

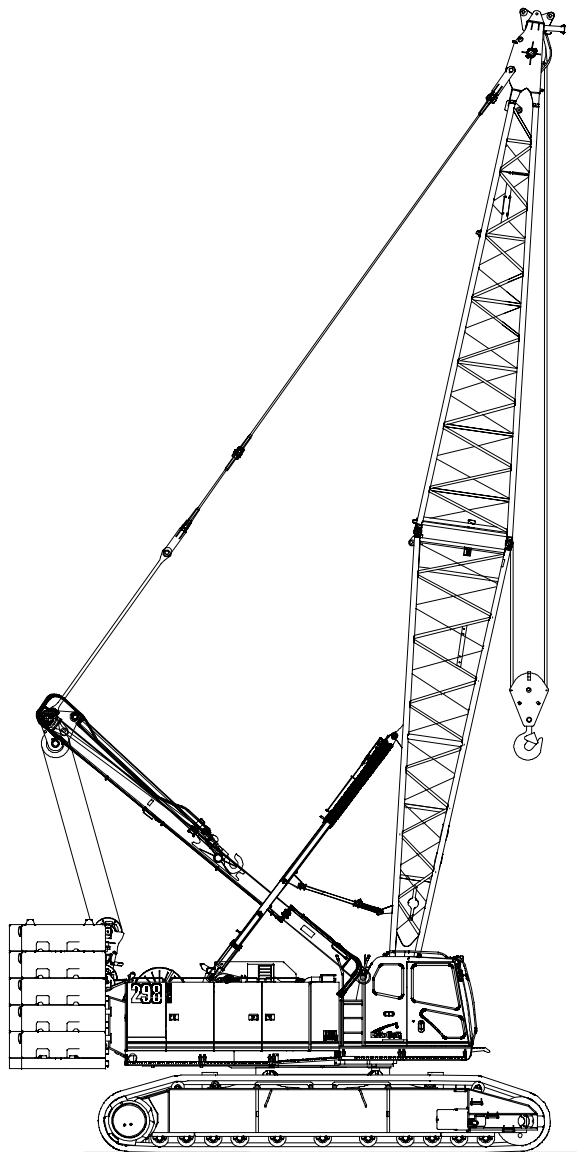
Technical Data

Specifications & Capacities

298

HYLAB

HSL Crawler Crane
230 Ton (208.6 metric ton)



CAUTION: This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual and Operator's Manual to determine allowable crane lifting capacities and assembly and operating procedures.

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Upper Structure

Frame

All welded steel frame with precision machined surfaces for mating parts.

Turntable Bearing

- Inner race with internal swing gear is bolted to lower frame.
- Outer race bolted to upper frame; inner race with internal swing gears bolted to lower frame.

Engine

Engine

Full pressure lubrication, oil filter, air cleaner, hour meter, throttle, and electric control shutdown.

Mitsubishi 6M70 – TL

Number of cylinders	6
Bore and stroke	5.31 x 5.91 in (135 x 150mm)
Piston displacement	786 in ³ (12.88L)
Engine rpm at full load speed	2,000 rpm
Hi-idle rpm	2,100 rpm
Gross engine hp	365 hp (272kw)
Peak torque	1,114 ft lb (1 510joule) @ 1,600 rpm
Electrical system	24 volt
Fuel tank capacity	134 gal (508L)
Batteries	2 – 12 volt

Fuel Tank

Equipped with fuel sight level gauges, flame arrester, and self-closing cap with locking eye for padlock.

Hydraulic System

Hydraulic Pumps

The pump arrangement is designed to provide hydraulically powered functions allowing positive, precise control with independent or simultaneous operation of all crane functions.

- Two variable displacement pumps operating at 4,553 psi (320kg/cm²) and 74 gal/min (280L/min) powers load hoist drums, boom hoist drum, optional third drum, quick draw cylinder, and travel.
- One variable displacement pump operating at 4,623 psi (325kg/cm²) and 42.3 gal/min (160L/min) powers the swing motors, live mast flip, and counterweight removal.
- One fixed displacement gear type pump operating at 2,987 psi (210kg/cm²) and 15.8 gal/min (59.8L/min) powers the lower jacks, counterweight pinning, quickdraw, side frame pinning, and hoist brake cooling (optional).
- One fixed displacement gear type pump operating at 1,427 psi (100kg/cm²) and 11.7 gal/min (44L/min) powers the oil cooler fan.

Hydraulic Reservoir

119 gal (450L), equipped with sight level gauge. Diffusers built in for deaeriation.

Filtration

Ten micron, full flow, line filter in the control circuit. All oil is filtered prior to entering the reservoir.

Counterbalance Valves

All hoist motors are equipped with counterbalance valves to provide positive load lowering and prevent accidental load drop if the hydraulic pressure is suddenly lost.

Load Hoist Drums

Each drum contains an axial piston, variable speed hydraulic motor with individual automatic winch motor brakes.

- Power up/down operation modes
- Optional wet-type free fall brake system
- Automatic brake mode (spring applied, hydraulically released, wet type brake)
- Drum lagging grooved for wire rope
- Drum pawl controlled manually
- Electronic drum rotation indicators
- Mounted on anti-friction bearings
- 24.57 in (0.62m) root diameter
- 41.34 in (1.05m) flange diameter
- 35.30 in (0.90m) width

The optional free-fall operation mode is designed to prevent load lowering even if the free-fall switch is accidentally activated.

The automatic brake mode meets all OSHA requirements for personnel handling.

Optional Front-Mounted Third Hoist Drum

The hydraulic winch is mounted in the boom base section and is used in conjunction with a fleeting sheave and three sheave assembly to run the wire rope over the boom top section.

- Power up/down operation mode
- Automatic brake mode (spring applied, hydraulically released)
- Smooth drum
- Electronic drum rotation indicator
- Mounted on anti-friction bearings

Boom Hoist Drum

Contains a pilot controlled, bi-directional, axial piston motor and a planetary gear reduction unit to provide positive control under all load conditions.

- Spring applied, hydraulically released, disc type brake controlled automatically
- Drum pawl controlled automatically
- Mounted on anti-friction bearings
- 26.10 in (0.66m) root diameter
- 38.58 in (0.98m) flange diameter
- 10.37 in (0.26m) width

Boom Hoist System

Designed to lift off maximum boom or maximum boom plus jib and maximum luffing attachment unassisted. Operates up to a maximum boom angle of 82°. Boom hoist limit system limits maximum boom angle operation.

- 22-part reeving with 1 in (22mm) wire rope
- Bridle assembly
- 25 ft (7.62m) Live mast
- Hydraulic tubular boom backstops
- Sheaves contain sealed anti-friction bearings
- Boom speed from 10° – 70° is 69 seconds with no load. Speed was determined using 100 ft (30.48m) of tube boom.

Swing System

Pilot controlled bi-directional axial piston motors and planetary gear reduction units to provide positive control under all load conditions.

- Spring applied, hydraulically released, 360° multi-plate brake
- Free swing mode when lever is in neutral position
- Four position positive house lock
- Two-speed swing
- Audio/Visual swing alarm
- Maximum swing speed is 1.7 rpm

Counterweight

Consists of an eleven-piece design that can be easily lowered to the ground using the removal cylinders.

- “ABCDE” total upper counterweight is 160,000 lb (72 576kg)
- Two carbody counterweights – 30,000 lb (13 608kg) each

Total combined counterweight, “ABC” plus carbody counterweights is 220,000 lb (99 792kg).

Operator Cab

Fully enclosed modular steel compartment is independently mounted and padded to protect against vibration and noise.

- All tinted/tempered safety glass
- Folding hinge entry door and sliding front glass window
- 19,000 BTU hot water heater
- 18,600 BTU air conditioner
- Door and window locks
- Circulating fan
- Sun visor
- Cloth seat
- Defroster
- Windshield wipers and washer
- Dry chemical fire extinguisher
- Engine instrumentation panel (voltmeter, engine oil pressure, engine water temperature, fuel level, hydraulic oil temperature, hour meter, and service monitor system)
- Electronic drum rotation indicators for front and rear hoist drums
- Six way adjustable seat
- Hand and foot throttle
- Fully adjustable single axis controls
- Swing lever with swing brake and horn located on handle
- Bubble type level
- Ergonomic gauge layout
- Controls shut off lever
- Control stand is adjustable for operator comfort.

Rated Capacity Limiter System

The HSL rated capacity limiter system is a boom hoist load cell system. This system provides the operator with useful geometrical data, to include:

- Main Boom Length
- Main Boom Angle
- Jib Length
- Jib Angle
- Operating Mode
- Load Radius
- Boom Tip Height
- Audible Alarm
- Pre-Warning Light
- Overload Light
- Load On Hook
- Function kick-outs including over load
- Operator settable stops (ramped stops)
- Anti-Two Block Indicator
- Boom hoist dead end load cell (no lineriders)

Machinery Cab

Hinged doors (three on right side, four on left side) for machinery access. Equipped with rooftop access ladder and skid resistant finish on roof.

Catwalks

Standard on right and left sides. Catwalks are removable for reduced travel width.

Lower Structure

Carbody

Lower Frame

All welded construction frame with precision machined surfaces for turntable bearing and rotating joint.

- 9 ft 10 in (3.00m) overall length
- 14 ft 9 in (4.48m) overall width

Side Frames

Side Frames

All welded, precision machined, hook and pinned, steel frames.

- 19 ft 3 in (5.87m) gauge
- 27 ft 9 in (8.46m) overall length
- 48 in (1.22m) wide track shoes
- Sealed (oil filled) drive planetaries
- Compact travel drives
- Automatic hydraulic track adjustment system – optional

Track Rollers

- Eleven sealed (oil filled) track rollers per side frame
- Heat treated, mounted on oil filled anti-friction bearings

Tracks

Heat treated, self-cleaning, multiple hinged track shoes joined by one-piece full floating pins; 55 shoes per side frame

Take Up Idlers

Cast steel, heat treated, self-cleaning, mounted on aluminum/bronze bushings. Lubricated through idler shaft.

- **Track Tension Adjustment** – Idler wheel adjusted by means of hydraulic cylinder and hand pump. Idler wheel shaft held in position with shims after adjustment is made.

Travel and Steering

Travel and Steering

Each side frame contains a pilot controlled, bi-directional, axial piston motor and a planetary gear reduction unit to provide positive control under all load conditions.

- Individual control provides smooth, precise maneuverability including full counter-rotation.
- Spring applied, hydraulically released disc type brake controlled automatically
- Maximum travel speed is 0.75 mph (1.21km/h).
- Designed to 30% gradeability

Jack System

System contains four hydraulic cylinders individually pinned on swing out beams.

- Individual controls are mounted on carbody.
- Minimum height of carbody when resting on pontoons is 17.4 in (0.44m).
- Maximum height of carbody when resting on pontoons is 45 in (1.14m).

Attachment and Options

Conventional Tubular Boom 60–300 ft (18.29–91.44m)

Basic Boom

60 ft (18.29m) two-piece design that utilizes a 30 ft (9.14m) base section and a 30 ft (9.14m) open throat top section with in-line connecting pins on 80 in (2.03m) wide and 68 in (1.73m) deep centers.

- Boom foot on 53.17 in (1.35m) centers
- 4.25 in (10.80cm) diameter chords
- Lugs on base section for self assembly
- Self assembly cylinder
- Deflector roller on top section
- Permanent skid pads mounted on top section to protect head machinery

- Four, 21.53 in, (0.55m) root diameter polyamide sheaves mounted on sealed anti-friction bearings
- Tip extension and jib connecting lugs on top section
- Mechanical boom angle indicator

Tube Boom Extensions

The following table provides the lengths available and the suggested quantity to obtain maximum boom in 10 ft (3.05m) increments. Midpoint pendant connections are required at 140 ft (42.67m) for boom lengths of 250 ft (76.20m) and greater.

- Polyamide wear blocks on top of each extension

Tube Boom Extensions		Quantity For Max Boom
ft	m	
10	3.05	1
20	6.10	1
30	9.14	3
40	12.19	3

- Maximum tip height of 303 ft 6 in (92.51m)
- Boom connecting pins storage on each extension

Tubular Jib **30–90 ft (9.14–27.43m)**

Basic Tube Jib

30 ft (9.14m) two-piece design that utilizes a 15 ft (4.57m) base section and a 15 ft (4.57m) top section with in-line connecting pins on 30 in (0.76m) wide and 36 in (0.91m) deep centers.

- 2 in (5.08cm) diameter tubular chords
- One 18.50 in (0.47m) root diameter steel sheave mounted on sealed anti-friction bearings
- 20 ft (6.10m) jib extensions provide jib lengths of 30 ft (9.14m), 50 ft (15.24m), 70 ft (21.34m), and 90 ft (27.43m).
- Jib offset angles at 5°, 15°, and 25°
- The maximum tip height of boom + jib [270 ft + 90 ft (82.30 + 27.43m)] is 363 ft 3 in (110.72m).

Luffing Boom **80–190 ft (24.38–57.91m)**

Luffing attachment still in development, contact your local distributor for further information.

Auxiliary Tip Extension **5 ft (1.5m)**

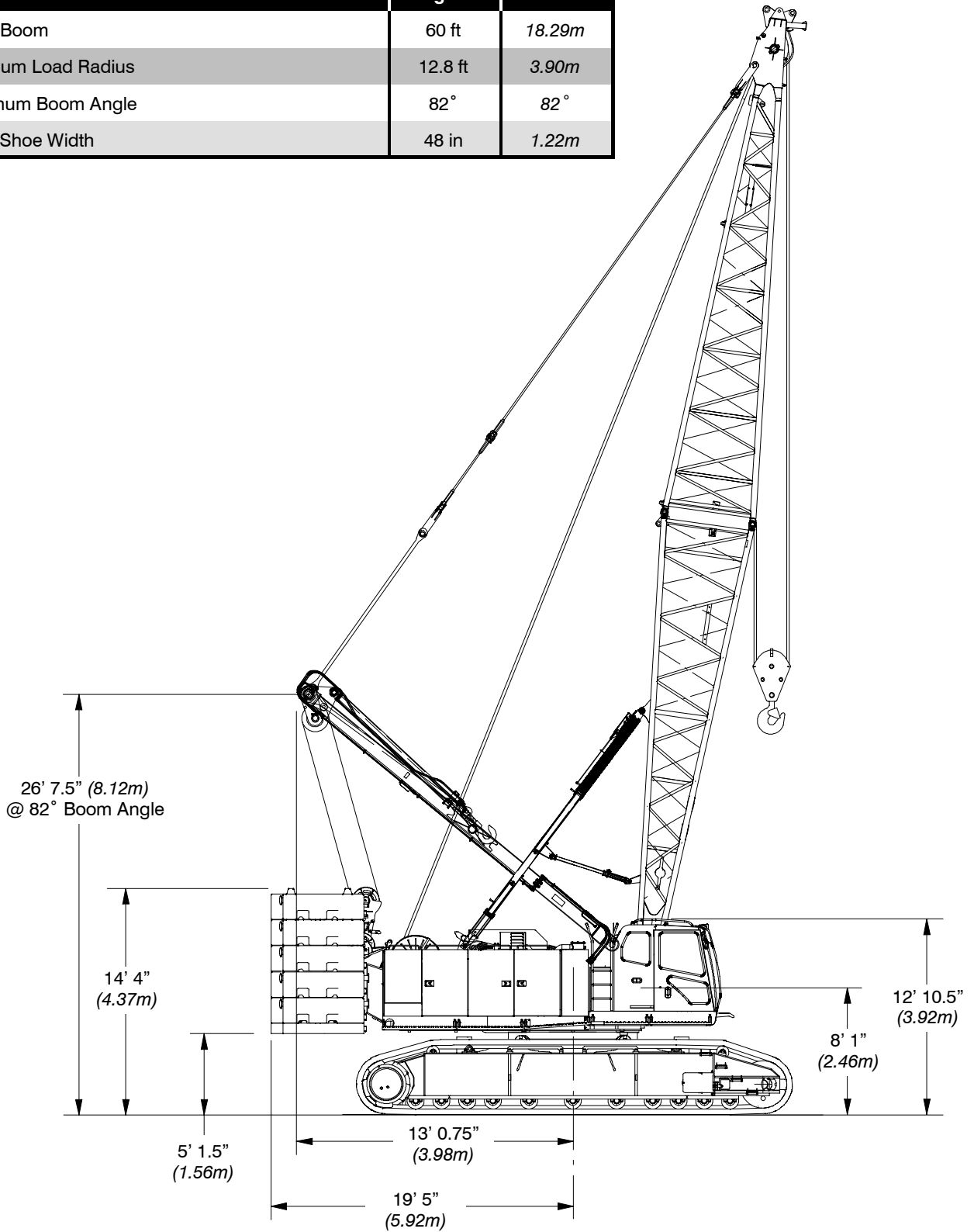
Designed to use in place of jib to provide clearance between working hoist lines. The extension is equipped with two nylon 18 in (0.46m) root diameter sheaves mounted on sealed anti-friction bearings. Maximum capacity is 20 ton (18.14mt).

