9)	60,3 (130.4)	47,3 (102.8)	35,6 (77.4)
38,0 (125)	65,8 (144.6)	56,4 (124.1)	44,8 (98.6)	33,9 (74.7)
42,0 (135)	— (107.6)	— (115.1)	41,3 (92.2)	31,4 (70.3)
44,0 (145)				30,9 (68.1)

Luffing Jib Length 48,0 m (157.0 ft)

Boom m (ft)	42,0 (138.0)	60,0 (197.0)	78,0 (256.0)	96,0 (315.0)
Radius				
20,0 (65)	115,5 (255.6)			
22,0 (70)	111,7 (249.2)	85,3 (190.8)		
26,0 (85)	94,5 (209.3)	77,2 (170.7)	54,9 (121.5)	38,1 (84.1)
30,0 (100)	80,1 (173.7)	68,3 (148.4)	49,8 (108.5)	35,5 (77.6)
34,0 (110)	70,1 (156.9)	59,8 (134.0)	44,7 (99.9)	32,4 (72.3)
38,0 (125)	62,7 (138.1)	52,1 (114.6)	39,9 (87.8)	29,4 (64.8)
42,0 (135)	55,9 (127.2)	45,5 (103.3)	35,6 (80.6)	26,7 (60.2)
46,0 (150)	48,5 (108.0)	40,1 (89.3)	32,1 (71.3)	24,4 (54.2)
50,0 (165)	42,9 (94.0)	36,0 (79.0)	29,2 (64.2)	22,5 (49.4)
54,0 (180)			27,6 (60.8)	21,2 (46.6)
56,0 (185)				21,1 (46.6)

Luffing Jib Length 60,0 m (197.0 ft)

Boom m (ft)	42,0 (138.0)	60,0 (197.0)	78,0 (256.0)	96,0 (315.0)
Radius				
24,0 (75)	79,7 (176.3)			
28,0 (90)	78,3 (174.1)	61,0 (136.0)	43,8 (97.6)	30,1 (66.8)
32,0 (105)	71,4 (157.4)	55,8 (123.2)	40,6 (89.5)	28,7 (63.4)
38,0 (125)	60,5 (133.0)	47,7 (105.0)	35,4 (78.0)	25,4 (56.1)
42,0 (135)	53,5 (121.3)	42,6 (96.3)	32,1 (72.4)	23,4 (52.6)
46,0 (150)	47,2 (105.1)	37,9 (84.3)	29,0 (64.6)	21,4 (47.5)
50,0 (165)	41,7 (91.2)	33,8 (74.0)	26,3 (57.6)	19,6 (43.0)
56,0 (185)	35,0 (76.4)	28,7 (62.8)	22,9 (50.1)	17,3 (37.9)
60,0 (200)	31,5 (68.1)	26,2 (56.7)	21,1 (45.8)	16,1 (35.0)
64,0 (210)	27,0 (59.7)	24,4 (54.0)	19,9 (43.9)	15,2 (33.6)
68,0 (225)				14,9 (33.0)

Luffing Jib Length 72,0 m (236.0 ft)

Boom m (ft)	42,0 (138.0)	60,0 (197.0)	78,0 (256.0)	96,0 (315.0)
Radius				
28,0 (90)	55,4 (122.6)	46,9 (103.7)		
32,0 (105)	54,5 (120.2)	46,0 (101.6)	33,6 (74.2)	23,5 (52.0)
38,0 (125)	51,6 (113.6)	41,3 (90.9)	30,4 (67.0)	21,4 (47.2)
44,0 (145)	45,4 (99.7)	36,2 (79.6)	27,0 (59.3)	19,2 (42.2)
50,0 (165)	39,3 (86.1)	31,4 (68.8)	23,7 (52.0)	17,0 (37.3)
54,0 (180)	35,6 (76.8)	28,5 (61.6)	21,7 (47.0)	15,6 (34.0)
58,0 (190)	32,1 (71.1)	25,8 (57.2)	19,9 (44.0)	14,4 (31.9)
64,0 (210)	27,8 (61.3)	22,5 (49.6)	17,5 (38.7)	12,8 (28.4)
70,0 (230)	24,3 (53.6)	19,9 (43.8)	15,7 (34.7)	11,6 (25.6)
76,0 (250)	21,6 (40.5)	18,2 (40.2)	14,6 (32.2)	10,8 (23.9)
80,0 (265)				10,7 (23.7)

Luffing Jib Length 84,0 m (276.0 ft)

Boom m (ft)	42,0 (138.0)	60,0 (197.0)	78,0 (256.0)	96,0 (315.0)
Radius				
32,0 (100)	39,4 (87.6)			
38,0 (125)	38,0 (83.9)	33,6 (74.2)	25,1 (55.3)	17,4 (38.5)
44,0 (145)	36,7 (80.9)	30,9 (68.1)	22,9 (50.4)	15,9 (35.0)
50,0 (165)	34,3 (75.2)	27,7 (60.8)	20,6 (45.3)	14,3 (31.4)
56,0 (185)	30,5 (66.9)	24,6 (53.8)	18,4 (40.4)	12,8 (28.0)
62,0 (205)	27,1 (59.2)	21,7 (47.4)	16,3 (35.8)	11,3 (24.9)
68,0 (225)	23,9 (52.3)	19,2 (41.9)	14,6 (31.9)	10,1 (22.2)
74,0 (245)	21,3 (46.3)	17,0 (37.1)	13,0 (28.5)	9,1 (19.9)
80,0 (265)	18,2 (39.4)	15,3 (33.5)	11,8 (26.0)	8,3 (18.2)
86,0 (285)	14,5 (30.2)	14,1 (31.1)	11,1 (24.4)	7,7 (17.1)
92,0 (305)				7,5 (15.9)

