

SHL Heavy Duty Crane Boom

SHL Luffing Boom

SHL Long Boom

SHL Heavy Fixed Jib (Type B2)

SHL Heavy Fixed Jib (Type C)

SHL Luffing Jib

SHL	Heavy Duty Crane Boom	Luffing Boom	Long Boom	Heavy Fixed Jib (Type B2)
Max. Lifting Capacity:	550 t x 8.3 m	300 t x 20.0 m	98 t x 30.0 m	120 t x 20.0 m
Max. Boom Length:	84 m	84 m	126 m	–
Max. Combination:	–	–	–	78 m + 18 m

SHL	Heavy Fixed Jib (Type C)	Luffing Jib
Max. Lifting Capacity:	105 t x 30.0 m	200 t x 14.4 m
Max. Boom Length:	–	–
Max. Combination:	102 m + 18 m	84 m + 84 m

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Power Plant

Model: Hino diesel engine E13C-WY
Type: Water-cooled, direct fuel injection, with turbocharger
 Exhaust level is equivalent with NRMM (Europe) Stage III B / US EPA Interim Tier 4.
Displacement: 12,913 liters
Rated Power: 320 kW/2,000 min⁻¹ (Max Power: 330 kW/1,800 min⁻¹)
Max. torque: 1,930 N·m/1,300 min⁻¹
Cooling system: Water-cooled
Starter: 24 V/6 kW
Radiator: Corrugated type core, thermostatically controlled
Air cleaner: Dry type with replaceable paper element
Throttle: Twist grip type hand throttle, electrically actuated
Fuel filter: Replaceable paper element with water separator.
Batteries: Two 12V x 136Ah/5HR capacity batteries, parallel connected.
Fuel tank capacity: 600 liters



Hydraulic System

Seven variable displacement piston pumps are driven by heavy-duty pump drive. Two variable displacement pumps are used in H1 (main hook hoist) and right hand side propel circuit. Two variable displacement pumps are used in H2 (auxiliary hook hoist) and left hand side propel circuit. One of the other two pumps is used in W1 (boom), W2 (jib) or W3 (SHL mast) hoist circuit, and the other is used in the swing circuit. One displacement piston pump is used for W1 or W3 hoist speed up.
Control: Full-flow hydraulic control system for infinitely variable pressure to all winches, propel and swing. Controls respond instantly to the touch, delivering smooth function operation.
Cooling: Oil-to-air heat exchanger (plate-fin type)
Filtration: Full-flow and bypass type with replaceable element

Max. relief valve pressure: 32.0 MPa {326 kgf/cm²}

Hydraulic Tank capacity: 710 liters



Boom Hoisting System

Powered by a hydraulic motor through a planetary reducer.
Brake: A spring-set, hydraulically released multiple-disc brake is mounted on the boom hoist motor and operated through a counter-balance valve.
Drum lock: External ratchet for locking drum.
Drum: Double drum, grooved for 28 mm dia. wire rope.
Line speed: Single line on first drum layer
Hoisting/Lowering: 28~2 m/min x 2
Boom hoist reeving: 30 parts of 28 mm dia. high strength wire rope

Boom backstops: Required for all boom lengths



Load Hoist System

H1 and H2 drums for load hoist powered by a hydraulic variable plunger motors, driven through planetary reducers.
Brake: A spring-set, hydraulically released multiple-disc brake is mounted on the hoist motor and operated through a counter-balance valve.
Drum lock: External ratchet for locking drum.
Drums:
H1 and H2:
 640 mm P.C.D. x 1,367 mm Lg. wide drum, grooved for 28 mm wire rope. Rope capacity is 830 m storage length.

Note: Rope lengths listed above denote drum capacity and may differ from actual rope lengths supplied when machinery is shipped.

Line speed: 110 ~ 3 m/min
 Single line on the first layer

Rated line pull: 137 kN {14.0 tf}



Swing System

Swing unit is powered by hydraulic motor driving spur gears through planetary reducers (4 sets), the swing system provides 360° rotation.
Swing parking brakes: A spring-set, hydraulically released multiple-disc brake is mounted on swing motor.
Swing circle: Triple-row roller bearing with an integral internally cut swing gear.
Swing speed: 0.9 min⁻¹ {rpm}



Upper Structure

Torsion-free precision machined upper frame. All components are located clearly and service friendly. Engine with low noise level.