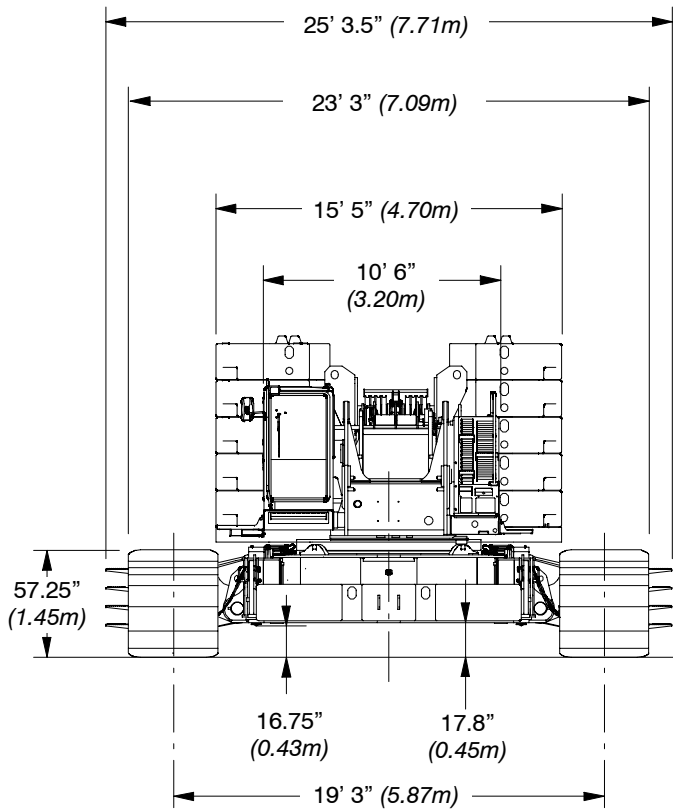
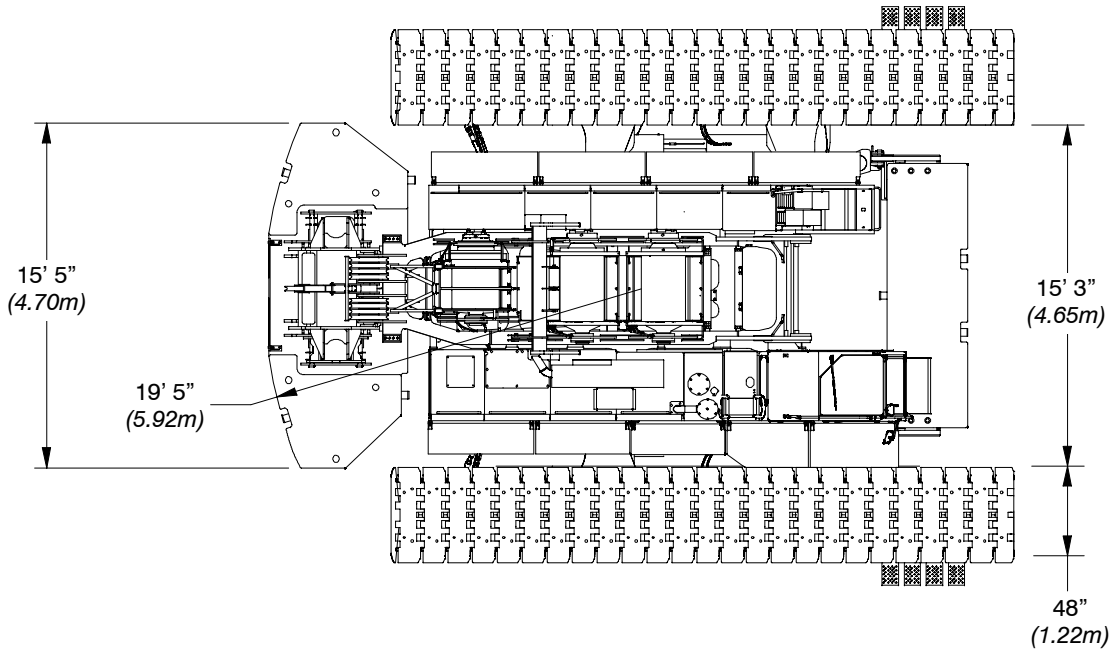
Luffing Jib **90–200 ft (27.43–60.96m)**

Luffing attachment still in development, contact your local distributor for further information.

Dimensions

General Dimensions	English	Metric
Basic Boom	60 ft	18.29m
Minimum Load Radius	12.8 ft	3.90m
Maximum Boom Angle	82°	82°
Track Shoe Width	48 in	1.22m



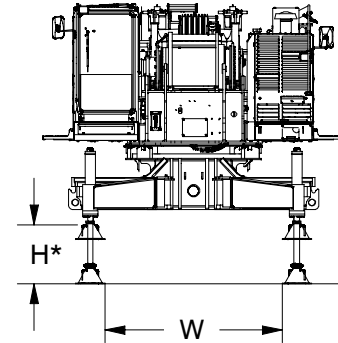
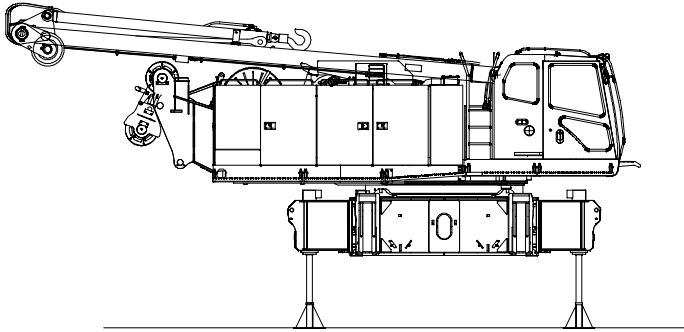


Base Crane

Base Crane 1

Width 10 ft 2.25 in (3.10m)
 Height* 45 in (1.14m)
 Weight 87,052 lb (39 487kg)

* Maximum height on pontoons



Side Frames

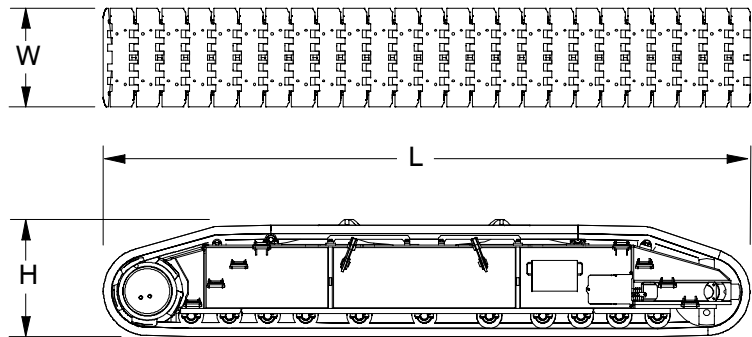
Side Frames 2

Standard 48" Shoes

Length 27 ft 9 in (8.46m)
 Width 48 in (1.22m)
 Height 57.25 in (1.45m)
 Weight 41,490 lb (18 820kg)

Optional 60" Shoes

Length 27 ft 9 in (8.46m)
 Width 60 in (1.52m)
 Height 57.25 in (1.45m)
 Weight 43,211 lb (19 601kg)

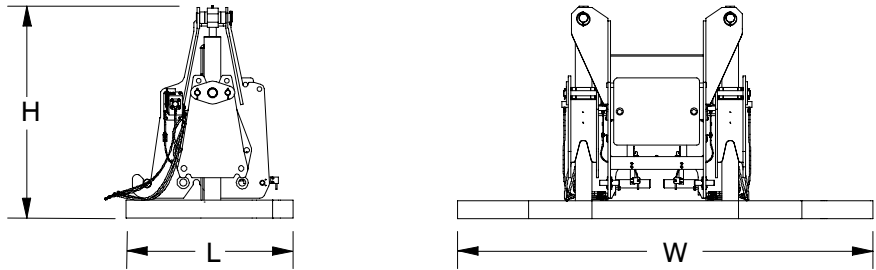


Number inside black circle "1" = # of components

Upper Counterweights

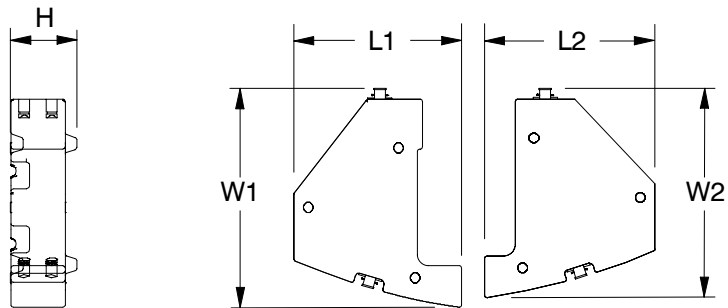
"A" Base Counterweight ①

Length	6 ft 2.50 in	(1.89m)
Width	15 ft 5 in	(4.70m)
Height	7 ft 2.75 in	(2.20m)
Weight	36,000 lb	(16 330kg)



"A", "B", "C", "D", & "E", Wing Counterweights ⑤

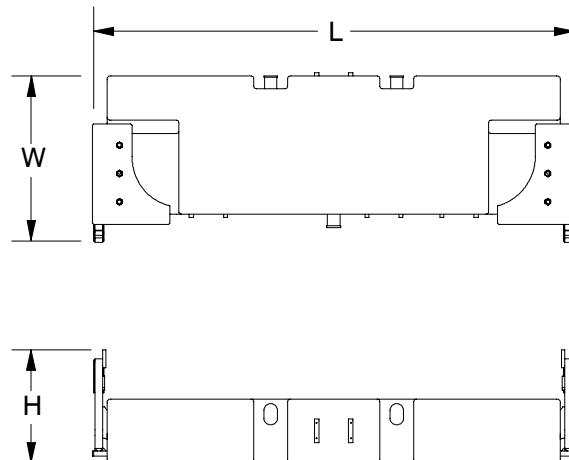
Length 1	60 in	(1.52m)
Length 2	61 in	(1.55m)
Width 1	74.25 in	(1.89m)
Width 2	71 in	(1.80m)
Height	23.50 in	(0.60m)
Weight:		
Left Side	12,800 lb	(5 806kg)
Right Side	12,000 lb	(5 443kg)



Lower Counterweights

Carbody Counterweights ②

Length	12 ft 5.75 in	(3.80m)
Width	43.25 in	(1.10m)
Height	35.25 in	(0.90m)
Weight	30,000 lb	(13 608kg)



Number inside black circle "①" = # of components

Boom/Luffing Boom

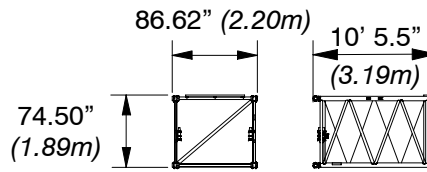
68 in (1.73m) x 80 in (2.03m)

Boom/Luffing Boom Extensions

10 ft (3.05m) Extension

Weight†: 1,730 lb (785kg)

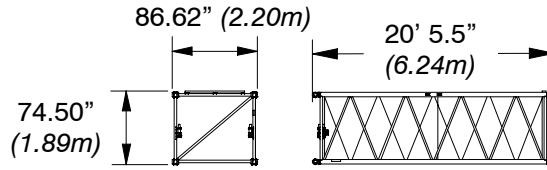
† Weight includes pins and pendants.



20 ft (6.10m) Extension

Weight†: 2,305 lb (1 046kg)

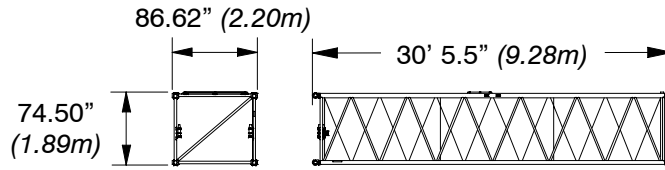
† Weight includes pins and pendants.



30 ft (9.14m) Extension

Weight†: 3,612 lb (1 638kg)

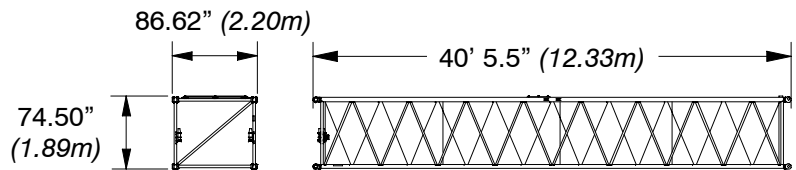
† Weight includes pins and pendants.



40 ft (12.19m) Extension

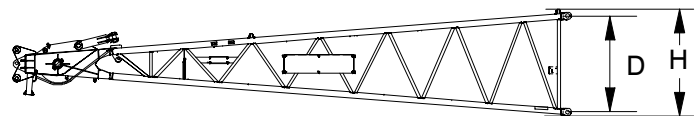
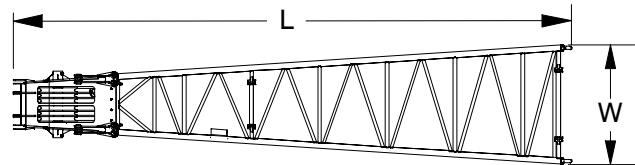
Weight†: 4,596 lb (2 085kg)

† Weight includes pins and pendants.



