

SCA4000A

Lattice Boom Crawler Crane

Quality Changes the World



Max. Lifting Capacity: 440 UST
Max. Boom Length: 275.6 ft
Max. Boom + Jib Length: 275.6 + 265.7 ft



Lattice Boom Crawler Crane SCA4000A

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- (LJDB) Luffing Jib + Superlift Operating Conditions



SCA4000A
LATTICE BOOM CRAWLER CRANE
440 UST (400 TONS) LIFTING CAPACITY

Main Features

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Product Specification



Cab

- Appearance: The industrial modeling of the cab is designed by Porsche. It has a smooth, elegant and novel appearance, with brand identification, which is a significant breakthrough when compared with traditional engineering machinery. The cab is fitted with sliding door structure, which is suitable for the crawler crane and convenient for the operator. It is adopted with fully-sealed steel frame structure, with a large area of high strength toughened glass installed on the front, side and top, more light-transmitting. The interior space of the cab is spacious and bright, with a broader sight view.
- The suspended seat is shock and noise absorbing, and multi-mode and multi-stage adjustable, thus providing most comfortable driving experience. The famous USA RedDot air conditioner is adopted, with reasonable air outlet and efficient cooling. It takes no more than 20 min to cool the cab from 55°C to 27.5°C. The left and right armrest boxes and auxiliary control boxes are equipped with control handles, control buttons, ignition locks and other components. The seats, control handles and control buttons are arranged according to ergonomic design, fully considering the driver's operation demands and habits. The control box can be adjusted, with the seat, to the most desirable position, bringing more comfortable operation. The cab can tilt up to 25° according to the work demands, and can also rotate to the front part of the rotating bed for the convenience of transport.

Engine

- Cummins X12-C400 Stage V.
- Rated power: 298 kW.
- Rated speed: 2,100 rpm.
- Max. output torque: 2,169 N·m.
- Speed at maximum output torque: 1,400 rpm.

Main and Auxiliary Load Hoisting Mechanism

- A variable hydraulic motor drives the planetary gear reducer to control the load lifting and lowering of main and aux. hoist winches. A good inching performance is provided. The high-speed mode can realize main and aux. load lifting faster.
- Variable hydraulic motor can realize max. winch speed through displacement adjustment based on electricity flow.
- High-quality spin-resistance wire rope to make sure high safety and longer service life.
- Fold-line machined drum provides high precision and good reliability, making sure the wire rope won't get messy.
- The wire rope lug adopted to make wire rope assembly easier and faster.

Main load hoist mechanism	Drum diameter	24.64" (626mm)
	Rope speed on the outermost work layer	0~459'3"/min (0~140m/min)
	Steel rope diameter	1.02" (26mm)
	Steel rope length of main load hoist	2,952'9" (900m)
	Rated tension of single rope	30,247 lb (13.72t)
Aux. load hoist mechanism	Drum diameter	24.64" (626mm)
	Rope speed on the outermost work layer	0~459'3"/min (0~140m/min)
	Steel rope diameter	1.02" (26mm)
	Steel rope length of aux. load hoist	2,952'9" (900m)
	Rated tension of single rope	30,247 lb (13.72t)

Boom/jib/hoist mechanism

- Including: Luffing mechanisms of the boom, jib and superlift.
- Drums with fold-line grooves are adopted for all luffing devices. Hydraulic motor drives the planetary gear reducer to realize a number of compound functions and good inching performance.

Boom hoist mechanism	Drum diameter	25.24" (641mm)
	Rope speed on the outermost work layer	(0~213'3")×6'7"/min (0~65)×2m/min
	Steel rope diameter	1.02" (26mm)
	Steel rope length of boom hoist	1,084'6" (550m)
Jib luffing mechanism	Drum diameter	25.24" (641mm)
	Rope speed on the outermost work layer	0~328'1"/min (0~100m/min)
	Steel rope diameter	1.02" (26mm)
	Steel rope length of jib luffing	2,165'4" (660m)
Superlift mast luffing	Drum diameter	25.24" (641mm)
	Rope speed on the outermost work layer	0~328'1"/min (0~100m/min)
	Steel rope diameter	1.02" (26mm)
	Steel rope length of superlift luffing	2,821'6" (860m)

Product Specification



Slewing mechanism

- The slewing hydraulic system adopts double motor to drive the spur gear through the planetary gear box, which can realize 360° rotation, slewing speed of 0~1.4rpm, stepless speed regulation, no backlash at starting or stopping, stable operation and free slipping function at neutral position.
- Slewing ring: It is adopted with three-row roller type slewing bearing with external gears.

Carbody

- The hydraulic cylinder drives power pin to be connected with track frame to facilitate the assembly and disassembly. Frame structures are welded by high-strength steel. Larger chassis design greatly improves the stability of the crane. The self-assembled carbody counterweight is 88,183lb(40t), with 44,091lb(20t) at both front and the rear.

Track assembly

- Track frame: Each track frame is equipped with an independent travel driving device. A hydraulic travel motor drives the planetary gear reducer and realizes independent traveling through the transmission of driving wheel. The travel system is configured with high and low speeds: sufficient traction is provided in low speed to realize travel with 100% load, the high speed can provide higher speed to improve the transit efficiency. The traveling drive can also realize stepless speed change.
- Track shoe: It is made of materials with high strength and high wear resistance through advanced casting process. After being installed on the equipment, its tension can be adjusted through the hydraulic jack, and the shim position can be adjusted to achieve the ideal tension.

Counterweight

- Counterweight include carbody counterweight , rear counterweight, superlift counterweight, and the details are listed below:

Name	Quantity	Length ft (m)	Width ft (m)	Height ft (m)	Unit Weight lb (t)
Carbody counterweight	4	19'4" (5.89)	5'7" (1.70)	1'2" (0.36)	22,045 (10)
Rear counterweight (10t)	12	9'4" (2.85)	7'10" (2.40)	1'7" (0.49)	22,045 (10)
Rear counterweight tray	2	10'5" (3.20)	8'9" (2.67)	5'10" (1.80)	33,068 (15)
Superlift counterweight (10t)	20	9'4" (2.85)	7'10" (2.40)	1'7" (0.49)	22,045 (10)
Superlift counterweight tray	1	32'7" (9.95)	8'10" (2.70)	7'2" (2.20)	19,841 (9)

Operation equipment

- High-strength steel tubes and plates are adopted.

Boom

- The boom is a spatial lattice structure of welded tubes with equal section areas of inserts and tapered sections for two ends. The boom top and root are strengthened with steel plates, which is easier for load transfer.
- The boom length ranges from the that of basic boom 78'8"(24m) to to max. length 275'7"(84m) .
- Composition: Boom base 39'4"(12m)×1, tapered insert 34'5"(10.5m)×1, connecting tip (boom tip) 4'11"(1.5m)×1, insert section 19'8"(6m)×2, and insert section 39'4"(12m)×4.
- The extension jib shall be installed on the boom top.

Short heavy jib (for wind energy and shield lifting)

- The short heavy jib is a spatial lattice structure of welded tubes with equal section areas of inserts and tapered sections for two ends. The boom top and root are strengthened with steel plates, which is easier for load transfer. The jib is 29'6"(9m) long and can be used for both wind energy and shield lifting.
- Composition: Jib base 14'9"(4.5m)×1, Jib top 14'9"(4.5m)×1.

Product Specification



Luffing jib

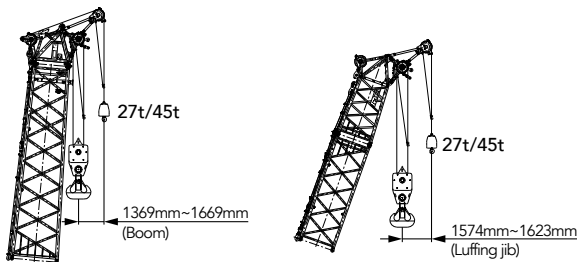
- The jib is a spatial lattice structure of welded tubes with equal section areas of inserts and tapered sections for two ends. The boom top and root are strengthened with steel plates, which is easier for load transfer.
- The length of the luffing jib ranges from 68'10" (21m) to 265'8" (81m), increased by every 19'8" (6m).
- Composition: Jib base 14'9" (4.5m)×1, jib insert 19'8" (6m)×2, jib insert 39'4" (12m)×5, jib top 14'9" (4.5m)×1.
- The extension jib shall be installed on the luffing jib top.

Superlift device

- The superlift mast is a spatial lattice structure of welded tubes with equal section areas of inserts and tapered sections for two ends. The boom top and root are strengthened with steel plates, which are easier for load transfer.
- The superlift mast is 98'4" (30m) long.
- Composition: Mast base 39'4" (12m)×1, insert section 19'8" (6m)×1, and mast top 39'4" (12m)×1.

Extension jib

- Standard-equipped with a 27t extension jib, it can lift up to 27 tons and is compatible with 1-2 wire rope falls.
- An optional 45t extension jib is available, offering a maximum lifting capacity of 45 tons, suitable for 1-4 wire rope falls.
- Both extension jibs can be mounted separately on boom head of any configuration (except when a fixed jib is already installed on the boom head) and on the jib head.

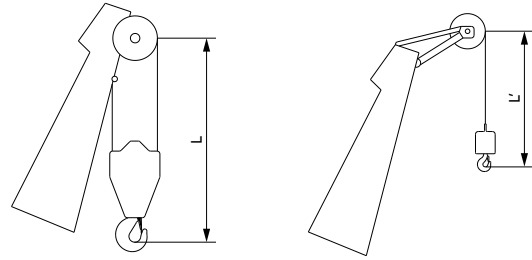


Hook

- 5 kinds of hooks are available, and specific parameters are as follows:

Name of Hook	Max. Lifting Capacity	Quantity	Pulleys	Unit Weight
440UST (400t) hook	440UST (400t)	1	2×9	23,148lb (10.5t)
286UST (260t) hook	286UST (260t)	1	9	10,582lb (4.8t)
176UST (160t) hook	176UST (160t)	1	5	8,377lb (3.8t)
55UST (50t) hook	55UST (50t)	1	1	3,748lb (1.7t)
18UST (16t) ball hook	18UST (16t)	1	-	1,984lb (0.9t)

- The hook height limit:



Hook	Length (m)
440UST (400t) hook	24'11" (7.6)
286UST (260t) hook	20'11" (6.4)
176UST (160t) hook	20'4" (6.2)
55UST (50t) hook	18'4" (5.6)

Hook	Length (m)
18UST (16t) hook	15'1" (4.6)

Hydraulic system

- The whole hydraulic system includes that of hoisting, traveling, slewing, luffing, servo, back-stop, cooling system, and auxiliary hydraulic system. Major hydraulic components are of famous brand.
- Features: Lifting, traveling, luffing, and slewing hydraulic systems are applied with open circuits, which has advantages such as energy saving, high efficiency, quick response, low heat generation and long service life.
- Electrically-controlled proportional control components are adopted for the servo system to realize precise and intelligent control.
- The back-stop hydraulic system adopts balance valve of external control and unloading, and it is mounted on the cylinder to make sure it is safe and reliable.
- The cooling hydraulic system is featured with large heat exchange power and good cooling effect.

Operating weight

- The operating weight is about 749,559lb(340t), including the upperworks, lowerworks, rear counterweight of basic machine, carbody counterweight, 78'8" (24m) basic boom and 440UST (400t) hook.

Ground pressure

- The average ground pressure of machine with basic boom is 0.167 MPa.

Gradeability

- The gradeability of machine with basic boom is 15%.

Safety Devices



Load moment indicator

- The proprietary load moment indicator independently developed by Sany is adopted, which forms a network with other controllers through CAN bus line, so as to realize safe and reliable control. The load moment indicator can automatically detect the hoisting weight of the crane and the angle of the boom, and display the rated load capacity, actual load, working radius, and the allowable height of the hook.
- The load moment indicator system consists of a large-screen color display, a host computer, angle sensors, tension sensors, pressure sensors and other components.

Over-hoist protection of the main and auxiliary hooks

- It is used to prevent the over-hoist of the hook. When the lifting hook is raised to a certain height, the limit switch will start working, and hook will be automatically cut off from moving up by the control system. Meanwhile, the display and the buzzer will give alarms. At this moment, only hook lowering is allowed to prevent over-hoist action.

Over-release protection device of the main and auxiliary hook

- It is used to prevent the wire rope over-release. When the wire rope is released to the last three wraps, the limit switch will start working, and the releasing of rope will be automatically stopped by the control system. Meanwhile, the display and the buzzer will give alarms. At this moment, only rope retraction is allowed to prevent over release action.

Assembly/work mode switchover

- In Assembly Mode, some of the safety devices cannot function properly, such as jib limit, boom angle limit in LML, and overload, so as to facilitate the crane assembly.
- In Work Mode, all safety devices can function properly.

Boom angle limit

- When the elevation angle of the boom exceeds 85° or jib angle exceeds 75°, corresponding limit switch will be triggered, and the control system will automatically cut off the boom hoisting. Meanwhile, the display and the buzzer will give alarm. At this moment, boom/jib luffing winch won't hoist but it can still lower down.
- When the boom down angle is less than 30° or jib down angle is less than 15°, the control system will automatically cut off the boom/jib from further lowering. Meanwhile, the display and the buzzer will give alarms. At this moment, boom/jib luffing winch won't be able to lower. This protection is automatically controlled by Load Moment Limiter.

Back-stop device

- The boom and the superlift mast are respectively equipped with a pair of back-stop cylinders. The high pressure of the cylinder shall be overcome when the boom tilts backwards, and high pressure oil will be supplemented automatically when the boom swings forwards to increase the tension and prevent the boom vibration and shaking back.
- The jib rear mast is equipped with a pair of back-stop cylinders, while the jib front mast is equipped with a pair of pneumatic cylinders to prevent the mast from the backward inclination and tension of the jib luffing wire rope.

Brake of hoisting mechanism

- All hoisting brakes are spring loaded normally closed disc brakes, which are featured with large braking force, maintenance-free, safe and reliable use, and long service life.

CCTV monitoring system

- It can be used to monitor the winding conditions of wire ropes of each hoisting mechanism, the conditions of superlift weight, and conditions around the equipment.

Fault auto-diagnosis system

- Faults can be conveniently eliminated based on the fault code.

Black box

- It is able to record the operation data and machine movement, and analyze the remaining running conditions and service life of machine based on the actual performance.

Pharos

- It is mounted on the top of the boom/jib and alerts in air during night.

Anemometer

- It is mounted on the top of the boom/jib to monitor the wind speed in real time and display relative data on the monitor.

Safety Devices



Electronic level indicator

- It displays the tilting angle of the crane on the monitor in real time and protects the safe operation of the crane.

Lightning protection device

- It includes the lightning protection device and the surge protection device, which can effectively protect the electric system elements and workers from lightning.

Hook latch

- The lifting hook is installed with a baffle plate to prevent wire rope from falling off.

Swing and traveling alarm

- During swing and traveling, the alarm horn will be blown per certain frequency to alert the personnel around the crane. The horn can be shut off through the display.

Seat interlock

- The operation will be locked by pulling up the function locking lever on the right side of the seat inside the driver's cab or when the operator left the seat, after which no operating handles will be working so that improper operation caused by the body collision when getting on and off the crane can be avoided.

Regulation of engine power ultimate load and stalling protection

- The controller can monitor the engine power so as to prevent stalling.

Engine status monitoring

- It can show the engine coolant temperature, fuel volume, total working hours, engine oil pressure, engine speed, battery and voltage.

Remote monitoring system

- It monitors and analyzes the operation data so as to realize remote diagnosis of faults and timely solution.

Emergent stop

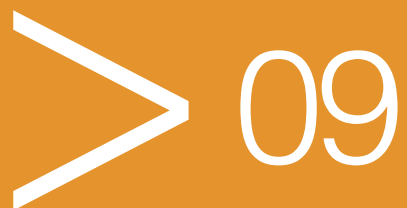
- In a sudden loss of control, press the emergent stop, all actions such as hoisting, luffing, swinging and traveling brake and engine stops.



SCA4000A
LATTICE BOOM CRAWLER CRANE
440 UST (400 TONS) LIFTING CAPACITY

Technical Parameters

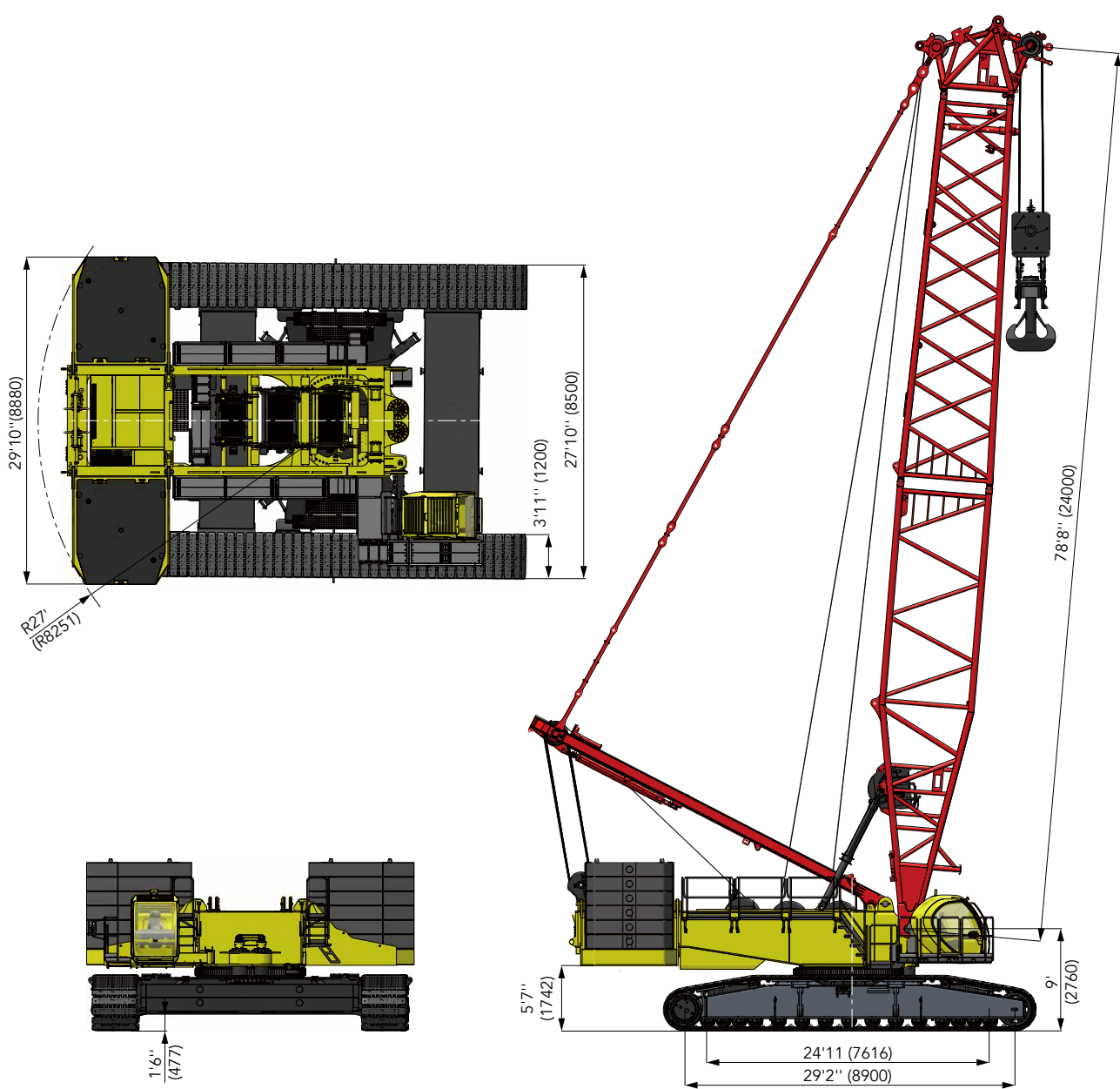
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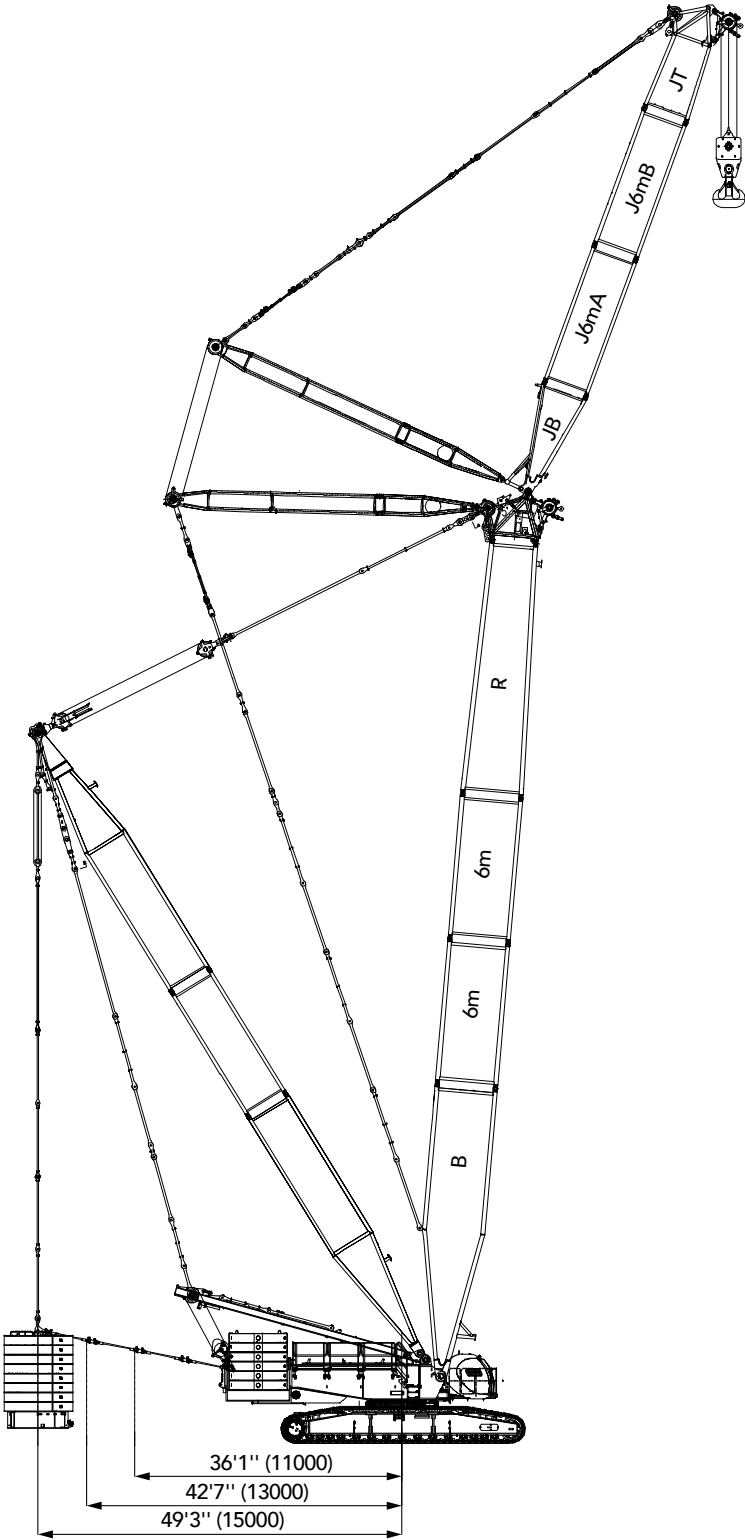
Major Performance & Specifications