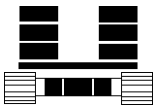
PROVISIONAL

16000 S-1

ANSI B30.5

58 HL





224,000 lb
+
0 lb



360°

ft	°	ft	lb
98.4 ft			
21	82.9	106.0	820,200 *
22	82.3	105.8	784,900 *
24	81.1	105.4	717,500
26	79.9	105.0	607,700
28	78.7	104.6	526,000
30	77.5	104.1	462,700
32	76.3	103.5	412,400
34	75.1	102.9	371,300
36	73.9	102.3	337,200
38	72.7	101.6	308,300
40	71.4	100.8	283,700
45	68.3	98.8	235,300
50	65.1	96.4	199,700
55	61.7	93.6	172,400
60	58.3	90.5	150,800
65	54.7	86.9	133,200
70	50.9	82.8	118,700
75	46.9	78.1	106,500
80	42.6	72.6	96,000
85	37.9	66.2	87,000
90	32.6	58.5	79,000
95	26.2	48.8	71,900
100	17.6	34.8	65,500

ft	°	ft	lb
118.1 ft			
24	82.6	125.4	720,000
26	81.6	125.1	609,700
28	80.6	124.7	527,600
30	79.6	124.3	464,100
32	78.7	123.8	413,500
34	77.7	123.3	372,300
36	76.7	122.8	338,000
38	75.6	122.2	309,100
40	74.6	121.6	284,300
45	72.1	120.0	235,700
50	69.5	118.0	200,000
55	66.8	115.8	172,600
60	64.1	113.4	151,000
65	61.3	110.6	133,400
70	58.5	107.5	118,900
75	55.5	104.0	106,700
80	52.5	100.1	96,200
85	49.3	95.7	87,200
90	45.9	90.9	79,300
95	42.3	85.4	72,400
100	38.4	79.1	66,200
105	34.1	71.7	60,600
110	29.2	63.0	55,600
115	23.3	52.0	51,000
120	15.2	36.0	46,700

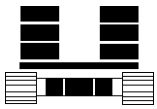
ft	°	ft	lb
137.8 ft			
26	82.8	145.0	611,500
28	82.0	144.7	529,100
30	81.1	144.3	465,400
32	80.3	143.9	414,700
34	79.5	143.5	373,300
36	78.6	143.1	338,900
38	77.7	142.6	309,900
40	76.9	142.1	285,100
45	74.7	140.7	236,300
50	72.5	139.1	200,500
55	70.3	137.2	173,100
60	68.1	135.2	151,400
65	65.8	132.9	133,800
70	63.5	130.3	119,200
75	61.1	127.5	107,000
80	58.6	124.4	96,600
85	56.1	121.0	87,500
90	53.5	117.3	79,700
95	50.8	113.2	72,700
100	48.0	108.7	66,600
105	45.1	103.7	61,100
110	42.0	98.1	56,100
115	38.7	91.8	51,600
120	35.1	84.8	47,600
125	31.1	76.6	43,800
130	26.5	66.9	40,300
135	21.0	54.6	37,100

16000 S-1

ANSI B30.5

58 HL





224,000 lb
+
0 lb



360°

157.5 ft

ft	°	ft	lb
28	83.0	164.6	530,100
30	82.3	164.3	466,100
32	81.5	164.0	415,100
34	80.8	163.6	373,600
36	80.0	163.2	339,100
38	79.3	162.8	309,900
40	78.6	162.4	285,000
45	76.7	161.1	236,100
50	74.8	159.7	200,100
55	72.9	158.2	172,500
60	71.0	156.4	150,800
65	69.0	154.4	133,100
70	67.0	152.3	118,500
75	65.0	149.9	106,200
80	63.0	147.3	95,800
85	60.9	144.5	86,700
90	58.7	141.4	78,900
95	56.6	138.1	71,900
100	54.3	134.4	65,800
105	52.0	130.5	60,300
110	49.6	126.2	55,300
115	47.1	121.5	50,900
120	44.5	116.4	46,800
125	41.8	110.8	43,100
130	38.9	104.6	39,700
135	35.8	97.7	36,500
140	32.4	89.9	33,600
145	28.7	81.0	30,900
150	24.4	70.3	28,300
155	19.2	56.9	25,900

177.2 ft

ft	°	ft	lb
32	82.5	183.9	415,600
34	81.8	183.6	373,900
36	81.2	183.2	339,300
38	80.5	182.9	310,100
40	79.9	182.5	285,100
45	78.2	181.4	236,000
50	76.5	180.2	199,900
55	74.9	178.8	172,300
60	73.2	177.2	150,500
65	71.5	175.5	132,800
70	69.7	173.6	118,100
75	68.0	171.6	105,800
80	66.2	169.3	95,400
85	64.4	166.9	86,300
90	62.6	164.3	78,400
95	60.7	161.4	71,500
100	58.8	158.4	65,300
105	56.9	155.1	59,800
110	54.9	151.5	54,900
115	52.9	147.7	50,400
120	50.8	143.6	46,300
125	48.6	139.2	42,600
130	46.4	134.4	39,200
135	44.1	129.2	36,100
140	41.6	123.6	33,200
145	39.1	117.4	30,500
150	36.3	110.6	28,000
155	33.4	103.1	25,700
160	30.2	94.7	23,500
165	26.7	84.9	21,500
170	22.6	73.4	19,500
175	17.6	58.8	17,600

196.9 ft

ft	°	ft	lb
34	82.6	203.5	373,900
36	82.1	203.2	339,100
38	81.5	202.9	309,800
40	80.9	202.5	284,700
45	79.4	201.6	235,400
50	77.9	200.4	199,200
55	76.4	199.2	171,500
60	74.9	197.8	149,600
65	73.4	196.3	131,800
70	71.8	194.6	117,100
75	70.3	192.8	104,800
80	68.7	190.8	94,300
85	67.1	188.7	85,200
90	65.5	186.4	77,300
95	63.9	183.9	70,300
100	62.3	181.2	64,100
105	60.6	178.4	58,600
110	58.9	175.3	53,700
115	57.2	172.1	49,200
120	55.4	168.6	45,100
125	53.6	164.9	41,400
130	51.7	160.9	38,000
135	49.8	156.6	34,900
140	47.8	152.1	32,000
145	45.8	147.2	29,300
150	43.7	142.0	26,800
155	41.5	136.3	24,500
160	39.2	130.2	22,400
165	36.8	123.5	20,300
170	34.2	116.2	18,400
175	31.4	108.1	16,600
180	28.4	99.0	14,900
185	25.0	88.6	13,300
190	21.1	76.2	11,700
195	16.3	60.4	10,200

S/N: 16001020

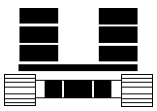
Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.