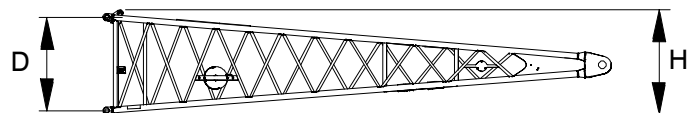
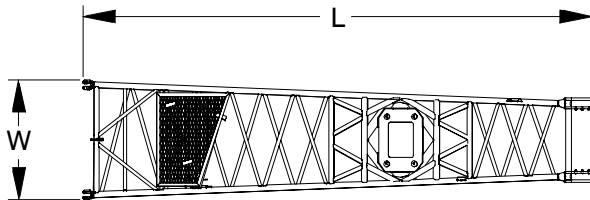
30 ft (9.14m) Boom Top Section 1

Length	32 ft 10.5 in	(10.02m)
Width	84.25 in	(2.14m)
Deep	68 in	(1.73m)
Height	75.25 in	(1.91m)
Weight	5,213 lb	(2 365kg)



30 ft (9.14m) Boom Base Section 1

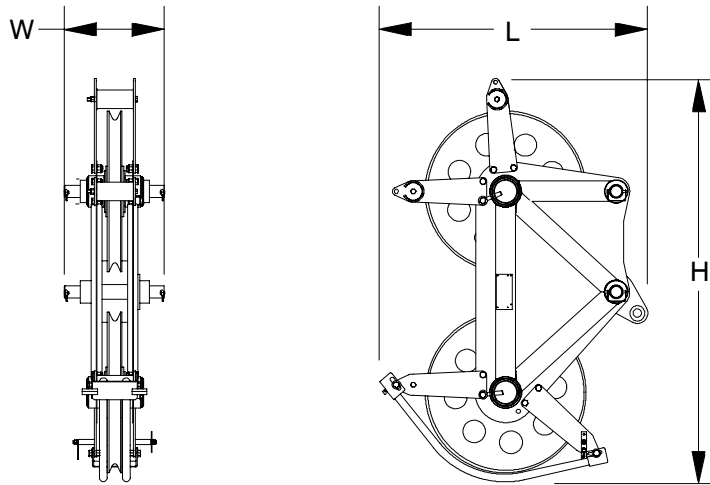
Length	30 ft 9 in	(9.37m)
Width	86.75 in	(2.20m)
Deep	68 in	(1.73m)
Height	76 in	(1.93m)
Weight	5,231 lb	(2 373kg)



Number inside black circle "1" = # of components

Horsehead Extension* ①

Length	53.25 in	(1.35m)
Width	20 in	(0.51m)
Height	80.25 in	(2.04m)
Weight	1,133 lb	(514kg)



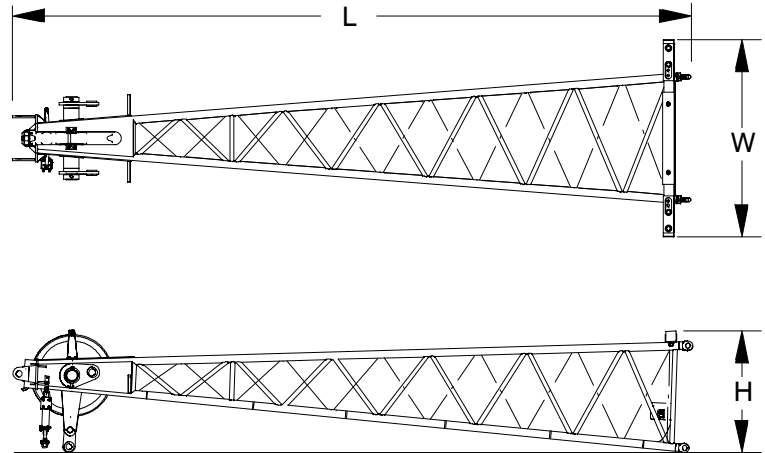
Jib/Luffing Fixed Jib

15 ft (4.57m) Jib

Top Section* ①

Length	16 ft 7 in	(5.05m)
Width	57.75 in	(1.46m)
Height	40.75 in	(1.04m)
Weight†	790 lb	(358kg)

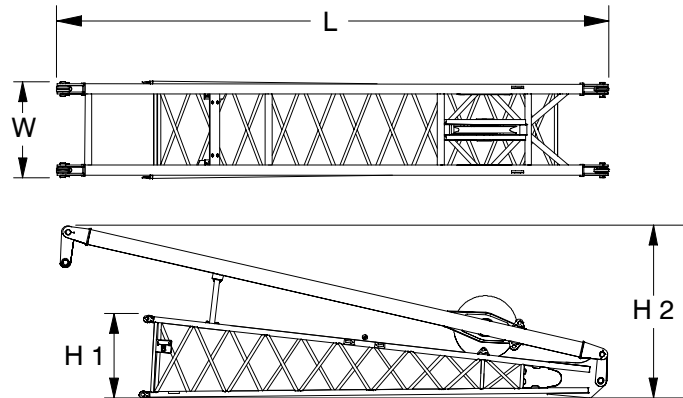
† Weight includes pendants and hardware.



15 ft (4.57m) Jib Base & Strut Section* ①

Length	18 ft 1.50 in	(m)
Width	38 in	(m)
Height 1	32.50 in	(m)
Height 2	66.50 in	(m)
Weight†	1,702 lb	(772kg)

† Weight includes pins, basic frontstay & backstay pendants, and hardware.



Number inside black circle "①" = # of components

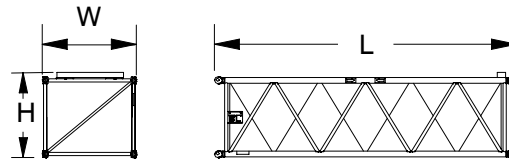
* - Optional equipment

10 ft (3.05m) Jib Extension*

①

Length	10 ft 3 in	(3.12m)
Width	38 in	(0.97m)
Height	34.50 in	(0.88m)
Weight†	363 lb	(165kg)

† Weights includes pins, pendants, and hardware.

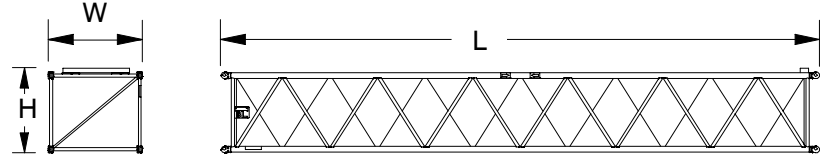


20 ft (6.10m) Jib Extension*

①

Length	20 ft 3 in	(6.17m)
Width	38 in	(0.97m)
Height	34.50 in	(0.88m)
Weight†	592 lb	(269kg)

† Weights includes pins, pendants, and hardware.



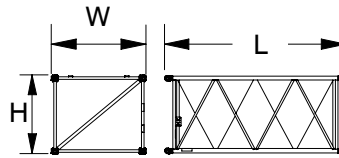
Luffing Jib Extensions*

Weights Include Pendants and Hardware

10 ft (3.05m) Extension

Length	10 ft 5.5 in	(3.19m)
Width	65 in	(1.65m)
Height	54 in	(1.37m)
Weight†	541 lb	(245kg)

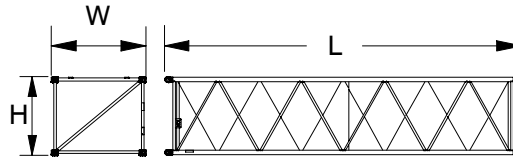
† Weights includes pins, pendants, and hardware.



20 ft (6.10m) Extension

Length	20 ft 5.5 in	(6.24m)
Width	65 in	(1.65m)
Height	54 in	(1.37m)
Weight†	962 lb	(436kg)

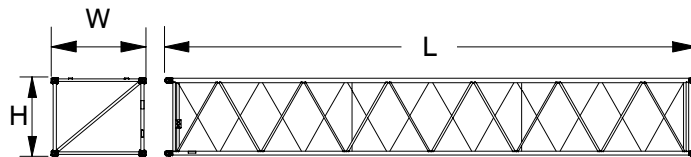
† Weights includes pins, pendants, and hardware.



30 ft (9.14m) Extension

Length	30 ft 5.5 in	(9.28m)
Width	65 in	(1.65m)
Height	54 in	(1.37m)
Weight†	1 383 lb	(627kg)

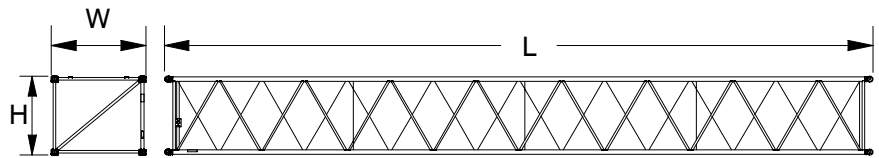
† Weights includes pins, pendants, and hardware.



40 ft (12.19m) Extension

Length	40 ft 5.5 in	(12.33m)
Width	65 in	(1.65m)
Height	54 in	(1.37m)
Weight†	1 804 lb	(818kg)

† Weights includes pins, pendants, and hardware.

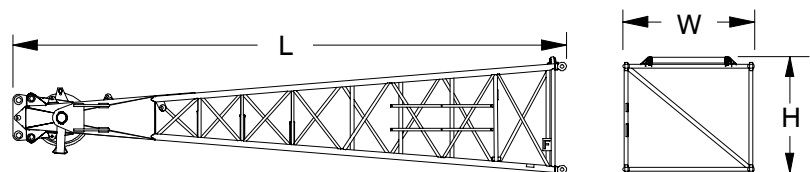


20 ft (6.10m) Luffing Jib Top Section*

①

Length	22 ft 2 in	(6.75m)
Width	63 in	(1.60m)
Height	56.75 in	(1.44m)
Weight†	2,416 lb	(1 096kg)

† Weight includes pendants and hardware.



Number inside black circle "①" = # of components

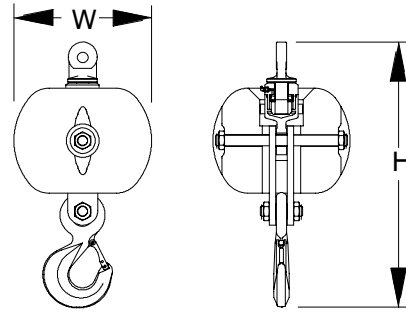
* – Optional equipment

Hook Balls

20 Ton (18.1mt) Swivel

Hook Ball* 1

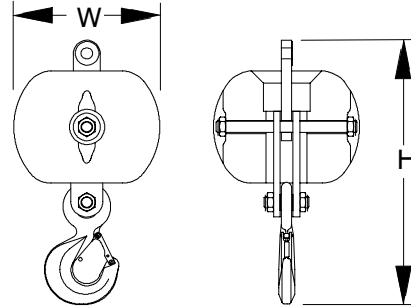
Width	21.75 in	(0.55m)
Height	41.75 in	(1.06m)
Weight	1,255 lb	(569kg)



20 Ton (18.1mt) Non-Swivel

Hook Ball* 1

Width	21.75 in	(0.55m)
Height	39 in	(0.99m)
Weight	1,211 lb	(549kg)

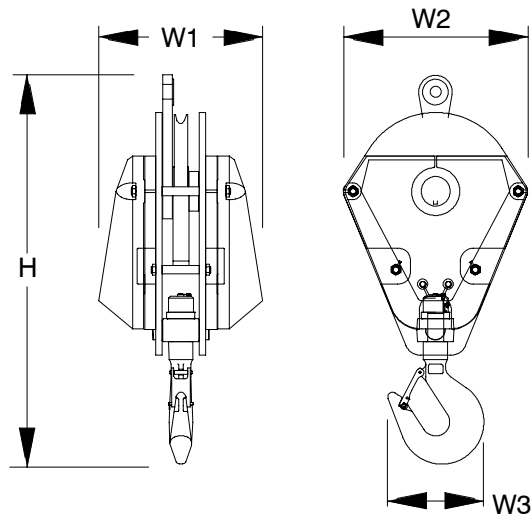


Hook Blocks

40 Ton (36.3mt)

1-Sheave Hook Block* 1

Width1	25.50 in	(0.65m)
Width2	28.75 in	(0.73m)
Width3	15 in	(0.38m)
Height	60.75 in	(1.54m)
Weight	2,293 lb	(1 040kg)



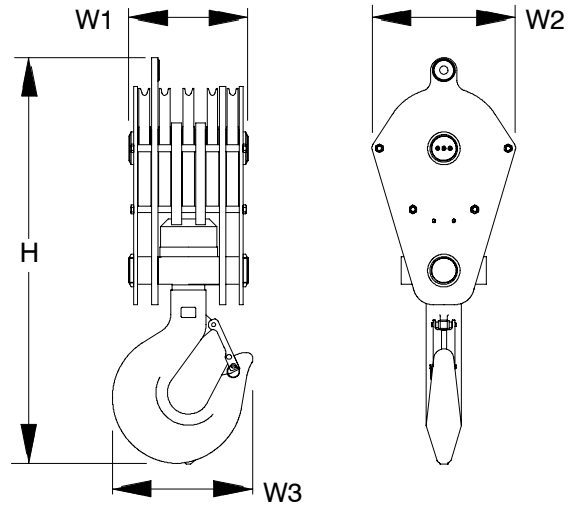
Number inside black circle “1” = # of components

* – Optional equipment

165 Ton (150mt)

5-Sheave Hook Block* ①

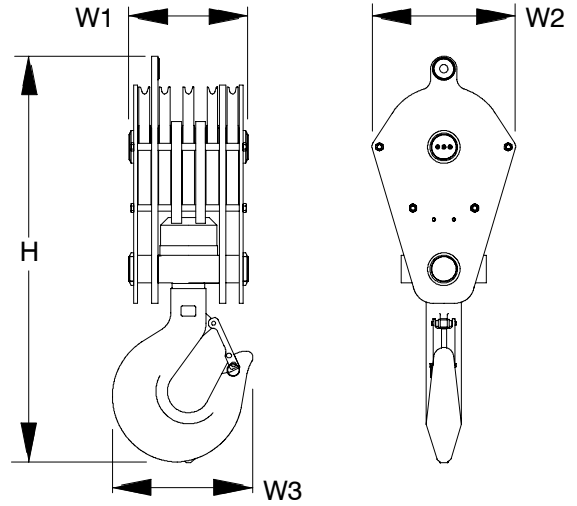
Width1	22 in	(0.56m)
Width2	28.75 in	(0.73m)
Width3	28.25 in	(0.72m)
Height	81.50 in	(2.07m)
Weight	3,392 lb	(1 539kg)



200 Ton (181.4mt)

5-Sheave Hook Block* ①

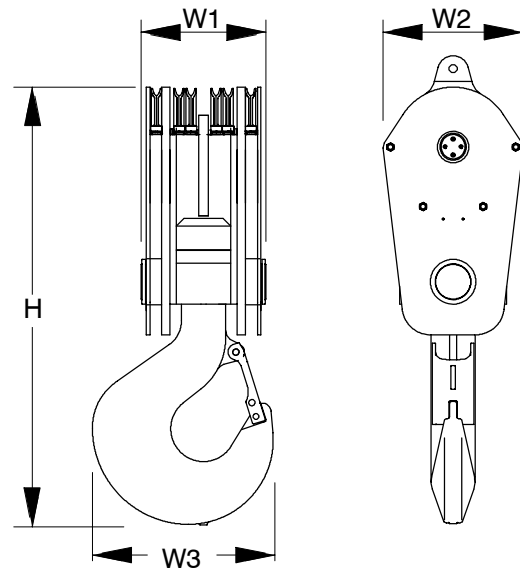
Width1	25 in	(0.63m)
Width2	28.75 in	(0.73m)
Width3	35 in	(0.89m)
Height	58 in	(1.47m)
Weight	4,300 lb	(1 950kg)