Major Performance & Specifications of SCA4000A		
Performance Indicators	Unit	Parameter
Max. rated lifting capacity	lb (t)	881,834 (400)
Max. rated lifting moment	lb·ft (t·m)	848,765×23' (2,695=385×7)
Max. rated lifting moment (with superlift)	lb·ft (t·m)	734,162×52'6" (5,328=333×16)
Boom length (H)	ft (m)	78'8" ~275'7" (24~84)
Boom length (HDB with superlift)	ft (m)	118'1" ~275'7" (36~84)
Length of mixed boom (HJ)	ft (m)	147'7" ~324'9" (45~99)
Length of mixed boom (HJDB with superlift)	ft (m)	226'4" ~403'6" (69~123)
Length of luffing jib (LJ)	ft (m)	68'10" ~226'4" (21~69)
Length of luffing jib (LJDB with superlift)	ft (m)	68'10" ~265'8" (21~81)
Combination of longest boom+luffing jib (LJDB Configuration)	ft (m)	275'7" ~265'8" (84+81)
Heavy boom for wind energy	ft (m)	29'6" (9)
Boom + Fixed jib (FJh Configuration)	ft (m)	78'8" +29'6" (24+9)
Boom + Fixed jib (FJhDB Configuration)	ft (m)	118'1" +29'6" (36+9)
Boom + Mixed boom + Fixed jib (HJFJ Wind energy)	ft (m)	295'3" +29'6" (90+9)
Angle of boom hoisting	°	30~85
Angle of jib luffing	°	15~75
Max. speed of single rope of the main load hoist	ft/min (m/min)	0~459 (0~140)
Max. speed of single rope of the aux. load hoist	ft/min (m/min)	0~459 (0~140)
Max. speed of single rope of the boom hoisting	ft/min (m/min)	(0~213)×2 (0~65)×2
Max. speed of single rope of the jib luffing	ft/min (m/min)	(0~328) (0~100)
Max. speed of single rope of the superlift luffing	ft/min (m/min)	(0~328) (0~100)
Slewing speed (no load)	r/min	0~1.4
Travel speed	mile/h (km/h)	0~0.6 (high)/0~0.2 (low) 0~1 (high)/0~0.4 (low)
Gradeability (with basic boom, driver's cab backwards)	%	15
Rated output power of the engine	kW/rpm	298/2,100
Average ground pressure of the track (basic boom, 330,688lb(150t) rear counterweight, 88,183lb (40t) carbody weight, and 440UST (400t) hook)	MPa	0.167
Max. transport dimension of single piece (L × W × H)	ft (mm)	39'4" ×9'10" ×10'10" (12,000×3,000×3,300)
Max. transport weight of single piece	lb (t)	91,049(41.3)

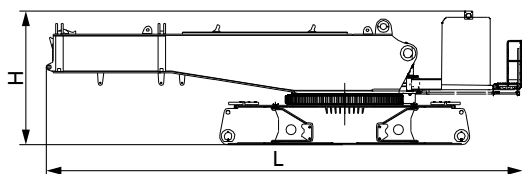
Outline Dimension



Outline Dimension



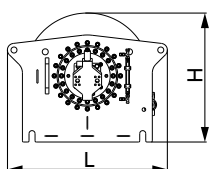
Transport Dimension



Basic machine (without main mast and hoisting winch)

×1

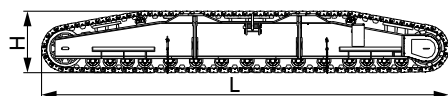
Length (L)	39'4" (12.00m)
Width (W)	9'10" (3.00m)
Height (H)	10'10" (3.30m)
Weight	91,049lb (41.3)



Hoist mechanism

×2

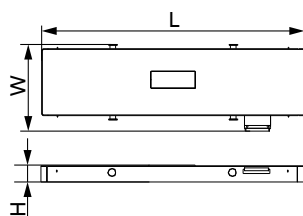
Length (L)	6' (1.83m)
Width (W)	4'3" (1.32m)
Height (H)	3'6" (1.07m)
Weight	12,125lb (5.5t)



Crawler

×2

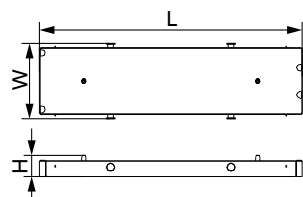
Length (L)	32'11" (10.05m)
Width (W)	5'6" (1.71m)
Height (H)	4'11" (1.51m)
Weight	58,421lb (26.5t)



Upper carbody counterweight

×2

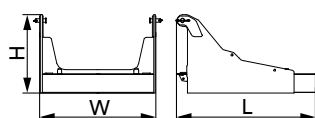
Length (L)	19'4" (5.89m)
Width (W)	6'4" (1.94m)
Height (H)	1'2" (0.36m)
Weight	22,045lb (10.0t)



Lower carbody counterweight

×2

Length (L)	19'4" (5.89m)
Width (W)	5'6" (1.70m)
Height (H)	1'2" (0.36m)
Weight	22,045lb (10.0t)

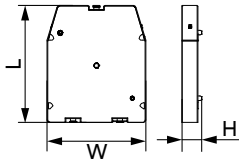


Rear counterweight tray

×2

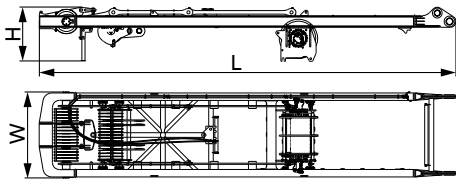
Length (L)	10'6" (3.20m)
Width (W)	8'9" (2.67m)
Height (H)	5'10" (1.80m)
Weight	33,068lb (15.0t)

Transport Dimensions



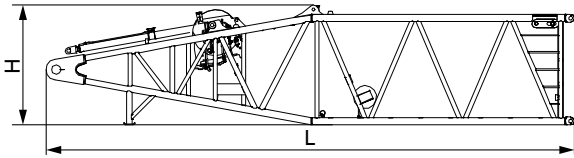
22,045lb (10t) counterweight block ×32

Length (L)	9'4" (2.85m)
Width (W)	7'10" (2.40m)
Height (H)	1'7" (0.49m)
Weight	22,045lb (10.0t)



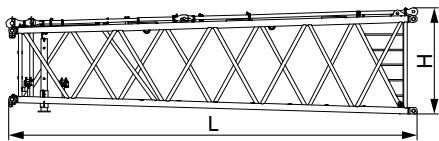
Boom hoist mast with winch ×1

Length (L)	35'8" (10.87m)
Width (W)	7'4" (2.24m)
Height (H)	4'6" (1.38m)
Weight	24,448lb (11.09t)



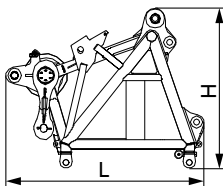
Boom base with jib luffing winch ×1

Length (L)	40'8" (12.40m)
Width (W)	9'10" (3.00m)
Height (H)	9'2" (2.79m)
Weight	28,703lb (13.02t)



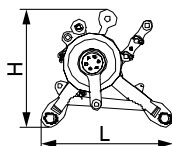
Tapered insert of boom ×1

Length (L)	35' (10.68m)
Width (W)	9'8" (2.96m)
Height (H)	9'2" (2.79m)
Weight	11,463lb (5.2t)



Boom tip ×1

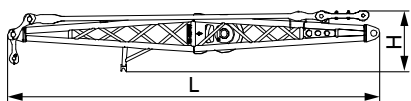
Length (L)	7'8" (2.34m)
Width (W)	8'6" (2.59m)
Height (H)	8'6" (2.60m)
Weight	7,892lb (3.58t)



Sheave block ×3

Length (L)	4'7" (1.42m)
Width (W)	4'6" (1.36m)
Height (H)	4'2" (1.27m)
Weight	2,050lb (0.93t)

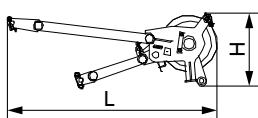
Transport Dimension



Fixed jib mast

×1

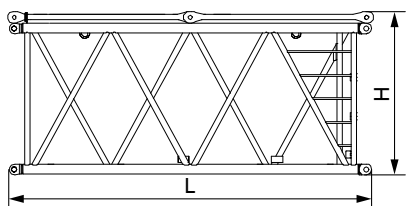
Length (L)	20'4" (6.20m)
Width (W)	8'1" (2.47m)
Height (H)	3'7" (1.10m)
Weight	5,291lb (2.4t)



Extension jib

×1

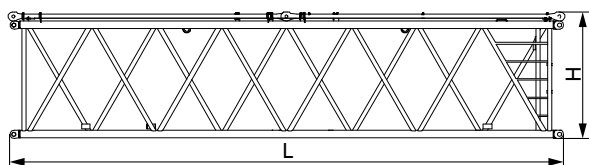
Length (L)	7'3" (2.22m)
Width (W)	3'3" (1.00m)
Height (H)	4'8" (1.43m)
Weight	793lb (0.36t)



19'8" (6m) boom insert

×2

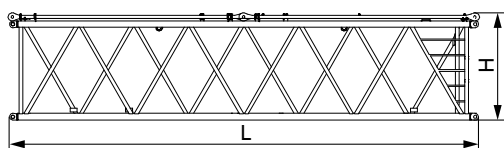
Length (L)	20'6" (6.24m)
Width (W)	9'8" (2.96m)
Height (H)	9'1" (2.78m)
Weight	5,511lb (2.5t)



39'4" (12m) boom insert A

×1

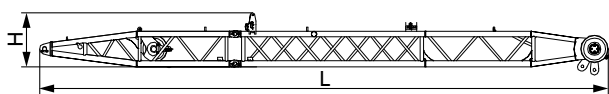
Length (L)	40'2" (12.24m)
Width (W)	9'8" (2.96m)
Height (H)	9'1" (2.78m)
Weight	10,141lb (4.6t)



39'4" (12m) boom insert B

×3

Length (L)	40'2" (12.24m)
Width (W)	9'8" (2.96m)
Height (H)	9'1" (2.78m)
Weight	8,818lb (4.0t)

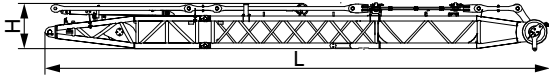


Front mast of luffing jib

×1

Length (L)	44'1" (13.44m)
Width (W)	7'1" (2.18m)
Height (H)	4'10" (1.48m)
Weight	7,275lb (3.3t)

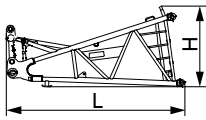
Transport Dimensions



Rear mast of luffing jib

×1

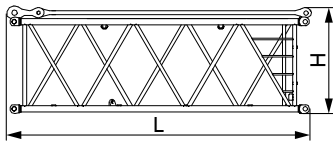
Length (L)	42'5" (12.94m)
Width (W)	9'8" (2.94m)
Height (H)	4'3" (1.29m)
Weight	11,243lb (5.1t)



Luffing jib base

×1

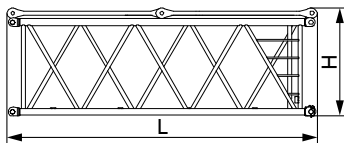
Length (L)	15'7" (4.74m)
Width (W)	8'5" (2.56m)
Height (H)	7'6" (2.30m)
Weight	5,291lb (2.4t)



19'8" (6m) luffing jib insert A

×1

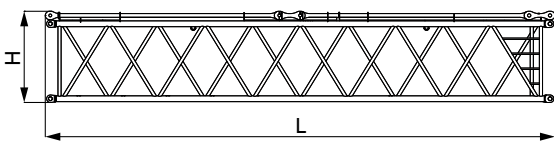
Length (L)	20'7" (6.28m)
Width (W)	8'5" (2.56m)
Height (H)	7'6" (2.28m)
Weight	4,409lb (2.0t)



19'8" (6m) luffing jib insert B

×1

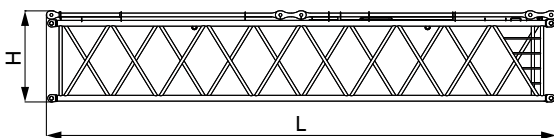
Length (L)	20'8" (6.30m)
Width (W)	8'6" (2.60m)
Height (H)	7'6" (2.30m)
Weight	3,747lb (1.7t)



39'4" (12m) luffing jib insert A

×1

Length (L)	40'2" (12.24m)
Width (W)	8'5" (2.56m)
Height (H)	7'2" (2.19m)
Weight	6,172lb (2.8t)

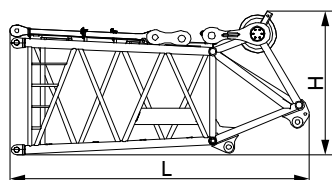


39'4" (12m) luffing jib insert B

×4

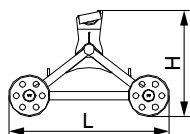
Length (L)	40'2" (12.24m)
Width (W)	8'5" (2.56m)
Height (H)	7'2" (2.19m)
Weight	6856lb (3.11t)

Transport Dimension



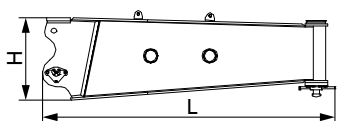
Luffing jib top ×1

Length (L)	16'7" (5.05m)
Width (W)	8'5" (2.56m)
Height (H)	7'11" (2.43m)
Weight	6,613lb (3.0t)



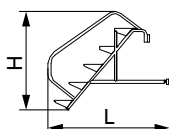
Trolley ×1

Length (L)	6'7" (2.02m)
Width (W)	4' (1.23m)
Height (H)	4'4" (1.33m)
Weight	1,322lb (0.6t)



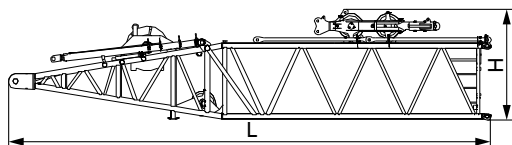
Side outrigger ×2

Length (L)	11'11" (3.63m)
Width (W)	2'7" (0.78m)
Height (H)	3'5" (1.05m)
Weight	4,188lb (1.9t)



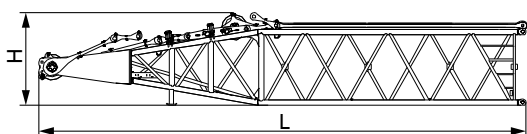
Ladder ×2

Length (L)	4'1" (1.25m)
Width (W)	1'10" (0.56m)
Height (H)	4' (1.22m)
Weight	110lb (0.05t)



Superlift mast base ×1

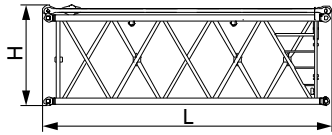
Length (L)	40'3" (12.28m)
Width (W)	9'10" (3.00m)
Height (H)	9'5" (2.86m)
Weight	36,816lb (16.7t)



Superlift mast top ×1

Length (L)	10'9" (12.42m)
Width (W)	9'6" (2.90m)
Height (H)	7'10" (2.40m)
Weight	18,738lb (8.5t)

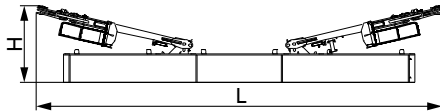
Transport Dimensions



Superlift mast insert

×1

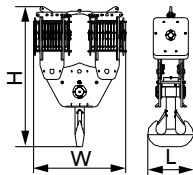
Length (L)	20'3" (6.18m)
Width (W)	9'6" (2.90m)
Height (H)	7'6" (2.15m)
Weight	5,511lb (2.5t)



Superlift counterweight tray

×1

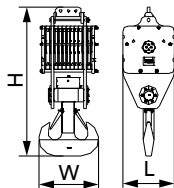
Length (L)	32'7" (9.95m)
Width (W)	8'10" (2.70m)
Height (H)	7'2" (2.20m)
Weight	19,841lb (9.0t)



440UST (400t) hook of dual sheave blocks

×1

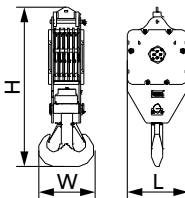
Length (L)	3'4" (1.02m)
Width (W)	8'10" (2.69m)
Height (H)	13'4" (4.07m)
Weight	23,148lb (10.5t)



286UST (260t) hook

×1

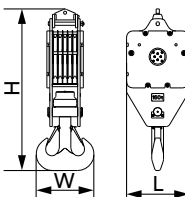
Length (L)	3'4" (1.02m)
Width (W)	3'8" (1.13m)
Height (H)	9'7" (2.93m)
Weight	10,582lb (4.8t)



176UST (160t) hook

×1

Length (L)	1'11" (0.60m)
Width (W)	3'4" (1.02m)
Height (H)	8'8" (2.65m)
Weight	6,834lb (3.1t)

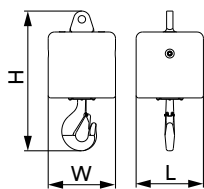


55UST (50t) hook

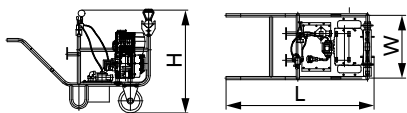
×1

Length (L)	1'11" (0.60m)
Width (W)	2'6" (0.77m)
Height (H)	6'10" (2.11m)
Weight	3,747lb (1.7t)

Transport Dimension



18UST (16t) hook	×1
Length (L)	1'8" (0.53m)
Width (W)	1'8" (0.53m)
Height (H)	3'7" (1.10m)
Weight	1,984lb (0.9t)



Portable hydraulic power pack system	×1
Length (L)	1'9" (0.54m)
Width (W)	9" (0.23m)
Height (H)	1'3" (0.38m)
Weight	413.6lb (0.19t)

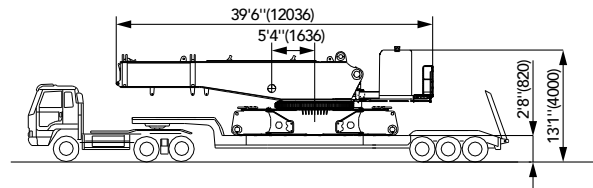
- Note:
- 1. The transport dimensions of each part in the table are schematic, not proportional to the real parts. The dimensions are designed value without package considered.
 - 2. Weight is designed value that the actual manufactured part may deviate a little.
 - 3. The dimensions and weight of each part may change due to product upgrading. The final values are subject to the new product.

