KOBELCO

HYDRAULIC CRAWLER CRANE

SL6000

Max. Lifting Capacity: 550 ton

STANDARD

Max. Boom Length: **108 m**

Max. Luffing Jib Combination: **60 + 72 m**

HEAVY LIFT

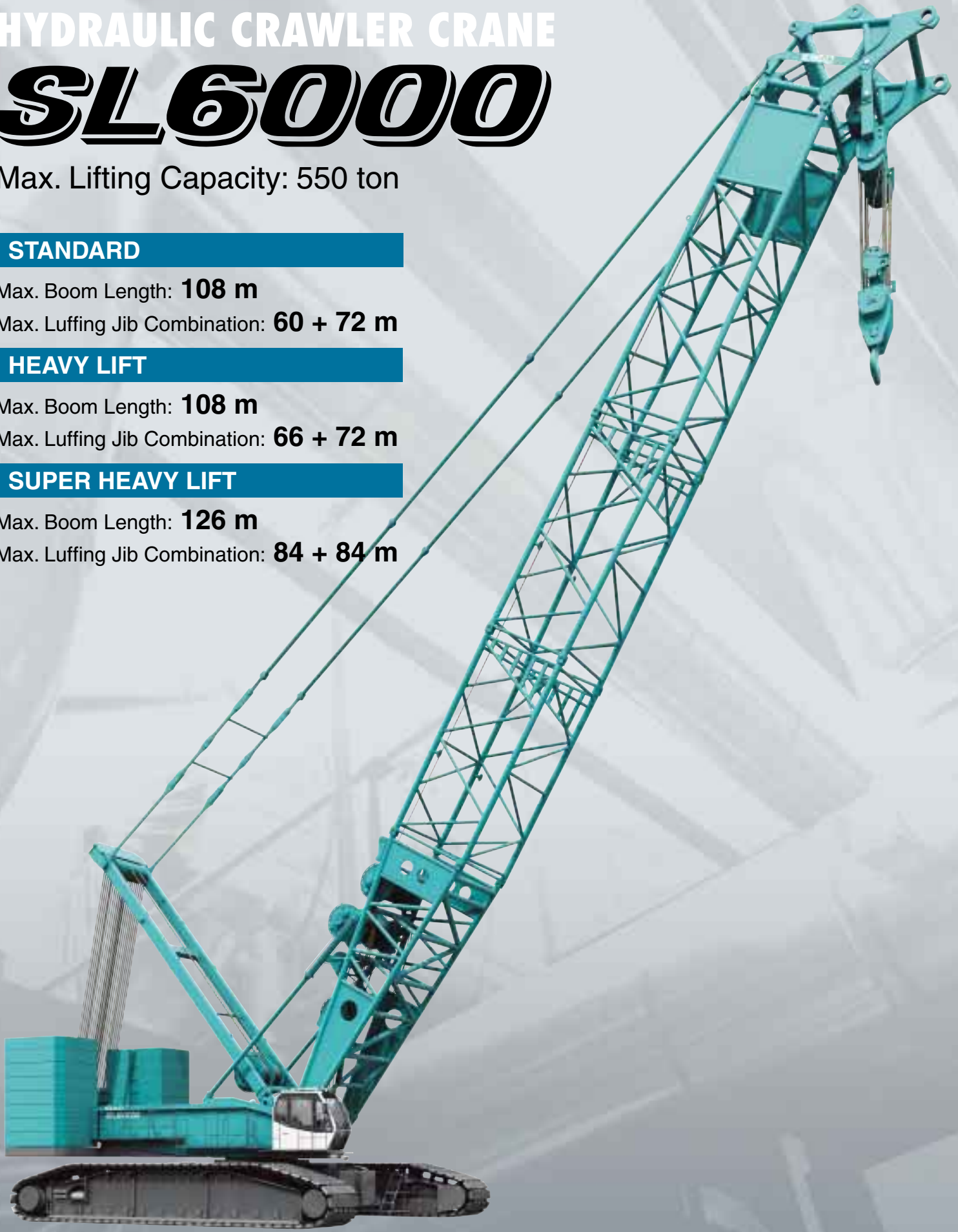
Max. Boom Length: **108 m**

Max. Luffing Jib Combination: **66 + 72 m**

SUPER HEAVY LIFT

Max. Boom Length: **126 m**

Max. Luffing Jib Combination: **84 + 84 m**



SL6000

A New Global Standard

World Premiere! Unveiling the KOBELCO SL6000 Super-Lifter!

The KOBELCO SL6000 crawler crane, with a lifting capacity of up to 550 tons, targets large-scale energy-related projects and large infrastructure installations. In addition to its superb lifting capacity, the SL6000's 'innovative unit assembly system' is designed to comply with transport regulations worldwide and to minimize labor required for assembly/disassembly. The SL6000's wide range of attractive features includes advanced safety devices, a wide, comfortable cab giving excellent visibility and other enhancements. KOBELCO is proud to premiere this much-awaited new model, which will further enhance our global reputation for tough, reliable, and outstanding performance.