250 Ton (226.8mt)

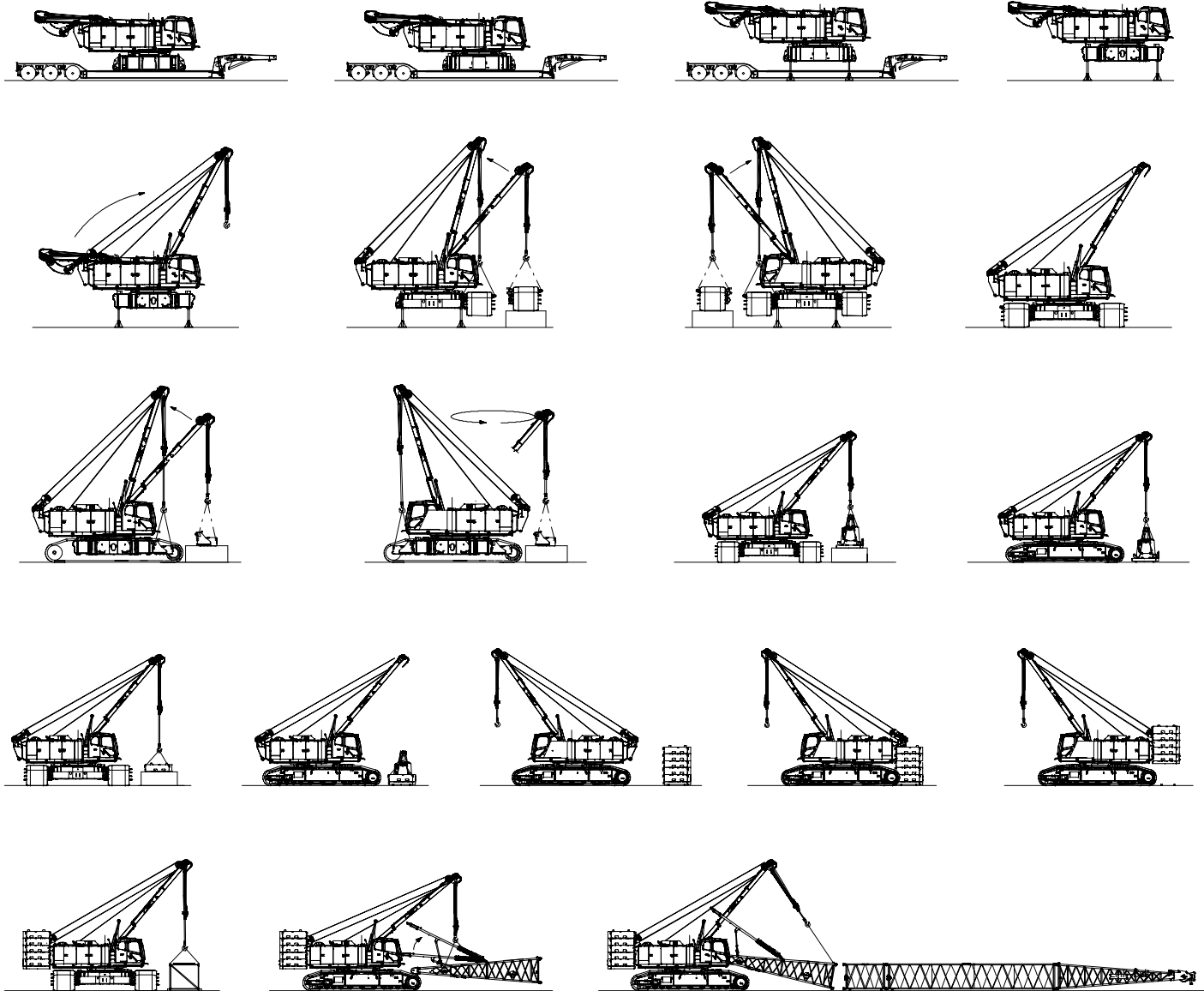
6-Sheave Hook Block* ①

Width1	27 in	(0.69m)
Width2	35.25 in	(0.90m)
Width3	34.75 in	(0.88m)
Height	95.50 in	(2.43m)
Weight	5,721 lb	(2 595kg)



Number inside black circle “①” = # of components
 * – Optional equipment

Assembly Diagram



Working Weights

Based on basic crane including **Mitsubishi 6M70-TL** diesel engine, turntable bearing, live mast, 12 part boom hoist reeving, backstops, counterweight, crawler lower with 48 in (0.91m) wide track shoes, sealed track rollers, and catwalks, plus the following:

Lifting crane – includes 60 ft (18.29m) basic boom, quick draw cylinder, 1,350 ft (411.48m) of type ZB main hoist rope, 975 ft (297.18m) of type ZB auxiliary hoist rope, 250 ton (226.8mt) hook block, and basic pendants.

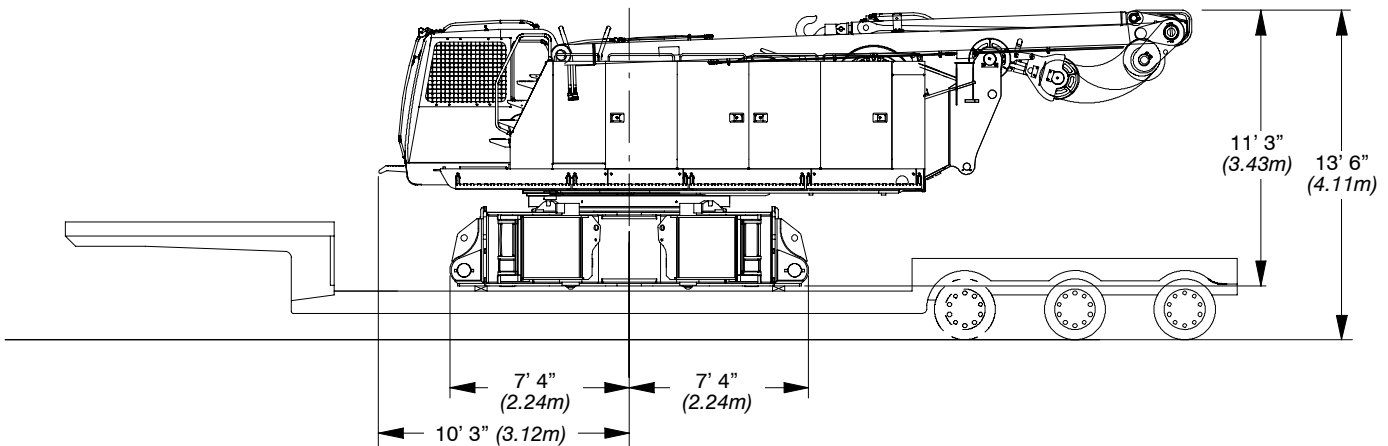
		Ctwt "AB+A"	Ctwt "ABC+A"	Ctwt "ABCDE" + "A"
		lb (kg)	lb (kg)	lb (kg)
		315,532 (143 125)	340,377 (154 395)	390,069 (176 935)
Ground Bearing Pressure	psi	9.8	10.6	12.2
	kg/cm ²	0.69	0.75	0.86

Transport Weights

Base Crane:

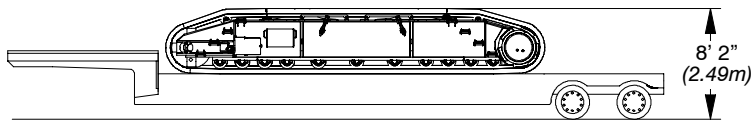
Item Description	Gross Weight		Transport Loads											
	lb	(kg)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
Base crane	87,052	39 487	1											
Add Side Frame w/ 48" Shoes – Two required	41,490	18 820		1	1									
Add Base Cwt	36,000	16 330										1		
Add Cwt Biscuit (Left) – Five required	12,800	5 806						1	1	2	1			
Add Cwt Biscuit (Right) – Five required	12,000	5 443						1	1	1	2			
Add Lower Cwt – Two Required	30,000	13 608				1	1							
Add 30 ft (9.14m) Base Section w/ Backstops & Boom Foot Pins	7,447	3 378						1						
Add 10 ft (3.05m) Extension w/ Pendants	1,730	785				1								
Add 20 ft (6.10m) Extension w/ Pendants	2,305	1 046									1			
Add 30 ft (9.14m) Extension w/ Pendants – Three required	3,612	1 638									1		1	1
Add 40 ft (12.19m) Extension w/ Pendants – Three required	4,596	2 085				1	1			1				
Add 30 ft (9.14m) Top Section	5,213	2 365							1					
Add 15 ft (4.58m) Jib Base & Strut	1,702	772										1		
Add 20 ft (6.10m) Jib Extension w/ Pendants & Pins – Three required	582	264										1	2	
Add 15 ft (4.6m) Jib Peak Section	790	358										1		
Add 250 Ton (226.75mt) Hook Block	5,721	2 595							1					
Add 20 Ton (18.14mt) Hook Ball w/o Swivel	1,211	549							1					
Approximate Total Shipping Weight	lb		87,052	41,490	41,490	36,326	34,596	32,247	36,989	42,196	42,717	39,074	4,776	3,612
	kg		39 487	18 820	18 820	16 477	15 693	14 627	16 778	19 140	19 376	17 724	2 166	1 638

Transport Drawings



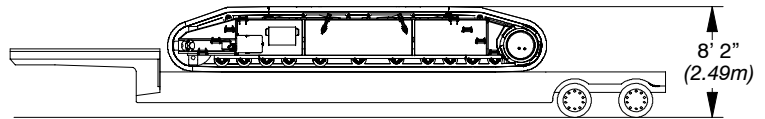
LOAD #1 – 87,052 lb (39 487kg)

Base crane



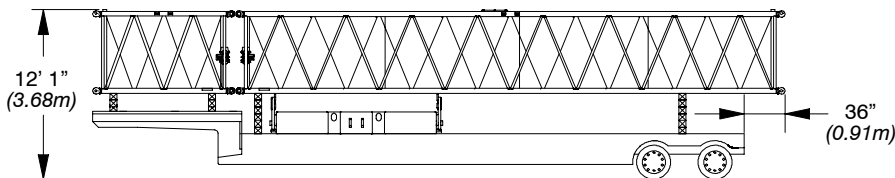
LOAD #2 – 41,490 lb (18 820kg)

Side frame w/ 48" shoes



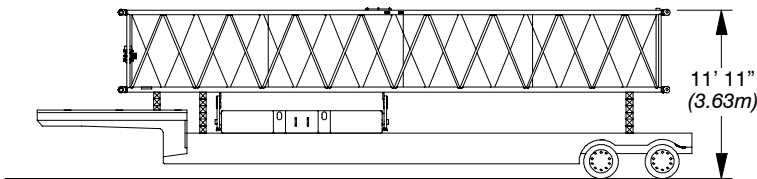
LOAD #3 – 41,490 lb (18 820kg)

Side frame w/ 48" shoes



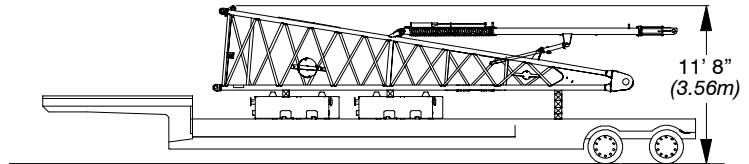
LOAD #4 – 36,326 lb (16 477kg)

Lower counterweight, 40 ft (12.19m) boom extension,
and 10 ft (3.05m) boom extension



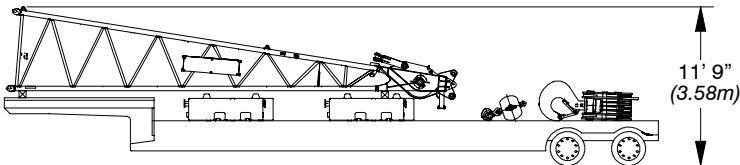
LOAD #5 – 34,596 lb (15 693kg)

Lower counterweight and 40 ft (12.19m) boom extension



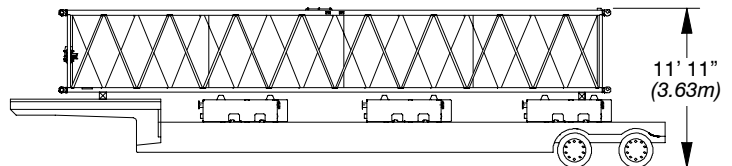
LOAD #6 – 32,247 lb (14 627kg)

30 ft (9.14m) base section with backstops and boom foot pins, one 12,800 lb (5 806kg) counterweight, and one 12,000 lb (5 443kg) counterweight



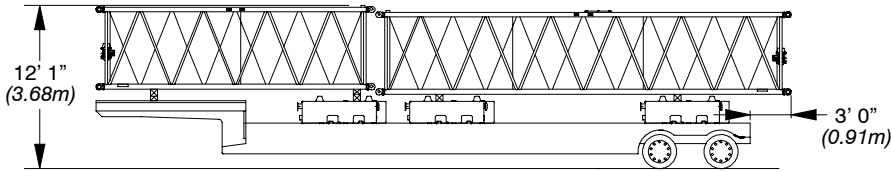
LOAD #7 – 36,989 lb (16 778kg)

30 ft (9.14m) top section, one 12,800 lb (5 806kg) counterweight, one 12,000 lb (5 443kg) counterweight, 20 ton (18.14mt) hook ball, and 250 ton (226.75mt) hook block



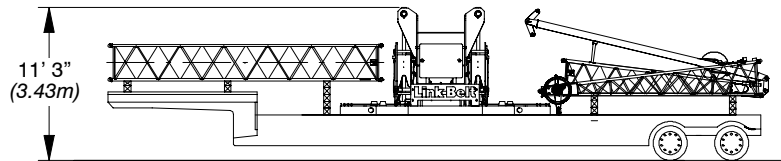
LOAD #8 – 42,196 lb (19 140kg)

Two 12,800 lb (5 806kg) counterweights, one 12,000 lb (5 443kg) counterweight, and 40 ft (12.19m) boom extension



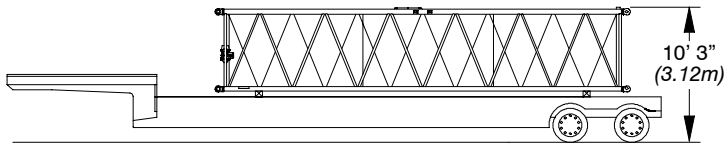
LOAD #9 – 42,717 lb (19 376kg)

One 12,800 lb (5 806kg) counterweight, two 12,000 lb (5 443kg) counterweights, 20 ft (6.10m) boom extension, and 30 ft (9.14m) boom extension