Transport Plan

Transport weight ▪ 91,049lb (41.3t)

Part ▪ Basic machine×1

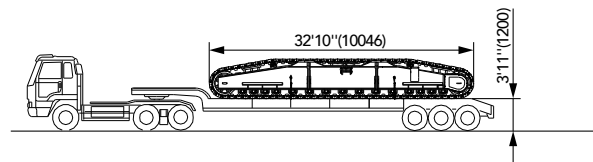
Truckload ▪ 1



Transport weight ▪ 58,421lb (26.5t)

Part ▪ Left track frame×1

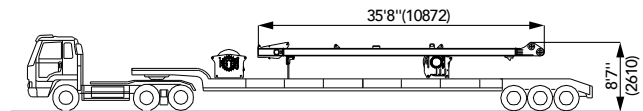
Truckload ▪ 2



Transport weight ▪ 36,596lb (16.6t)

Part ▪ Boom hoist mast×1
Main hoist winch×1
Boom hoist winch×1

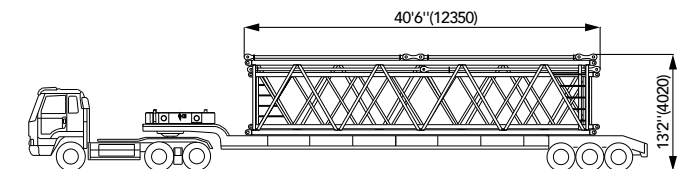
Truckload ▪ 1



Transport weight ▪ 38,360lb (17.4t)

Part ▪ 22,045lb (10t) counterweight block×1
12m boom insert A×1
12m luffing jib insert B×1

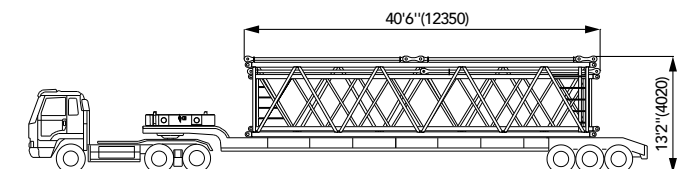
Truckload ▪ 1



Transport weight ▪ 37,037lb (16.8t)

Part ▪ 22,045lb (10t) counterweight block×1
12m boom insert B×1
12m luffing jib insert B×1

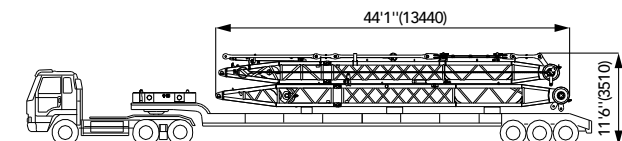
Truckload ▪ 3



Transport weight ▪ 40,564lb (18.4t)

Part ▪ 22,045lb (10t) counterweight block×1
Front mast of luffing jib×1
Rear mast of luffing jib×1

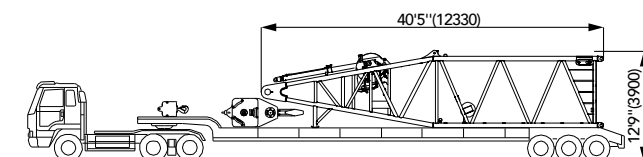
Truckload ▪ 1



Transport weight ▪ 41,226lb (18.7t)

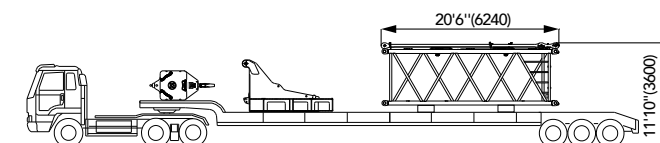
Part ▪ Boom base×1
Jib luffing winch×1
18UST (16t) ball hook×1
286UST (260t) lifting hook×1

Truckload ▪ 1

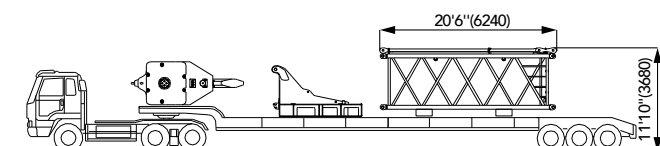


Transport Plan

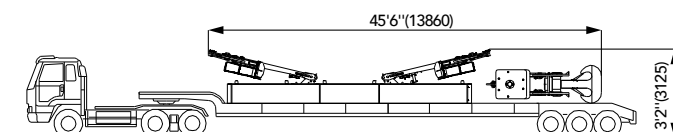
Transport weight	▪ 41,227lb (18.7t)
Part	<ul style="list-style-type: none"> ▪ 6m luffing jib I×1 ▪ Rear counterweight tray×1 ▪ 55UST (50t) hook×1
Truckload	▪ 1



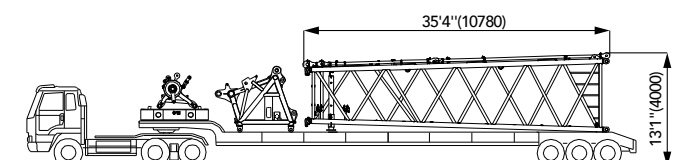
Transport weight	▪ 43,651lb (19.8t)
Part	<ul style="list-style-type: none"> ▪ 6m luffing jib II×1 ▪ Rear counterweight tray×1 ▪ 176UST (160t) hook×1
Truckload	▪ 1



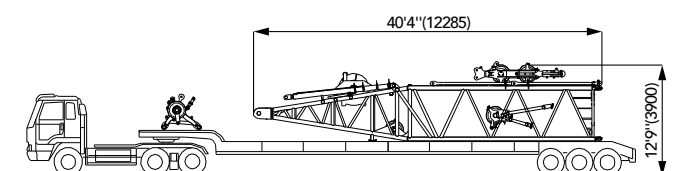
Transport weight	▪ 42,989lb (19.5t)
Part	<ul style="list-style-type: none"> ▪ Superlift counterweight tray×1 ▪ 440UST (400t) hook of dual sheave blocks×1
Truckload	▪ 1



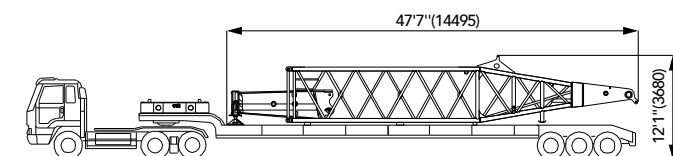
Transport weight	▪ 42,430lb (19.7t)
Part	<ul style="list-style-type: none"> ▪ 22,045lb (10t) counterweight block×1 ▪ Tapered insert of boom×1 ▪ Boom tip×1 ▪ Sheave block×1
Truckload	▪ 1



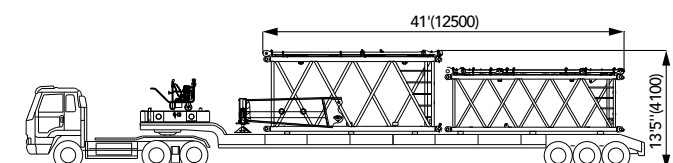
Transport weight	▪ 39,682lb (18t)
Part	<ul style="list-style-type: none"> ▪ Superlift mast base×1 ▪ Superlift luffing winch×1 ▪ Sheave block×1 ▪ Extension jib×1
Truckload	▪ 1



Transport weight	▪ 44,974lb (20.4t)
Part	<ul style="list-style-type: none"> ▪ Superlift mast boom top×1 ▪ 22,045lb (10t) counterweight block×1 ▪ Side outrigger×1
Truckload	▪ 1

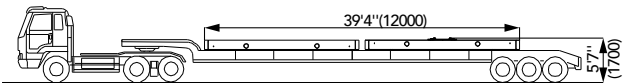


Transport weight	▪ 37,698lb (17.1t)
Part	<ul style="list-style-type: none"> ▪ 22,045lb (10t) counterweight block×1 ▪ Superlift mast boom insert×1 ▪ 6m boom insert×1 ▪ Portable hydraulic power pack system×1 ▪ Attachment parts×1 ▪ Side outrigger×1
Truckload	▪ 1

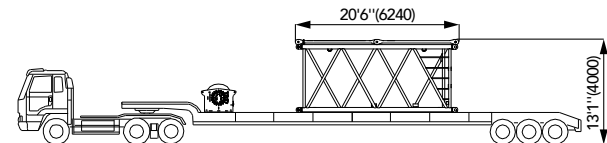


Transport Plan

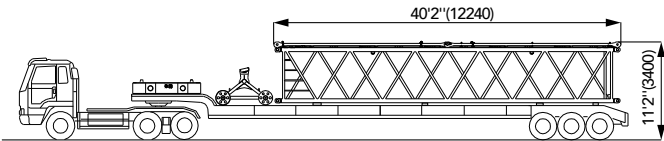
Transport weight	<div><div>▪</div>44,091lb (20t)</div>
Part	<div><div>▪</div>Upper carbody counterweight×1</div> <div><div>▪</div>Lower carbody counterweight×1</div>
Truckload	<div><div>▪</div>2</div>



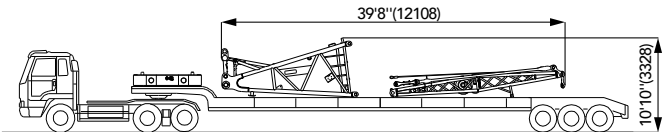
Transport weight	<div><div>▪</div>23,810lb (10.8t)</div>
Part	<div><div>▪</div>6m boom insert×1</div> <div><div>▪</div>Aux. hoist winch×1</div>
Truckload	<div><div>▪</div>1</div>



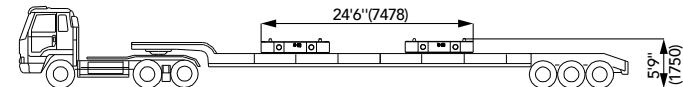
Transport weight	<div><div>▪</div>30,203lb (13.7t)</div>
Part	<div><div>▪</div>12m luffing jib insert A×1</div> <div><div>▪</div>22,045 (10t) counterweight block×1</div> <div><div>▪</div>Trolley×1</div>
Truckload	<div><div>▪</div>1</div>



Transport weight	<div><div>▪</div>32,628lb (14.8t)</div>
Part	<div><div>▪</div>Luffing jib base×1</div> <div><div>▪</div>Fixed jib mast×1</div> <div><div>▪</div>22,045 (10t) counterweight×1</div>
Truckload	<div><div>▪</div>1</div>



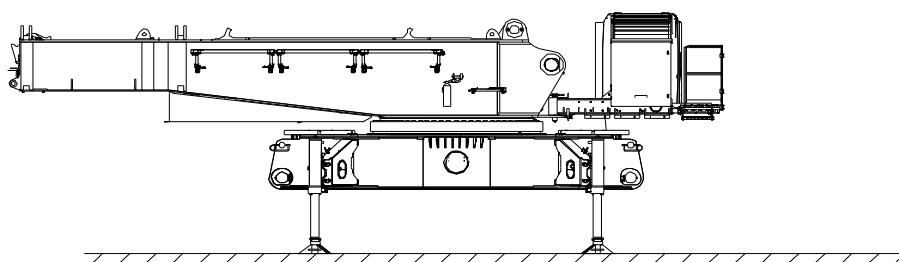
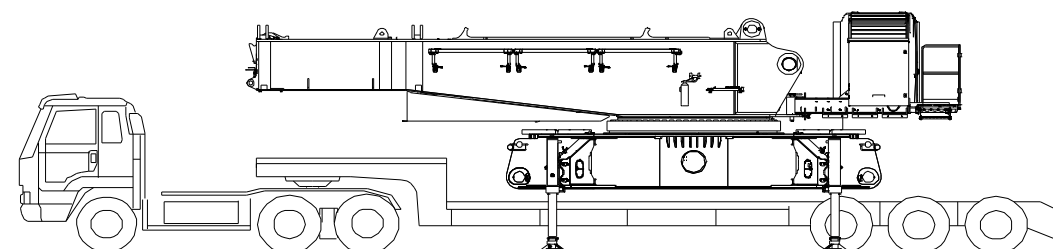
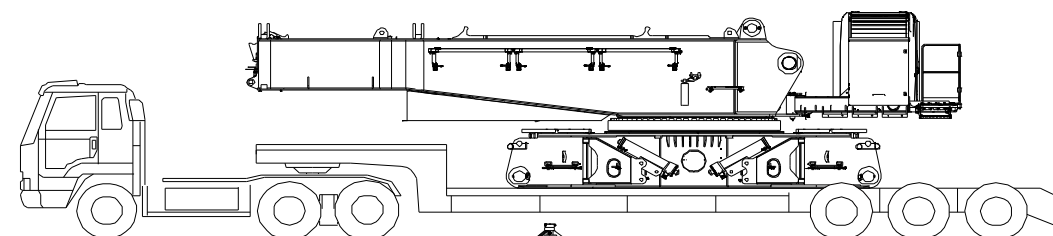
Transport weight	<div><div>▪</div>44,091lb (20t)</div>
Part	<div><div>▪</div>22,045 (10t) counterweight block×2</div>
Truckload	<div><div>▪</div>11</div>



Note:
the transport combinations listed above is just some of the transport plans, for reference only;
Actual transport plan shall be determined by parts of Configurations as below, trailer, and transport regulation.

Self-Assembly Plan

Basic machine self-assembly

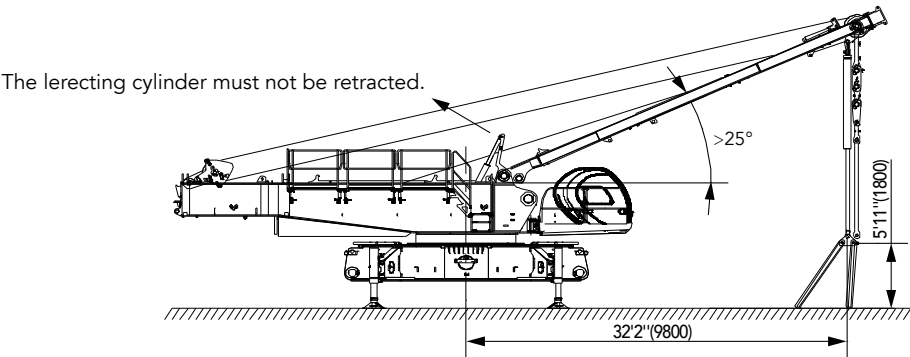
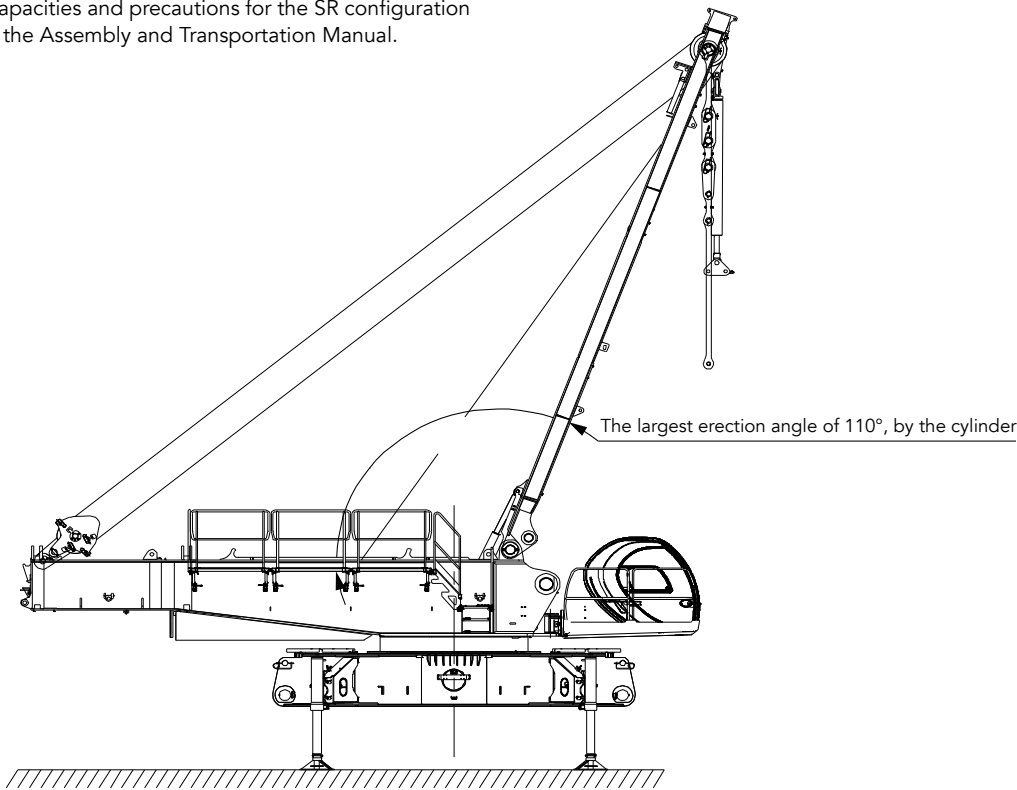


Note: The schematics above are reference for self-assembly method only.

Self-Assembly Plan

Crawler frame self-assembly

Specific lifting capacities and precautions for the SR configuration can be found in the Assembly and Transportation Manual.

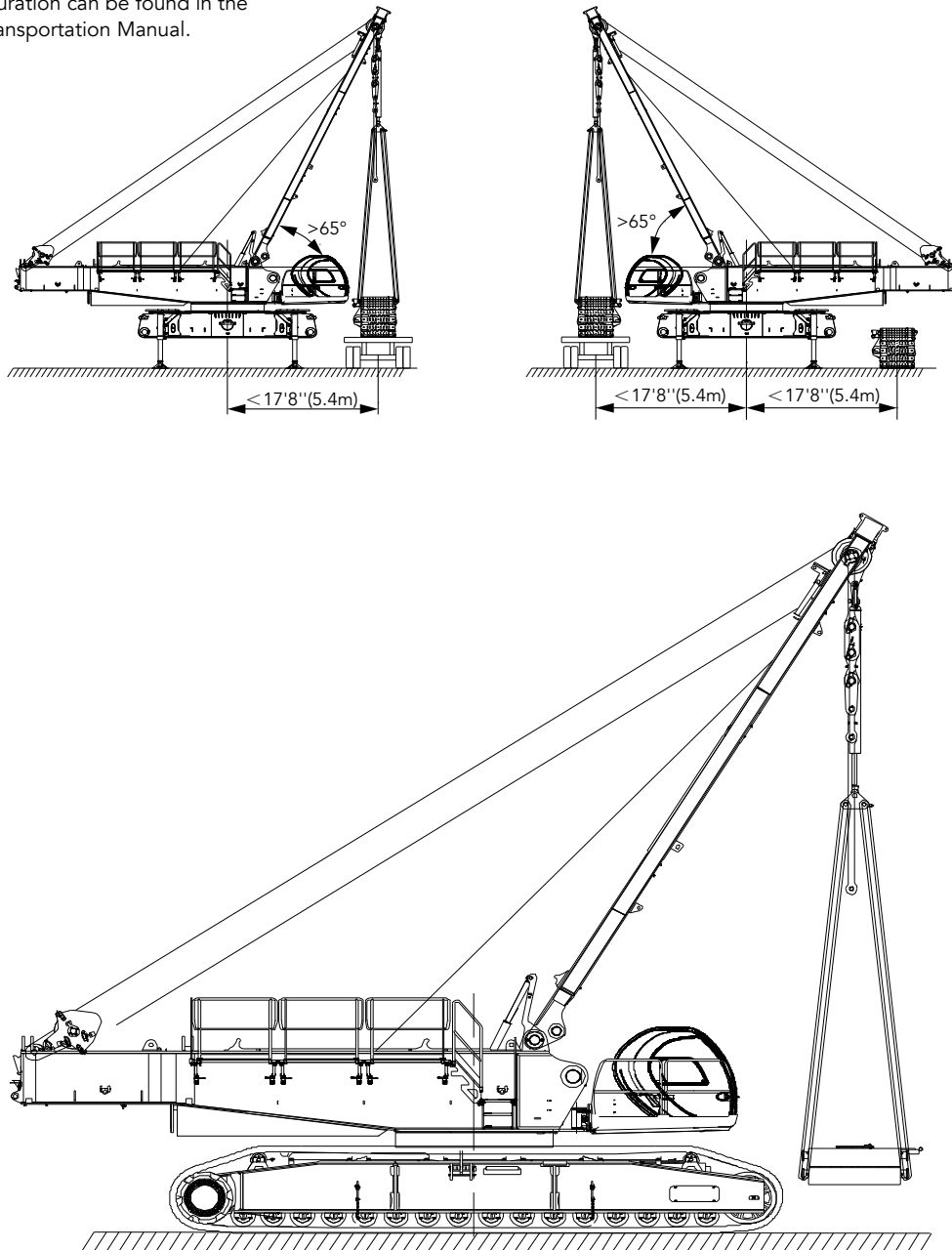


Note: The schematics above are reference for self-assembly method only.

Self-Assembly Plan

Crawler frame self-assembly

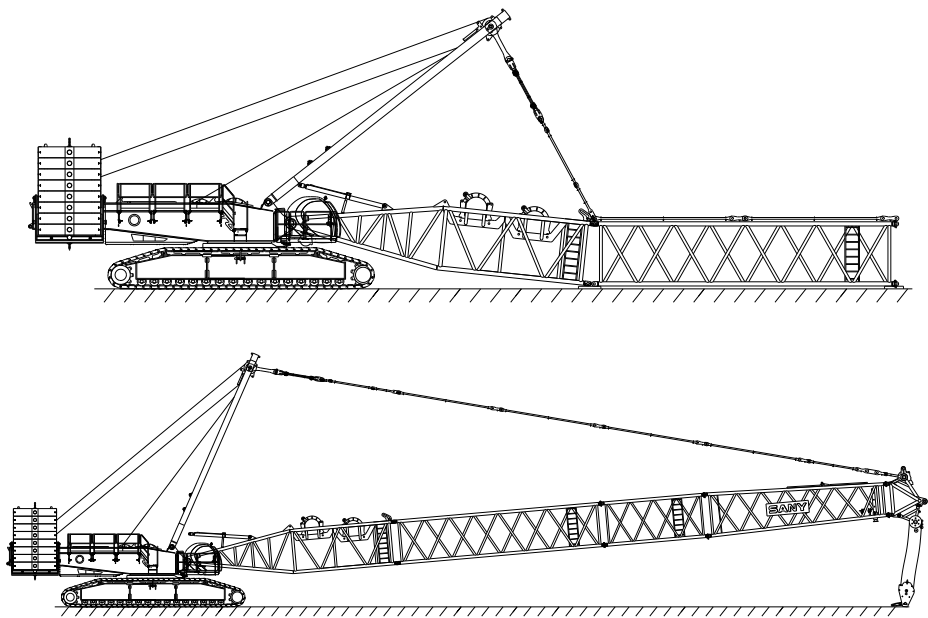
Specific lifting capacities and precautions for the SR configuration can be found in the Assembly and Transportation Manual.