Cab & Control

Totally enclosed, full vision cab with safety glass, fully adjustable, can be tilted up to 15 degree, high backed seat with a head-rest and armrests, and intermittent wiper and window washer (sky light and front window.)
Cab fittings:
 Air conditioner, convenient compartment (for tool), cup holder, ashtray, cigarette lighter, sun visor, roof blind, tinted glass, floor mat, foot-rest, shoe tray
Controls:
 Five adjustable levers for all winches and swing controls



Lower Structure

Steel-welded carbody with axles. Crawler assemblies are designed with quick disconnect feature for individual removal as a unit from axles. Crawler belt tension is maintained by hydraulic jack force on the track-adjusting bearing block.
Crawler drive: Two independent hydraulic propel drive is built into each crawler side frame. Each drive consists of a hydraulic motor propelling a driving tumbler through a planetary gear box. Hydraulic motor and gear box are built into the crawler side frame within the shoe width.
Crawler brakes: Spring-set, hydraulically released parking brakes are built into each propel drive.
Steering mechanism: A hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving each track in opposite directions).
Track rollers: Sealed track rollers.
Shoes (flat): 1,500 mm wide each crawler
Max. travel speed: 1.0/0.6 km/h
Max. gradeability: 20%



Weight

Including base machine, counterweights =200 metric ton, carbody weights = 50 metric ton, 24 m standard heavy duty boom and 450 metric ton hook block. Not include quick connection device and upper translifter.

Weight: 444 metric ton

Ground pressure: 142 kPa {1.5 kgf/cm²}

Main Specifications (Model: SL6000S)

Lift Enhancer	STD	HL	SHL
HL Mast	-	30 m	30 m
Additional Weight	-	-	~250 t
Heavy Duty Crane Boom			
Max. Lifting Capacity	450 t	370 t	550 t
	6.7 m	8.3 m	8.3 m
Length	24 ~ 84 m	36 ~ 84 m	36 ~ 84 m
Luffing Boom			
Max. Lifting Capacity	300 t	300 t	300 t
	9.3 m	9.3 m	20.0 m
Length	30 ~ 84 m	36 ~ 84 m	36 ~ 84 m
Long Boom			
Length	90 ~ 108 m	90 ~ 108 m	90 ~ 126 m
Max. Lifting Capacity	98 t	98 t	98 t
	18 m	20 m	30 m
Heavy Fixed Jib			
Max. Lifting Capacity	105 t	120 t	120 t
	20.0 m	20.0 m	20 m
Max. Combination (Boom) (Jib)	78 m	78 m	78 m
	18 m	18 m	18 m
Luffing Jib			
Max. Lifting Capacity	195.1 t	200 t	200 t
	14 m	14.4 m	14.4 m
Max. Combination (Boom) (Jib)	60 m	66 m	84 m
	72 m	72 m	84 m
Luffing Angle	66° ~ 86°		



Attachment

Boom and Jib:
 Welded lattice construction using tubular, high-tensile steel chords with pin connections between sections.

Boom and Jib Length

	Min. Length (Min. Combination)	Max. Length (Max. Combination)
STANDARD		
Heavy Duty Boom	24 m	84 m
Luffing Boom	30 m	84 m
Long Boom	90 m	108 m
Heavy Fixed Jib	66 m + 18 m	78 m + 18 m
Luffing Jib	30 m + 24 m	60 m + 72 m
HEAVY LIFT		
Heavy Duty Boom	36 m	84 m
Luffing Boom	36 m	84 m
Long Boom	90 m	108 m
Heavy Fixed Jib	66 m + 18 m	78 m + 18 m
Luffing Jib	36 m + 24 m	66 m + 72 m
SUPER HEAVY LIFT		
Heavy Duty Boom	36 m	84 m
Luffing Boom	36 m	84 m
Long Boom	90m	126 m
Heavy Fixed Jib	66 m + 18 m	78 m + 18 m
	84 m + 18 m	102 m + 18 m
Luffing Jib	36 m + 24 m	84 m + 84 m