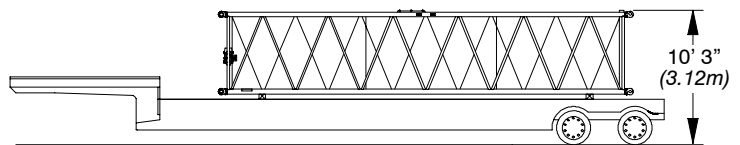
LOAD #10 – 39,074 lb (17 724kg)

36,000 lb (16 330kg) base counterweight, 20 ft (6.10m) jib extension, 15 ft (4.57m) jib base and strut, and 15 ft (4.57m) jib peak



LOAD #11 – 4,776 lb (2 166kg)

30 ft (9.14m) boom extension and two 20 ft (6.10m) jib extensions



LOAD #12 – 3,612 lb (1 638kg)

30 ft (9.14m) boom extension

Load Hoist Performance

Front & Rear Drums – 28mm Wire Rope

Rope Layer	Maximum Line Pull		No Load Line Speed		Full Load Line Speed		Pitch Diameter		Layer		Total	
	lb	kg	ft/min	m/min	ft/min	m/min	in	mm	ft	m	ft	m
1	59,234	26 869	383.7	116.9	191.8	58.5	24.6	624.0	192.9	58.8	192.9	58.8
2	54,356	24 656	413.0	125.9	206.5	62.9	26.4	671.7	278.5	84.9	400.6	122.1
3	50,220	22 780	442.3	134.8	221.1	67.4	28.3	719.3	222.5	67.8	623.1	189.9
4	46,669	21 169	471.6	143.7	235.8	71.9	30.2	767.0	237.1	72.3	860.2	262.2
5	43,587	19 771	500.9	152.7	250.4	76.3	32.1	814.6	251.9	76.8	1,112.1	339.0
6	40,887	18 546	530.2	161.6	265.1	80.8	33.9	862.3	266.7	81.3	1,378.8	420.2
7	38,502	17 465	559.5	170.5	279.7	85.3	35.8	910.0	281.3	85.7	1,660.1	506.0

Boom Hoist Drums – 22mm Wire Rope

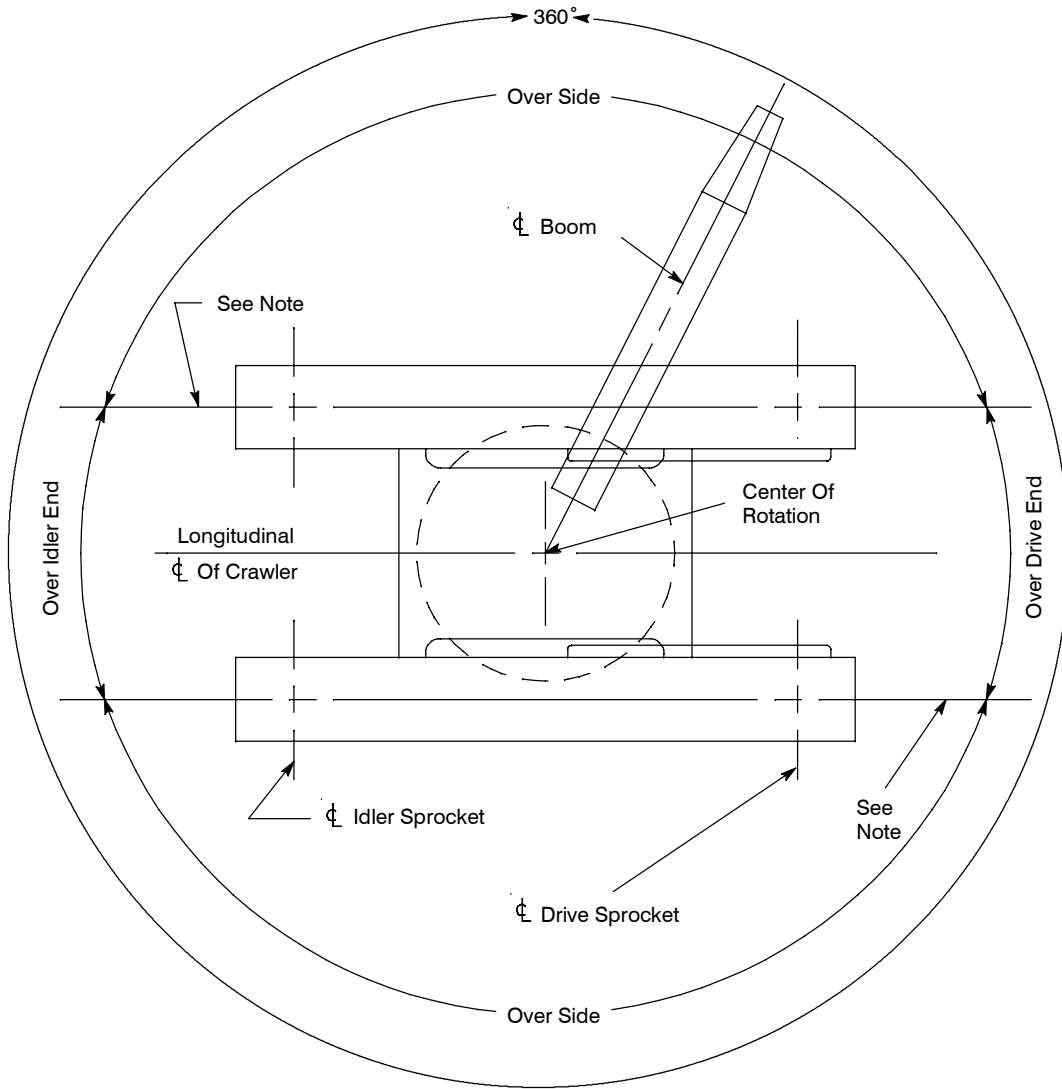
Rope Layer	Maximum Line Pull		No Load Line Speed		Full Load Line Speed		Pitch Diameter		Layer		Total	
	lb	kg	ft/min	m/min	ft/min	m/min	in	mm	ft	m	ft	m
1	103,657	47 019	99.9	30.4	54.8	16.7	26.1	663.0	150.3	45.8	150.3	45.8
2	97,096	44 043	105.6	32.2	57.9	17.7	27.6	701.1	159.0	48.5	309.3	94.3
3	91,316	41 421	111.3	33.9	61.1	18.6	29.1	739.3	167.7	51.1	477.0	145.4
4	86,186	39 094	117.1	35.7	64.2	19.6	30.6	777.4	176.2	53.7	653.2	199.1
5	81,601	37 014	122.8	37.4	67.4	20.5	32.1	815.6	185.0	56.4	838.2	255.5
6	77,480	35 145	128.6	39.2	70.5	21.5	33.6	853.7	193.6	59.0	1,031.8	314.5
7	73,755	33 455	134.3	40.9	73.7	22.5	35.1	891.9	202.2	61.6	1,234.0	376.1

Third Hoist Drum – 1.0 in (25.4mm) Wire Rope

Rope Layer	Maximum Line Pull		No Load Line Speed		Full Load Line Speed		Pitch Diameter		Layer		Total	
	lb	kg	ft/min	m/min	ft/min	m/min	in	mm	ft	m	ft	m
1	29,090	13 195	271	82.6	230	70.1	21	533.4	131	39.9	131	39.9
2	26,560	12 048	297	90.5	251	76.5	23	584.2	143	43.6	274	83.5
3	24,440	11 086	322	98.1	273	83.2	25	635.0	156	47.5	430	131.1
4	22,630	10 265	348	106.1	295	89.9	27	685.8	168	51.2	598	182.3
5	21,070	9 557	374	114.0	317	96.6	29	736.6	181	55.2	779	237.4
6	---	---	---	---	---	---	---	---	193	58.8	972	296.3

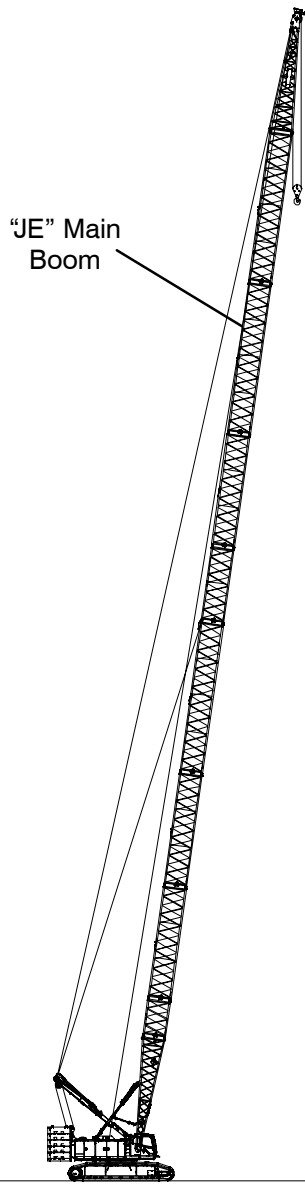
Wire Rope Application	Diameter		Type	Max. Permissible Load		Wire Rope Descriptions
	in	mm		lb	kg	
Front Hoist	--	28	ZB	33,900	15 377	4 strand, low torque, right regular lay
Rear Hoist	--	28	ZB	33,900	15 377	4 strand, low torque, right regular lay
Boom Hoist	--	22	LB	25,000	11 340	6 x 25 (6 x19 Class) – Filler Wire – Preformed – I.W.R.C – Right Lay – Regular Lay Compacted Strands
Third Drum	1.0	25.4	RB	22,760	10 324	18 x 19 Rotation Resistant Compacted Strand – High Strength – Preformed, Right Regular Lay

Working Areas



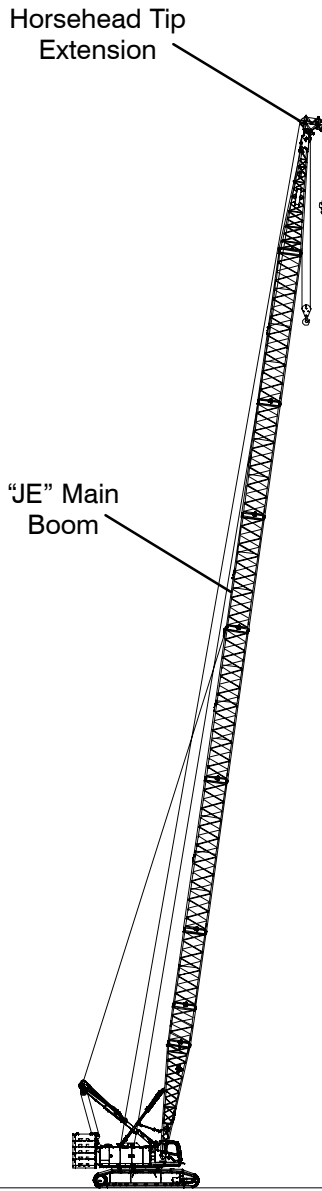
Note: These Lines Determine The Limiting Position Of Any Load For Operation Within Working Areas Indicated.

Attachments



"JE" Main Boom

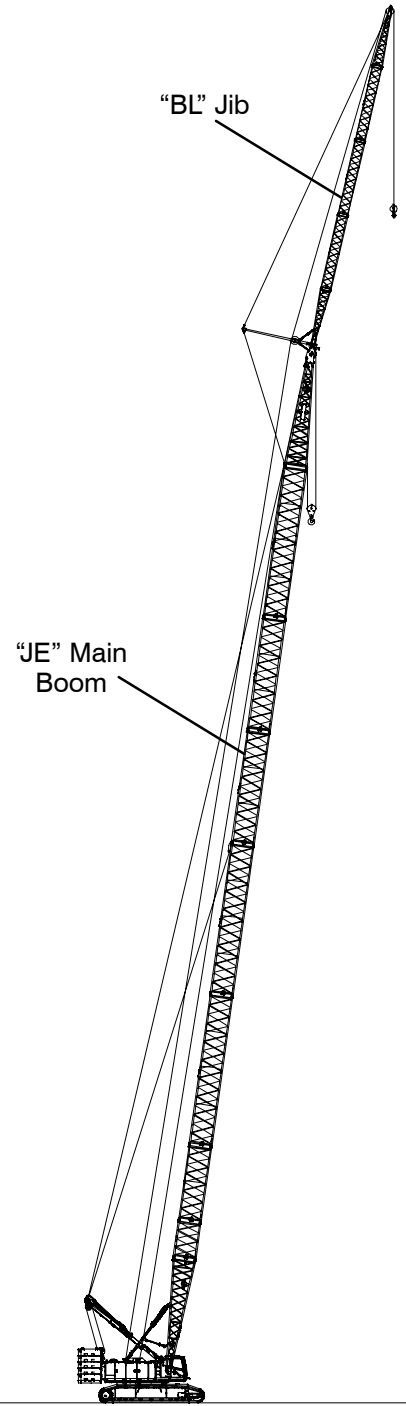
**60-300 ft (18.29-91.44m)
Main Boom**



Horsehead Tip Extension

"JE" Main Boom

**60-270 ft (18.29-82.30m)
Main Boom With Horsehead
Tip Extension**



"BL" Jib

"JE" Main Boom

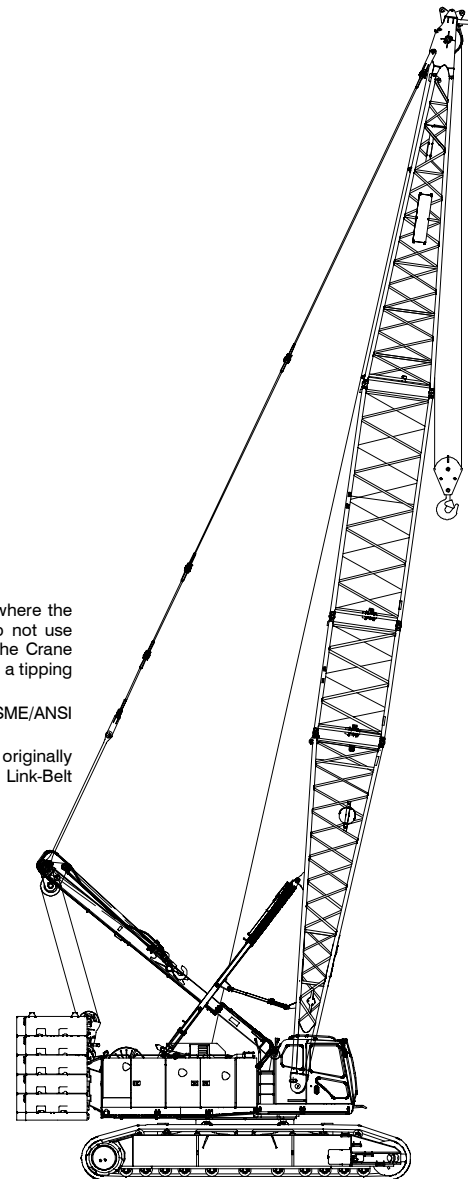
**60-270 ft (18.29-82.30m)
Main Boom With 30-90 ft
(9.14-27.43m) Jib**