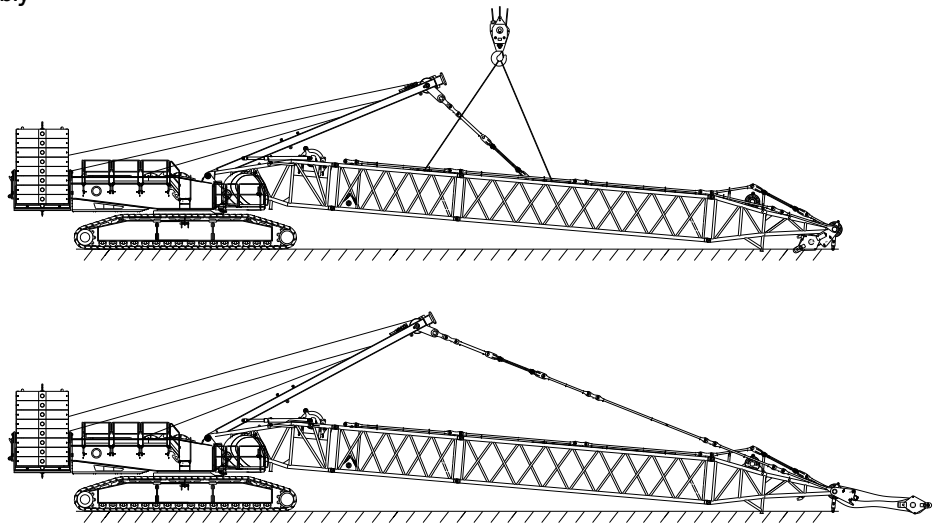
Note: The schematics above are reference for self-assembly method only.

Self-Assembly Plan

Boom assembly



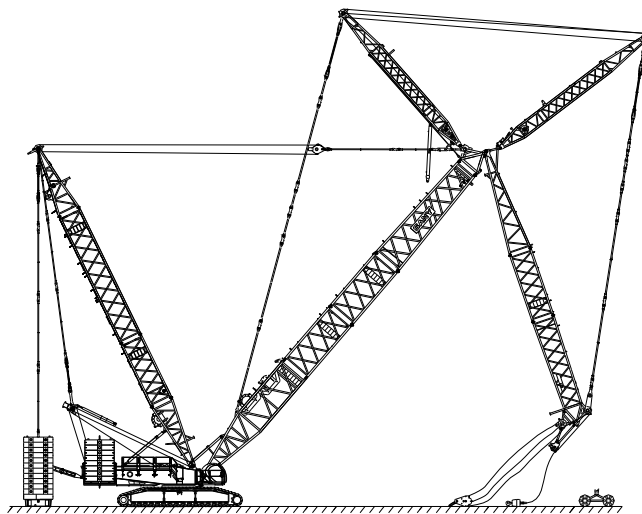
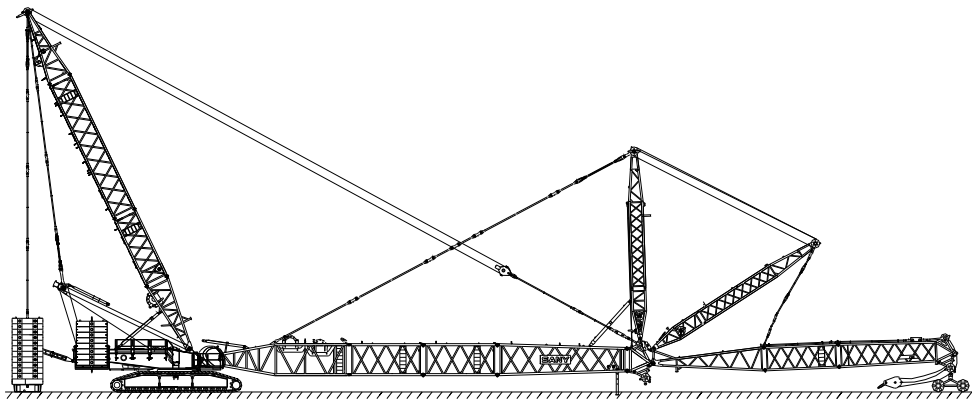
Superlift mast assembly



Note: The schematics above are reference for self-assembly method only.

Self-Assembly Plan

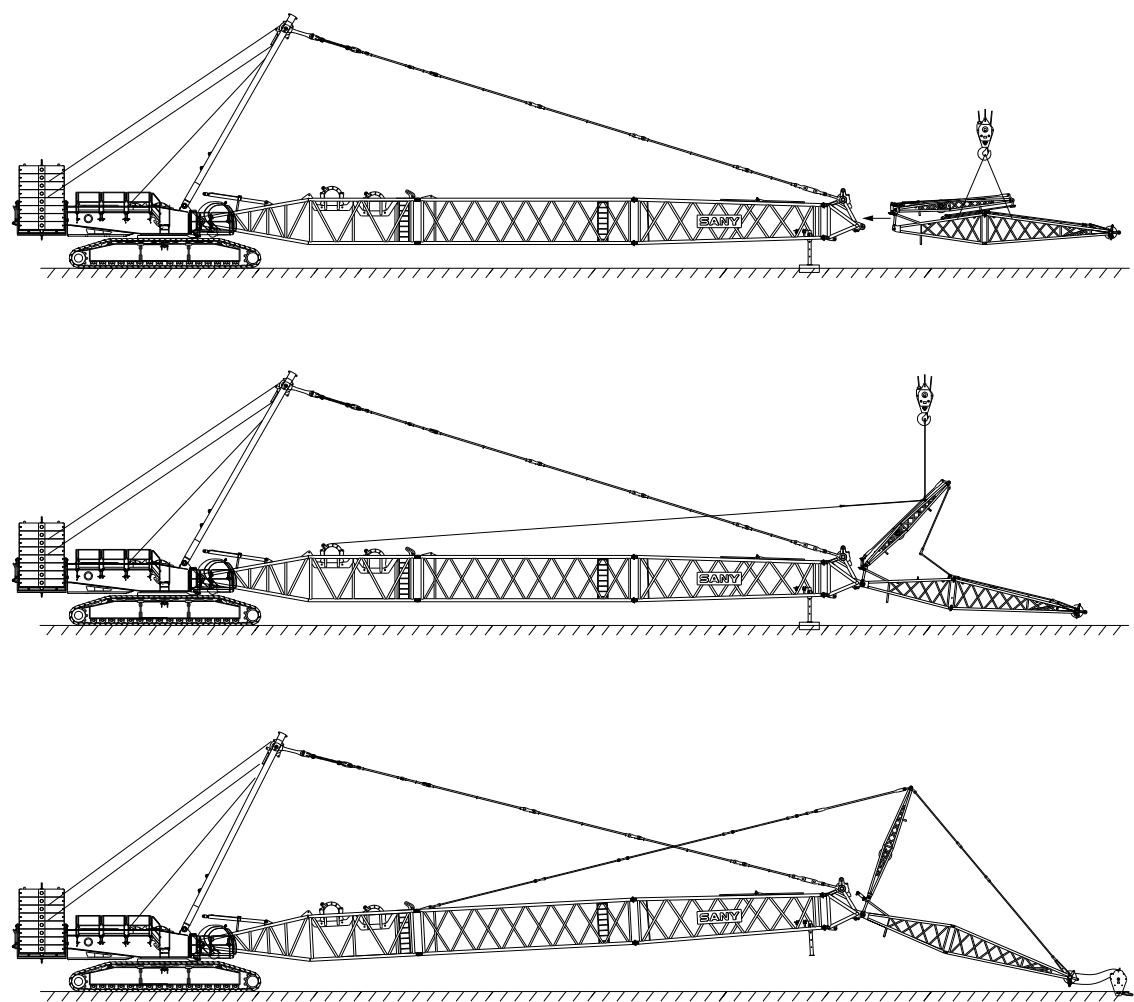
Luffing jib assembly



Note: The schematics above are reference for self-assembly method only.

Self-Assembly Plan

Fixed jib assembly



Note: The schematics above are reference for self-assembly method only.

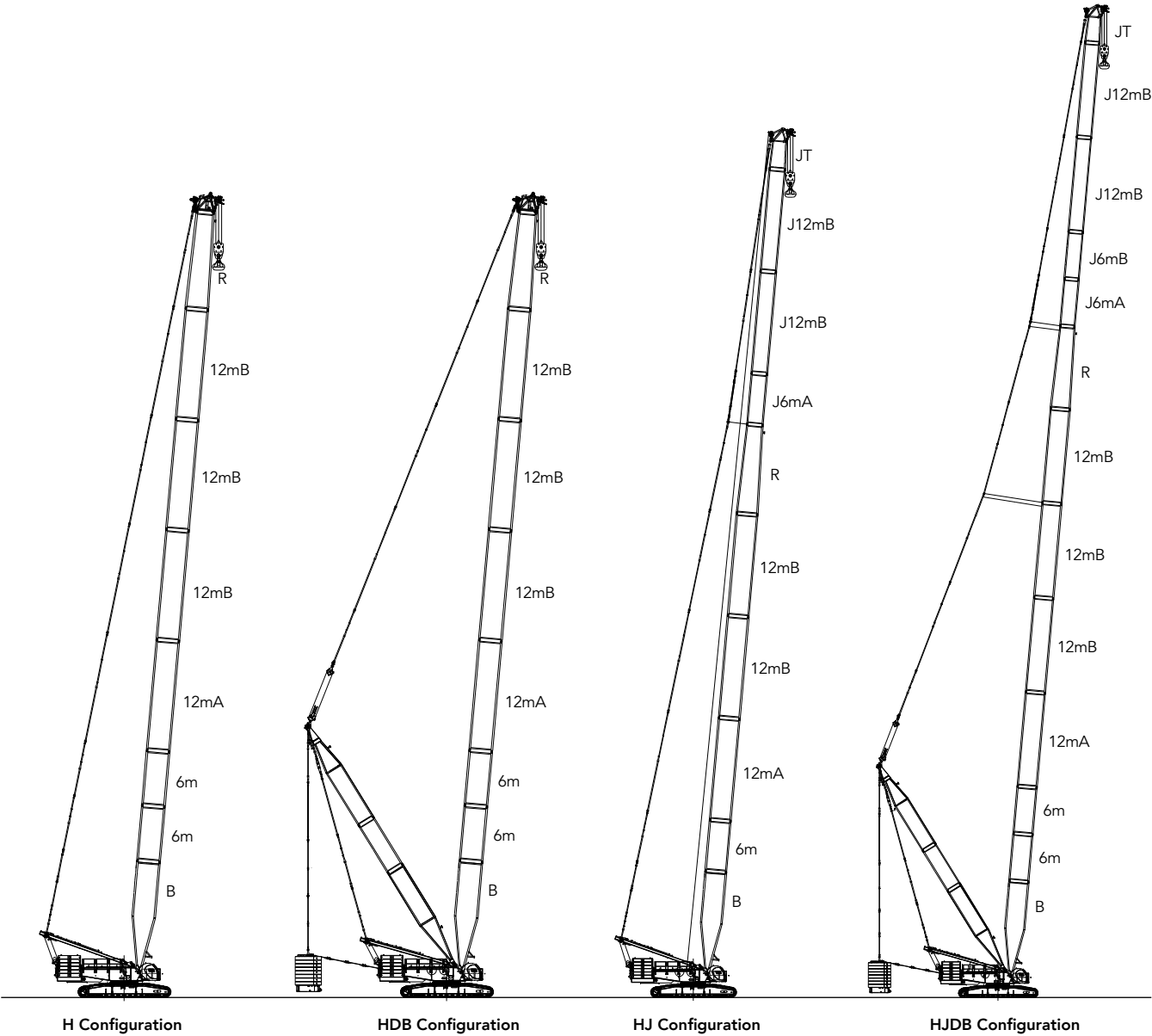


SCA4000A LATTICE BOOM CRAWLER CRANE 440 UST (400 TONS) LIFTING CAPACITY

Configurations

- Page 33 (H) Main Boom Operating Conditions
- Page 36 (HDB) Main Boom + Superlift Operating Conditions
- Page 39 (HJ) Mixed Boom Operating Conditions
- Page 42 (HJDB) Mixed Boom + Superlift Operating Conditions
- Page 45 (HJFJ) Mixed Boom + Fixed Jib Operating Conditions
- Page 50 (FJh) Short Heavy Fixed Jib Operating Conditions
- Page 54 (FJhDB) Short Heavy Fixed Jib + Superlift Operating Conditions
- Page 58 (LJ) Luffing Jib Operating Conditions
- Page 61 (LJDB) Luffing Jib + Superlift Operating Conditions

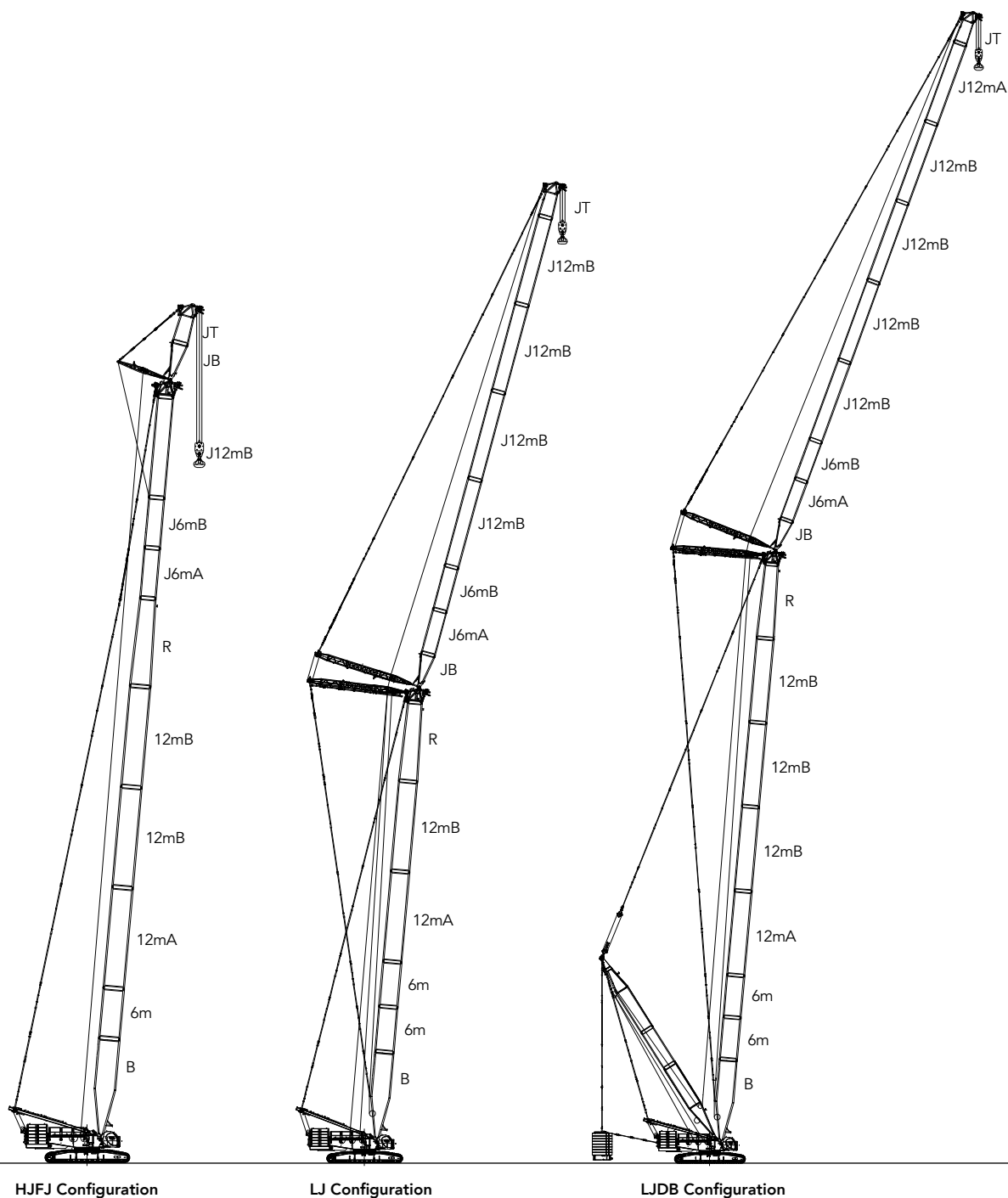
Boom Combination



Configuration	Boom combination	Boom length
H	Boom	78.7ft~275.5ft (24m~84m)
HDB	Boom+ superlift mast+ superlift counterweight	118.1ft~275.5ft (36m~84m)
HJ	Mixed boom	147.6ft~324.8ft (45m~99m)
HJDB	Mixed boom+ superlift mast+ superlift counterweight	226.3ft~403.5ft (69m~123m)

Note: The schematics above are reference for loading only.

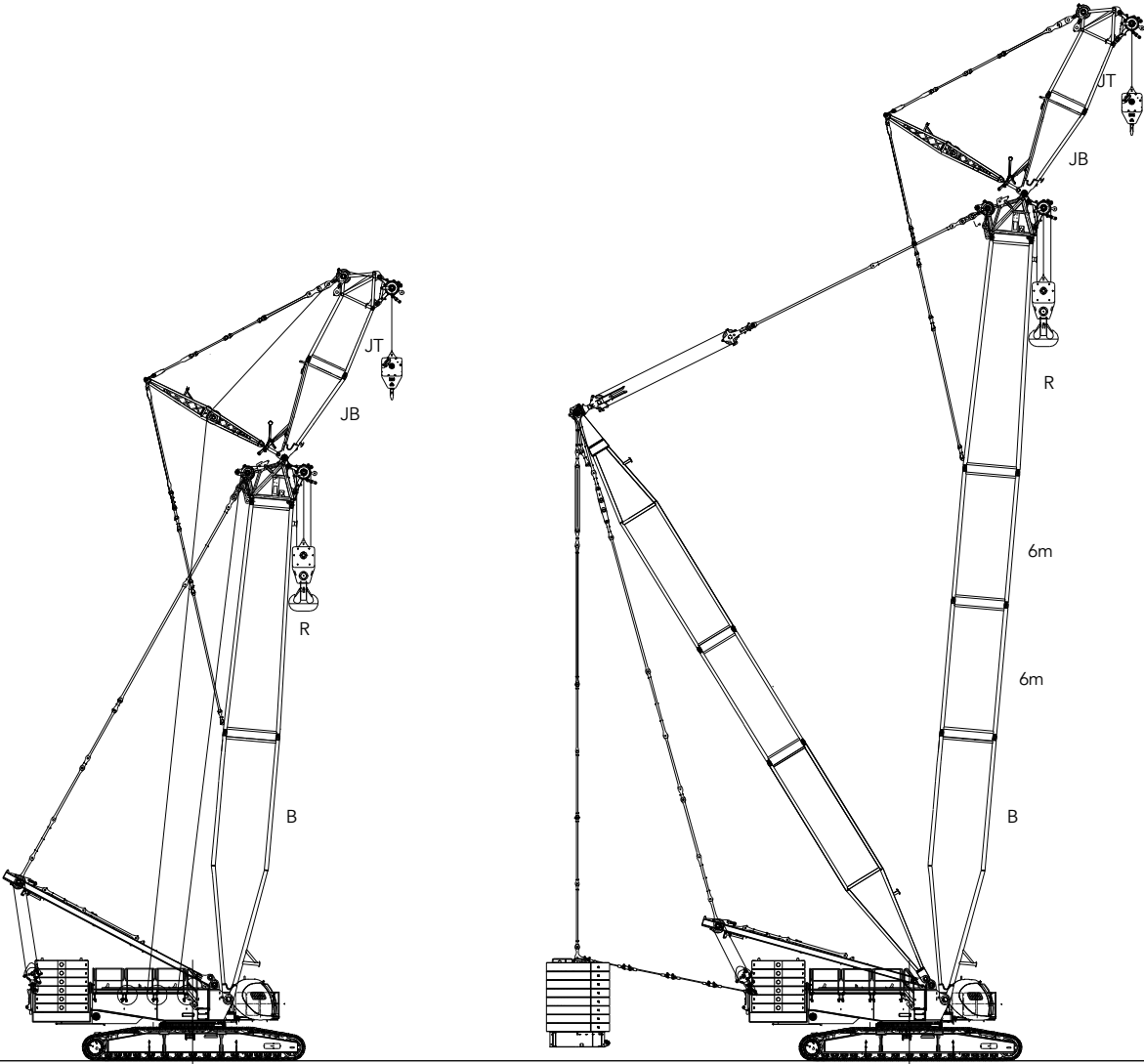
Boom Combination



Configuration	Boom combination	Boom length
HJFJ	Mixed boom+ fixed jib	(236.2ft~295.2ft)+29.5ft (72m~90m)+9m
LJ	Boom+luffing jib	(118.1ft~196.8ft)+(68.8ft~226.3ft) (36m~60m)+(21m~69m)
LJDB	Boom + luffing jib +superlift mast+ superlift counterweight	(118.1ft~275.5ft)+(68.8ft~265.7ft) (36m~84m)+(21m~81m)

Note: The schematics above are reference for loading only.

