

Hydraulic Crawler Crane

CKE

2500G

Model : CKE2500G

Max. Lifting Capacity : **250 t x 4.6 m**

Max. Lifting Capacity With Luffing Jib: **80 t x 9.8 m**

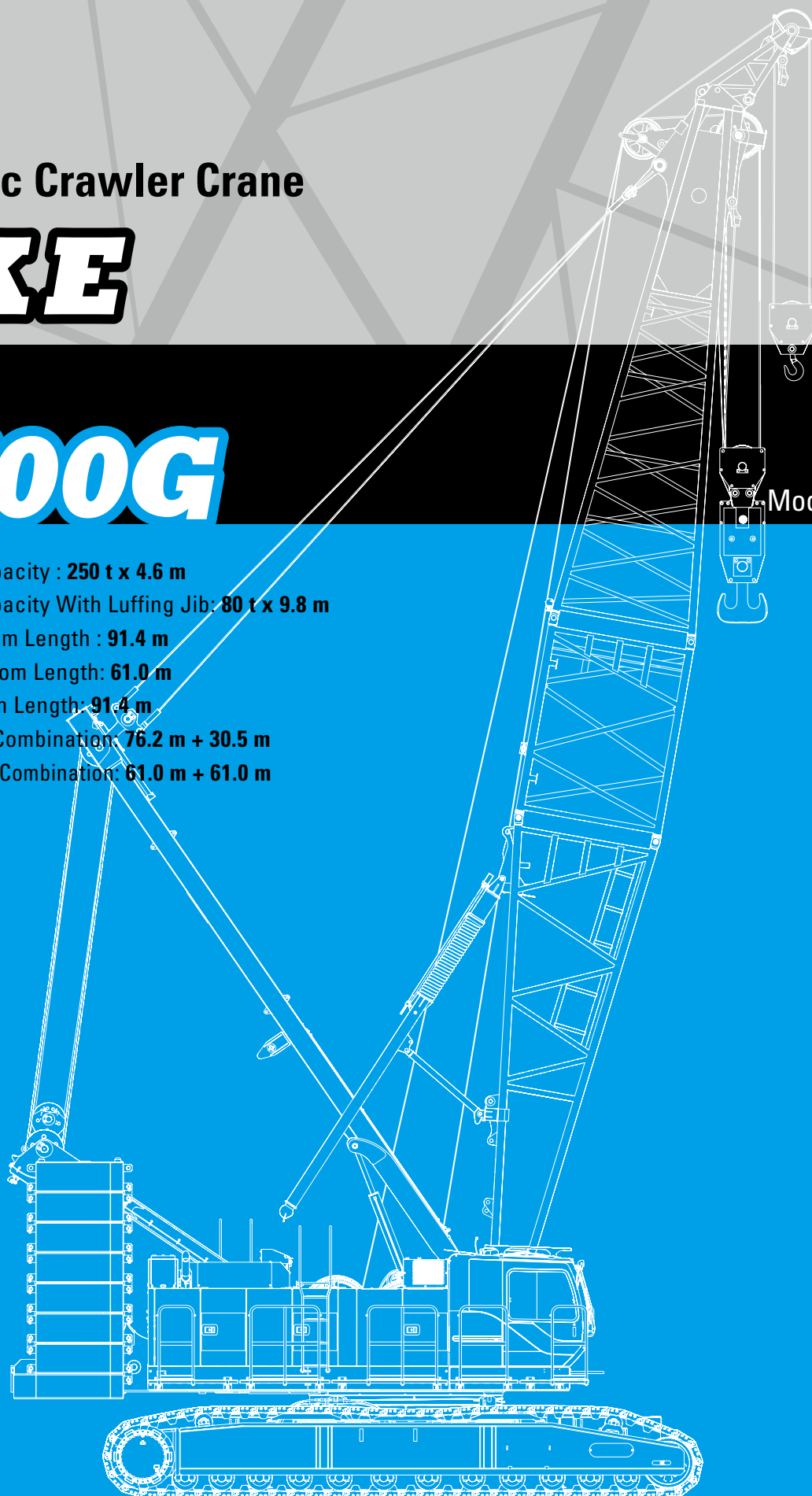
Max. Crane Boom Length : **91.4 m**

Max. Luffing Boom Length: **61.0 m**

Max. Long Boom Length: **91.4 m**

Max. Fixed Jib Combination: **76.2 m + 30.5 m**

Max. Luffing Jib Combination: **61.0 m + 61.0 m**



KOBELCO



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SPECIFICATIONS



Power Plant

Model: HINO P11C-VC

Type: 4 cycle, water-cooled, vertical in-line 6, direct injection, turbo-charger, intercooler