16000 S-1

ANSI B30.5

58 HL





224,000 lb
+
0 lb



360°

ft	°	ft	lb
216.5 ft			
36	82.8	223.1	339,000
38	82.3	222.8	309,600
40	81.7	222.5	284,400
45	80.4	221.6	235,000
50	79.0	220.6	198,700
55	77.7	219.5	170,900
60	76.3	218.2	148,900
65	74.9	216.9	131,100
70	73.6	215.4	116,400
75	72.2	213.7	104,000
80	70.8	211.9	93,500
85	69.3	210.0	84,400
90	67.9	208.0	76,400
95	66.5	205.8	69,500
100	65.0	203.4	63,300
105	63.5	200.9	57,800
110	62.0	198.2	52,800
115	60.5	195.3	48,300
120	58.9	192.3	44,300
125	57.4	189.1	40,500
130	55.8	185.6	37,200
135	54.1	182.0	34,000
140	52.5	178.1	31,100
145	50.7	174.0	28,500
150	49.0	169.6	26,000
155	47.2	165.0	23,700
160	45.3	160.0	21,500
165	43.4	154.7	19,500
170	41.4	149.1	17,600
175	39.3	142.9	15,800
180	37.1	136.4	14,100
185	34.8	129.2	12,500
190	32.3	121.4	11,000
195	29.7	112.7	9,600
200	26.8	103.0	8,200

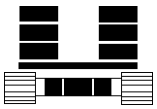
ft	°	ft	lb
236.2 ft			
38	82.9	242.7	309,200
40	82.4	242.4	283,900
45	81.2	241.6	234,300
50	80.0	240.7	197,900
55	78.7	239.7	170,000
60	77.5	238.5	147,900
65	76.2	237.3	130,000
70	75.0	235.9	115,300
75	73.7	234.4	102,800
80	72.4	232.8	92,200
85	71.1	231.1	83,100
90	69.8	229.2	75,100
95	68.5	227.2	68,100
100	67.2	225.1	61,900
105	65.9	222.8	56,400
110	64.5	220.4	51,400
115	63.2	217.9	46,900
120	61.8	215.1	42,900
125	60.4	212.3	39,100
130	59.0	209.2	35,700
135	57.5	206.0	32,600
140	56.1	202.7	29,700
145	54.6	199.1	27,000
150	53.1	195.3	24,600
155	51.5	191.3	22,200
160	49.9	187.1	20,100
165	48.3	182.6	18,100
170	46.6	177.9	16,200
175	44.9	172.8	14,400
180	43.1	167.5	12,700
185	41.3	161.8	11,100
190	39.4	155.7	9,600
195	37.4	149.2	8,200

16000 S-2

ANSI B30.5

58 HL





296,000 lb
+
60,000 lb



360°

ft	°	ft	lb
98.4 ft			
21	82.9	106.0	862,300 *
22	82.3	105.8	825,200 *
24	81.1	105.4	759,500 *
26	79.9	105.0	703,200 *
28	78.7	104.6	653,300 *
30	77.5	104.1	593,600
32	76.3	103.5	529,900
34	75.1	102.9	478,000
36	73.9	102.3	434,800
38	72.7	101.6	398,400
40	71.4	100.8	367,200
45	68.3	98.8	306,000
50	65.1	96.4	261,000
55	61.7	93.6	226,500
60	58.3	90.5	199,200
65	54.7	86.9	177,100
70	50.9	82.8	158,800
75	46.9	78.1	143,400
80	42.6	72.6	130,200
85	37.9	66.2	118,800
90	32.6	58.5	108,800
95	26.2	48.8	99,900
100	17.6	34.8	91,900

ft	°	ft	lb
118.1 ft			
24	82.6	125.4	758,300 *
26	81.6	125.1	702,000 *
28	80.6	124.7	652,600 *
30	79.6	124.3	595,000
32	78.7	123.8	531,100
34	77.7	123.3	479,000
36	76.7	122.8	435,700
38	75.6	122.2	399,100
40	74.6	121.6	367,900
45	72.1	120.0	306,500
50	69.5	118.0	261,300
55	66.8	115.8	226,800
60	64.1	113.4	199,400
65	61.3	110.6	177,300
70	58.5	107.5	158,900
75	55.5	104.0	143,500
80	52.5	100.1	130,400
85	49.3	95.7	119,000
90	45.9	90.9	109,100
95	42.3	85.4	100,300
100	38.4	79.1	92,500
105	34.1	71.7	85,500
110	29.2	63.0	79,200
115	23.3	52.0	73,500
120	15.2	36.0	68,100

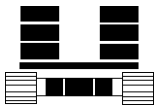
ft	°	ft	lb
137.8 ft			
26	82.8	145.0	625,700 *
28	82.0	144.7	619,400 *
30	81.1	144.3	596,300
32	80.3	143.9	532,200
34	79.5	143.5	480,000
36	78.6	143.1	436,600
38	77.7	142.6	400,000
40	76.9	142.1	368,600
45	74.7	140.7	307,100
50	72.5	139.1	261,900
55	70.3	137.2	227,200
60	68.1	135.2	199,800
65	65.8	132.9	177,700
70	63.5	130.3	159,300
75	61.1	127.5	143,900
80	58.6	124.4	130,700
85	56.1	121.0	119,300
90	53.5	117.3	109,400
95	50.8	113.2	100,700
100	48.0	108.7	92,900
105	45.1	103.7	86,000
110	42.0	98.1	79,800
115	38.7	91.8	74,100
120	35.1	84.8	69,000
125	31.1	76.6	64,300
130	26.5	66.9	60,000
135	21.0	54.6	55,900