Boom Combination



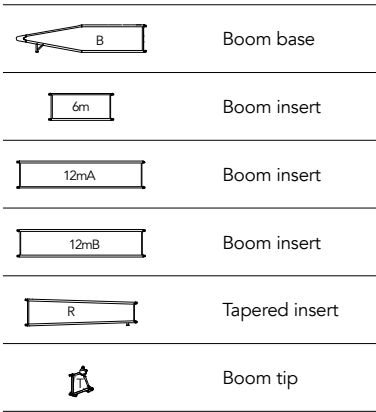
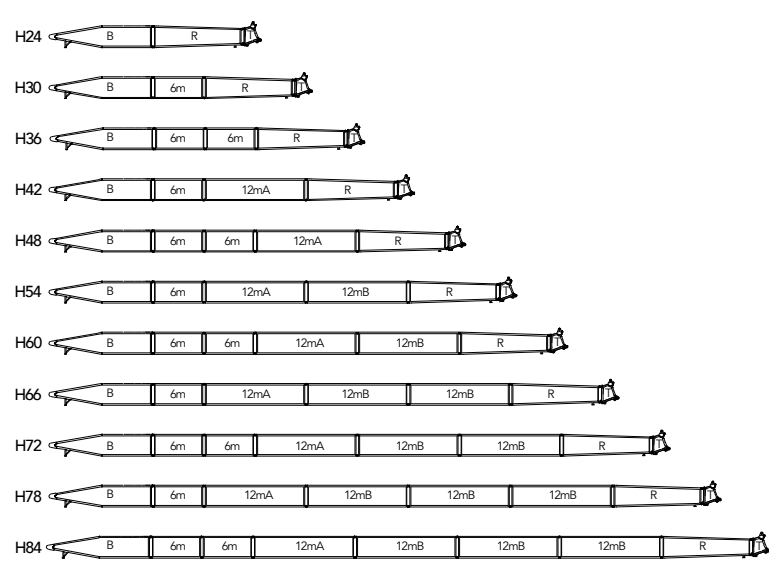
FJh Configuration

FJhDB Configuration

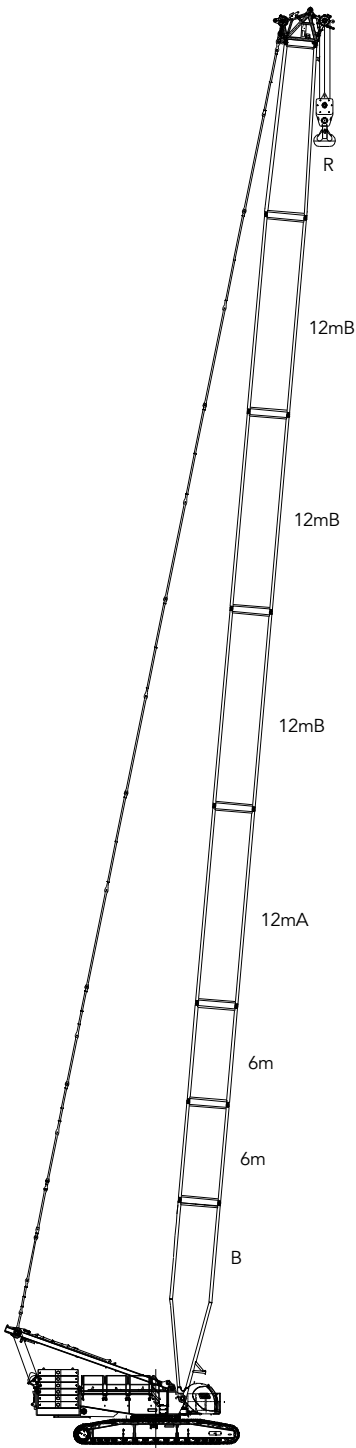
Configuration	Boom combination	Boom length
FJh	Boom+short heavy fixed jib	78.7ft~216.5ft+29.5ft (24m~66m+9m)
FJhDB	Boom+short heavy fixed jib + superlift mast+ superlift counterweight	118.1ft+29.5ft (36m+9m)

Note: The schematics above are reference for loading only.

(H) Main Boom Operating Conditions

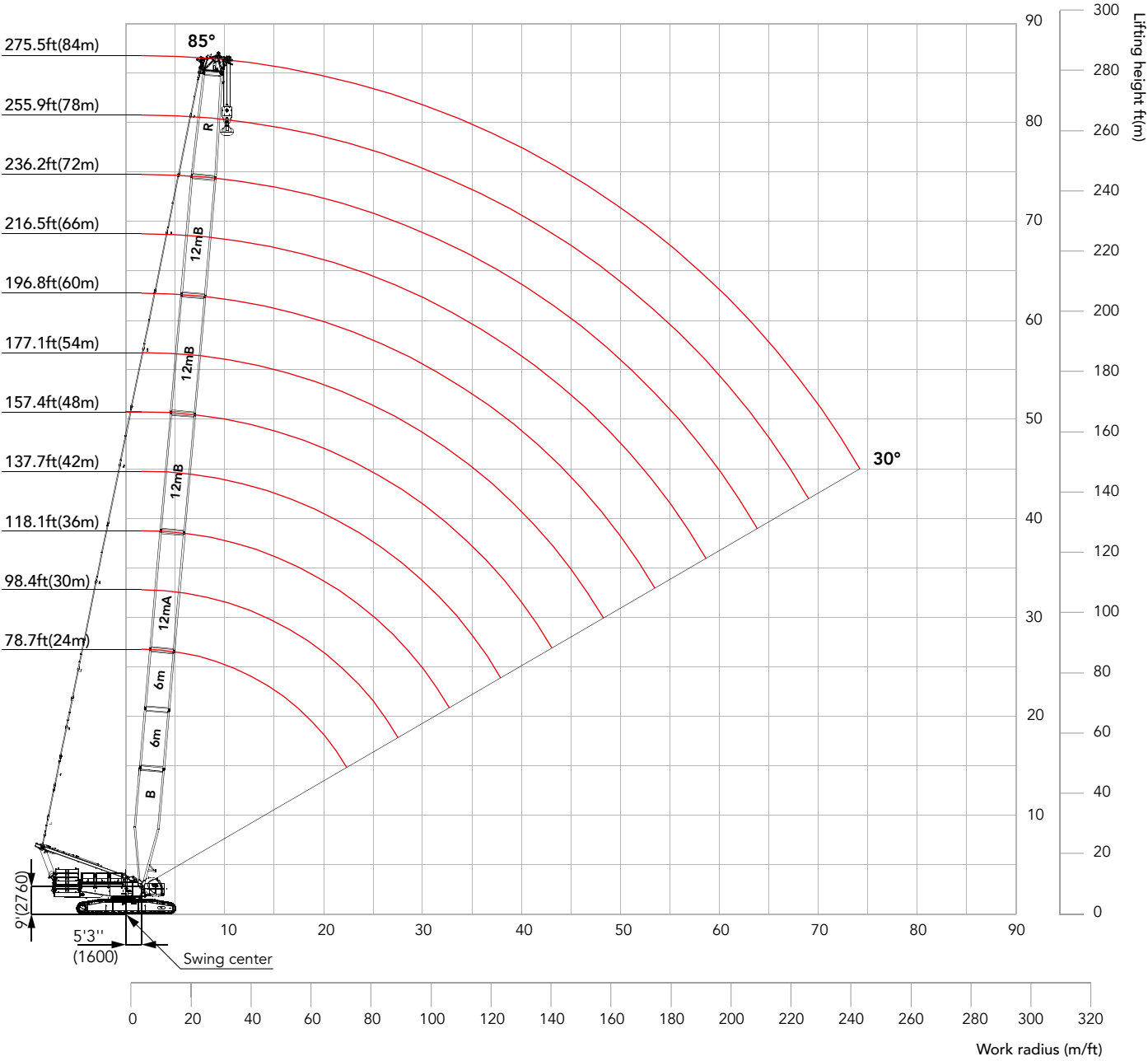


Note: The 78.7ft (24m) basic boom consists of 39.4ft(12m) boom base, 34.4ft (10.5m) tapered insert and 4.9ft (1.5m) boom tip.



H Configuration
78.7ft~275.5ft (24m~84m)

(H) Main Boom Range Diagram



Unit: Klb

(H) Main Boom Load Chart

Note:

- 1.The rated load in the load chart is calculated complying with ASME B30.5;
- 2.The working radius is the horizontal distance from the load center to the swing center;
- 3.The actual lifting capacity must subtract the weight of hooks and other riggings from the rated capacity in the load chart;
- 4.The load value is calculated when the object is hung freely,without considering the influence of wind on the load, ground conditions and slope, operation speed and the influence of any other negative factors over safe operation. Therefore, the operator bears the responsibility of making a judgment and decreasing the load and lowering speed;
- 5.All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient;
- 6.H configuration can provide the load chart of 110t and 130t rear counterweights.

H configuration load chart

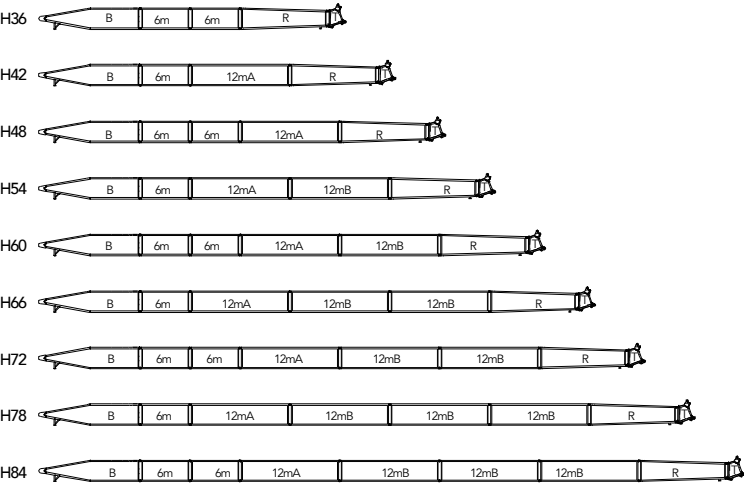
Boom length 78.7~275.5ft, Rear counterweight 330.7klb, Counterweight 88.2klb

Radius (ft)	78.7	98.4	118.1	137.7	157.4	177.1	196.8	216.5	236.2	255.9	275.5	Radius (ft)
20	868.5	866.3										20
22	783.8	781.6										22
24	710.2	708	704.3	684.5								24
26	647.1	644.9	642.5	622.7								26
28	596.9	594.7	592.5	573.8	542.1	512.5						28
30	551	548.8	546.6	529	501	475.5	451.8	430.4				30
35	464.3	462.1	459.9	443.7	422.4	404.1	385.7	369.5	353.4	338.7		35
40	401.5	399.3	395.1	379.8	364.6	349.6	334.6	321.6	308.6	297.8	284.7	40
45	351.1	348.9	346.3	332.8	319.3	307.6	296	284.6	273.3	264.2	252.8	45
50	308.9	308	307.2	295.3	283.5	273.8	264.2	254.5	244.8	236	228	50
55	271.9	271.9	271.1	264.3	254.1	245.3	237.4	229.2	220.9	212.9	206.4	55
60	239.8	239.8	237.8	237.7	229.8	221.3	214.8	207.9	200.6	194.1	187.1	60
65	213.9	214.1	213.1	212.5	209.3	202.7	195.9	189.6	183.1	177.3	170.8	65
70	192.9	193.3	192.4	191.7	190	186.2	179.7	174.2	168.1	162.8	156.9	70
75		175.3	174.5	173.7	172.4	170.7	165.4	160.5	154.8	150	144.5	75
80		159.7	159	158.2	156.9	156.2	152.7	148.3	143	138.5	133.5	80
85		146.3	145.6	144.9	143.6	142.9	141.1	137.5	132.4	128.2	123.6	85
90		134.9	134.4	133.7	132.2	131.6	130	128	123.3	119.4	114.9	90
95			124.2	123.6	122.1	121.5	119.8	118.7	114.9	111.3	107	95
100			115.1	114.5	113.2	112.5	110.7	109.8	107.2	103.8	99.7	100
110				99.4	97.9	97.4	95.6	94.6	92.8	90.9	87.1	110
120				86.7	85.4	84.9	83.2	82.3	80.4	79.2	76.4	120
130					75	74.6	72.8	71.9	70.2	68.8	67	130
140						66	64.4	63.4	61.6	60.4	58.5	140
150						58.5	56.9	55.8	54	52.9	51	150
160							50.3	49.2	47.5	46.4	44.4	160
170							44.4	43.5	41.7	40.6	38.7	170
180								38.6	36.8	35.7	33.7	180
190									32.4	31.3	29.3	190
200									28.3	27.2	25.3	200
220										20.3	18.4	220

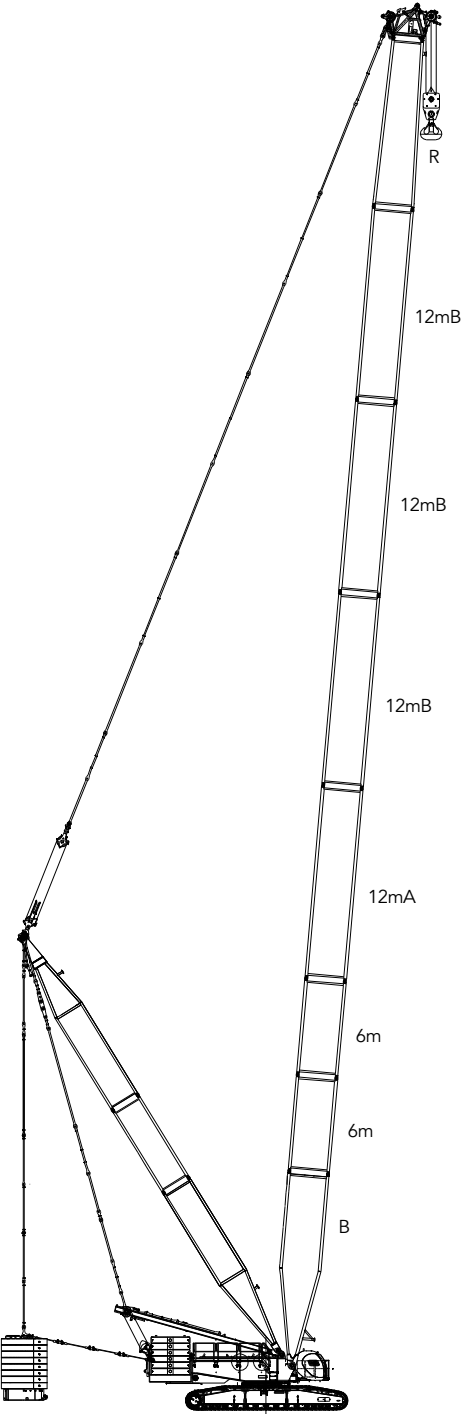
	Lifting mode	Limitations
Land	√	H configuration only. Rear counterweight 150t, carbody counterweight 40t, ground gradient≤3°
Floating structure (barge operation)	√ *	H configuration only. Rear counterweight 150t, carbody counterweight 40t, ground gradient≤3°

*Note: only valid for jack-up brages

(HDB) Main Boom + Superlift Operating Conditions

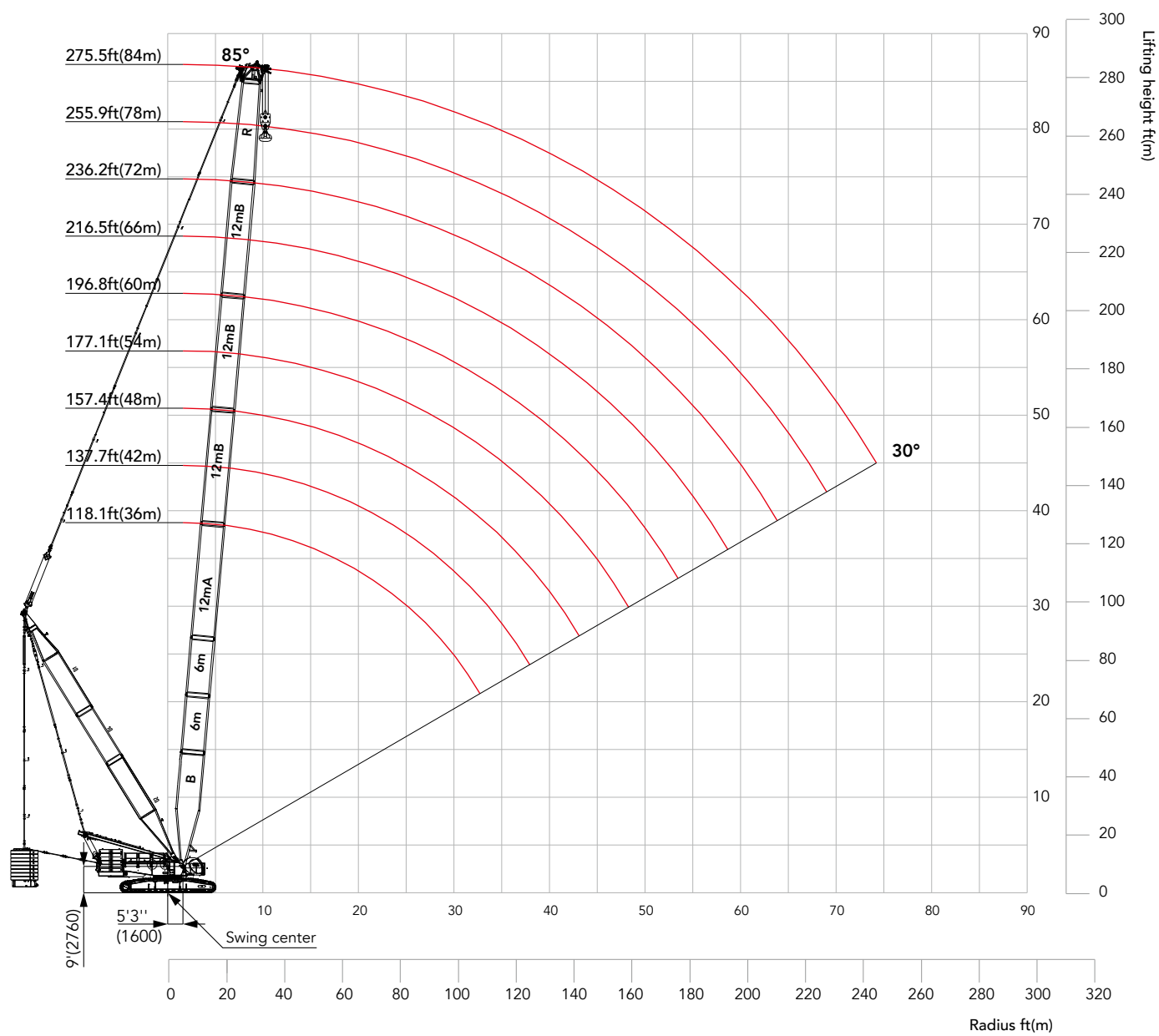


	Boom base
	Boom insert
	Boom insert
	Boom insert
	Tapered insert
	Boom tip



HDB Configuration
118.1ft~275.5ft (36m~84m)

(HDB) Main Boom + Superlift Range Diagram



(HDB) Main Boom + Superlift Load Chart

Unit: Klb

Note:

- 1.The rated load in the load chart is calculated complying with ASME B30.5;
- 2.The working radius is the horizontal distance from the load center to the swing center;
- 3.The actual lifting capacity must subtract the weight of hooks and other riggings from the rated capacity in the load chart;
- 4.The load value is calculated when the object is hung freely,without considering the influence of wind on the load, ground conditions and slope, operation speed and the influence of any other negative factors over safe operation. Therefore, the operator bears the responsibility of making a judgment and decreasing the load and lowering speed;
- 5.All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient;
- 6.See the Operation Manual for the complete load charts of HDB Configurations.