1 Innovative Upper Frame Design

Giving high rigidity with optimum transport weight.

2 Mast-Mounted Boom Hoist Winch

Greater convenience for assembly/disassembly and transportation.

Boom-Mounted Hoist Winches

Greater convenience for assembly/disassembly and transportation.

High-Strength Lattice Boom

Large-diameter main pipe provides greater lifting capacity.

New Crawler Frame

The crawler frame's lower rollers are positioned inside to maintain frame strength.

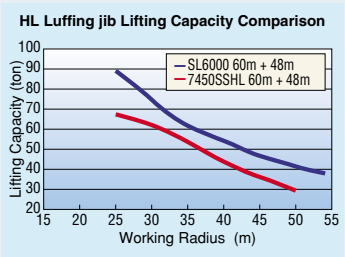
The following abbreviations are used throughout this catalog:
STD: Standard HL: Heavy Lift SHL: Super Heavy Lift

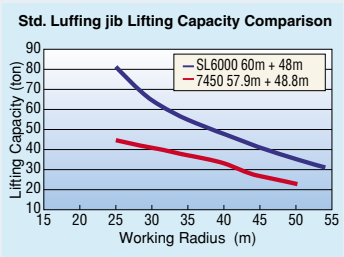
High Lifting Performance

A Crane That Lifts More

High structural strength and reduced weight give the SL6000 superb lifting capacity that can accomplish jobs that are usually done with a one-class bigger machine. In fact, the SL6000 can take on heavy lifting projects using HL (HEAVY LIFT) specifications instead of the SHL (SUPER HEAVY LIFT) specifications that would be needed with conventional models. Because SHL counterweights are not required, the SL6000 has better onsite maneuverability, leading to greater efficiency on small work sites, as well as easier transportation.

Increase in lifting capacity over conventional SSHL spec. and Standard spec.



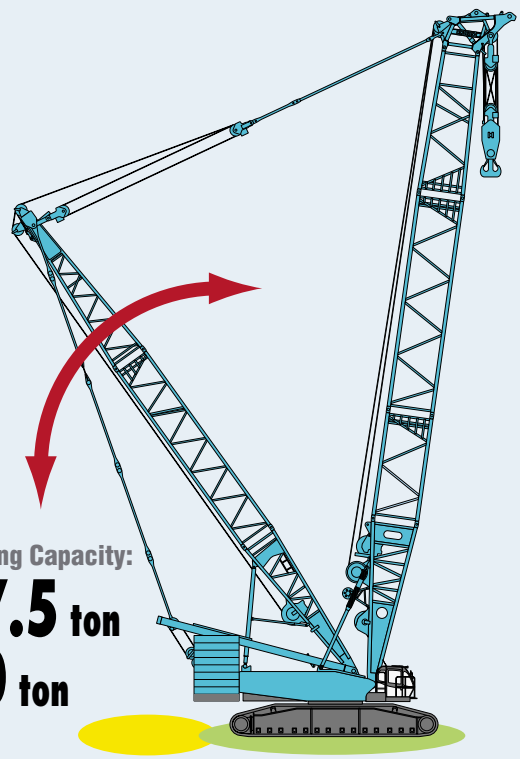


New, Highly Rigid Upper Frame

The upper frame has been newly designed to increase sectional strength and optimize the frame's stress capacity. This enhances rigidity while reducing weight, which contributes greatly to the SL6000's exceptional lifting capacity.

Adjustable HL Mast

With the adjustable HL mast, the rear swing radius can be set to one of three options to suit work site conditions. This guarantees optimized lifting performance even on small sites.



HL Spec. Max. Lifting Capacity:

Heavy Duty Crane Boom: **367.5 ton**

Luffing Jib: **200 ton**

MAX. LIFTING CA

High-Strength Lattice Boom

Highly rigid, large-diameter main pipe increases boom strength while significantly boosting lifting capacity.

PACITY: 550 TON

Double Travel Motors

Double motors deliver powerful, steady traction for smooth onsite travel.

High-Output Engine

The engine has an impressive rated output of 320 kW and complies with NRMM (Europe) Stage IIIA and US EPA Tier III exhaust emissions regulations. All of this power works with KOBELCO's unique Engine Speed Sensing (ESS) control system and new hydraulic systems to ensure stable and smooth simultaneous operations.

Engine Output:
320 kW
Meets NRMM (Europe) Stage IIIA

High-Speed Lifting Increases Work Efficiency

The hoist winches deliver a fast maximum hoisting and lowering speed of 110 m/min that improves operational efficiency on high-rise jobs.