16000 S-2

ANSI B30.5

58 HL





296,000 lb
+
60,000 lb



360°

157.5 ft

ft	°	ft	lb
28	83.0	164.6	597,000 *
30	82.3	164.3	592,900 *
32	81.5	164.0	532,700
34	80.8	163.6	480,300
36	80.0	163.2	436,700
38	79.3	162.8	400,000
40	78.6	162.4	368,500
45	76.7	161.1	306,800
50	74.8	159.7	261,400
55	72.9	158.2	226,700
60	71.0	156.4	199,200
65	69.0	154.4	177,000
70	67.0	152.3	158,600
75	65.0	149.9	143,100
80	63.0	147.3	129,900
85	60.9	144.5	118,500
90	58.7	141.4	108,600
95	56.6	138.1	99,900
100	54.3	134.4	92,100
105	52.0	130.5	85,200
110	49.6	126.2	79,000
115	47.1	121.5	73,400
120	44.5	116.4	68,200
125	41.8	110.8	63,600
130	38.9	104.6	59,300
135	35.8	97.7	55,300
140	32.4	89.9	51,700
145	28.7	81.0	48,300
150	24.4	70.3	45,100
155	19.2	56.9	42,100

177.2 ft

ft	°	ft	lb
32	82.5	183.9	483,000 *
34	81.8	183.6	467,100 *
36	81.2	183.2	437,000
38	80.5	182.9	400,100
40	79.9	182.5	368,600
45	78.2	181.4	306,700
50	76.5	180.2	261,300
55	74.9	178.8	226,400
60	73.2	177.2	198,900
65	71.5	175.5	176,600
70	69.7	173.6	158,200
75	68.0	171.6	142,700
80	66.2	169.3	129,500
85	64.4	166.9	118,100
90	62.6	164.3	108,200
95	60.7	161.4	99,400
100	58.8	158.4	91,700
105	56.9	155.1	84,700
110	54.9	151.5	78,500
115	52.9	147.7	72,900
120	50.8	143.6	67,800
125	48.6	139.2	63,100
130	46.4	134.4	58,900
135	44.1	129.2	54,900
140	41.6	123.6	51,300
145	39.1	117.4	48,000
150	36.3	110.6	44,800
155	33.4	103.1	41,900
160	30.2	94.7	39,200
165	26.7	84.9	36,600
170	22.6	73.4	34,200
175	17.6	58.8	31,800

196.9 ft

ft	°	ft	lb
34	82.6	203.5	435,600 *
36	82.1	203.2	422,500 *
38	81.5	202.9	399,900
40	80.9	202.5	368,200
45	79.4	201.6	306,200
50	77.9	200.4	260,600
55	76.4	199.2	225,600
60	74.9	197.8	198,000
65	73.4	196.3	175,700
70	71.8	194.6	157,200
75	70.3	192.8	141,700
80	68.7	190.8	128,400
85	67.1	188.7	117,000
90	65.5	186.4	107,000
95	63.9	183.9	98,200
100	62.3	181.2	90,500
105	60.6	178.4	83,500
110	58.9	175.3	77,300
115	57.2	172.1	71,700
120	55.4	168.6	66,600
125	53.6	164.9	61,900
130	51.7	160.9	57,600
135	49.8	156.6	53,700
140	47.8	152.1	50,100
145	45.8	147.2	46,700
150	43.7	142.0	43,600
155	41.5	136.3	40,700
160	39.2	130.2	38,000
165	36.8	123.5	35,500
170	34.2	116.2	33,100
175	31.4	108.1	30,800
180	28.4	99.0	28,700
185	25.0	88.6	26,700
190	21.1	76.2	24,700
195	16.3	60.4	22,900

S/N: 16001020

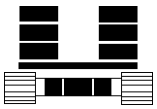
Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.

16000 S-2

ANSI B30.5

58 HL





296,000 lb
+
60,000 lb



360°

ft	°	ft	lb
216.5 ft			
36	82.8	223.1	368,600 *
38	82.3	222.8	358,600 *
40	81.7	222.5	348,900 *
45	80.4	221.6	305,700
50	79.0	220.6	260,000
55	77.7	219.5	225,100
60	76.3	218.2	197,400
65	74.9	216.9	175,000
70	73.6	215.4	156,500
75	72.2	213.7	140,900
80	70.8	211.9	127,600
85	69.3	210.0	116,200
90	67.9	208.0	106,200
95	66.5	205.8	97,400
100	65.0	203.4	89,600
105	63.5	200.9	82,700
110	62.0	198.2	76,500
115	60.5	195.3	70,800
120	58.9	192.3	65,700
125	57.4	189.1	61,100
130	55.8	185.6	56,800
135	54.1	182.0	52,900
140	52.5	178.1	49,200
145	50.7	174.0	45,900
150	49.0	169.6	42,800
155	47.2	165.0	39,900
160	45.3	160.0	37,200
165	43.4	154.7	34,600
170	41.4	149.1	32,300
175	39.3	142.9	30,000
180	37.1	136.4	27,900
185	34.8	129.2	25,900
190	32.3	121.4	24,000
195	29.7	112.7	22,200
200	26.8	103.0	20,500
205	23.6	91.8	18,900
210	19.8	78.6	17,300
215	15.2	61.7	15,800

ft	°	ft	lb
236.2 ft			
38	82.9	242.7	330,500 *
40	82.4	242.4	321,300 *
45	81.2	241.6	299,500 *
50	80.0	240.7	259,200
55	78.7	239.7	224,100
60	77.5	238.5	196,400
65	76.2	237.3	173,900
70	75.0	235.9	155,300
75	73.7	234.4	139,700
80	72.4	232.8	126,400
85	71.1	231.1	114,900
90	69.8	229.2	104,900
95	68.5	227.2	96,100
100	67.2	225.1	88,300
105	65.9	222.8	81,300
110	64.5	220.4	75,100
115	63.2	217.9	69,400
120	61.8	215.1	64,300
125	60.4	212.3	59,600
130	59.0	209.2	55,400
135	57.5	206.0	51,400
140	56.1	202.7	47,800
145	54.6	199.1	44,500
150	53.1	195.3	41,300
155	51.5	191.3	38,400
160	49.9	187.1	35,700
165	48.3	182.6	33,200
170	46.6	177.9	30,800
175	44.9	172.8	28,600
180	43.1	167.5	26,500
185	41.3	161.8	24,500
190	39.4	155.7	22,600
195	37.4	149.2	20,800
200	35.3	142.1	19,200
205	33.1	134.5	17,600
210	30.7	126.2	16,000
215	28.2	117.0	14,600
220	25.4	106.7	13,100
225	22.3	94.9	11,800
230	18.7	80.8	10,500