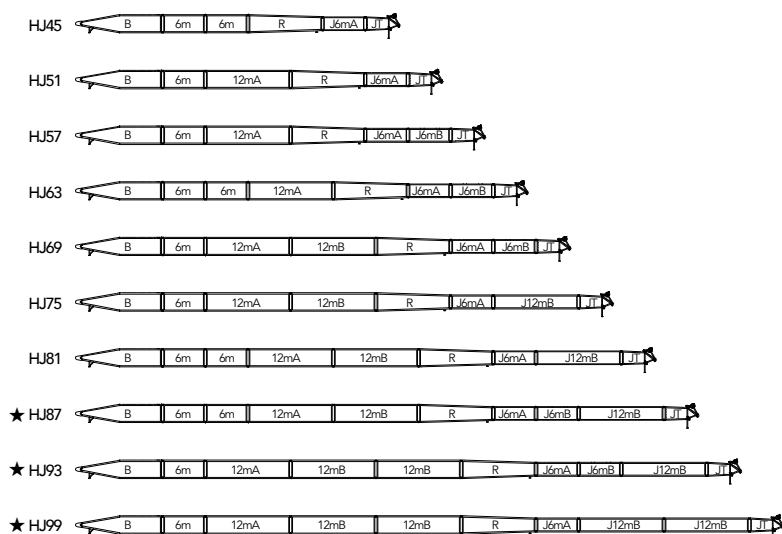
HDB configuration load chart

Boom length 118.1~275.5ft, Radius of Super Counterweight 49.2ft, Super Counterweight 463.0klb
Rear Counterweight 330.7klb, Counterweight 88.2klb

Radius (ft)	118.1	137.7	157.4	177.1	196.8	216.5	236.2	255.9	275.5	Radius (ft)
24	881.8*	881.8*								24
26	881.8	881.8								26
28	881.8*	881.8*	881.8*	767.2*						28
30	881.8	881.8	881.8	767.2*	725.3*	615*				30
35	881.8	881.8	881.8	767.2*	725.3*	615*	540.1*	447.5*		35
40	878.4	878.2	878	767.2*	725.3	615*	540.1*	447.5*	388*	40
45	851.5	849.6	847.8	767.2	725.3	615	540.1	447.5	388	45
50	778.2	776	773.8	745.3	725.3	615	540.1*	447.5*	388*	50
55	701.8	699.6	698.2	699	694.1	615	540.1*	447.5	388*	55
60	635.7	633.5	633.5	635.1	633.2	608.7	540.1*	447.5	388	60
65	582	579.8	579.8	578	577.8	575.1	540.1	447.5	388	65
70	537.1	534.9	534.9	535.6	531.2	531.2	519.5	447.5	386.5	70
75	497.2	495	495	497.2	492.5	490.6	488.4	446.5	385.8	75
80	461.9	459.7	459.7	461.9	459.7	456.1	452.7	440.2	385.8	80
85	431.7	429.5	429.5	431.7	429.5	429.3	420.8	420	385.8	85
90	404.6	404	404	404.6	404	402.4	398.3	393.6	382.6	90
95	380.9	379.8	379.8	379.8	379.8	378.7	376.5	372	367.7	95
100	359.6	357.4	357.4	357.9	357.4	357.4	355.2	353	347.4	100
110		320.4	320.4	320.9	320.4	320.4	318.2	316	312.1	110
120		290.3	290.3	290.3	289.7	288.1	285.9	285.2	281.5	120
130			263.4	263.4	263	263	260.8	258.6	256.4	130
140				242.4	241	241	238.7	236.5	234.3	140
150				223.5	221.9	221.8	219.8	217.9	215.6	150
160					205.3	205.1	203.4	202.1	199.7	160
170					190	190	188.5	187.1	184.7	170
180						176.8	175.4	174.1	171.8	180
190							163.5	162.3	160.1	190
200							152.7	151.6	149.4	200
220								133.2	131.1	220

Note:For values marked with "**", the superlift counterweight shall not leave the ground.

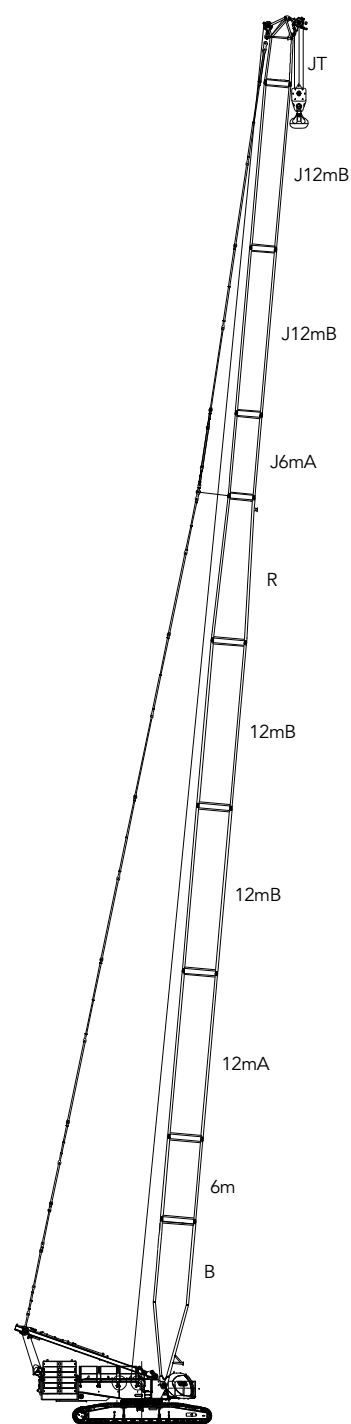
(HJ) Mixed Boom Operating Conditions



	Boom base
	Boom insert
	Boom insert
	Boom insert
	Tapered insert
	Jib base
	Jib top
	Jib insert
	Jib insert
	Jib insert

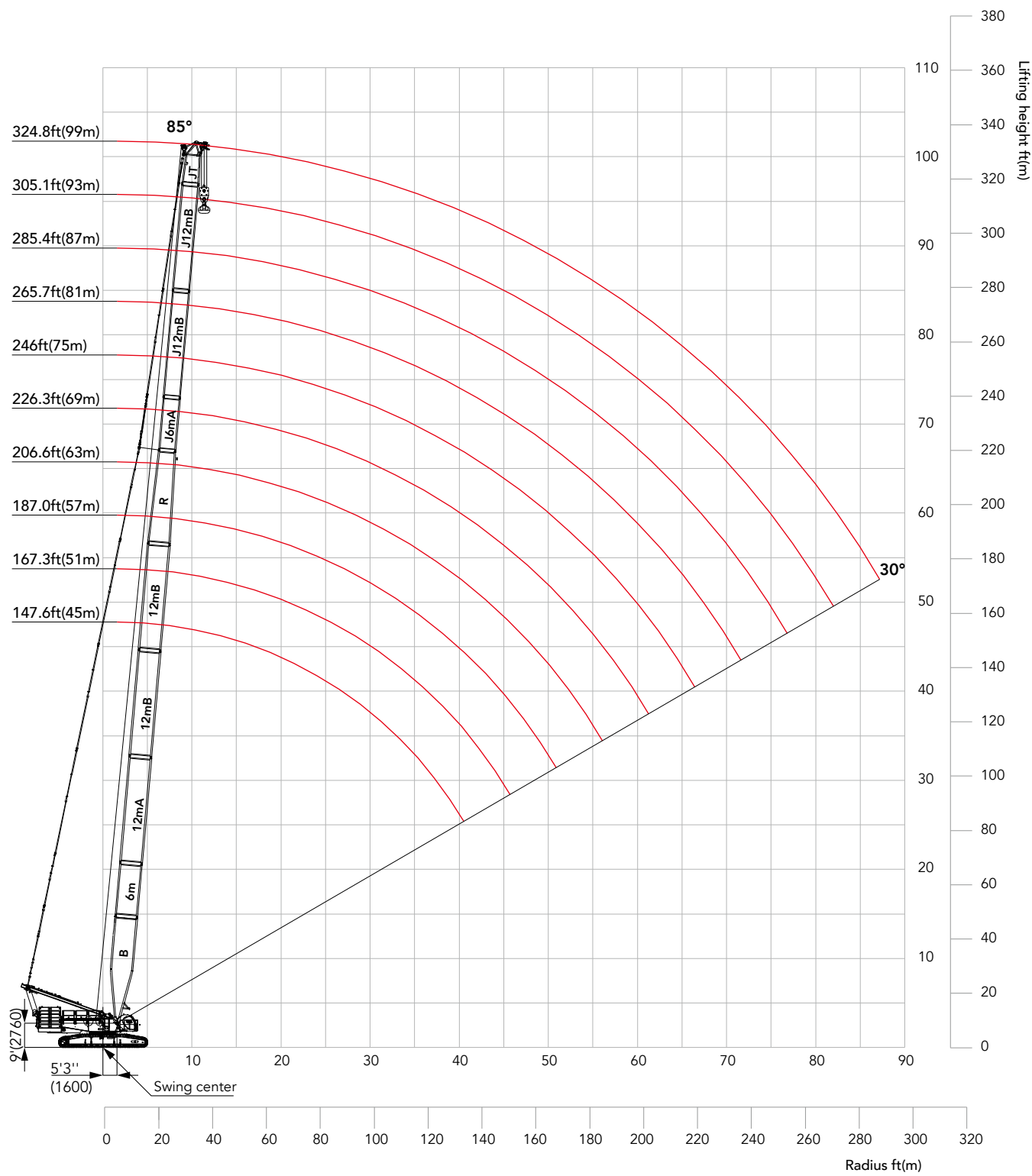
Note:

1. The 39.4ft (12m) boom base, 34.4ft (10.5m) tapered insert, 19.8ft (6m) tapered jib insert, 14.8ft (4.5m) jib top are must.
2. For combinations marked with " ★ ", the mid-point suspension cable must be used, otherwise, the boom may break.



HJ Configuration
147.6ft~324.8ft
(45m~99m)

(HJ) Mixed Boom Range Diagram



(HJ) Mixed Boom Load Chart

Unit: Klb

Note:

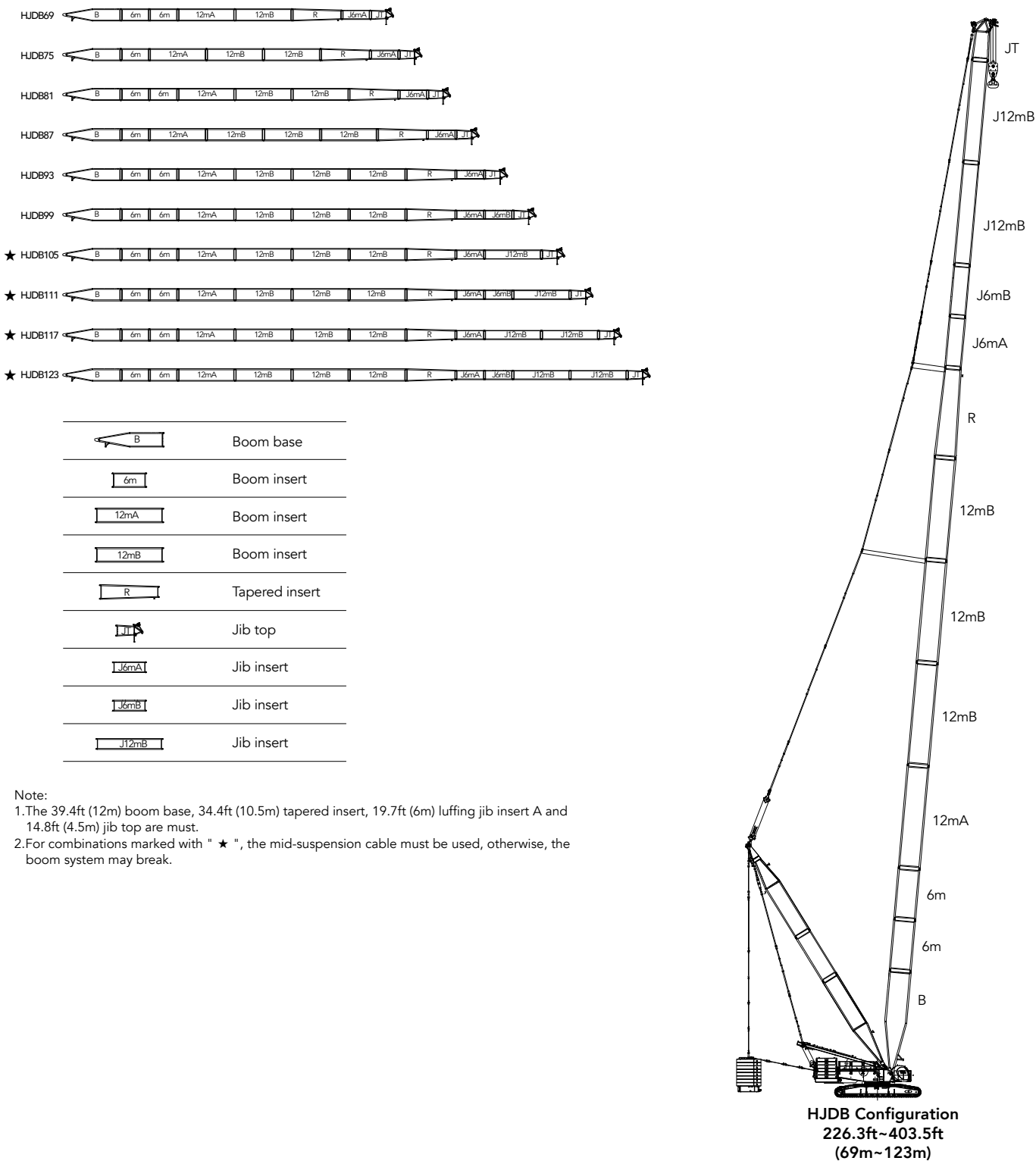
1. The rated load in the load chart is calculated complying with ASME B30.5;
2. The working radius is the horizontal distance from the load center to the swing center;
3. The actual lifting capacity must subtract the weight of hooks and other riggings from the rated capacity in the load chart;
4. The load value is calculated when the object is hung freely, without considering the influence of wind on the load, ground conditions and slope, operation speed and the influence of any other negative factors over safe operation. Therefore, the operator bears the responsibility of making a judgment and decreasing the load and lowering speed;
5. All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient.

HJ configuration load chart

Boom length 147.6~324.8ft, Rear counterweight 330.7klb, Counterweight 88.2klb

Radius(ft)	147.6	167.3	187	206.6	226.3	246	265.7	285.4	305.1	324.8	Radius(ft)
24	432.1										24
26	432.1										26
28	432.1	429.9	423.2								28
30	432.1	429.9	423.2	415.4	409						30
35	426.2	412.2	399.7	382.8	368.1	354.1	338				35
40	377.8	362.6	349.6	334.6	321.6	311	298	263.2	262.4	222	40
45	332.5	318.9	307.6	296	284.6	277.4	266	253.2	245.6	216.8	45
50	295.3	284.8	275.2	265.5	255.9	249.2	239.6	232.1	224.6	210.6	50
55	264.3	256.3	248.3	239.5	231.7	225.4	217.3	210.9	204.2	198.5	55
60	238.4	232.1	225.6	217	210.9	205.3	197.9	192.5	186.2	181.2	60
65	216.9	212.1	206.3	199	193.1	188.1	179.3	176.5	170.9	166.5	65
70	196.6	194.3	189.9	183.4	177.9	173.5	163	162.8	157.7	153.6	70
75	178.7	177.5	175.2	169.5	164.4	160	148.7	150.6	145.8	142.1	75
80	163.2	162	161.5	157	152.3	147.2	136.2	139.7	135.1	131.9	80
85	149.8	148.7	148.2	145.9	141.7	134.7	125	129.9	125.7	122.6	85
90	138.6	137.5	136.9	135	132.4	123.9	114.8	121.3	117.4	114.5	90
95	128.5	127.4	126.8	125	123.4	114.3	105.4	113.5	109.8	107.1	95
100	119.5	118.4	117.8	116	114.9	105.7	96.8	106.4	102.9	100.3	100
110	104.4	103.3	102.7	100.9	99.8	90.4	82.7	93.9	90.8	88.4	110
120	92	90.9	90.2	88.5	87.4	78.1	70.4	83.5	80.4	78.3	120
130	81.6	80.5	79.9	78.1	77	67.1	59.4	73.9	71.5	69.7	130
140		72	71.4	69.7	68.6	57.6	50.5	65.3	63.7	62.4	140
150			64	62.2	61.1	49.2	42.5	57.9	56.5	55.6	150
160				55.6	54.5	41.8	35.4	51.4	49.9	49.2	160
170				49.9	48.8	35.4	29	45.7	44.2	43.5	170
180				44.8	43.9	29.6	23.9	40.8	39.2	38.6	180
190					39.4	24.6	18.8	36.3	34.8	34.2	190
200						19.9	14.1	32.3	30.8	30.3	200
220							6	25.4	24.1	23.4	220
240								19.7	18.4	17.7	240
260									13.5	13.1	260

(HJDB) Mixed Boom + Superlift Operating Conditions



(HJDB) Mixed Boom + Superlift Load Chart

Unit: Klb

Note:

- 1.The rated load in the load chart is calculated complying with ASME B30.5;
- 2.The working radius is the horizontal distance from the load center to the swing center;
- 3.The actual lifting capacity must subtract the weight of hooks and other riggings from the rated capacity in the load chart;
- 4.The load value is calculated when the object is hung freely,without considering the influence of wind on the load, ground conditions and slope, operation speed and the influence of any other negative factors over safe operation. Therefore, the operator bears the responsibility of making a judgment and decreasing the load and lowering speed;
- 5.All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient;
- 6.See the Operation Manual for the complete load charts of HJDB Configuration.

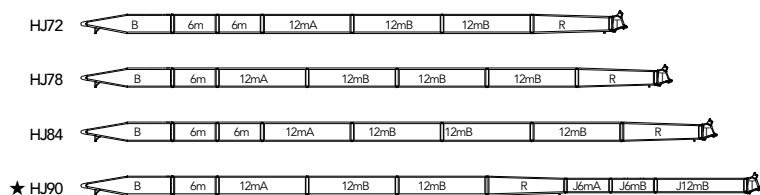
HJDB configuration load chart

Boom length 226.3~403.5ft, Radius of Super Counterweight 49.2ft, Super Counterweight 463.0klb
Rear Counterweight 330.7klb, Counterweight 88.2klb

Radius (ft)	226.3	246	265.7	285.4	305.1	324.8	344.4	364.1	383.8	403.5	Radius (ft)
30	418.8*										30
35	418.8*	412.2*	405.6*								35
40	418.8*	412.2*	405.6*	354.9*	310.8*	268.9*	231.4*				40
45	418.8	412.2	405.6	354.9	310.8	268.9	231.4				45
50	418.8*	412.2*	405.6*	354.9*	310.8*	268.9*	231.4*	201.7*	176*	152.7*	50
55	418.8*	412.2*	405.6*	354.9*	310.8*	268.9*	231.4*	201.7*	175.8*	151.8*	55
60	418.8*	412.2*	405.6*	354.9*	310.8*	268.9*	231.1*	201.7*	175.6*	150.8*	60
65	418.8	412.2	405.6	354.9	310.8	268.9	229.4	201.7	175.1	149.8	65
70	418.8*	412.2*	405.6*	354.9	310.8*	268.9*	229.2*	201.7*	174*	148.6*	70
75	418.8*	412.2*	405.6*	354.9	310.8	268.9*	229.2*	199.4*	170.4*	145.8*	75
80	418.8*	412.2*	405.6	354.5	310.8	268.5	229.2*	195*	165.2*	141.6*	80
85	418.8	412.2	405.6	352.8	310.8	266.8	229.2	189.7	160.5	136.7	85
90	404.6	396.4	393	352.7	309.2	266.7	229.2*	184.4*	155.8*	133.1*	90
95	384.2	378.6	374.3	347.4	308.6	265.7	229.2	179.2*	151.1*	129.3*	95
100	361.8	360.1	354	339	308.1	264.5	228.2	174.3*	146.7*	125.2*	100
110	324.8	323.1	320.4	317.2	306.4	264.5	221.5	165.8*	138.9*	117.8*	110
120	294.7	292.5	290.3	288.1	285.2	253.4	212.3	157.3*	132.1*	111.8*	120
130	267.8	267.4	263.4	261.2	258.6	231.7	204	149.8*	125.3*	105.8*	130
140	245.4	245.4	242.4	240.2	238	213.6	195.9	142.5*	119.8*	101*	140
150	226.6	226.1	223.9	221.8	219.4	197	188.5	136.1	114.5*	96.4*	150
160	210.4	209.3	207.1	205.2	202.6	181.5	181.9	130.6	109.6*	92*	160
170	195.1	194.2	192	190.4	187.8	166	175.8	125.9	105.4	88.1	170
180	182	181.3	179.1	177.6	174.9	152.9	169.9	121.4	101.3*	84.3*	180
190	170	169.5	167.4	165.8	163.3	140.8	160.9	116.8	97.9	81.3*	190
200		158.6	156.7	155.2	152.7	129.3	150.4	112.8	95	78.6*	200
220			138.2	136.9	134.4	108.2	132.4	106.7	89.9	73.6*	220
240				121.5	119.3	89.5	117.3	101.1	85.9	69.8*	240
260					106.4	72.9	104.6	97.3	82.7	66.8	260
280							93.7	92.3	80.7	64.4	280
300							84.3	82.8	80	63.3	300
320									73.8	62.8	320
340										62.8	340

Note:For values marked with "**", the superlift counterweight shall not leave the ground.