Complies with NRMM (Europe) Stage IIIB and US EPA Interim Tier 4

Displacement: 10,520 liters

Rated power: 271 kW/1,850 min⁻¹

Max. Torque: 1,470 N·m/1,400 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

Batteries: Two 12 V x 136 Ah/5 HR capacity batteries, series connected

Fuel tank capacity: 400 liters



Hydraulic System

Main pumps: 4 variable displacement piston pumps

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:

Load hoist, boom hoist and propel system: 32 MPa

Swing system: 27.5 MPa

Control system: 5.4 MPa

Hydraulic Tank Capacity: 650 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 26 mm dia. wire rope

Line Speed: Single line on first drum layer

Hoisting/Lowering: 22 to 2 m/min x 2

Boom hoisting/lowering: 26 mm x 285 m

Boom guy line: 38 mm

Boom backstops: Required for all boom length



Load Hoisting System

Front and rear drums for load hoist powered by a hydraulic variable plunger motors, driven through planetary reducers.

Negative Brake: A spring-set, hydraulically released multiple-

disc brake is mounted on the hoist motor and operated through a counter-balance valve. (Positive free fall brake is optional)

Drum Lock: External ratchet for locking drum

Drums:

Front Drums:

618 mm P.C.D x 864 mm wide drum, grooved for 26 mm wire rope. Rope capacity is 460 m working length and 510 m storage length.

Rear Drum: 618 mm P.C.D x 864 mm grooved for 26 mm wire rope. Rope capacity is 390 m working length and 510 m storage length.

Diameter of wire rope

Main winch: 26 mm x 460 m

Aux. winch: 26 mm x 390 m

Third winch: 22 mm x 265 m

Line Speed*:

Hoisting/lowering: 110 to 3 m/min

Line Pull:

Max. Line Pull*: 252 kN {25.7 tf}

(Referential performance)

Rated Line Pull: 132 kN {13.5 tf}

*Single line on first drum layer



Swing System

Swing unit is powered by hydraulic motor driving spur gears through planetary reducers (2 set), the swing system provides 360° rotation.

Swing parking brakes: A spring-set, hydraulically released multiple-disc brake is mounted on swing motor.

Swing circle: Single-row ball bearing with an integral internally cut swing gear.

Swing lock: Manually, four position lock for transportation

Swing Speed: 2.2 min⁻¹



Upper Structure

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

Counter weight: 90.4 ton



Cab & Control

Totally enclosed, full vision cab with safety glass, fully adjustable, high backed seat with a headrest and armrests, and intermittent wiper and window washer (skylight and front window).

Cab fittings:

Air conditioner, convenient compartment (for tool), cup holder, cigarette lighter, sun visor, roof blind, tinted glass, floor mat, footrest, and shoe tray



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.

Carbodyweight: 7.3 ton

Crawler drive: 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 for maintenance-free operation.

Shoe (flat): 1,220 mm wide each crawler

Max. gradeability: 30 %



Weight

Including upper and lower machine, 90.4 ton counterweight and 27.5 ton carbody weight, basic boom (or basic boom + basic jib), hook, and other accessories.

Weight: 217 ton

Ground pressure: 111 kPa



Attachment

Boom & Jib:

Welded lattice construction using tubular, high-tensile steel chords with pin connection between sections.

Boom and Jib length

	Min. Length (Min. combination)	Max. Length (Max. combination)
Crane Boom	15.2 m	91.4 m
Fixed lib	27.4 m + 12.2 m	76.2 m + 30.5 m

Main Specifications (Model: CKE2500G)

Crane Boom	
Max. Lifting Capacity	250 t x 4.6 m
Max. Length	91.4 m
Fixed Jib	
Max. Lifting Capacity	27.0 t x 10.4 m
Max. Combination	76.2 m + 30.5 m
Long Boom	
Max. Lifting Capacity	47.1 t/12.8 m
Max. Length	91.4 m
Luffing Boom	
Max. Lifting Capacity	150 t/ 7.0 m
Max. Length	61.0 m
Luffing Jib	
Max. Jib Length	61.0 m
Max. Combination	61.0 m + 61.0 m
Main & Aux. Winch	
Max. Line Speed (1st layer)	110 m/min
Rated Line Pull (Single line)	132 kN {13.5 tf}
Wire Rope Diameter	26 mm x 460 m
Wire Rope Length	460 m (Main), 390 m (Aux.)
Brake Type (free fall)	Wet-type multiple disc brake (Optional)
Working Speed	
Swing Speed	2.2 min ⁻¹ {rpm}
Travel Speed	1.0/0.5 km/h