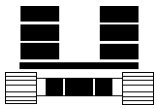
ft	°	ft	lb
255.9 ft			
40	83.0	262.3	302,900 *
45	81.9	261.6	288,700 *
50	80.7	260.7	258,500
55	79.6	259.8	223,300
60	78.5	258.7	195,500
65	77.3	257.6	173,000
70	76.1	256.3	154,300
75	75.0	254.9	138,700
80	73.8	253.5	125,300
85	72.6	251.9	113,800
90	71.5	250.2	103,800
95	70.3	248.4	95,000
100	69.1	246.4	87,100
105	67.9	244.4	80,200
110	66.6	242.2	73,900
115	65.4	239.9	68,200
120	64.2	237.4	63,100
125	62.9	234.8	58,400
130	61.6	232.1	54,100
135	60.3	229.2	50,200
140	59.0	226.2	46,600
145	57.7	223.0	43,200
150	56.3	219.7	40,100
155	55.0	216.1	37,200
160	53.6	212.4	34,500
165	52.2	208.5	31,900
170	50.7	204.4	29,600
175	49.2	200.1	27,300
180	47.7	195.5	25,200
185	46.2	190.7	23,300
190	44.6	185.6	21,400
195	42.9	180.2	19,600
200	41.2	174.5	17,900
205	39.5	168.5	16,300
210	37.6	162.0	14,800
215	35.7	155.1	13,400
220	33.7	147.6	12,000
225	31.6	139.6	10,600
230	29.3	130.7	9,400
235	26.9	121.0	8,200
240	24.2	110.2	7,000

16000 S-2

ANSI B30.5

58 HL





296,000 lb
+
60,000 lb



360°

 ft	 °	 ft	 lb
 275.6 ft			
45	82.5	281.5	252,000 *
50	81.4	280.7	245,700 *
55	80.3	279.8	222,300
60	79.3	278.9	194,400
65	78.2	277.8	171,800
70	77.2	276.6	153,100
75	76.1	275.4	137,400
80	75.0	274.0	124,000
85	73.9	272.5	112,500
90	72.8	271.0	102,400
95	71.7	269.3	93,500
100	70.6	267.5	85,700
105	69.5	265.6	78,700
110	68.4	263.6	72,400
115	67.3	261.5	66,800
120	66.1	259.2	61,600
125	65.0	256.9	56,900
130	63.8	254.4	52,600
135	62.7	251.8	48,700
140	61.5	249.1	45,000
145	60.3	246.2	41,700
150	59.1	243.2	38,500
155	57.8	240.0	35,600
160	56.6	236.7	32,900
165	55.3	233.2	30,400
170	54.0	229.6	28,000
175	52.7	225.7	25,800
180	51.4	221.7	23,700
185	50.0	217.5	21,700
190	48.6	213.1	19,800
195	47.2	208.4	18,000
200	45.8	203.6	16,400
205	44.3	198.4	14,800
210	42.7	193.0	13,200
215	41.2	187.3	11,800
220	39.5	181.2	10,400
225	37.8	174.8	9,100
230	36.1	168.0	7,800

S/N: 16001020

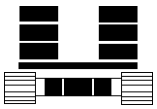
Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.

16000 S-3

ANSI B30.5

58 HL





332,000 lb
+
120,000 lb



360°

ft	°	ft	lb
98.4 ft			
21	82.9	106.0	881,900 *
22	82.3	105.8	845,400 *
24	81.1	105.4	778,200 *
26	79.9	105.0	720,500 *
28	78.7	104.6	670,500 *
30	77.5	104.1	625,700 *
32	76.3	103.5	581,700 *
34	75.1	102.9	543,200 *
36	73.9	102.3	495,400
38	72.7	101.6	454,300
40	71.4	100.8	419,100
45	68.3	98.8	349,900
50	65.1	96.4	299,100
55	61.7	93.6	260,100
60	58.3	90.5	229,300
65	54.7	86.9	204,300
70	50.9	82.8	183,600
75	46.9	78.1	166,200
80	42.6	72.6	151,400
85	37.9	66.2	138,500
90	32.6	58.5	127,200
95	26.2	48.8	117,200
100	17.6	34.8	108,200

ft	°	ft	lb
118.1 ft			
24	82.6	125.4	775,000 *
26	81.6	125.1	719,300 *
28	80.6	124.7	669,300 *
30	79.6	124.3	625,000 *
32	78.7	123.8	581,000 *
34	77.7	123.3	542,500 *
36	76.7	122.8	496,300
38	75.6	122.2	455,000
40	74.6	121.6	419,700
45	72.1	120.0	350,300
50	69.5	118.0	299,400
55	66.8	115.8	260,400
60	64.1	113.4	229,500
65	61.3	110.6	204,500
70	58.5	107.5	183,800
75	55.5	104.0	166,400
80	52.5	100.1	151,500
85	49.3	95.7	138,700
90	45.9	90.9	127,500
95	42.3	85.4	117,600
100	38.4	79.1	108,900
105	34.1	71.7	101,000
110	29.2	63.0	93,900
115	23.3	52.0	87,400
120	15.2	36.0	81,500

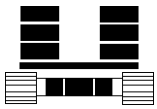
ft	°	ft	lb
137.8 ft			
26	82.8	145.0	625,700 *
28	82.0	144.7	619,400 *
30	81.1	144.3	614,000 *
32	80.3	143.9	580,800 *
34	79.5	143.5	542,300 *
36	78.6	143.1	497,200
38	77.7	142.6	455,800
40	76.9	142.1	420,500
45	74.7	140.7	351,000
50	72.5	139.1	299,900
55	70.3	137.2	260,800
60	68.1	135.2	229,900
65	65.8	132.9	204,900
70	63.5	130.3	184,200
75	61.1	127.5	166,700
80	58.6	124.4	151,900
85	56.1	121.0	139,100
90	53.5	117.3	127,900
95	50.8	113.2	118,000
100	48.0	108.7	109,300
105	45.1	103.7	101,500
110	42.0	98.1	94,500
115	38.7	91.8	88,100
120	35.1	84.8	82,300
125	31.1	76.6	77,000
130	26.5	66.9	72,100
135	21.0	54.6	67,600