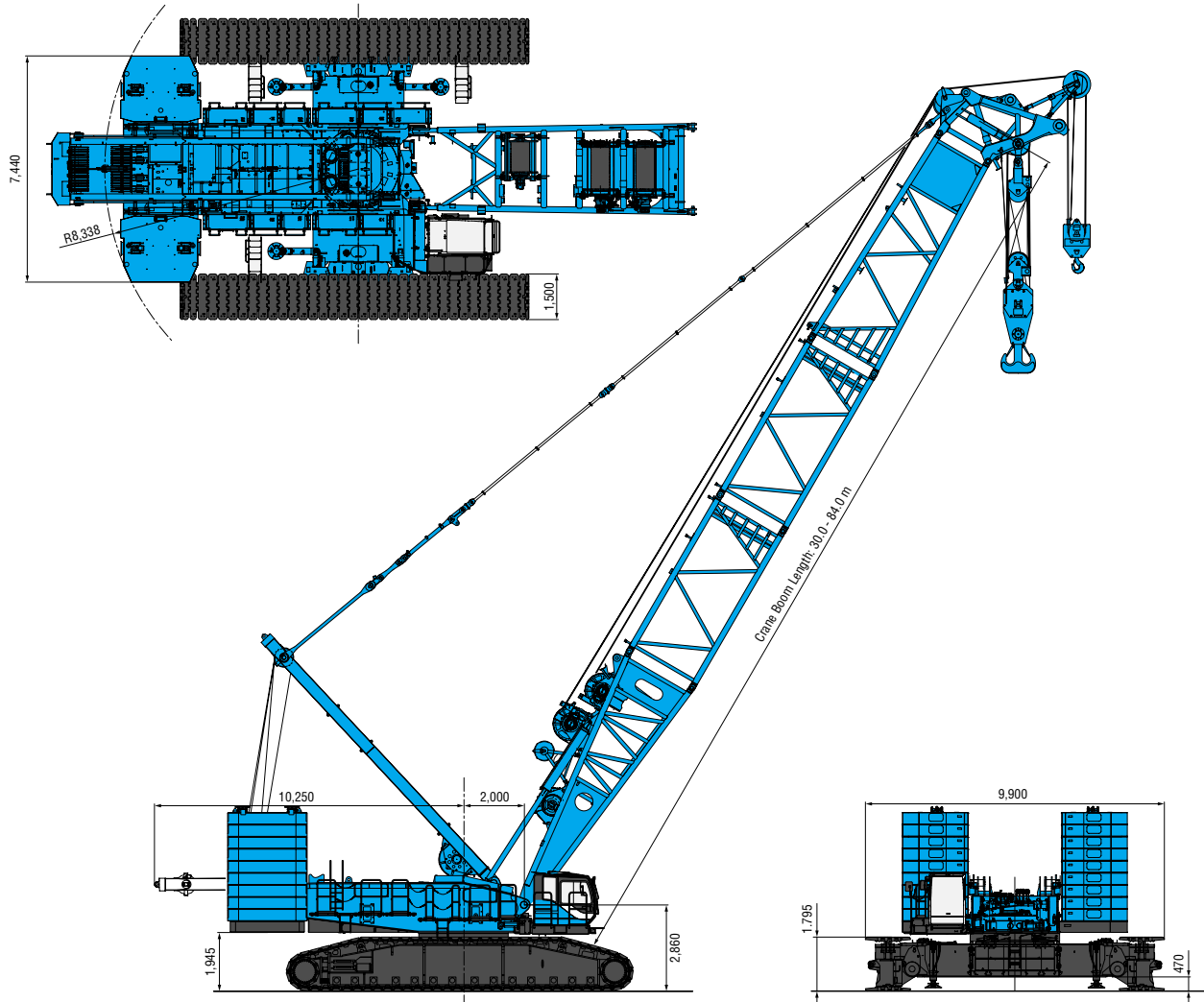
Power Plant	
Model	Hino E13C-WY
Engine Output	320 kW/2,000 min ⁻¹ {rpm}
Fuel Tank Capacity	600 liters
Hoist Winch (H1, H2)	
Max. Line Speed	110 m/min (1st layer)
Rated Line Pull (Single line)	137 kN {14.0 tf}
Wire Rope Diameter	28 mm
Wire Rope Length	830 m
Working Speed	
Swing	0.9 min ⁻¹ {rpm}
Travel	1.0/0.6 km/h
Hydraulic System	
Pumps	7 variable displacement
Max. Pressure	32 MPa {326 kgf/cm ² }
Hydraulic Tank Capacity	710 liters
Weight	
Working Weight* ³	Approx. 444 t
Ground Pressure* ³	142 kPa {1.5 kgf/cm ² }
Counterweight	Upper: 200 metric tons Lower: 50 metric tons