Main Boom Make-up

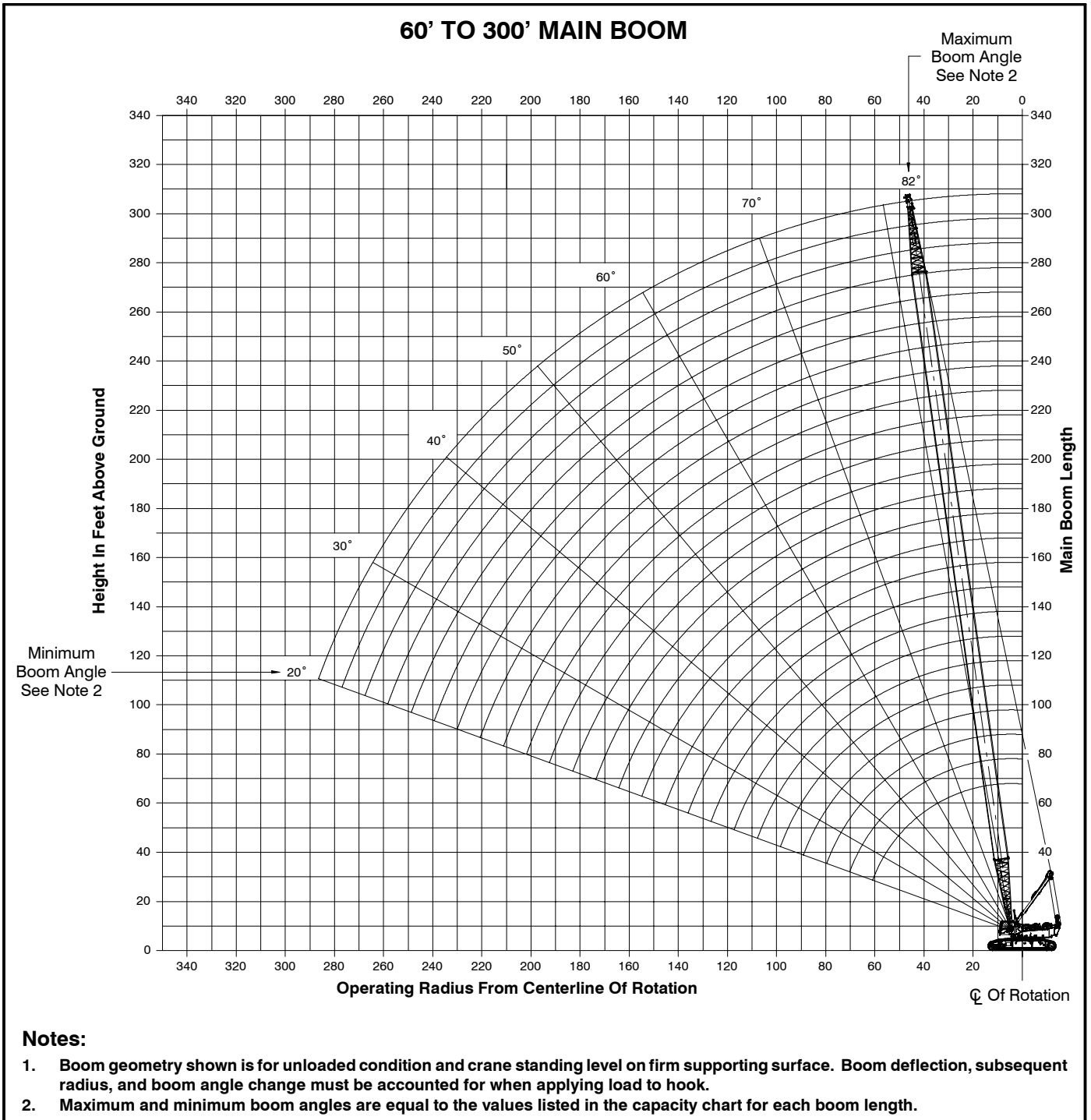
Boom Length ft (m)	Boom Extensions ft (m)			
	10 (3.05)	20 (6.14)	30 (9.10)	40 (12.19)
60 (18.29)				
70 (21.34)	1			
80 (24.38)		1		
90 (27.43)	1		1	
100 (30.48)	1			1
110 (33.53)	1			1
120 (36.58)	1	1	1	
130 (39.62)	1	1		1
140 (42.67)	1		1	1
150 (45.72)	1			2
160 (48.77)	1	1	1	1
170 (51.82)	1	1		2
180 (54.86)	1		1	2
190 (57.91)	1			3
200 (60.96)	1	1	1	2
210 (64.01)	1	1		3
220 (67.06)	1		1	3
230 (70.10)	1	1	2	2
240 (73.15)	1	1	1	3
250 (76.20)	1		2	3
260 (79.25)		1	2	3
270 (82.30)			3	3
280 (85.34)	1		3	3
290 (88.39)		1	3	3
300 (91.44)	1	1	3	3

Notes:

- Capacities shown are in kips/metric tons (1 kip = 1,000 lb / 1 metric ton = 0.45 kips) and are not more than 75% of the tipping loads with the crane standing level on firm supporting surface. A deduction must be made from these capacities for weight of hook block, hook ball, sling, grapple, load weighing device, etc. When using main hook while jib or tip extension is attached, reduce capacities by values shown in Crane Rating Manual. See Operator's Manual for all limitations when raising or lowering attachment.
- The capacities in the shaded areas are based on structural strength. The capacities in the non-shaded areas are based on stability ratings.
- For recommended reeving, parts of line, wire rope type, and wire rope inspection, see Wire Rope Capacity Chart, Operator's Manual, and Parts Manual.
- Load ratings are based on freely suspended loads and make no allowances for such factors as the effect of the wind, ground conditions, and operating speeds. The operator shall therefore reduce load ratings in order to take these conditions into account. Refer to the Crane Rating Manual for Wind Speed Restrictions.
- The 25 ft (7.62m) live mast must be used for all capacities listed.
- The least stable rated condition is over the side.
- Booms must be erected and lowered over the end for maximum stability.
- Main boom length must not exceed 300 ft (91.44m).
- Do not operate at radii and boom lengths where the Crane Rating Manual lists no capacity. Do not use longer booms or jibs than those listed in the Crane Rating Manual. Any of the above can cause a tipping condition, or boom and jib failure.
- These capacities are in compliance with ASME/ANSI B30.5 at date of manufacture.
- These capacities apply only to the crane as originally manufactured and normally equipped by Link-Belt Construction Equipment Company.



Main Boom Working Range Diagram



Main Boom Load Chart

**Main Boom Lift Capacity Chart – 360° Rotation – ABC + A [160,000 + 60,000 lb (72 575 + 27 216kg) Counterweight
[All capacities are listed in kips (mt)]**

Load Radius ft (m)	Boom Length ft (m)							Load Radius ft (m)
	60 (18.50)	80 (24.67)	100 (30.84)	120 (37.01)	140 (43.18)	160 (49.34)	180 (55.51)	
15 (4.63)	461.4 (209.3)							15 (4.63)
16 (4.93)	434.8 (197.2)	433.0 (196.4)						16 (4.93)
17 (5.24)	411.1 (186.5)	409.5 (185.7)						17 (5.24)
18 (5.55)	389.7 (176.8)	388.3 (176.1)						18 (5.55)
19 (5.86)	370.4 (168.0)	369.2 (167.5)	367.5 (166.7)					19 (5.86)
20 (6.17)	352.9 (160.1)	351.8 (159.6)	350.3 (158.9)					20 (6.17)
25 (7.71)	285.1 (129.3)	284.3 (129.0)	283.3 (128.5)	282.0 (127.9)	274.3 (124.4)			25 (7.71)
30 (9.25)	238.5 (108.2)	237.5 (107.7)	234.2 (106.2)	231.3 (104.9)	228.8 (103.8)	226.6 (102.8)	180.4 (81.8)	30 (9.25)
35 (10.79)	190.5 (86.4)	190.9 (86.6)	190.9 (86.6)	190.4 (86.4)	190.3 (86.3)	188.2 (85.4)	180.4 (81.8)	35 (10.79)
40 (12.34)	157.7 (71.5)	158.1 (71.7)	158.0 (71.7)	157.7 (71.5)	157.3 (71.4)	156.9 (71.2)	156.4 (70.9)	40 (12.34)
50 (15.42)	116.5 (52.8)	116.9 (53.0)	116.7 (52.9)	116.4 (52.8)	116.0 (52.6)	115.5 (52.4)	114.9 (52.1)	50 (15.42)
60 (18.50)	91.6 (41.5)	92.0 (41.7)	91.9 (41.7)	91.6 (41.5)	91.1 (41.3)	90.5 (41.1)	89.9 (40.8)	60 (18.50)
70 (21.59)		75.4 (34.2)	75.3 (34.2)	74.9 (34.0)	74.4 (33.7)	73.9 (33.5)	73.3 (33.2)	70 (21.59)
80 (24.67)			63.4 (28.8)	63.0 (28.6)	62.5 (28.3)	62.0 (28.1)	61.3 (27.8)	80 (24.67)
90 (27.76)			54.4 (24.7)	54.1 (24.5)	53.6 (24.3)	53.0 (24.0)	52.4 (23.8)	90 (27.76)
100 (30.84)				47.1 (21.4)	46.6 (21.1)	46.0 (20.9)	45.4 (20.6)	100 (30.84)
110 (33.92)				41.4 (18.8)	41.0 (18.6)	40.4 (18.3)	39.8 (18.1)	110 (33.92)
120 (37.01)					36.4 (16.5)	35.8 (16.2)	35.2 (16.0)	120 (37.01)
130 (40.09)					32.5 (14.7)	32.0 (14.5)	31.4 (14.2)	130 (40.09)
140 (43.18)						28.7 (13.0)	28.1 (12.7)	140 (43.18)
150 (46.26)						25.9 (11.7)	25.3 (11.5)	150 (46.26)
160 (49.34)							22.9 (10.4)	160 (49.34)
170 (52.43)							20.7 (9.4)	170 (52.43)

This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual and Operator's Manual to determine allowable crane lifting capacities and assembly and operating procedures.

**Main Boom Lift Capacity Chart – 360° Rotation – ABC + A [160,000 + 60,000 lb (72 575 + 27 216kg) Counterweight
[All capacities are listed in kips (mt)]**

Load Radius ft (m)	Boom Length ft (m)						Load Radius ft (m)
	200 (61.68)	220 (67.85)	240 (74.02)	260 (80.18)	280 (86.35)	300 (92.52)	
35 (10.79)	141.8 (64.3)						35 (10.79)
40 (12.34)	140.6 (63.8)	115.8 (52.5)	96.5 (43.8)				40 (12.34)
50 (15.42)	114.4 (51.9)	112.9 (51.2)	90.5 (41.1)	76.5 (34.7)	64.5 (29.3)	54.9 (24.9)	50 (15.42)
60 (18.50)	89.3 (40.5)	88.7 (40.2)	84.8 (38.5)	71.2 (32.3)	60.5 (27.4)	51.1 (23.2)	60 (18.50)
70 (21.59)	72.6 (32.9)	72.0 (32.7)	71.3 (32.3)	64.1 (29.1)	54.1 (24.5)	42.8 (19.4)	70 (21.59)
80 (24.67)	60.7 (27.5)	60.0 (27.2)	59.3 (26.9)	57.7 (26.2)	48.6 (22.0)	38.5 (17.5)	80 (24.67)
90 (27.76)	51.7 (23.5)	51.0 (23.1)	50.3 (22.8)	49.6 (22.5)	41.0 (18.6)	34.9 (15.8)	90 (27.76)
100 (30.84)	44.7 (20.3)	44.0 (20.0)	43.3 (19.6)	42.6 (19.3)	36.9 (16.7)	31.4 (14.2)	100 (30.84)
110 (33.92)	39.1 (17.7)	38.4 (17.4)	37.7 (17.1)	37.0 (16.8)	33.7 (15.3)	28.6 (13.0)	110 (33.92)
120 (37.01)	34.5 (15.6)	33.8 (15.3)	33.1 (15.0)	32.4 (14.7)	30.3 (13.7)	25.8 (11.7)	120 (37.01)
130 (40.09)	30.7 (13.9)	30.0 (13.6)	29.3 (13.3)	28.5 (12.9)	27.7 (12.6)	23.5 (10.7)	130 (40.09)
140 (43.18)	27.4 (12.4)	26.7 (12.1)	26.0 (11.8)	25.3 (11.5)	24.5 (11.1)	21.2 (9.6)	140 (43.18)
150 (46.26)	24.7 (11.2)	24.0 (10.9)	23.2 (10.5)	22.5 (10.2)	21.7 (9.8)	19.3 (8.8)	150 (46.26)
160 (49.34)	22.2 (10.1)	21.5 (9.8)	20.8 (9.4)	20.0 (9.1)	19.3 (8.8)	17.6 (8.0)	160 (49.34)
170 (52.43)	20.1 (9.1)	19.4 (8.8)	18.7 (8.5)	17.9 (8.1)	17.1 (7.8)	16.3 (7.4)	170 (52.43)
180 (55.51)	18.2 (8.3)	17.5 (7.9)	16.8 (7.6)	16.0 (7.3)	15.3 (6.9)	14.5 (6.6)	180 (55.51)
190 (58.60)	16.5 (7.5)	15.8 (7.2)	15.1 (6.8)	14.3 (6.5)	13.6 (6.2)	12.8 (5.8)	190 (58.60)
200 (61.68)		14.3 (6.5)	13.5 (6.1)	12.8 (5.8)	12.1 (5.5)	11.3 (5.1)	200 (61.68)
210 (64.76)		12.6 (5.7)	11.8 (5.4)	11.5 (5.2)	10.7 (4.9)	10.0 (4.5)	210 (64.76)
220 (67.85)			10.3 (4.7)	10.3 (4.7)	9.5 (4.3)	8.7 (3.9)	220 (67.85)
230 (70.93)				9.1 (4.1)	8.4 (3.8)	7.6 (3.4)	230 (70.93)
240 (74.02)				8.1 (3.7)	7.4 (3.4)	6.6 (3.0)	240 (74.02)
250 (77.10)					6.4 (2.9)	5.7 (2.6)	250 (77.10)
260 (80.18)					5.5 (2.5)	4.8 (2.2)	260 (80.18)
270 (83.27)						4.0 (1.8)	270 (83.27)
280 (86.35)						3.2 (1.5)	280 (86.35)

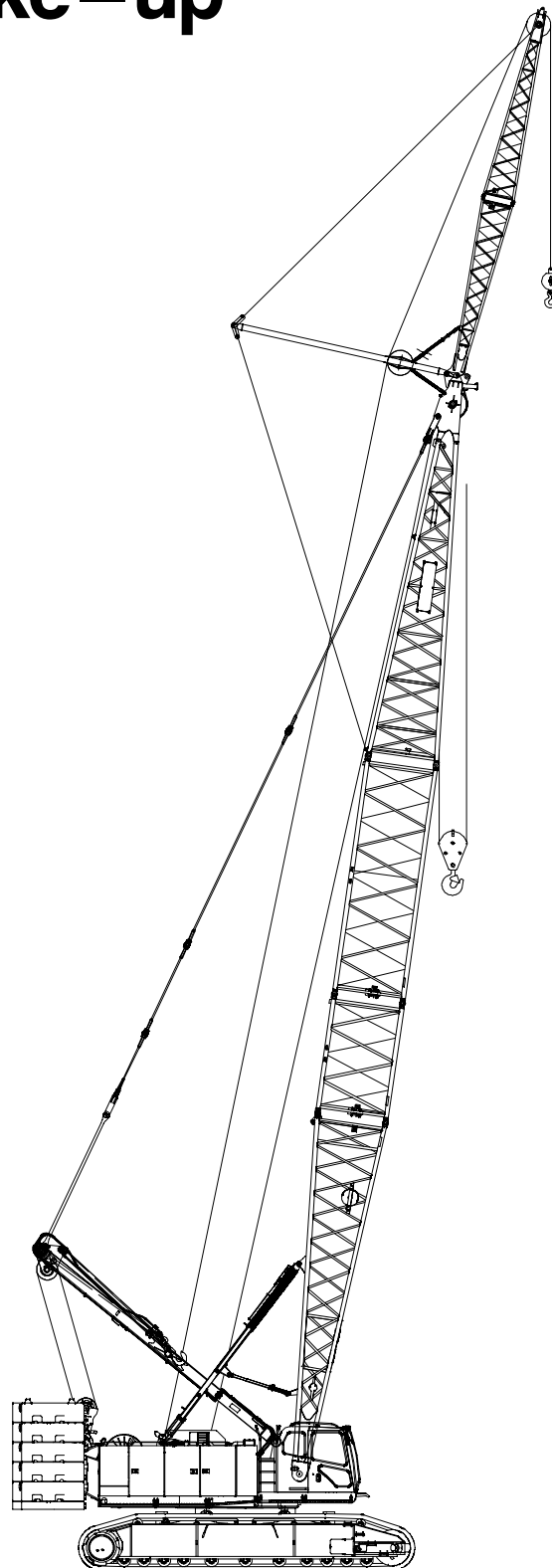
This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual and Operator's Manual to determine allowable crane lifting capacities and assembly and operating procedures.