Power Plant	
Model	HINO P11C-VC
Engine Output	271 kW / 1850 min ⁻¹
Fuel Tank	400 liters
Hydraulic System	
Main Pumps	4 variable displacement
Max. Pressure	32 Mpa {326 kg/cm ² }
Hydraulic Tank Capacity	650 liters
Self-Removal Device	
	counterweight/crawler self-removal device
Weight	
Operating Weight	217 t *1
Ground Pressure	111 kPa
Counterweight	90,400 kg
Transport Weight	44,960 kg *2

Units are SI units. { } indicates conventional units.

Line speeds in table are for light loads. Line speed varies with load.

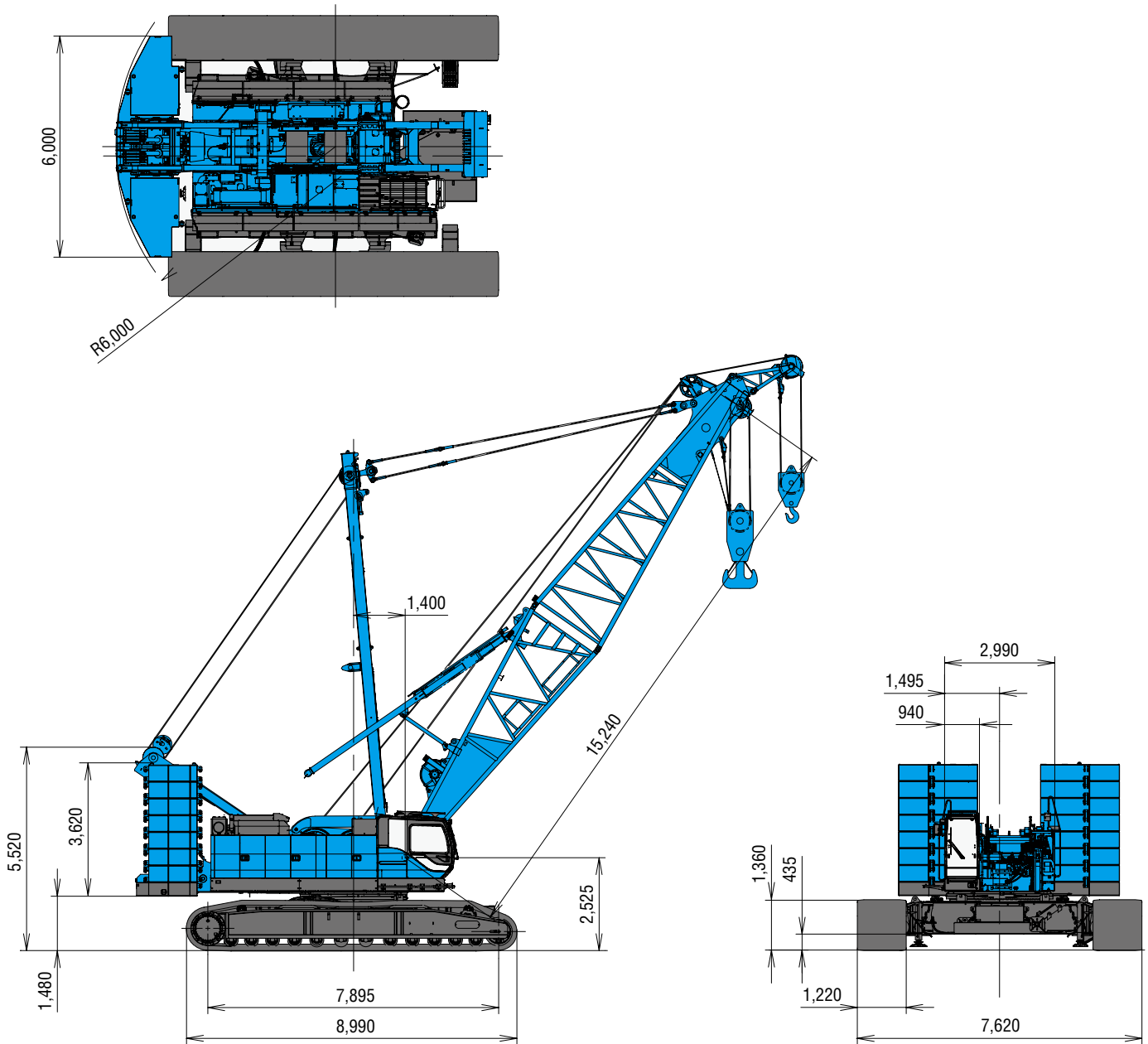
*1 Including upper and lower machine, 90.4 ton counterweight, 27.5 ton carbody weight, basic boom, hook, and other accessories.