*1 Heavy Fixed Jib Type B2

*2 Heavy Fixed Jib Type C

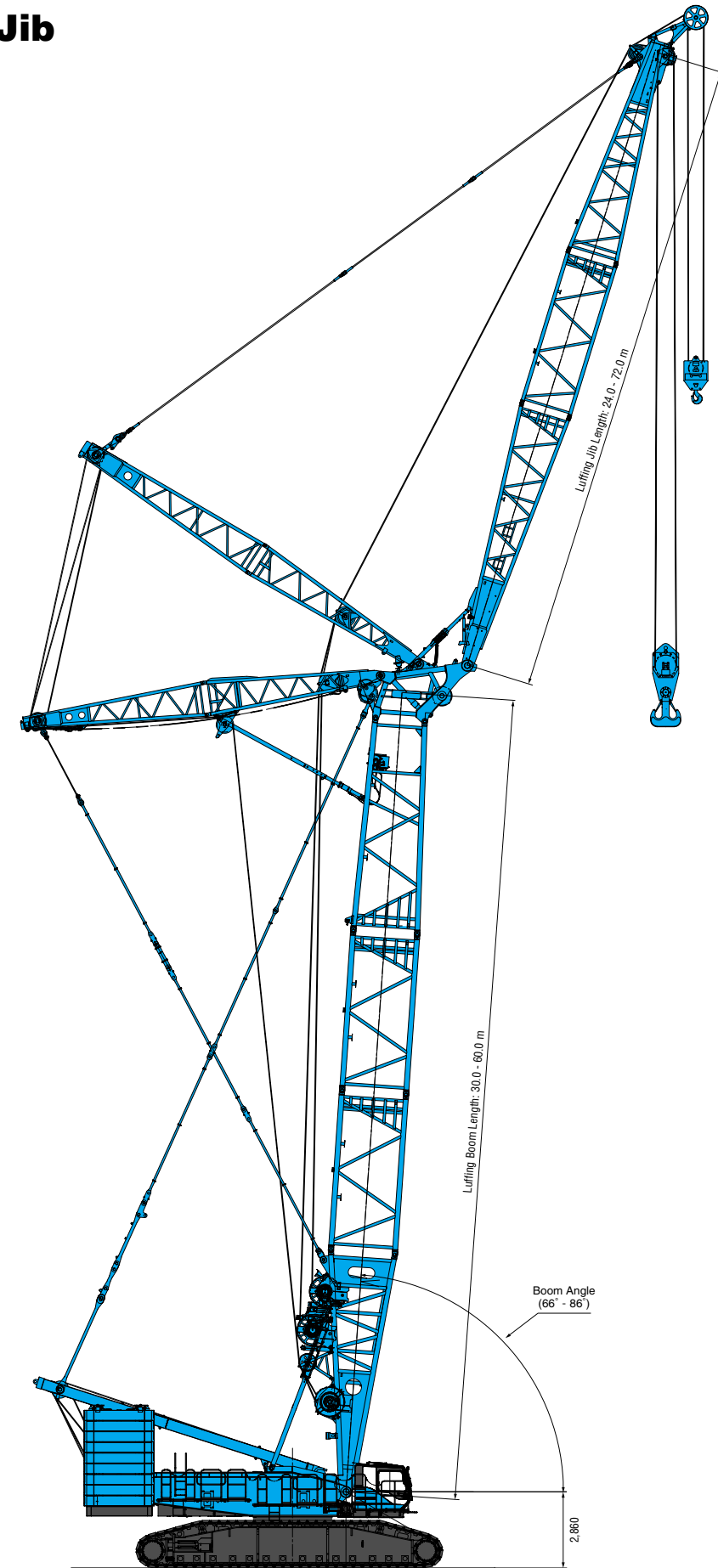
*3 Including base machine, counterweights =200 metric ton, carbody weights = 50 metric ton, 24 m boom with heavy boom tip and 450 metric ton hook block. Not include quick connection device and upper translifter.