Max. Line Speed (First Layer):
110 m / min

Wide, Large-Capacity Winches for Smooth High-Rise Work

The wide hoist winches provide an impressive spooling capacity of 1,080 m with a 28 mm hoist rope. Their large capacity and large diameter help to prevent uneven spooling and wear while ensuring smooth operation when using a long boom for high-rise work.

Spooling Capacity:
1,080 m

Winches with a Powerful Line Pull Handle Hard Work with Ease

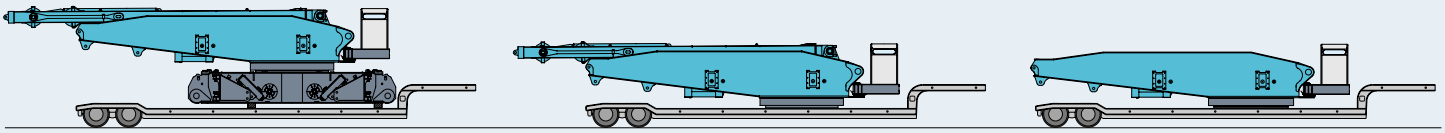
Through the efficient combination of a high-output engine and high-performance hydraulic motors, the winches deliver plenty of line pull for single-line work. There's also ample capacity for heavy loads when they first clear the ground, and other tough jobs

Rated Line Pull (Single Line):
137 kN {14.0 tf}

To increase actual working hours

Excellent Transportability

Through wide-ranging expertise and innovative technologies, KOBELCO has designed the SL6000 to comply with various transport regulations throughout the world. The layout has been completely reviewed, and a variety of new mechanisms introduced to reduce transport weight. The innovative unit assembly system simplifies assembly/disassembly and transportation to minimize labor and other costs.



New Design Upper Frame

The upper frame is lighter in weight due to the new structural design combined with the use of high-grade high tensile steel plate. This contributes to improved ease of transport and assembly.

New Crawler Frame

The crawler frame has the lower rollers fitted inside to increase sectional strength, while the use of high-grade, high tensile-strength steel plate reduces weight.

Easy-to-Transport Swing Cab

The swing cab is practically designed for easy transportation. By swinging and stowing the cab at the front of the base machine, the transport width of the upper machine is just 3 m.

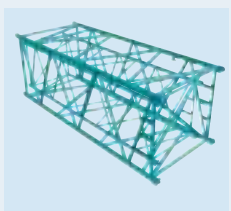
Winches Mounted on Mast and Boom

On a conventional model the winches are mounted on the base machine, but on the SL6000 the boom hoist winch is mounted on the mast, and the hoist winches are mounted on the boom base. This not only reduces the weight of the base machine, but also shortens assembly/disassembly times and saves on transportation costs because the boom and mast can be transported with winches attached.

Attachment Transport Streamlined in Four Big Ways

1 Boom Width: 3.0 m

Boom width easily meets 3.0 m transportation requirements.



3 Nested Booms Improve Transport Efficiency

The luffing insert jib can be easily nested in the insert boom by using the optional stowing guide rollers. This reduces the number of trailers needed for transport and helps to minimize required storage space.

2 Symmetrical, Thin Counterweights

Symmetrical, thin counterweights ensure a low transport height when loaded on a trailer with the boom. Also, the counterweights can be assembled in any order, making transport planning easier.

4 Boom Connector Pin Holder

The boom connector pin holder prevents the loss of boom connector pins during assembly/disassembly and transportation.