16000 S-3

ANSI B30.5

58 HL





332,000 lb
+
120,000 lb



360°

ft	°	ft	lb
157.5 ft			
28	83.0	164.6	597,000 *
30	82.3	164.3	592,900 *
32	81.5	164.0	579,600 *
34	80.8	163.6	541,100 *
36	80.0	163.2	497,300
38	79.3	162.8	455,800
40	78.6	162.4	420,400
45	76.7	161.1	350,700
50	74.8	159.7	299,500
55	72.9	158.2	260,300
60	71.0	156.4	229,300
65	69.0	154.4	204,200
70	67.0	152.3	183,400
75	65.0	149.9	166,000
80	63.0	147.3	151,100
85	60.9	144.5	138,300
90	58.7	141.4	127,100
95	56.6	138.1	117,200
100	54.3	134.4	108,500
105	52.0	130.5	100,700
110	49.6	126.2	93,700
115	47.1	121.5	87,300
120	44.5	116.4	81,600
125	41.8	110.8	76,300
130	38.9	104.6	71,500
135	35.8	97.7	67,000
140	32.4	89.9	62,900
145	28.7	81.0	59,100
150	24.4	70.3	55,500
155	19.2	56.9	52,100

ft	°	ft	lb
177.2 ft			
32	82.5	183.9	483,000 *
34	81.8	183.6	467,100 *
36	81.2	183.2	451,800 *
38	80.5	182.9	437,300 *
40	79.9	182.5	420,400
45	78.2	181.4	350,600
50	76.5	180.2	299,300
55	74.9	178.8	260,000
60	73.2	177.2	229,000
65	71.5	175.5	203,900
70	69.7	173.6	183,100
75	68.0	171.6	165,600
80	66.2	169.3	150,700
85	64.4	166.9	137,800
90	62.6	164.3	126,600
95	60.7	161.4	116,700
100	58.8	158.4	108,000
105	56.9	155.1	100,200
110	54.9	151.5	93,200
115	52.9	147.7	86,900
120	50.8	143.6	81,100
125	48.6	139.2	75,900
130	46.4	134.4	71,100
135	44.1	129.2	66,600
140	41.6	123.6	62,500
145	39.1	117.4	58,800
150	36.3	110.6	55,200
155	33.4	103.1	52,000
160	30.2	94.7	48,900
165	26.7	84.9	46,000
170	22.6	73.4	43,200
175	17.6	58.8	40,600

ft	°	ft	lb
196.9 ft			
34	82.6	203.5	435,600 *
36	82.1	203.2	422,500 *
38	81.5	202.9	409,700 *
40	80.9	202.5	397,400 *
45	79.4	201.6	350,000
50	77.9	200.4	298,600
55	76.4	199.2	259,200
60	74.9	197.8	228,100
65	73.4	196.3	202,900
70	71.8	194.6	182,000
75	70.3	192.8	164,500
80	68.7	190.8	149,600
85	67.1	188.7	136,700
90	65.5	186.4	125,500
95	63.9	183.9	115,600
100	62.3	181.2	106,800
105	60.6	178.4	99,000
110	58.9	175.3	92,000
115	57.2	172.1	85,600
120	55.4	168.6	79,900
125	53.6	164.9	74,600
130	51.7	160.9	69,800
135	49.8	156.6	65,400
140	47.8	152.1	61,300
145	45.8	147.2	57,500
150	43.7	142.0	54,000
155	41.5	136.3	50,800
160	39.2	130.2	47,700
165	36.8	123.5	44,800
170	34.2	116.2	42,200
175	31.4	108.1	39,600
180	28.4	99.0	37,200
185	25.0	88.6	35,000
190	21.1	76.2	32,800
195	16.3	60.4	30,700

S/N: 16001020

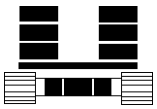
Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.

16000 S-3

ANSI B30.5

58 HL





332,000 lb
+
120,000 lb



360°

ft	°	ft	lb
216.5 ft			
36	82.8	223.1	368,600 *
38	82.3	222.8	358,600 *
40	81.7	222.5	348,900 *
45	80.4	221.6	325,900 *
50	79.0	220.6	298,100
55	77.7	219.5	258,600
60	76.3	218.2	227,500
65	74.9	216.9	202,200
70	73.6	215.4	181,300
75	72.2	213.7	163,800
80	70.8	211.9	148,800
85	69.3	210.0	135,900
90	67.9	208.0	124,600
95	66.5	205.8	114,800
100	65.0	203.4	106,000
105	63.5	200.9	98,200
110	62.0	198.2	91,100
115	60.5	195.3	84,800
120	58.9	192.3	79,000
125	57.4	189.1	73,800
130	55.8	185.6	69,000
135	54.1	182.0	64,500
140	52.5	178.1	60,500
145	50.7	174.0	56,700
150	49.0	169.6	53,200
155	47.2	165.0	49,900
160	45.3	160.0	46,900
165	43.4	154.7	44,000
170	41.4	149.1	41,300
175	39.3	142.9	38,800
180	37.1	136.4	36,500
185	34.8	129.2	34,200
190	32.3	121.4	32,100
195	29.7	112.7	30,100
200	26.8	103.0	28,200
205	23.6	91.8	26,300
210	19.8	78.6	24,600
215	15.2	61.7	22,900

ft	°	ft	lb
236.2 ft			
38	82.9	242.7	330,500 *
40	82.4	242.4	321,300 *
45	81.2	241.6	299,500 *
50	80.0	240.7	279,400 *
55	78.7	239.7	257,700
60	77.5	238.5	226,400
65	76.2	237.3	201,100
70	75.0	235.9	180,200
75	73.7	234.4	162,600
80	72.4	232.8	147,600
85	71.1	231.1	134,600
90	69.8	229.2	123,300
95	68.5	227.2	113,400
100	67.2	225.1	104,600
105	65.9	222.8	96,800
110	64.5	220.4	89,800
115	63.2	217.9	83,400
120	61.8	215.1	77,600
125	60.4	212.3	72,400
130	59.0	209.2	67,500
135	57.5	206.0	63,100
140	56.1	202.7	59,000
145	54.6	199.1	55,300
150	53.1	195.3	51,700
155	51.5	191.3	48,500
160	49.9	187.1	45,400
165	48.3	182.6	42,600
170	46.6	177.9	39,900
175	44.9	172.8	37,400
180	43.1	167.5	35,000
185	41.3	161.8	32,800
190	39.4	155.7	30,700
195	37.4	149.2	28,700
200	35.3	142.1	26,800
205	33.1	134.5	25,000
210	30.7	126.2	23,300
215	28.2	117.0	21,600
220	25.4	106.7	20,000
225	22.3	94.9	18,500
230	18.7	80.8	17,100