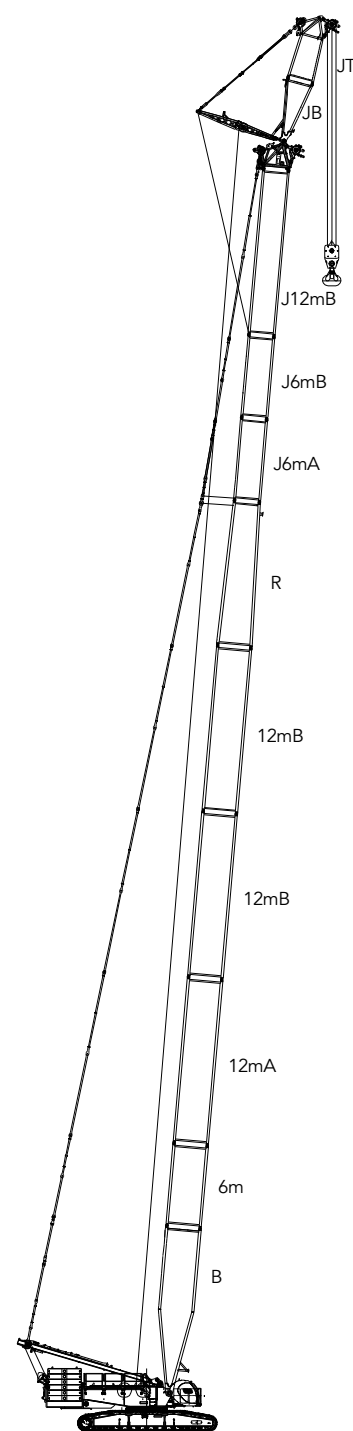
(HJFJ) Mixed Boom + Fixed Jib Operating Conditions



	Boom base
	Boom insert
	Boom insert
	Boom insert
	Tapered insert
	Boom tip
	Jib base
	Jib top
	Jib insert
	Jib insert
	Jib insert

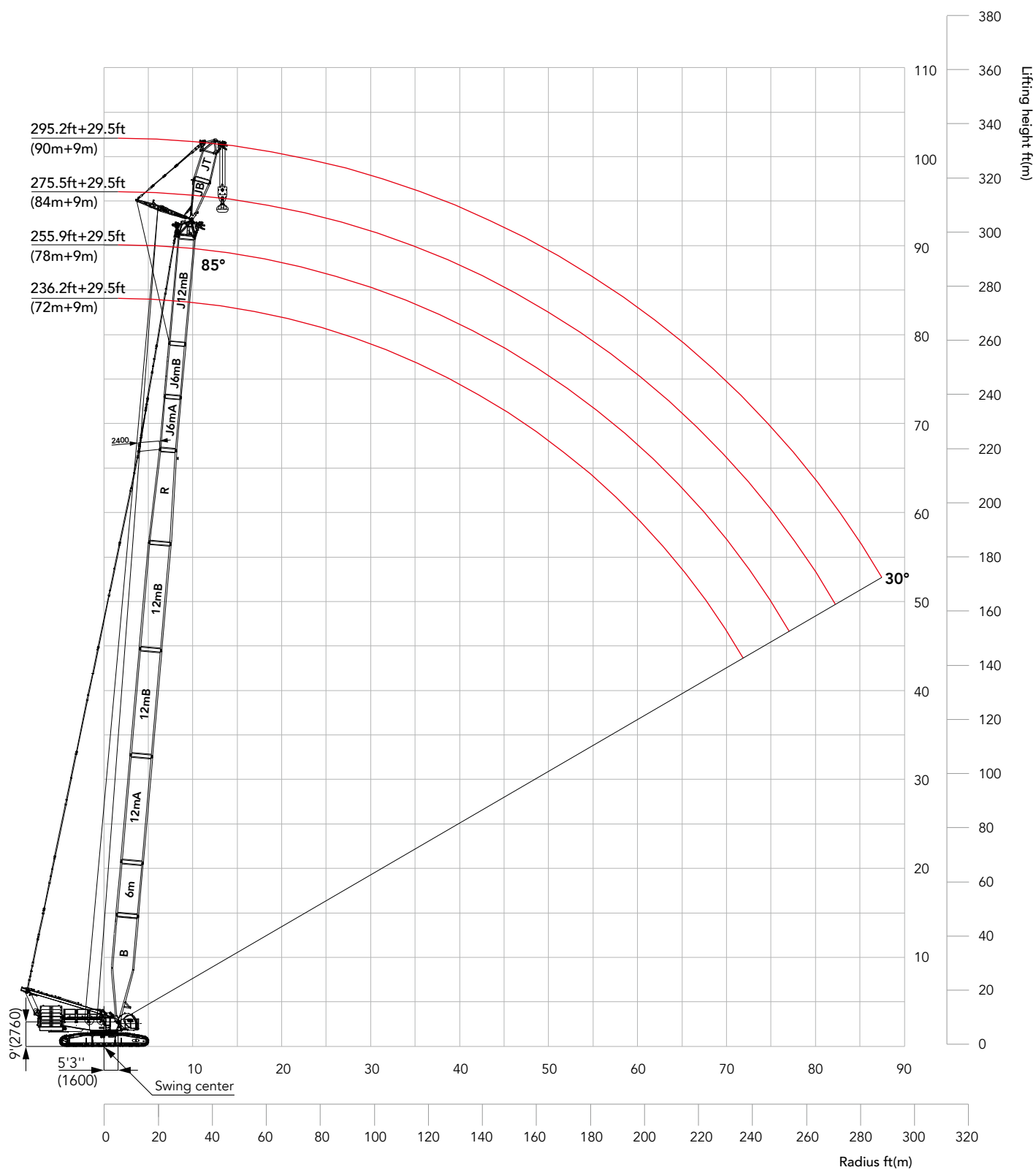
Note:

- 1.The 39.4ft (12m) boom base and 34.4ft (10.5m) tapered insert are must.
- 2.For combinations marked with " ★ ", the mid-point suspension cable must be used, otherwise, the boom system may break.



HJFJ onfiguration
(236.2ft~295.2ft)+29.5ft
(72m~90m)+9m

(HJFJ) Mixed Boom + Fixed Jib Range Diagram



(HJFJ) Mixed Boom + Fixed Jib Load Chart

Unit: Klb

Note:

- 1.The rated load in the load chart is calculated complying with ASME B30.5;
- 2.The working radius is the horizontal distance from the load center to the swing center;
- 3.The actual lifting capacity must subtract the weight of hooks and other riggings from the rated capacity in the load chart;
- 4.The load value is calculated when the object is hung freely,without considering the influence of wind on the load, ground conditions and slope, operation speed and the influence of any other negative factors over safe operation. Therefore, the operator bears the responsibility of making a judgment and decreasing the load and lowering speed;
- 5.All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient.

HJFJ_10° configuration load chart 1/3

Boom length 236.2~295.2ft, Jib length 29.5ft, Angle of boom and jib 10°, Rear counterweight 330.7klb, Counterweight 88.2klb

Radius (ft)	236.2	255.9	275.5	295.2	Radius (ft)
50	230.9	222.9	214.8		50
55	208	200.8	193.5	158.9	55
60	187.9	181.4	174.8	156	60
65	170.7	164.9	158.9	152.3	65
70	156.1	150.8	145.3	142.9	70
75	143	138.2	133.1	132.1	75
80	131.4	126.8	122.1	121.4	80
85	121.2	116.7	112.3	111.9	85
90	112	107.9	103.7	103.4	90
95	103.7	99.9	95.7	95.6	95
100	96.1	92.6	88.5	88.5	100
110	83	79.6	75.9	76.1	110
120	71.9	68.9	65.3	65.6	120
130	62.4	59.5	56.1	56.6	130
140	54	51.6	48.4	48.9	140
150	46.5	44.5	41.4	42	150
160	39.7	38.2	35.1	35.9	160
170	33.6	32.3	29.6	30.5	170
180	28.5	27.2	24.9	25.7	180
190	23.9	22.6	20.5	21.3	190
200	19.7	18.4	16.4	17.3	200
220	12.5	11.4	9.4	10.4	220
240		5.3	3.6	4.4	240

(HJFJ) Mixed Boom + Fixed Jib Load Chart

Unit: Klb

HJFJ_15° configuration load chart 2/3					
Boom length 236.2~295.2ft, Jib length 29.5ft, Angle of boom and jib 15°, Rear counterweight 330.7klb, Counterweight 88.2klb					
Radius (ft)	236.2	255.9	275.5	295.2	Radius (ft)
50	233	225.1			50
55	210	202.9	195.7	146.5	55
60	189.8	183.3	176.8	144.1	60
65	172.5	166.7	160.9	141.8	65
70	157.7	152.4	147	139.4	70
75	144.5	139.7	134.6	132.7	75
80	132.7	128.3	123.6	122.8	80
85	122.3	118.1	113.6	113.2	85
90	113.1	109.2	104.8	104.6	90
95	104.8	101	96.8	96.7	95
100	97.2	93.5	89.5	89.5	100
110	83.9	80.5	76.8	76.9	110
120	72.6	69.5	66	66.5	120
130	63	60.2	56.8	57.2	130
140	54.5	52.3	49	49.5	140
150	46.8	45.1	41.9	42.5	150
160	39.9	38.6	35.6	36.3	160
170	34	32.7	30	30.7	170
180	28.8	27.5	25.3	26	180
190	24.1	22.8	20.8	21.6	190
200	19.9	18.6	16.6	17.5	200
220	12.5	11.4	9.6	10.5	220
240		5.3	3.6	4.5	240

(HJFJ) Mixed Boom + Fixed Jib Load Chart

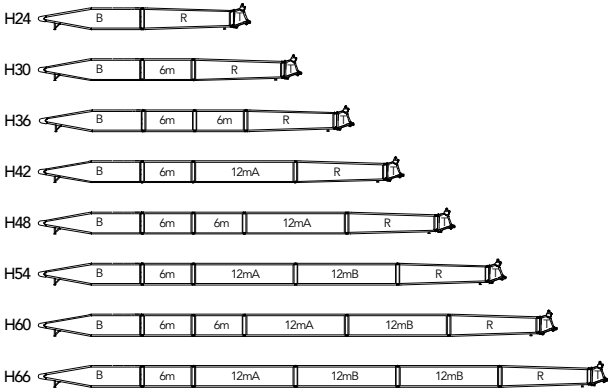
Unit: Klb

HJFJ_20° configuration load chart 3/3

Boom length 236.2~295.2ft, Jib length 29.5ft, Angle of boom and jib 20°, Rear counterweight 330.7klb, Counterweight 88.2klb

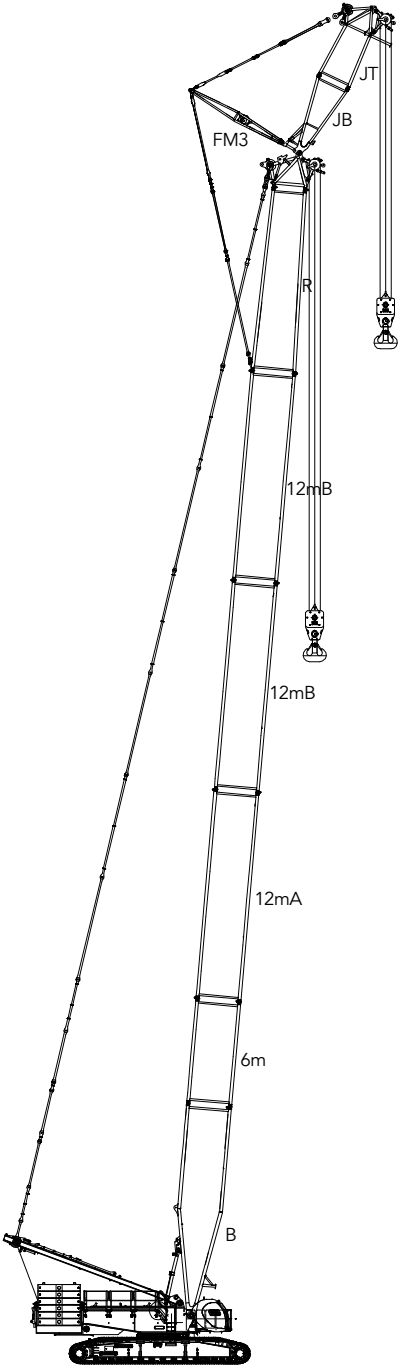
Radius (ft)	236.2	255.9	275.5	295.2	Radius (ft)
50	233.8				50
55	210.5	204.5	197.3	136.7	55
60	191.1	184.8	178.3	134.1	60
65	173.6	168	162	132	65
70	158.8	153.6	148.1	130	70
75	145.6	140.7	135.6	127.9	75
80	133.7	129.2	124.4	123.8	80
85	123.2	119	114.5	113.9	85
90	114	110	105.7	105.4	90
95	105.6	101.8	97.7	97.5	95
100	97.8	94.3	90.4	90.2	100
110	84.4	81.2	77.4	77.6	110
120	73.2	70.1	66.7	66.9	120
130	63.5	60.6	57.3	57.7	130
140	55	52.6	49.4	49.8	140
150	47.2	45.4	42.3	42.9	150
160	40.3	39	36	36.7	160
170	34.3	32.9	30.5	31.1	170
180	29	27.7	25.6	26.2	180
190	24.2	23	21	21.8	190
200	19.9	18.8	16.9	17.7	200
220	12.7	11.4	9.6	10.7	220
240		5.3	3.6	4.7	240

(FJh) Short Heavy Fixed Jib Operating Conditions



	Boom base
	Boom insert
	Boom insert
	Boom insert
	Tapered insert
	Boom tip
	Jib base
	Jib top

Note:
The boom length is 24m ~ 66m, which is the same as the length of boom & pendant bar combo. The 29.5ft (9m) jib combination of FJh Configuration is the same as that of HJFJ Configuration.



FJh Configuration
78.7ft~216.5ft+29.5ft
(24m~66m+9m)

(FJh) Short Heavy Fixed Jib Load Chart

Unit: Klb

Note:

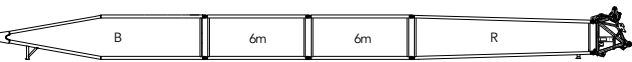
- 1.The rated load in the load chart is calculated complying with ASME B30.5;
- 2.The working radius is the horizontal distance from the load center to the swing center;
- 3.The actual lifting capacity must subtract the weight of hooks and other riggings from the rated capacity in the load chart;
- 4.The load value is calculated when the object is hung freely,without considering the influence of wind on the load, ground conditions and slope, operation speed and the influence of any other negative factors over safe operation. Therefore, the operator bears the responsibility of making a judgment and decreasing the load and lowering speed;
- 5.All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient.

FJh_H configuration load chart

Boom length 78.7~216.5ft, Rear counterweight 330.7klb, Counterweight 88.2klb

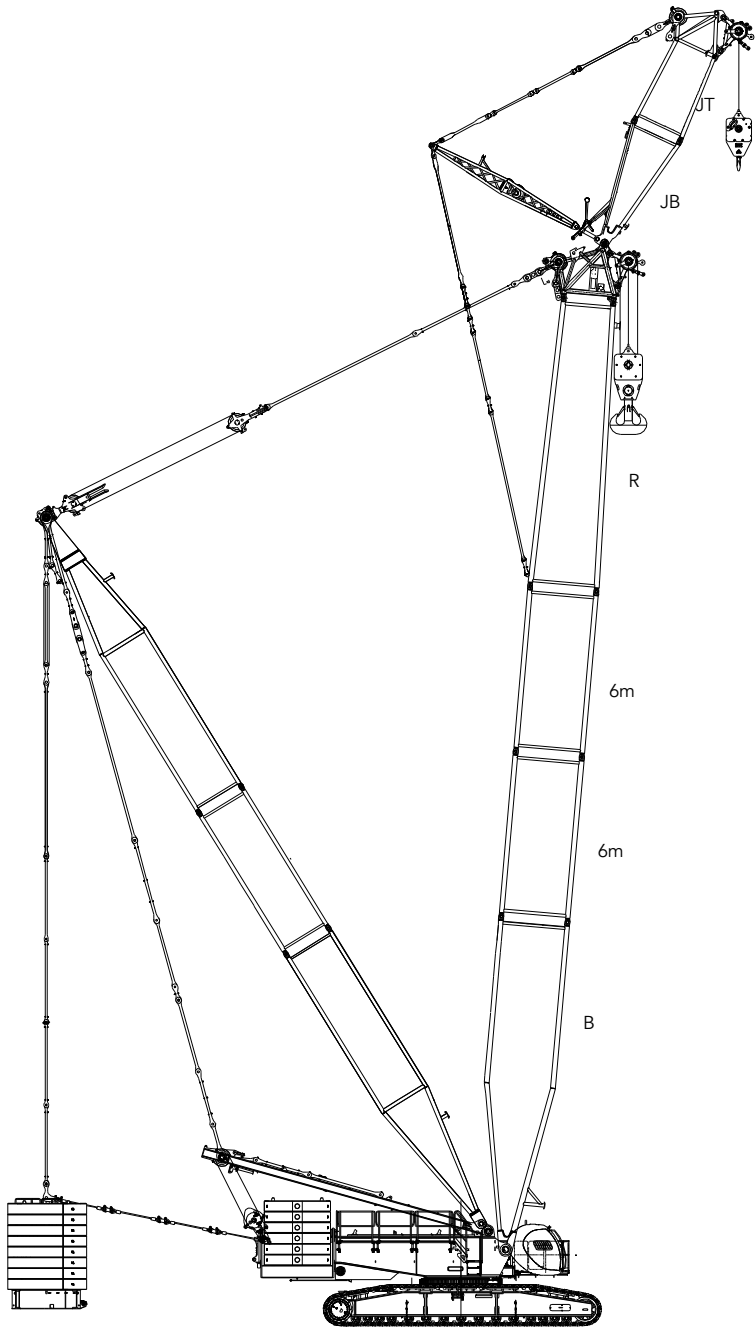
Radius(ft)	Boom length (ft)							Radius(ft)
	78.7	98.4	118.1	137.7	157.4	177.1	196.8	
20	855	852.8						20
22	769	766.8						22
24	694.8	692.6	690.4	669.1				24
26	631.7	629.4	627.2	607.2				26
28	581.4	580.4	577	557.2	524.4	497.1		28
30	535.6	535.3	531.2	511.7	483.6	460	436.1	30
35	448.9	448.2	444.5	426.8	405.5	388.6	369.5	35
40	384	383.8	381.4	364.2	347.2	334	319	40
45	335.3	333.4	329.3	315.5	303.5	290.3	278.6	45
50	293.4	292.6	289.5	277.7	268	257.5	246.5	50
55	255.6	255.6	254.3	246.6	238.2	230.1	220.2	55
60	222.3	222.5	222.4	220.4	213.2	206.3	198.5	60
65	197.5	198.3	197.9	197.3	192.5	186.5	179.5	65
70	176.4	177.5	177.2	176.7	174.5	169.8	163.4	70
75		159.4	159.2	158.7	157.6	155	149.1	75
80		143.8	143.7	143.2	142.1	141.5	136.4	80
85		130.4	130.4	129.9	128.8	128.4	125.2	85
90		119	119	118.7	117.5	117	115	90
95			108.8	108.6	107.4	106.9	105.4	95
100			99.7	99.5	98.3	97.9	96.3	100
110				84.2	83	82.6	81.1	110
120				71.7	70.6	70.2	68.7	120
130					60.2	59.8	58.3	130
140						51.2	49.8	140
150						43.7	42.4	150
160							35.7	160
170							29.8	170
180								180

(FJhDB) Short Heavy Fixed Jib + Superlift Operating Conditions



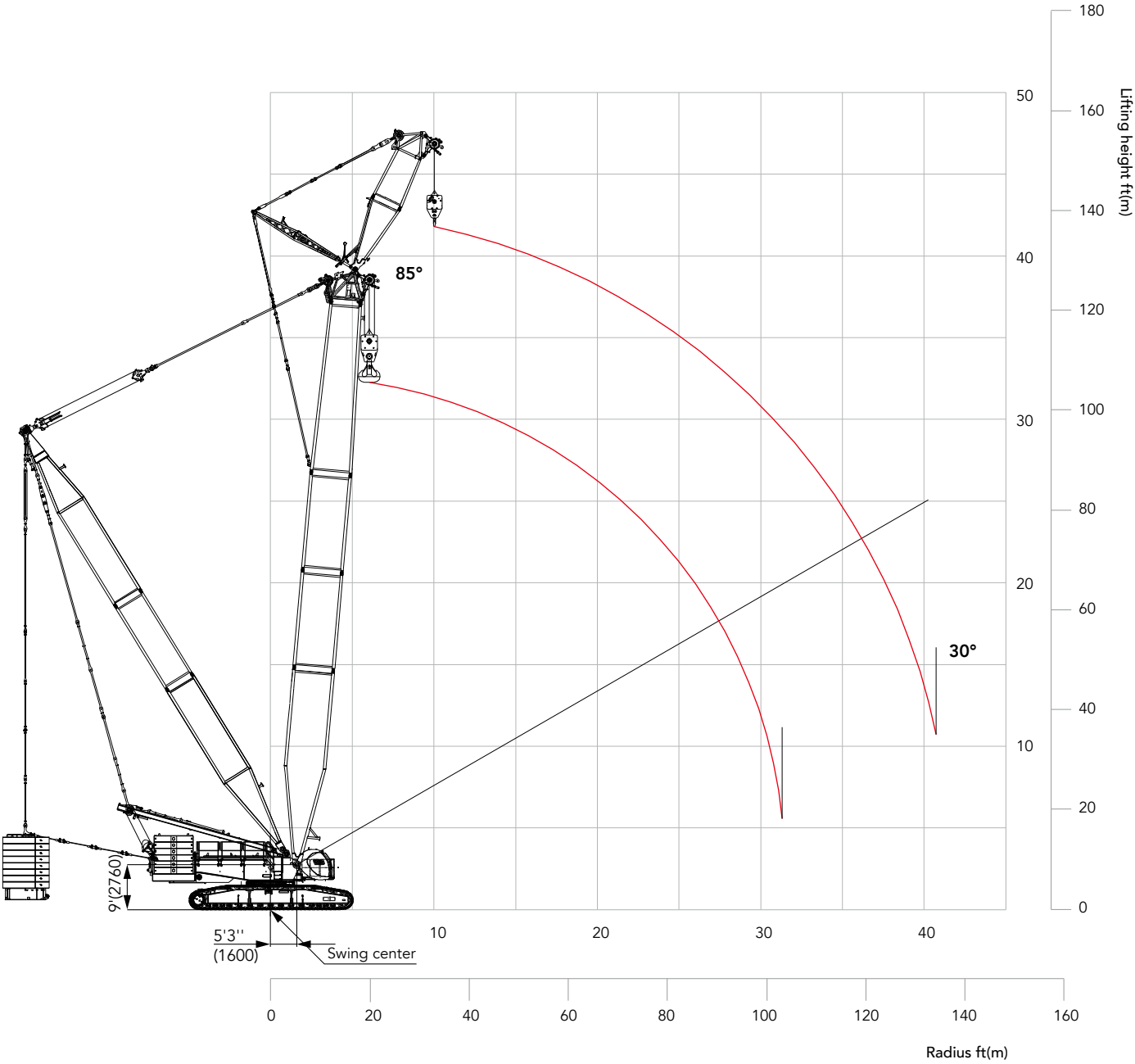
	Boom base
	Boom insert
	Tapered insert
	Boom tip
	Jib base
	Jib top

Note:
The 78.7ft (24m) basic boom consists of 39.4ft (12m) boom base, 34.4ft (10.5m) tapered insert and 4.9ft (1.5m) boom tip. For jib combination, the 14.8ft (4.5m) jib base, and 14.8ft (4.5m) jib top are must.