*2 Base Machine with gantry, mast, wire ropes (front/rear/boom hoist)

GENERAL DIMENSIONS

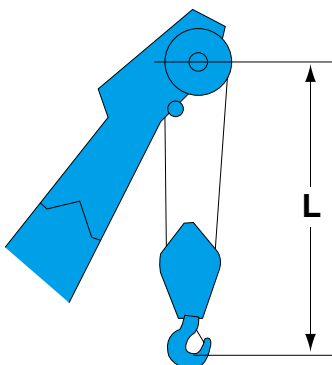
Crane Boom

(Unit: mm)

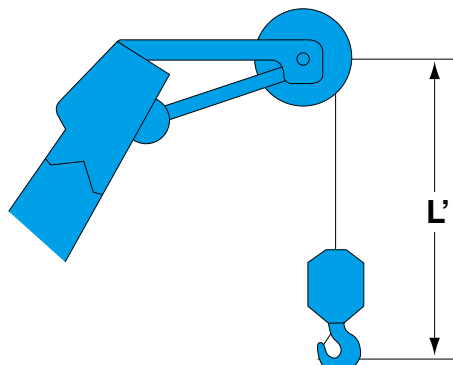


This catalog may contain photographs of machines with specifications, attachments and optional equipment.

Limit of Hook Lifting



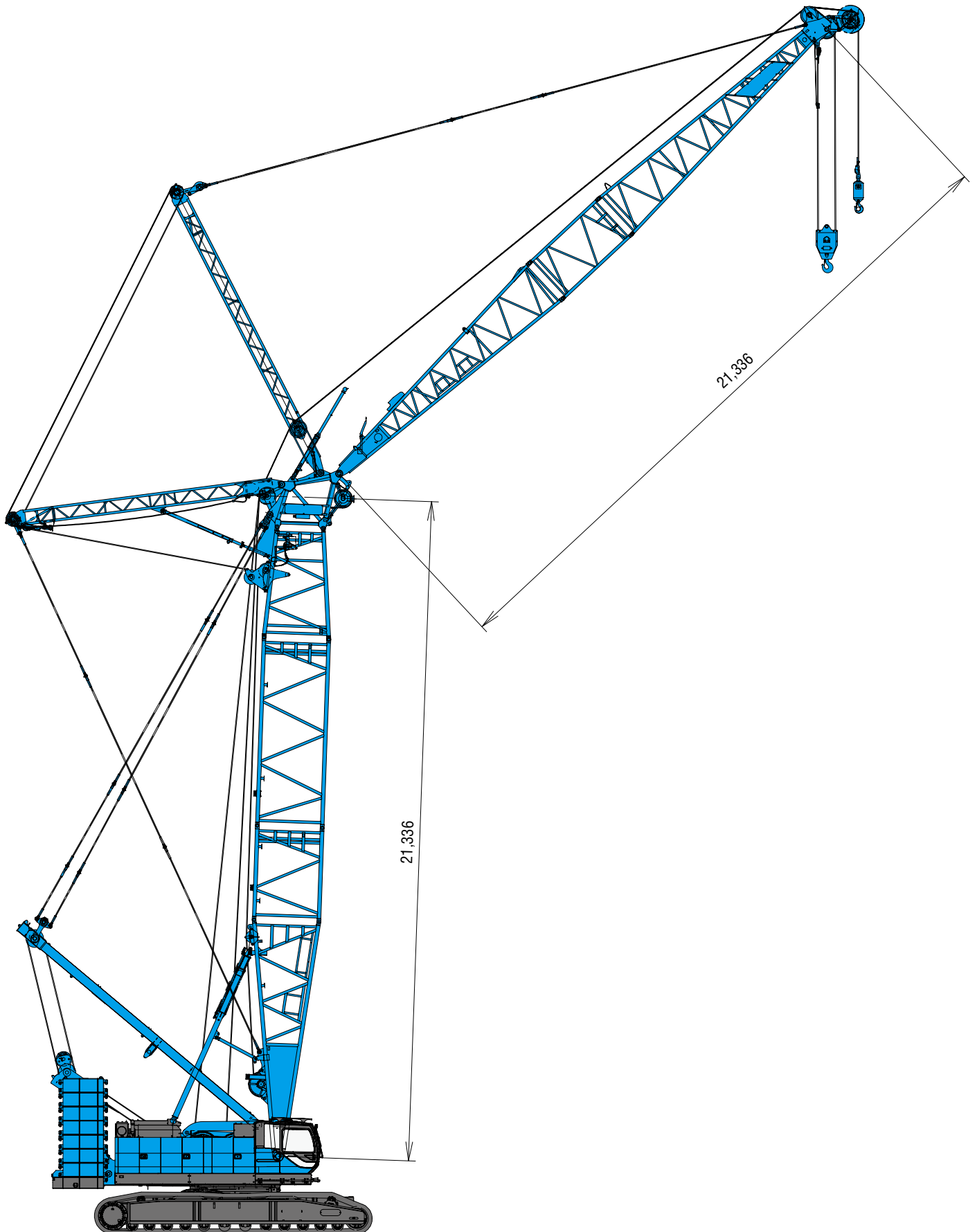
Hook	L
250 t hook	5.3 m
150 t hook	5.9 m
100 t hook	5.2 m
70 t hook	4.9 m
35 t hook	4.7 m