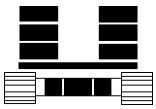
ft	°	ft	lb
255.9 ft			
40	83.0	262.3	302,900 *
45	81.9	261.6	288,700 *
50	80.7	260.7	275,100 *
55	79.6	259.8	256,900
60	78.5	258.7	225,600
65	77.3	257.6	200,200
70	76.1	256.3	179,200
75	75.0	254.9	161,500
80	73.8	253.5	146,500
85	72.6	251.9	133,500
90	71.5	250.2	122,200
95	70.3	248.4	112,300
100	69.1	246.4	103,500
105	67.9	244.4	95,600
110	66.6	242.2	88,600
115	65.4	239.9	82,200
120	64.2	237.4	76,400
125	62.9	234.8	71,100
130	61.6	232.1	66,300
135	60.3	229.2	61,900
140	59.0	226.2	57,800
145	57.7	223.0	54,000
150	56.3	219.7	50,500
155	55.0	216.1	47,200
160	53.6	212.4	44,200
165	52.2	208.5	41,300
170	50.7	204.4	38,700
175	49.2	200.1	36,100
180	47.7	195.5	33,800
185	46.2	190.7	31,600
190	44.6	185.6	29,400
195	42.9	180.2	27,500
200	41.2	174.5	25,600
205	39.5	168.5	23,800
210	37.6	162.0	22,100
215	35.7	155.1	20,400
220	33.7	147.6	18,900
225	31.6	139.6	17,400
230	29.3	130.7	16,000
235	26.9	121.0	14,600
240	24.2	110.2	13,300
245	21.2	97.7	12,000
250	17.7	82.8	10,800

16000 S-3

ANSI B30.5

58 HL





332,000 lb
+
120,000 lb



360°

275.6 ft

ft	°	ft	lb
45	82.5	281.5	252,000 *
50	81.4	280.7	245,700 *
55	80.3	279.8	239,800 *
60	79.3	278.9	224,500
65	78.2	277.8	199,000
70	77.2	276.6	178,000
75	76.1	275.4	160,300
80	75.0	274.0	145,200
85	73.9	272.5	132,200
90	72.8	271.0	120,800
95	71.7	269.3	110,900
100	70.6	267.5	102,100
105	69.5	265.6	94,200
110	68.4	263.6	87,100
115	67.3	261.5	80,700
120	66.1	259.2	74,900
125	65.0	256.9	69,600
130	63.8	254.4	64,800
135	62.7	251.8	60,400
140	61.5	249.1	56,300
145	60.3	246.2	52,500
150	59.1	243.2	49,000
155	57.8	240.0	45,700
160	56.6	236.7	42,600
165	55.3	233.2	39,800
170	54.0	229.6	37,100
175	52.7	225.7	34,600
180	51.4	221.7	32,200
185	50.0	217.5	30,000
190	48.6	213.1	27,900
195	47.2	208.4	25,900
200	45.8	203.6	24,000
205	44.3	198.4	22,200
210	42.7	193.0	20,500
215	41.2	187.3	18,900
220	39.5	181.2	17,300
225	37.8	174.8	15,800
230	36.1	168.0	14,400
235	34.2	160.6	13,100
240	32.3	152.8	11,800
245	30.2	144.3	10,500
250	28.1	135.0	9,300
255	25.7	124.8	8,100 *

295.3 ft

ft	°	ft	lb
45	83.0	301.4	211,600 *
50	82.0	300.6	206,200 *
55	81.0	299.8	201,100 *
60	80.0	298.9	196,300 *
65	79.0	297.9	191,900 *
70	78.0	296.8	176,900
75	77.0	295.7	159,200
80	76.0	294.4	144,100
85	75.0	293.0	131,000
90	74.0	291.6	119,700
95	73.0	290.0	109,700
100	72.0	288.4	100,900
105	71.0	286.6	93,000
110	69.9	284.8	85,900
115	68.9	282.8	79,500
120	67.8	280.8	73,700
125	66.8	278.6	68,400
130	65.7	276.3	63,600
135	64.6	273.9	59,100
140	63.5	271.4	55,000
145	62.4	268.8	51,200
150	61.3	266.0	47,700
155	60.2	263.1	44,500
160	59.1	260.1	41,400
165	57.9	257.0	38,500
170	56.8	253.7	35,900
175	55.6	250.2	33,400
180	54.4	246.6	31,000
185	53.2	242.9	28,800
190	52.0	238.9	26,700
195	50.7	234.8	24,700
200	49.4	230.5	22,800
205	48.1	226.0	21,000
210	46.8	221.3	19,300
215	45.4	216.4	17,700
220	44.0	211.2	16,100
225	42.6	205.8	14,600
230	41.1	200.0	13,200
235	39.6	194.0	11,900
240	38.0	187.6	10,600
245	36.4	180.8	9,400
250	34.7	173.6	8,200
255	32.9	165.9	7,000

315.0 ft

ft	°	ft	lb
50	82.5	320.5	178,400 *
55	81.6	319.8	173,800 *
60	80.6	318.9	169,500 *
65	79.7	318.0	165,500 *
70	78.8	317.0	161,600 *
75	77.9	315.9	157,600 *
80	76.9	314.7	142,700
85	76.0	313.4	129,600
90	75.0	312.1	118,200
95	74.1	310.6	108,200
100	73.1	309.1	99,400
105	72.2	307.5	91,500
110	71.2	305.7	84,400
115	70.3	303.9	78,000
120	69.3	302.0	72,100
125	68.3	300.0	66,800
130	67.3	297.9	62,000
135	66.3	295.7	57,500
140	65.3	293.4	53,400
145	64.3	290.9	49,600
150	63.3	288.4	46,100
155	62.3	285.7	42,800
160	61.2	283.0	39,800
165	60.2	280.1	36,900
170	59.1	277.1	34,200
175	58.0	273.9	31,700
180	56.9	270.7	29,300
185	55.8	267.3	27,100
190	54.7	263.7	25,000
195	53.6	260.0	23,000
200	52.4	256.1	21,100
205	51.3	252.1	19,300
210	50.1	247.9	17,600
215	48.9	243.5	16,000
220	47.7	239.0	14,500
225	46.4	234.2	13,000
230	45.1	229.2	11,600
235	43.8	224.0	10,200
240	42.4	218.5	8,900
245	41.1	212.8	7,700

S/N: 16001020

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin 54220 U.S.A.