Jib Attachment Make-up

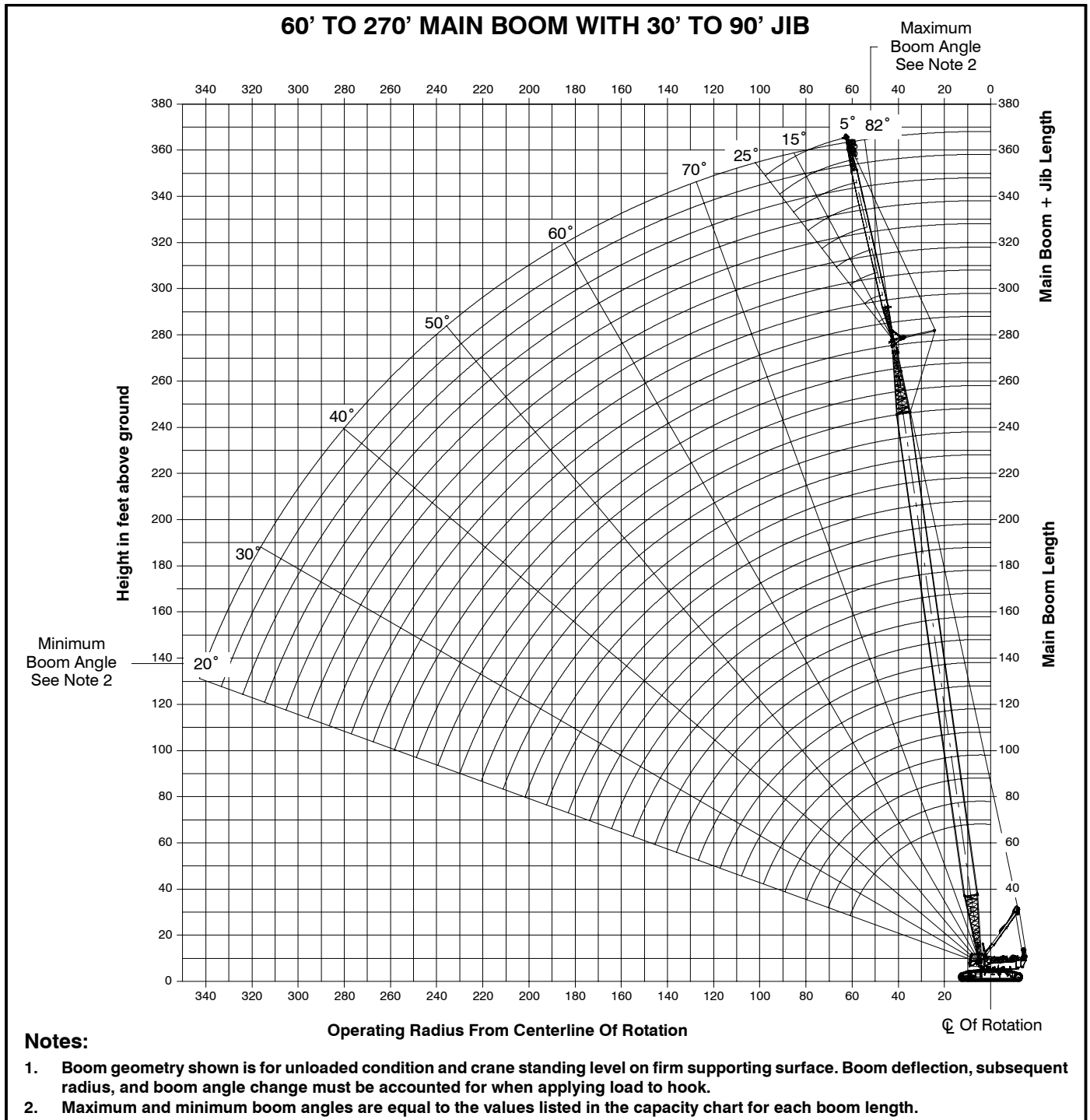
Jib Length ft (m)	Jib Extensions	
	10 ft (3.05m)	20 ft (6.10m)
30 (9.15)		
40 (12.19)	1	
50 (15.24)	1	1
60 (18.29)	1	1
70 (21.34)	2	2
80 (24.38)	1	2
90 (27.43)	3	3

Notes:

1. Capacities shown are in kips/metric tons (1 kip = 1,000 lb / 1 metric ton = 0.45 kips) and are not more than 75% of the tipping loads with the crane standing level on a firm supporting surface.
2. A deduction must be made from these capacities for the weight of the main boom hook block or hook ball, jib hook block or hook ball, slings, grapples, load weighing devices, etc. When using main hook while jib is attached, reduce capacities by values shown in Crane Rating Manual. See Operator's Manual for all limitations when raising or lowering attachment.
3. The capacities in the shaded areas are based on structural strength. The capacities in the non-shaded areas are based on stability ratings.
4. Load ratings are based on freely suspended loads and make no allowances for such factors as the effect of the wind, ground conditions, and operating speeds. The operator shall therefore reduce load ratings in order to take these conditions into account. Refer to the Crane Rating Manual for Wind Speed Restrictions.
5. These capacities are for "ABCDE+A" counterweight.
6. These capacities are for 360° working areas.
7. These capacities are for 30–90 ft (9.15–27.43m) jib lengths only.
8. The jib cannot be used on boom lengths over 270 ft (82.30m).
9. The least stable rated condition is over the side.
10. These capacities are in compliance with ASME/ANSI B30.5 at date of manufacture.
11. These capacities apply only to the crane as originally manufactured and normally equipped by Link-Belt Construction Equipment Company.



Jib Attachment Working Range Diagram



Jib Attachment Load Charts

30 ft (9.25m) Offset Jib Length – 360° Rotation – ABCDE + A [160,000 + 60,000 lb (72 575 + 27 216kg) Counterweight
[All capacities are listed in kips (mt)]

5° Offset						15° Offset						25° Offset					
Load Radius ft (m)	Main Boom Length ft (m)					Load Radius ft (m)	Main Boom Length ft (m)					Load Radius ft (m)	Main Boom Length ft (m)				
	60 (18.50)	120 (37.01)	180 (55.51)	240 (74.02)	270 (83.27)		60 (18.50)	120 (37.01)	180 (55.51)	240 (74.02)	270 (83.27)		60 (18.50)	120 (37.01)	180 (55.51)	240 (74.02)	270 (83.27)
20 (6.17)	76.8 (34.8)					20 (6.17)					20 (6.17)						
25 (7.71)	74.3 (33.7)					25 (7.71)	69.8 (31.7)				25 (7.71)						
30 (9.25)	72.1 (32.7)	74.4 (33.7)				30 (9.25)	68.1 (30.9)				30 (9.25)	60.1 (27.3)					
35 (10.79)	70.1 (31.8)	73.0 (33.1)				35 (10.79)	66.6 (30.2)	68.1 (30.9)			35 (10.79)	55.5 (25.2)					
40 (12.34)	68.3 (31.0)	71.7 (32.5)	71.0 (32.2)			40 (12.34)	65.2 (29.6)	67.1 (30.4)			40 (12.34)	51.1 (23.2)	59.5 (27.0)				
50 (15.42)	65.3 (29.6)	69.4 (31.5)	69.3 (31.4)	65.1 (29.5)	56.4 (25.6)	50 (15.42)	57.7 (26.2)	65.4 (29.7)	64.9 (29.4)		50 (15.42)	44.4 (20.1)	53.6 (24.3)	58.9 (26.7)			
60 (18.50)	61.5 (27.9)	67.3 (30.5)	67.7 (30.7)	63.8 (28.9)	54.8 (24.9)	60 (18.50)	49.7 (22.5)	63.9 (29.0)	63.7 (28.9)	60.3 (27.4)	52.2 (23.7)	60 (18.50)	40.6 (18.4)	48.9 (22.2)	54.6 (24.8)	57.8 (26.2)	47.8 (21.7)
70 (21.59)	52.2 (23.7)	65.5 (29.7)	66.2 (30.0)	62.6 (28.4)	53.2 (24.1)	70 (21.59)	43.9 (19.9)	60.5 (27.4)	62.6 (28.4)	59.3 (26.9)	50.6 (23.0)	70 (21.59)	39.3 (17.8)	45.0 (20.4)	50.9 (23.1)	55.0 (24.9)	46.3 (21.0)
80 (24.67)	45.5 (20.6)	62.6 (28.4)	60.5 (27.4)	58.2 (26.4)	51.7 (23.5)	80 (24.67)	40.6 (18.4)	54.9 (24.9)	61.1 (27.7)	58.4 (26.5)	49.1 (22.3)	80 (24.67)		41.9 (19.0)	47.8 (21.7)	52.0 (23.6)	44.9 (20.4)
90 (27.76)		53.7 (24.4)	51.5 (23.4)	49.2 (22.3)	48.2 (21.9)	90 (27.76)		50.3 (22.8)	52.0 (23.6)	49.9 (22.6)	47.6 (21.6)	90 (27.76)		40.5 (18.4)	45.1 (20.5)	49.4 (22.4)	43.6 (19.8)
100 (30.84)		46.8 (21.2)	44.6 (20.2)	42.2 (19.1)	41.1 (18.6)	100 (30.84)		46.6 (21.1)	45.0 (20.4)	42.8 (19.4)	41.8 (19.0)	100 (30.84)		40.2 (18.2)	42.8 (19.4)	43.4 (19.7)	42.4 (19.2)
110 (33.92)		41.2 (18.7)	39.3 (17.8)	37.1 (16.8)	36.0 (16.3)	110 (33.92)		41.3 (18.7)	39.6 (18.0)	37.6 (17.1)	36.6 (16.6)	110 (33.92)		38.5 (17.5)	40.0 (18.1)	38.1 (17.3)	37.1 (16.8)
120 (37.01)		36.9 (16.7)	34.7 (15.7)	32.5 (14.7)	31.3 (14.2)	120 (37.01)		36.9 (16.7)	35.0 (15.9)	32.9 (14.9)	31.9 (14.5)	120 (37.01)			35.3 (16.0)	33.3 (15.1)	32.4 (14.7)
130 (40.09)		33.0 (15.0)	30.9 (14.0)	28.6 (13.0)	27.5 (12.5)	130 (40.09)		33.0 (15.0)	31.1 (14.1)	29.0 (13.2)	28.0 (12.7)	130 (40.09)			31.4 (14.2)	29.4 (13.3)	28.4 (12.9)
140 (43.18)		29.8 (13.5)	27.7 (12.6)	25.4 (11.5)	24.2 (11.0)	140 (43.18)			27.9 (12.7)	25.7 (11.7)	24.7 (11.2)	140 (43.18)			28.1 (12.7)	26.0 (11.8)	25.0 (11.3)
150 (46.26)			24.9 (11.3)	22.6 (10.3)	21.4 (9.7)	150 (46.26)			25.0 (11.3)	22.9 (10.4)	21.8 (9.9)	150 (46.26)			25.2 (11.4)	23.2 (10.5)	22.2 (10.1)
160 (49.34)			22.5 (10.2)	20.2 (9.2)	19.0 (8.6)	160 (49.34)			22.6 (10.3)	20.4 (9.3)	19.4 (8.8)	160 (49.34)			22.8 (10.3)	20.7 (9.4)	19.7 (8.9)
170 (52.43)			20.4 (9.3)	17.8 (8.1)	16.9 (7.7)	170 (52.43)			20.5 (9.3)	18.1 (8.2)	17.2 (7.8)	170 (52.43)				18.4 (8.3)	17.5 (7.9)
180 (55.51)			18.5 (8.4)	15.7 (7.1)	15.0 (6.8)	180 (55.51)			18.6 (8.4)	15.9 (7.2)	15.3 (6.9)	180 (55.51)				16.2 (7.3)	15.5 (7.0)
190 (58.60)			16.9 (7.7)	13.8 (6.3)	13.3 (6.0)	190 (58.60)				14.0 (6.4)	13.6 (6.2)	190 (58.60)				14.2 (6.4)	13.8 (6.3)
200 (61.68)				12.1 (5.5)	11.8 (5.4)	200 (61.68)				12.2 (5.5)	12.1 (5.5)	200 (61.68)				12.4 (5.6)	12.3 (5.6)
210 (64.76)				10.6 (4.8)	10.5 (4.8)	210 (64.76)				10.7 (4.9)	10.7 (4.9)	210 (64.76)					10.9 (4.9)
220 (67.85)				9.1 (4.1)	9.3 (4.2)	220 (67.85)				9.2 (4.2)	9.5 (4.3)	220 (67.85)					9.6 (4.4)
230 (70.93)				7.9 (3.6)	8.2 (3.7)	230 (70.93)				7.9 (3.6)	8.4 (3.8)	230 (70.93)					
240 (74.02)				6.6 (3.0)	7.1 (3.2)	240 (74.02)					7.2 (3.3)	240 (74.02)					
250 (77.10)				5.5 (2.5)	6.1 (2.8)	250 (77.10)					6.2 (2.8)	250 (77.10)					
260 (80.18)					5.1 (2.3)	260 (80.18)						260 (80.18)					
270 (83.27)					4.2 (1.9)	270 (83.27)						270 (83.27)					