Crane Boom



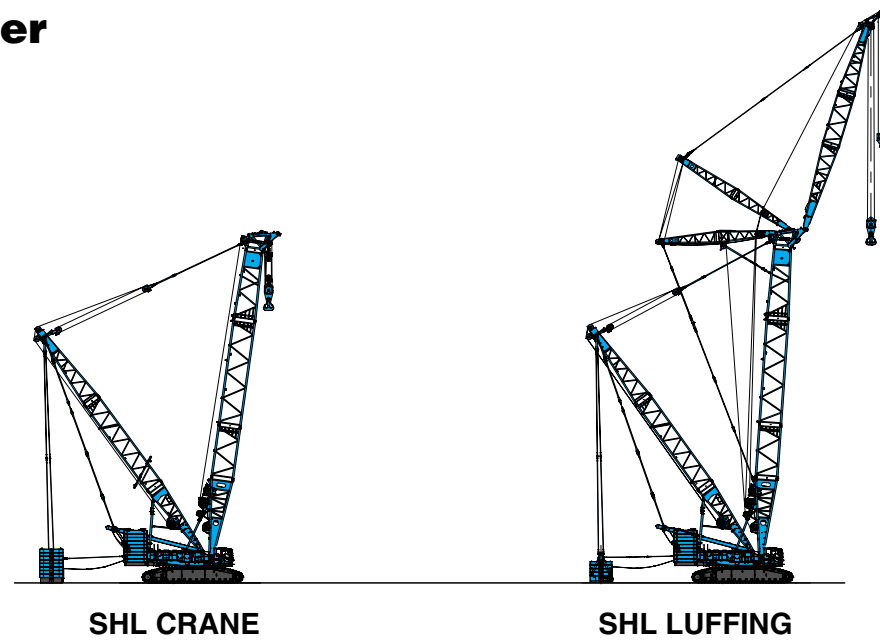
Unit: mm

Luffing Jib



Unit: mm

Lift Enhancer



BOOM AND JIB ARRANGEMENTS

Heavy Duty Crane Boom Arrangements

Boom length m (ft)	Boom arrangement
24 (79)	
30 (98)	※
36 (117)	※
42 (138)	※
48 (157)	※
54 (177)	※
60 (197)	※
66 (217)	※
72 (236)	※
78 (256)	※
84 (276)	※

Symbol	Boom Length	Remarks
	9.0 m (29.5 ft)	Boom Base
	8.0 m (26.2 ft)	Tapered Boom
	6.0 m (19.7 ft)	Insert Boom
	12.0 m (39.4 ft)	Insert Boom
	1.0 m (3.3 ft)	Boom Top

※ indicates the most flexible combination of insert heavy duty booms, which can be modified to form all shorter heavy duty boom arrangements.

Luffing Boom Arrangements for Crane

Boom length m (ft)	Boom arrangement
30 (98)	※
36 (118)	※
42 (138)	※
48 (157)	※
54 (177)	※
60 (197)	※
66 (217)	※
72 (236)	※
78 (256)	※
84 (276)	※

Symbol	Boom Length	Remarks
	9.0 m (29.5 ft)	Boom Base
	8.0 m (26.2 ft)	Tapered Boom
	6.0 m (19.7 ft)	Insert Boom
	12.0 m (39.4 ft)	Insert Boom
	1.0 m (3.3 ft)	Boom Top

※ indicates the most flexible combination of insert luffing booms, which can be modified to form all shorter luffing boom arrangements.