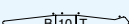
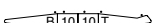
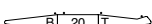
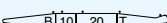
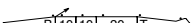
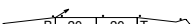
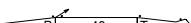
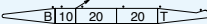
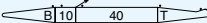
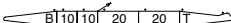
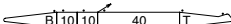
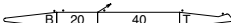




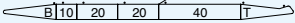
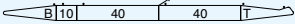
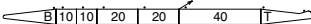


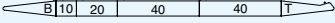
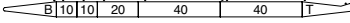
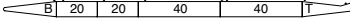
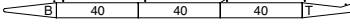
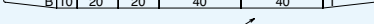
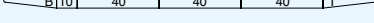



Hook	L'
35 t hook	3.8 m
Ball hook	3.5 m

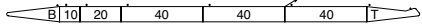
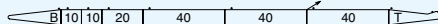
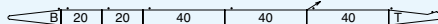

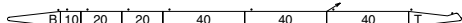
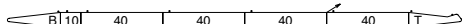
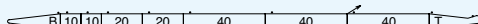
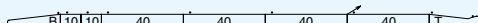
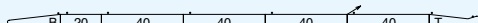
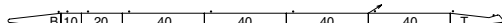
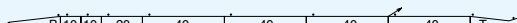
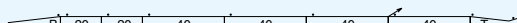



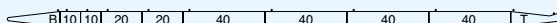
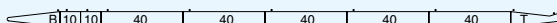
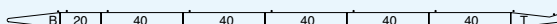
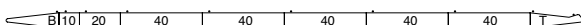
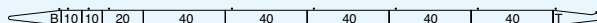
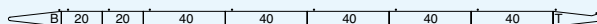

Luffing Jib






(Unit: mm)



Crane Boom Arrangements

Boom length m (ft)	Boom arrangement
15.2 (50)	 5
18.3 (60)	
21.3 (70)	※  
24.4 (80)	※ 
27.4 (90)	※   
30.5 (100)	※  
33.5 (110)	※   
36.6 (120)	※ 
39.5 (130)	※   
42.7 (140)	※  
45.7 (150)	※   
48.8 (160)	※ 
51.8 (170)	※   
54.9 (180)	※  
57.9 (190)	※   

Boom length m (ft)	Boom arrangement
61.0 (200)	※ 
64.0 (210)	※   
67.1 (220)	※  
70.1 (230)	※   
73.2 (240)	※ 
76.2 (250)	※   
79.3 (260)	※  
82.3 (270)	※   
85.3 (280)	※ 
88.4 (290)	※  
91.4 (300)	※ 

Symbol	Boom Length	Remarks
	7.6 m	Boom Base
	7.6 m	Boom Top
	3.0 m	Insert Boom
	6.1 m	Insert Boom
	12.2 m	Insert Boom

↗ mark shows the guy line installing position when the fixed jib is used.

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