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60 ft (18.50m) Offset Jib Length – 360° Rotation – ABCDE + A [160,000 + 60,000 lb (72 575 + 27 216kg) Counterweight [All capacities are listed in kips (mt)]																	
5° Offset						15° Offset					25° Offset						
Load Radius ft (m)	Main Boom Length ft (m)					Load Radius ft (m)	Main Boom Length ft (m)					Load Radius ft (m)	Main Boom Length ft (m)				
	60 (18.50)	120 (37.01)	180 (55.51)	240 (74.02)	270 (83.27)		60 (18.50)	120 (37.01)	180 (55.51)	240 (74.02)	270 (83.27)		60 (18.50)	120 (37.01)	180 (55.51)	240 (74.02)	270 (83.27)
30 (9.25)	38.7 (17.6)					30 (9.25)					30 (9.25)						
35 (10.79)	37.5 (17.0)					35 (10.79)					35 (10.79)						
40 (12.34)	36.4 (16.5)	37.7 (17.1)				40 (12.34)	34.3 (15.6)				40 (12.34)						
50 (15.42)	34.4 (15.6)	36.3 (16.5)	36.3 (16.5)			50 (15.42)	32.7 (14.8)	33.7 (15.3)			50 (15.42)	30.0 (13.6)					
60 (18.50)	32.7 (14.8)	35.0 (15.9)	35.4 (16.1)	34.2 (15.5)	33.1 (15.0)	60 (18.50)	31.2 (14.2)	32.6 (14.8)	32.7 (14.8)		60 (18.50)	26.5 (12.0)	30.0 (13.6)				
70 (21.59)	31.2 (14.2)	33.8 (15.3)	34.4 (15.6)	33.5 (15.2)	32.5 (14.7)	70 (21.59)	29.4 (13.3)	31.6 (14.3)	31.9 (14.5)	31.1 (14.1)	30.3 (13.7)	23.7 (10.8)	27.7 (12.6)	29.9 (13.6)			
80 (24.67)	29.9 (13.6)	32.7 (14.8)	33.6 (15.2)	32.8 (14.9)	31.8 (14.4)	80 (24.67)	26.1 (11.8)	30.8 (14.0)	31.2 (14.2)	30.5 (13.8)	29.7 (13.5)	21.4 (9.7)	25.6 (11.6)	28.3 (12.8)	28.7 (13.0)		
90 (27.76)	27.4 (12.4)	31.7 (14.4)	32.8 (14.9)	32.2 (14.6)	31.2 (14.2)	90 (27.76)	23.5 (10.7)	30.0 (13.6)	30.6 (13.9)	30.0 (13.6)	29.2 (13.2)	19.6 (8.9)	23.8 (10.8)	26.6 (12.1)	28.2 (12.8)		
100 (30.84)	24.4 (11.1)	30.8 (14.0)	32.0 (14.5)	31.6 (14.3)	30.7 (13.9)	100 (30.84)	21.4 (9.7)	28.2 (12.8)	30.0 (13.6)	29.5 (13.4)	28.7 (13.0)	18.2 (8.3)	22.2 (10.1)	25.1 (11.4)	27.1 (12.3)		
110 (33.92)	22.1 (10.0)	29.9 (13.6)	31.3 (14.2)	31.0 (14.1)	30.1 (13.7)	110 (33.92)	19.8 (9.0)	26.1 (11.8)	29.4 (13.3)	29.0 (13.2)	28.3 (12.8)		20.9 (9.5)	23.7 (10.8)	25.9 (11.7)		
120 (37.01)		29.2 (13.2)	30.6 (13.9)	30.4 (13.8)	29.6 (13.4)	120 (37.01)		24.4 (11.1)	28.9 (13.1)	28.6 (13.0)	27.8 (12.6)		19.8 (9.0)	22.6 (10.3)	24.7 (11.2)		
130 (40.09)		27.3 (12.4)	30.0 (13.6)	29.3 (13.3)	28.2 (12.8)	130 (40.09)		22.9 (10.4)	27.6 (12.5)	28.1 (12.7)	27.4 (12.4)		18.8 (8.5)	21.5 (9.8)	23.7 (10.8)		
140 (43.18)		25.3 (11.5)	28.3 (12.8)	26.0 (11.8)	24.9 (11.3)	140 (43.18)		21.6 (9.8)	26.1 (11.8)	26.8 (12.2)	25.8 (11.7)		18.0 (8.2)	20.6 (9.3)	22.7 (10.3)		
150 (46.26)		23.6 (10.7)	25.5 (11.6)	23.2 (10.5)	22.1 (10.0)	150 (46.26)		20.4 (9.3)	24.8 (11.2)	23.9 (10.8)	22.9 (10.4)			19.8 (9.0)	21.9 (9.9)		
160 (49.34)		22.1 (10.0)	23.1 (10.5)	20.8 (9.4)	19.6 (8.9)	160 (49.34)		19.5 (8.8)	23.5 (10.7)	21.4 (9.7)	20.4 (9.3)			19.1 (8.7)	21.1 (9.6)		
170 (52.43)		20.9 (9.5)	21.0 (9.5)	18.6 (8.4)	17.5 (7.9)	170 (52.43)			21.3 (9.7)	19.2 (8.7)	18.2 (8.3)			18.5 (8.4)	19.7 (8.9)		
180 (55.51)			19.1 (8.7)	16.4 (7.4)	15.6 (7.1)	180 (55.51)			19.4 (8.8)	17.0 (7.7)	16.2 (7.3)			17.9 (8.1)	17.6 (8.0)		
190 (58.60)			17.5 (7.9)	14.6 (6.6)	13.9 (6.3)	190 (58.60)			17.7 (8.0)	15.1 (6.8)	14.5 (6.6)				15.6 (7.1)		
200 (61.68)			16.0 (7.3)	12.9 (5.9)	12.4 (5.6)	200 (61.68)			16.2 (7.3)	13.3 (6.0)	12.9 (5.9)				13.8 (6.3)		
210 (64.76)			14.6 (6.6)	11.3 (5.1)	11.1 (5.0)	210 (64.76)			14.8 (6.7)	11.8 (5.4)	11.6 (5.3)				12.2 (5.5)		
220 (67.85)			13.1 (5.9)	9.9 (4.5)	9.7 (4.4)	220 (67.85)				10.3 (4.7)	10.2 (4.6)				10.7 (4.9)		
230 (70.93)				8.7 (3.9)	8.5 (3.9)	230 (70.93)				9.0 (4.1)	8.9 (4.0)				9.3 (4.2)		
240 (74.02)				7.5 (3.4)	7.4 (3.4)	240 (74.02)				7.8 (3.5)	7.7 (3.5)				8.1 (3.7)		
250 (77.10)				6.4 (2.9)	6.3 (2.9)	250 (77.10)				6.6 (3.0)	6.7 (3.0)				6.9 (3.1)		
260 (80.18)				5.4 (2.4)	5.4 (2.4)	260 (80.18)					5.7 (2.6)						
270 (83.27)				4.5 (2.0)	4.5 (2.0)	270 (83.27)					4.8 (2.2)						
280 (86.35)				3.6 (1.6)	3.7 (1.7)	280 (86.35)					3.9 (1.8)						
290 (89.44)					2.9 (1.3)	290 (89.44)											
300 (92.52)					2.2 (1.0)	300 (92.52)											

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90 ft (27.76m) Offset Jib Length – 360° Rotation – ABCDE + A [160,000 + 60,000 lb (72 575 + 27 216kg) Counterweight [All capacities are listed in kips (mt)]																	
5° Offset						15° Offset					25° Offset						
Load Radius ft (m)	Main Boom Length ft (m)					Load Radius ft (m)	Main Boom Length ft (m)					Load Radius ft (m)	Main Boom Length ft (m)				
	60 (18.50)	120 (37.01)	180 (55.51)	240 (74.02)	270 (83.27)		60 (18.50)	120 (37.01)	180 (55.51)	240 (74.02)	270 (83.27)		60 (18.50)	120 (37.01)	180 (55.51)	240 (74.02)	270 (83.27)
35 (10.79)	23.8 (10.8)					35 (10.79)					35 (10.79)						
40 (12.34)	23.6 (10.7)					40 (12.34)					40 (12.34)						
50 (15.42)	22.4 (10.2)	22.9 (10.4)				50 (15.42)	21.2 (9.6)				50 (15.42)						
60 (18.50)	21.3 (9.7)	22.3 (10.1)	22.0 (10.0)	21.0 (9.5)		60 (18.50)	20.2 (9.2)	20.7 (9.4)			60 (18.50)						
70 (21.59)	20.2 (9.2)	21.5 (9.8)	21.8 (9.9)	20.8 (9.4)	20.1 (9.1)	70 (21.59)	19.3 (8.8)	20.0 (9.1)	20.1 (9.1)		70 (21.59)	17.8 (8.1)					
80 (24.67)	19.3 (8.8)	20.8 (9.4)	21.3 (9.7)	20.6 (9.3)	19.9 (9.0)	80 (24.67)	18.2 (8.3)	19.4 (8.8)	19.6 (8.9)	19.4 (8.8)	19.1 (8.7)	80 (24.67)	16.0 (7.3)	18.0 (8.2)	17.8 (8.1)		
90 (27.76)	18.2 (8.3)	20.1 (9.1)	20.7 (9.4)	20.4 (9.3)	19.8 (9.0)	90 (27.76)	17.2 (7.8)	18.8 (8.5)	19.2 (8.7)	19.0 (8.6)	18.7 (8.5)	90 (27.76)	14.5 (6.6)	16.6 (7.5)	17.7 (8.0)	16.6 (7.5)	
100 (30.84)	17.2 (7.8)	19.4 (8.8)	20.2 (9.2)	20.2 (9.2)	19.6 (8.9)	100 (30.84)	16.0 (7.3)	18.1 (8.2)	18.7 (8.5)	18.6 (8.4)	18.3 (8.3)	100 (30.84)	13.3 (6.0)	15.5 (7.0)	16.9 (7.7)	16.0 (7.3)	14.9 (6.8)
110 (33.92)	16.2 (7.3)	18.8 (8.5)	19.7 (8.9)	19.8 (9.0)	19.4 (8.8)	110 (33.92)	14.6 (6.6)	17.4 (7.9)	18.3 (8.3)	18.2 (8.3)	18.0 (8.2)	110 (33.92)	12.3 (5.6)	14.5 (6.6)	16.0 (7.3)	15.9 (7.2)	14.8 (6.7)
120 (37.01)	15.3 (6.9)	18.1 (8.2)	19.2 (8.7)	19.3 (8.8)	19.1 (8.7)	120 (37.01)	13.4 (6.1)	16.7 (7.6)	17.8 (8.1)	17.9 (8.1)	17.7 (8.0)	120 (37.01)	11.4 (5.2)	13.6 (6.2)	15.1 (6.8)	15.8 (7.2)	14.7 (6.7)
130 (40.09)	14.0 (6.4)	17.3 (7.8)	18.7 (8.5)	19.0 (8.6)	18.8 (8.5)	130 (40.09)	12.5 (5.7)	15.9 (7.2)	17.3 (7.8)	17.6 (8.0)	17.4 (7.9)	130 (40.09)	10.7 (4.9)	12.8 (5.8)	14.4 (6.5)	15.5 (7.0)	14.6 (6.6)
140 (43.18)	13.0 (5.9)	16.7 (7.6)	18.3 (8.3)	18.6 (8.4)	18.4 (8.3)	140 (43.18)	11.7 (5.3)	14.9 (6.8)	16.8 (7.6)	17.3 (7.8)	17.1 (7.8)	140 (43.18)		12.2 (5.5)	13.7 (6.2)	14.8 (6.7)	14.5 (6.6)
150 (46.26)		16.0 (7.3)	17.8 (8.1)	18.2 (8.3)	18.1 (8.2)	150 (46.26)		14.1 (6.4)	16.3 (7.4)	16.9 (7.7)	16.8 (7.6)	150 (46.26)		11.6 (5.3)	13.1 (5.9)	14.2 (6.4)	14.4 (6.5)
160 (49.34)		15.4 (7.0)	17.2 (7.8)	17.9 (8.1)	17.8 (8.1)	160 (49.34)		13.3 (6.0)	15.8 (7.2)	16.5 (7.5)	16.5 (7.5)	160 (49.34)		11.1 (5.0)	12.5 (5.7)	13.7 (6.2)	14.2 (6.4)
170 (52.43)		14.6 (6.6)	16.7 (7.6)	17.6 (8.0)	17.5 (7.9)	170 (52.43)		12.6 (5.7)	15.0 (6.8)	16.2 (7.3)	16.2 (7.3)	170 (52.43)		10.6 (4.8)	12.0 (5.4)	13.2 (6.0)	13.7 (6.2)
180 (55.51)		13.8 (6.3)	16.2 (7.3)	16.9 (7.7)	16.1 (7.3)	180 (55.51)		12.1 (5.5)	14.3 (6.5)	15.8 (7.2)	15.9 (7.2)	180 (55.51)			11.6 (5.3)	12.7 (5.8)	13.2 (6.0)
190 (58.60)		13.0 (5.9)	15.8 (7.2)	15.0 (6.8)	14.4 (6.5)	190 (58.60)			13.7 (6.2)	15.1 (6.8)	15.2 (6.9)	190 (58.60)			11.2 (5.1)	12.3 (5.6)	12.8 (5.8)
200 (61.68)			15.3 (6.9)	13.3 (6.0)	12.8 (5.8)	200 (61.68)			13.2 (6.0)	14.1 (6.4)	13.6 (6.2)	200 (61.68)			10.9 (4.9)	11.9 (5.4)	12.4 (5.6)
210 (64.76)			14.9 (6.8)	11.8 (5.4)	11.4 (5.2)	210 (64.76)			12.7 (5.8)	12.5 (5.7)	12.2 (5.5)	210 (64.76)			10.6 (4.8)	11.6 (5.3)	12.0 (5.4)
220 (67.85)			13.8 (6.3)	10.4 (4.7)	10.0 (4.5)	220 (67.85)			12.2 (5.5)	11.1 (5.0)	10.8 (4.9)	220 (67.85)				11.3 (5.1)	11.5 (5.2)
230 (70.93)			12.5 (5.7)	9.2 (4.2)	8.8 (4.0)	230 (70.93)			11.8 (5.4)	9.8 (4.4)	9.5 (4.3)	230 (70.93)				10.4 (4.7)	10.1 (4.6)
240 (74.02)			11.2 (5.1)	8.0 (3.6)	7.6 (3.4)	240 (74.02)				8.6 (3.9)	8.3 (3.8)	240 (74.02)				9.1 (4.1)	8.9 (4.0)
250 (77.10)			10.1 (4.6)	6.9 (3.1)	6.5 (2.9)	250 (77.10)				7.4 (3.4)	7.2 (3.3)	250 (77.10)				7.9 (3.6)	7.7 (3.5)
260 (80.18)				5.9 (2.7)	5.6 (2.5)	260 (80.18)				6.4 (2.9)	6.1 (2.8)	260 (80.18)				6.8 (3.1)	6.6 (3.0)
270 (83.27)				5.0 (2.3)	4.7 (2.1)	270 (83.27)				5.4 (2.4)	5.2 (2.4)	270 (83.27)					5.6 (2.5)
280 (86.35)				4.2 (1.9)	3.9 (1.8)	280 (86.35)				4.5 (2.0)	4.3 (2.0)	280 (86.35)					4.7 (2.1)
290 (89.44)				3.4 (1.5)	3.1 (1.4)	290 (89.44)					3.5 (1.6)	290 (89.44)					
300 (92.52)				2.6 (1.2)	2.4 (1.1)	300 (92.52)					2.8 (1.3)	300 (92.52)					

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