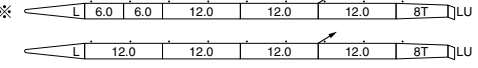
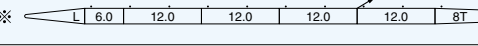
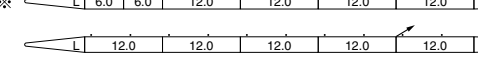
Long Boom Arrangements






Boom length m (ft)	Boom arrangement
90 (295)	
96 (315)	※
102 (335)	※
108 (354)	※

Symbol	Boom Length	Remarks
	9.0 m (29.5 ft)	Boom Base
	8.0 m (26.2 ft)	Tapered Boom
	6.0 m (19.7 ft)	Insert Boom
	12.0 m (39.4 ft)	Insert Boom
	5.0 m (16.4 ft)	Luffing Insert Jib
	6.0 m (19.7 ft)	Luffing Insert Jib
	12.0 m (39.4 ft)	Luffing Insert Jib
	8.0 m (26.2 ft)	Jib Top

※ indicates the most flexible combination of insert long booms, which can be modified to form all shorter long boom arrangements.

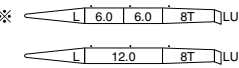
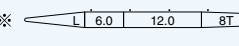
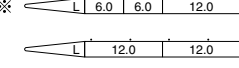
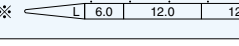
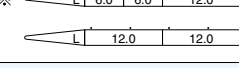
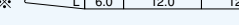
Heavy Fixed Jib Boom Arrangements






Boom length m (ft)	Boom arrangement
66 (217)	※ 
72 (236)	※ 
78 (256)	※ 

Symbol	Boom Length	Remarks
	9.0 m (29.5 ft)	Boom Base
	8.0 m (26.2 ft)	Tapered Boom
	6.0 m (19.7 ft)	Insert Boom
	12.0 m (39.4 ft)	Insert Boom
	1.0 m (3.3 ft)	Boom Top

↗ mark shows the guy line installing position when the fixed jib is used.
 ※ indicates the most flexible combination of insert luffing booms, which can be modified to form all shorter luffing boom arrangements.


Luffing Boom Arrangements for Luffing



Boom length m (ft)	Boom arrangement
30 (98)	※ 
36 (118)	※ 
42 (138)	※ 
48 (157)	※ 
54 (177)	※ 
60 (197)	※ 

Symbol	Boom Length	Remarks
	9.0 m (29.5 ft)	Boom Base
	8.0 m (26.2 ft)	Tapered Boom
	6.0 m (19.7 ft)	Insert Boom
	12.0 m (39.4 ft)	Insert Boom
	1.0 m (3.3 ft)	Boom Top

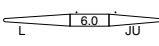
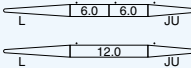
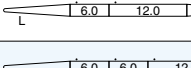
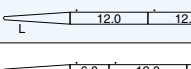
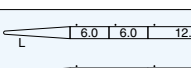
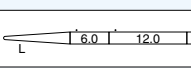
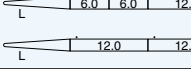
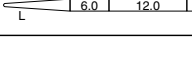
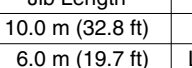
※ indicates the most flexible combination of insert luffing booms, which can be modified to form all shorter luffing boom arrangements.





Heavy Fixed Jib Arrangements

Jib length m (ft)	Jib arrangement
18 (59)	