Wind Conditions

RATING REDUCTIONS/OPERATION NOT PERMITTED

Boom No. 58 HL with 32.0 ft (9,75 m) Live Mast

Operation Permitted

Operation is permitted in steady winds or wind gusts up to the maximum speed given in Table 1, provided ratings are reduced the specified amount.

Table 1
Rating Reductions for Various Wind Speeds and Wind Gusts

Boom Length ft (m)		98.4 - 157.5 (30,0 - 48,0)	177.2 - 236.2 (54,0 - 72,0)	255.9 - 315.0 (78,0 - 96,0)
Maximum Wind Speed		**Percent Rating Reduction**		
mph	m/s			
15	7	0	0	0
20	9	0	0	0
25	11	0	0	10
30	13	0	10	20
35	16	0	20	30
Above 35 mph (16 m/s)		**OPERATION NOT PERMITTED**		
Wind speed to be measured at boom point elevation				

Operation Not Permitted

Operation is not permitted in the areas indicated in Table 1. Observe the following options:

Boom

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

Wind Conditions

Boom No. 58 HL
with 32.0 ft (9,75 m) Live Mast and 23.0 ft (7,0 m) Extended Upper Boom Point

Operation Permitted

Operation is permitted in steady winds or wind gusts up to the maximum speed given in Table 3, provided ratings are reduced the specified amount.

Table 3
Rating Reductions for Various Wind Speeds and Wind Gusts

Boom Length ft (m)		216.5 - 236.2 (66,0 - 72,0)	255.9 - 295.3 (78,0 - 90,0)
Maximum Wind Speed		**Percent Rating Reduction**	
mph	m/s		
15	7	0	0
20	9	0	0
25	11	0	0
30	13	0	10
35	16	10	20
Above 35 mph (16 m/s)		**OPERATION NOT PERMITTED**	
Wind speed to be measured at boom point elevation			

Operation Not Permitted

Operation is not permitted in the areas indicated in Table 3. Observe the following options:

Boom

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

Manitowoc Crane CARE

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.

- **Level 1** – This model-specific class covers theory and offers hands-on training and trouble shooting or all crane systems.

- **Level 2** – This model-specific class provides in-depth coverage of all crane systems and components, and advanced troubleshooting of simulated faults. (Requires Level 1.)

- **Level 3 / Master** – Covering all EPIC models and the 4100W, this class stresses high level system knowledge and trouble shooting of simulated faults. (Requires Level 2.)

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.

Hydraulic Filter Kit

Consists of the following:
- Filter Element - Hydraulic in Tank (4)

Cummins Model QSZ15-C600 Diesel

– Service Interval Kits

200 Hour Kit

Consists of the following:

Engine
- Filter Oil (1)
- Filter Water (1)
- Filter Fuel (1)

1,000 Hour Kit

Consists of the following:

Engine
- Filter Air Cleaner - Primary (1)
- Filter Oil (1)
- Filter Water (14)
- Filter Fuel (1)

Hydraulic
- Filter Element - Hydraulic in Tank (4)
- Element - Hydraulic Tank Breather (1)

2,000 Hour Kit

Consists of the following:

Engine
- Filter, Air Cleaner - Primary (1)
- Filter, Air Cleaner - Safety (1)
- Filter, Oil (1)
- Filter, Water (1)
- Filter, Fuel (1)
- Ether, (Bottle) (1)
- Sensor, Coolant Level (10)
- Belt, Fan (1)
- Belt, Alternator (set of two) (1)
- Filter, Element (1)

Hydraulic
- Filter Element - No substitutions allowed
- Filter - Hydraulic In-Tank Suction (4)

Kit, Engine Coolant Additive (SCA) Test (1)
Kit, Seal (for hydraulic in tank filter) (1)
Seal, Radial (for air cleaner) (1)

Hydraulic Test Kit

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.

Manitowoc Crane CARE

U.S. Standard Tools Kit
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.manitowoccranegroup.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.

For a worldwide listing of dealer locations, please consult our website at:
www.manitowoccranegroup.com

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.

Additional copies available through your Authorized Manitowoc Distributor.

- **Crane Operator's Manual**
- **Crane Parts Manual**
- **Crane Capacity Manual**
- **Crane Vendor Manual**
- **Service Manual (EPIC)**
- **Luffing Jib Operator's/Parts Manual**
- **Capacity Chart Manual - Attachments**

CD rom versions of the Operator's and Parts Manuals are shipped with each crane.
Also available are the following CDs:

- Crane CARE Owner CD –
- Ground Bearing Pressure Estimator CD
- Crane Selection and Planning Software (CompuCRANE©)
- EPIC® Crane Library CD consisting of capacity charts, range diagrams, wire rope specifications, travel specifications, crane weights, counterweight arrangements, luffing jib raising procedures, operating range diagrams, drum and lagging charts, boom rigging drawings, jib rigging drawings, outline dimensions and wind condition charts.

Available from your Authorized Manitowoc Cranes Distributor, these VHS videos are available in NTSC, PAL and SECAM formats.

- Your Capacity Chart Video
- Respect the Limits Video
- Crane Safety Video
- Boom Inspection/Repair Video

Crane CARE Package
Manitowoc has assembled all of the available literature, CD's and videos listed above plus several Manitowoc premiums into one complete Crane CARE Package.



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CraneCARE

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