FJhDB Configuration
118.1ft+29.5ft
(36m+9m)

(FJhDB) Short Heavy Fixed Jib + Superlift Range Diagram



(FJhDB) Short Heavy Fixed Jib + Superlift Load Chart

Unit: Klb

- Note:
- 1.The rated load in the load chart is calculated complying with ASME B30.5;
 - 2.The working radius is the horizontal distance from the load center to the swing center;
 - 3.The actual lifting capacity must subtract the weight of hooks and other riggings from the rated capacity in the load chart;
 - 4.The load value is calculated when the object is hung freely,without considering the influence of wind on the load, ground conditions and slope, operation speed and the influence of any other negative factors over safe operation. Therefore, the operator bears the responsibility of making a judgment and decreasing the load and lowering speed;
 - 5.All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient;
 - 6.See the Operation Manual for the complete load charts of FJhDB Configuration.

FJhDB_H configuration load chart		
Boom length 118.1ft, Radius of Super Counterweight 49.2ft, Super Counterweight 463klb Rear Counterweight 330.7klb, Counterweight 88.2klb		
Radius (ft)	Boom length (ft)	Radius (ft)
	118.1	
24	881.8*	24
26	881.8	26
28	881.8*	28
30	881.8	30
35	881.8	35
40	876.9	40
45	838.3	45
50	762.7	50
55	686.3	55
60	620.3	60
65	566.6	65
70	521.6	70
75	481.7	75
80	446.5	80
85	416.2	85
90	389.2	90
95	365.4	95
100	344.1	100

Note:For values marked with "***", the superlift counterweight shall not leave the ground.

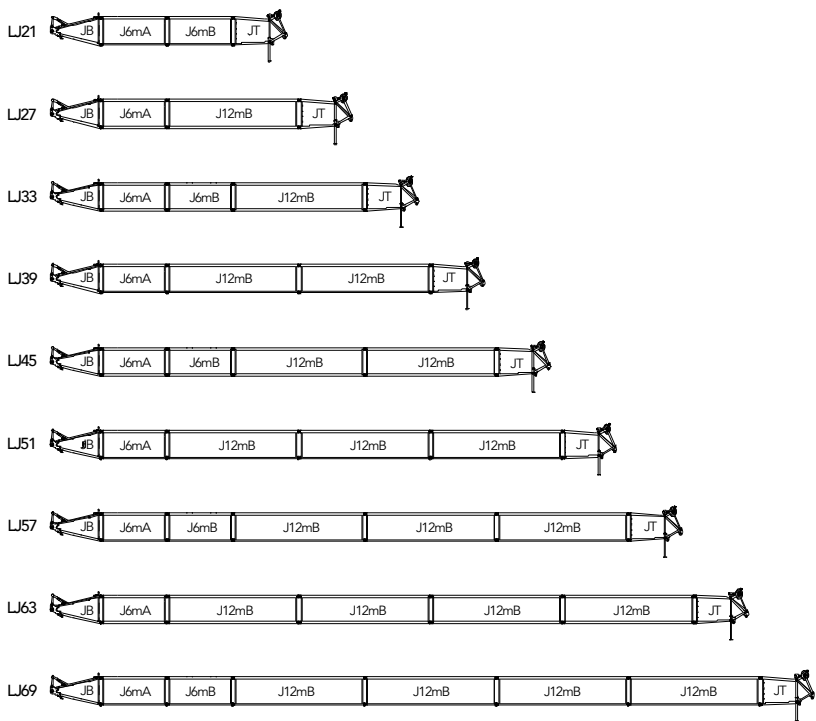
(FJhDB) Short Heavy Fixed Jib + Superlift Load Chart

Unit: Klb

FJhDB configuration load chart		
Boom length 118.1ft, Jib length 29.5ft, Angle of boom and jib 20°, Radius of Super Counterweight 49.2ft Super Counterweight 463klb, Rear Counterweight 330.7klb, Counterweight 88.2klb		
Radius (ft)	Boom length(ft)	Radius (ft)
	118.1	
40	359.2*	40
45	340.7	45
50	326.3*	50
55	312.9*	55
60	300.1*	60
65	290	65
70	279.9*	70
75	269.8*	75
80	260.6*	80
85	253.9	85
90	245.6*	90
95	239.3*	95
100	234.8*	100
110	226.4	110
120	217.7	120
130	211.4	130

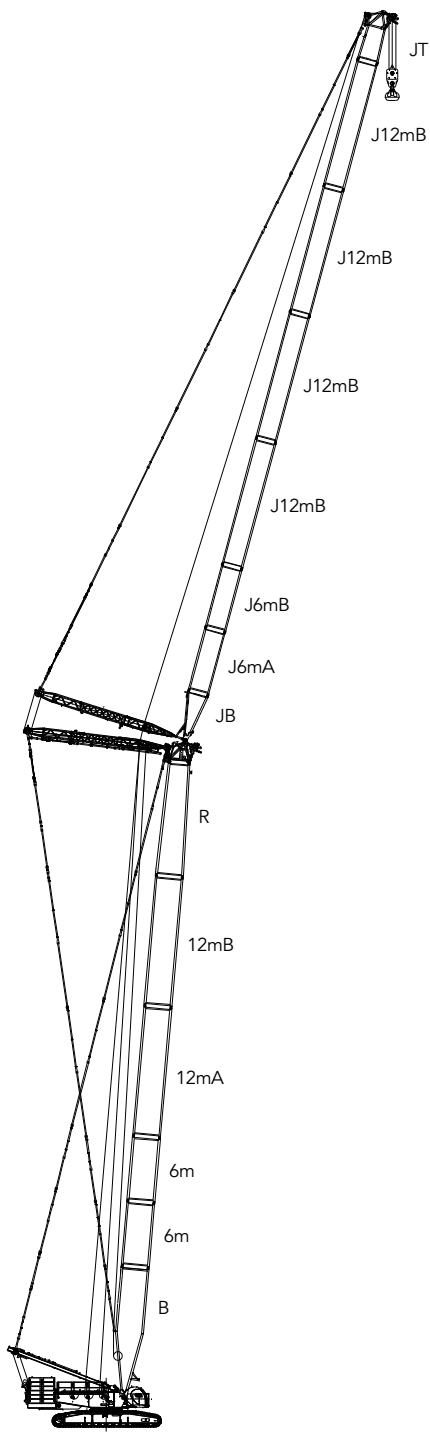
Note: For values marked with "*", the superlift counterweight shall not leave the ground.

(LJ) Luffing Jib Operating Conditions



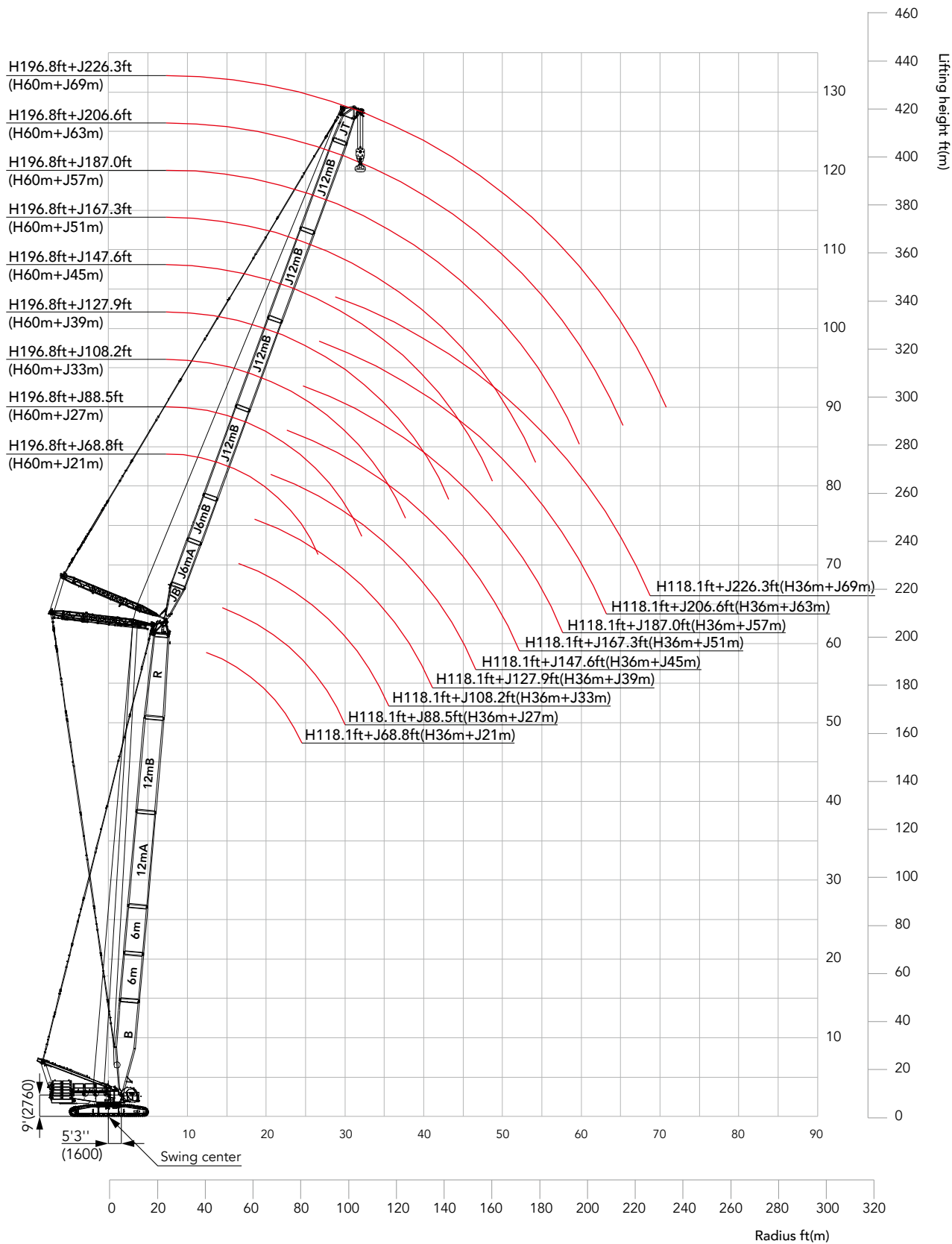
	Boom base
	Boom insert
	Boom insert
	Boom insert
	Tapered insert
	Boom tip
	Jib base
	Jib top
	Jib insert
	Jib insert
	Jib insert

Note: The 118.1ft~196.8ft (36m~60m) boom combination is the same as that of the H Configuration. For jib combination, the 14.8ft (4.5m) jib base, 19.7ft (6m) luffing jib insert A, and 14.8ft (4.5m) jib top are must.



LJ Configuration
(118.1ft~196.8ft)+(68.8ft~226.3ft)
(36m~60m)+(21m~69m)

(LJ) Luffing Jib Range Diagram



(LJ) Luffing Jib Load Chart

Unit: Klb

Note:

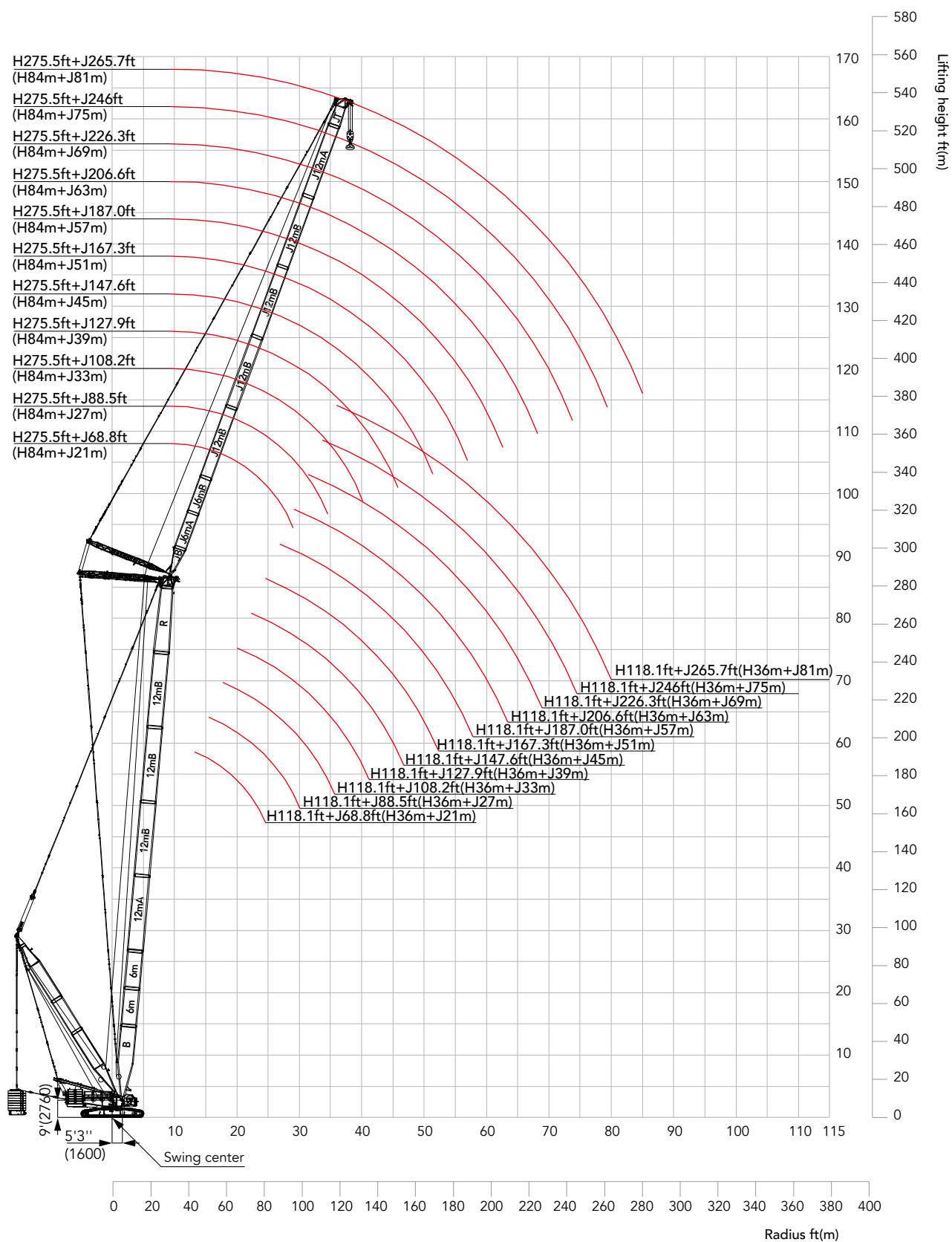
- 1.The rated load in the load chart is calculated complying with ASME B30.5;
- 2.The working radius is the horizontal distance from the load center to the swing center;
- 3.The actual lifting capacity must subtract the weight of hooks and other riggings from the rated capacity in the load chart;
- 4.The load value is calculated when the object is hung freely,without considering the influence of wind on the load, ground conditions and slope, operation speed and the influence of any other negative factors over safe operation. Therefore, the operator bears the responsibility of making a judgment and decreasing the load and lowering speed;
- 5.All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient;
- 6.See the Operation Manual for the complete load charts of Lj Configuration.

LJ configuration load chart

Booft length 196.8ft, Angle of boom 85°, Jib length 68.8~226.3ft, Rear counterweight 330.7klb, Counterweight 88.2klb

[illegible]

(LJDB) Luffing Jib + Superlift Range Diagram



(LJDB) Luffing Jib + Superlift Load Chart

Unit: Klb

Note:

- 1.The rated load in the load chart is calculated complying with ASME B30.5;
- 2.The working radius is the horizontal distance from the load center to the swing center;
- 3.The actual lifting capacity must subtract the weight of hooks and other riggings from the rated capacity in the load chart;
- 4.The load value is calculated when the object is hung freely,without considering the influence of wind on the load, ground conditions and slope, operation speed and the influence of any other negative factors over safe operation. Therefore, the operator bears the responsibility of making a judgment and decreasing the load and lowering speed;
- 5.All ratings are calculated when the machine is parking on firm and level ground with less than 1% gradient;
- 6.See the Operation Manual for the complete load charts of LJDB Configuration.

LJDB configuration load chart

Boom length 275.6ft, Angle of boom 85°, Jib length 68.8~265.7ft, Radius of Super Counterweight 49.2ft, Super Counterweight 463.0klb
Rear counterweight 330.7klb, Counterweight 88.2klb

Radius (ft)	Jib length (ft)											Radius (ft)
	68.8	88.5	108.2	127.9	147.6	167.3	187	206.6	226.3	246	265.7	
55	223.7*											55
60	219.6*	195.2*										60
65	214.7*	191.3*										65
70	208.8*	187*	165.6*	145.7*								70
75	203.1*	182.7*	162.5*	143.7*								75
80	197.5*	178.2*	159.4*	141.8*	124.7*	109.3*						80
85	192.1*	173.7*	156*	139.4*	123.3*	108.3*						85
90	187.3*	169.3*	152.4*	136.9*	121.6*	107*	93.2*	80.8*				90
95	185.6*	165*	149.1*	134.3*	119.7*	105.8*	92.4*	80.2*				95
100		161*	145.7*	131.6*	117.7*	104.5*	91.3*	79.7*	68.4*	58.9*		100
105		157.4*	142.4*	128.9*	115.9*	103.1*	90.6*	79.1*	68.1*	58.8*	50.7*	105
110		154*	139.1*	126.3*	113.9*	101.6*	89.3*	78.2*	67.4*	58.3*	50.3*	110
115			136.1*	123.8*	111.7*	100*	88.1*	77.3*	66.7*	57.9*	50*	115
120			132.2*	121.1*	109.6*	98.5*	87.2*	76.5*	66.3*	57.5*	49.9*	120
125			126.8*	118.5*	107.6*	96.8*	86.1*	75.7*	65.6*	57*	49.5*	125
130			121.8*	114.4*	105.6*	95.3*	84.7*	74.9*	64.9*	56.5*	49*	130
135				110*	103.2*	93.7*	83.4*	73.9*	64.3*	55.9*	48.5*	135
140				105.6*	100*	92.1*	82.2*	73*	63.6*	55.3*	48.1*	140
145				101.8*	96*	90.4*	81.1*	72.1*	62.9*	54.8*	47.7*	145
150				101.8	92.2	87.6	80	71.1	62.1	54.3	47.2	150
155					88.6*	84.3*	78.8*	70.1*	61.4*	53.8*	46.9*	155
160					85.2*	81*	76.9*	69.1*	60.6*	53.2*	46.4*	160
165					82*	77.9*	74.2*	68.1*	59.8*	52.5*	46*	165
170					78.8	74.8	71.7	67.1	59.1	51.8	45.6	170
175						72.4*	69*	65.2*	58.3*	51.2*	45.1*	175
180						70*	66.4*	63.1*	57.6*	50.6*	44.6*	180
185						68.3*	64*	60.9*	56.8*	50*	44.1*	185
190						68.3	62	58.9	56	49.4	43.4	190
195							60*	57.1*	54.2*	48.9*	42.9*	195
200							58*	55.2*	52.4*	48.2*	42.4*	200
205							56*	53.4*	50.6*	47*	41.9*	205
210								51.5*	48.9*	44.7*	41.4*	210
215								49.8	47.2	42.3	40.9	215
220								48.2*	45.8*	40.1*	40.4*	220
225								47.1*	44.4*	38*	39.7*	225
230									43.1*	36.2*	38.7*	230
235									41.7	34.5	37.7	235
240									40.5*	32.9*	36.5*	240
245									39.3*	31.2*	35.4*	245
250										29.7*	34.2*	250
255										28.2	33	255
260										26.7*	32*	260
265										26*	31*	265
270											30*	270
275											29.2	275
280											29.1*	280

Note:For values marked with "**", the superlift counterweight shall not leave the ground.

Conversion tables for length and weight data

Boom length under H and HDB configuration

m	24	30	36	42	48	54	60	66	72	78	84
ft	78.7	98.4	118.1	137.7	157.4	177.1	196.8	216.5	236.2	255.9	275.5

Boom length under HJFJ, FJh, and FJhDB configuration

m	24	36	72	78	84	90	9
ft	78.7	118.1	236.2	255.9	275.5	295.2	29.5

Boom length under HJ configuration

m	45	51	57	63	69	75	81	87	93	99
ft	147.6	167.3	187	206.6	226.3	246	265.7	285.4	305.1	324.8

Boom length under HJDB configuration

m	69	75	81	87	93	99	105	111	117	123
ft	226.3	246	265.7	285.4	305.1	324.8	344.4	364.1	383.8	403.5

Jib length under LJ and LJDB configuration

m	21	27	33	39	45	51	57	63	69	75	81
ft	68.8	88.5	108.2	127.9	147.6	167.3	187	206.6	226.3	246	265.7

Superlift radius

m	11	13	15
ft	36.1	42.7	49.2

Basic machine counterweight

t	150	130	110	40
klb	330.7	286.6	242.5	88.2

Superlift counterweight

t	0	50	100	150	210
klb	0	110.2	220.5	330.7	463



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