Symbol	Jib Length	Remarks
	10.0 m (32.8 ft)	Jib Base
	8.0 m (26.2 ft)	Jib Top

Luffing Jib Arrangements

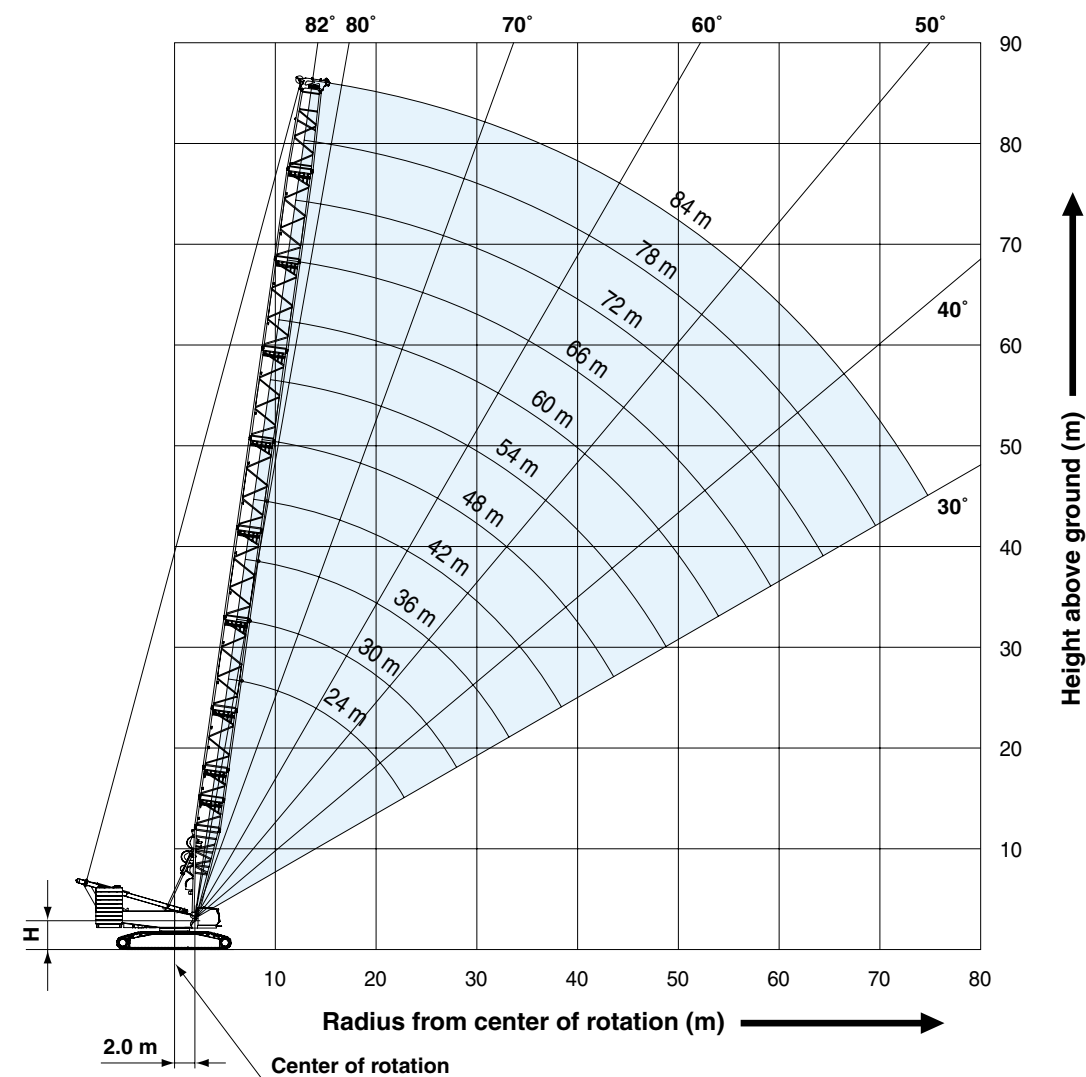
Jib length m (ft)	Jib arrangement
24 (79)	
30 (98)	※ 
36 (118)	※ 
42 (138)	※ 
48 (157)	※ 
54 (177)	※ 
60 (197)	※ 
66 (217)	※ 
72 (236)	※ 

Symbol	Jib Length	Remarks
	10.0 m (32.8 ft)	Jib Base
	6.0 m (19.7 ft)	Luffing Insert Jib
	12.0 m (39.4 ft)	Luffing Insert Jib
	8.0 m (26.2 ft)	Jib Top

※ indicates the most flexible combination of insert luffing jibs, which can be modified to form all shorter luffing jib arrangements.

WORKING RANGES

Heavy Duty Crane Boom



H=2.86 m Without quick connection ring
 H=3.08 m With quick connection ring