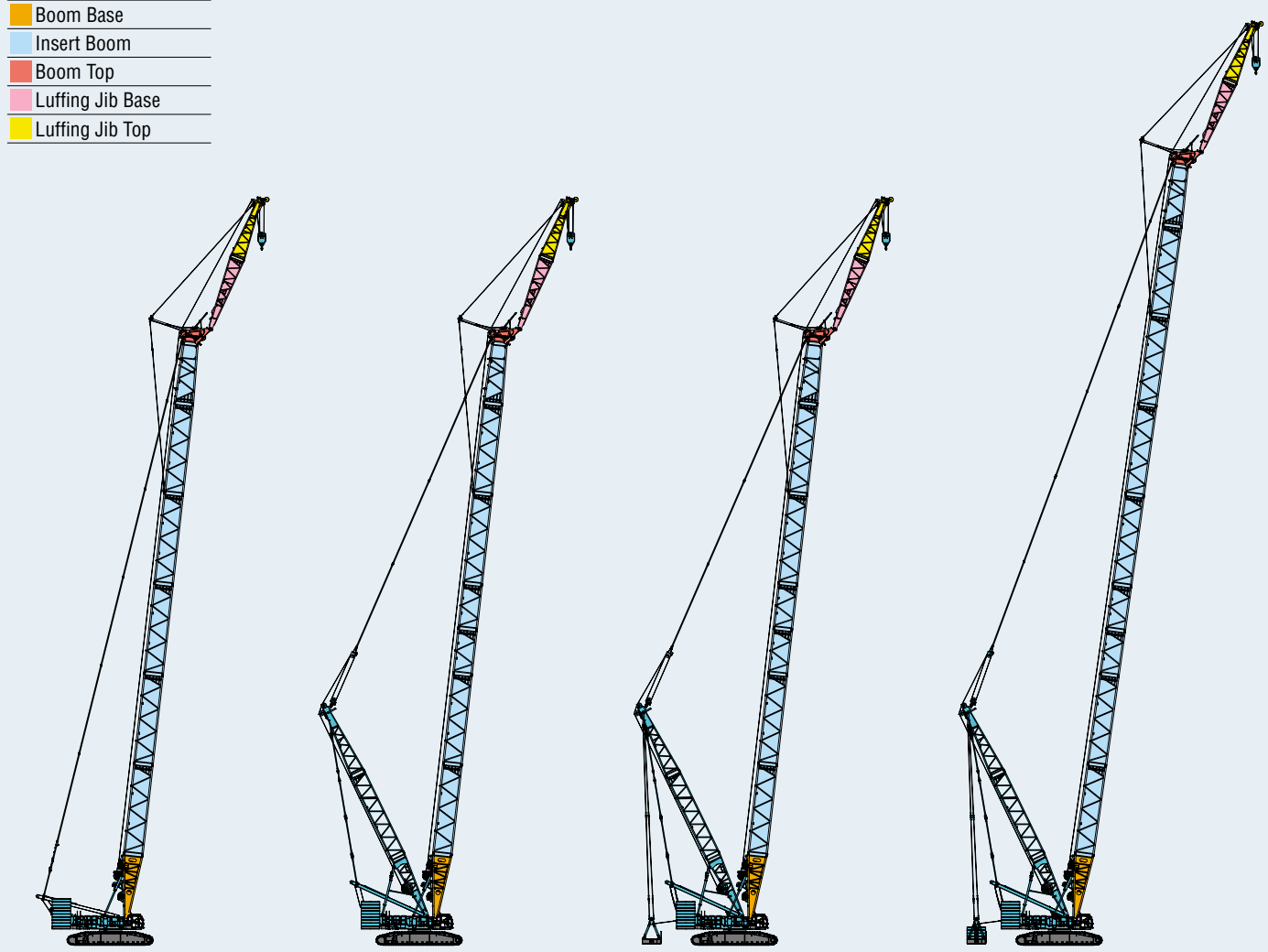
Versatile Attachment Configurations

- Boom Base
- Insert Boom
- Heavy Duty Boom Top
- Boom Top
- Luffing Jib Base
- Luffing Insert Jib
- Luffing Jib Top

Heavy Duty Crane Boom | Crane Boom | STD Long Boom | HL Heavy Duty Crane Boom | SHL Heavy Duty Crane Boom | Luffing Jib | SHL Luffing Jib

Heavy Fixed Jib Configurations

- Boom Base
- Insert Boom
- Boom Top
- Luffing Jib Base
- Luffing Jib Top



STD Heavy Fixed Jib (type A) | HL Heavy Fixed Jib (type B_1) | SHL Heavy Fixed Jib (type B_2) | SHL Heavy Fixed Jib (type C)

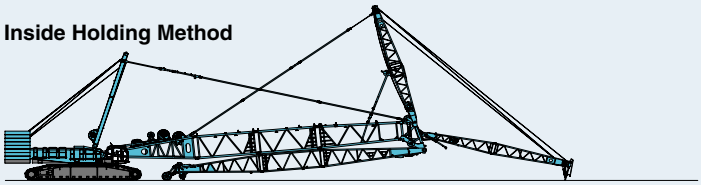
To ensure safe assembly

Assembly and Disassembly

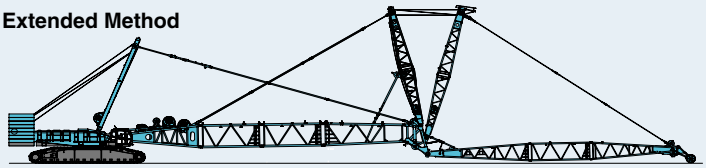
Choice of Methods for Assembly/Disassembly of Luffing Jib

Jib assembly is possible using either the extended or inside holding methods. On sites where construction has not yet started and space is available the extended method is faster, but in a limited space the inside holding method, in which the jib is folded under the boom, can be used for assembly/disassembly.

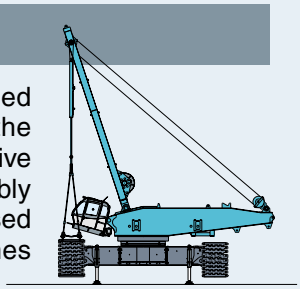
Inside Holding Method



Extended Method



Self-Erection System



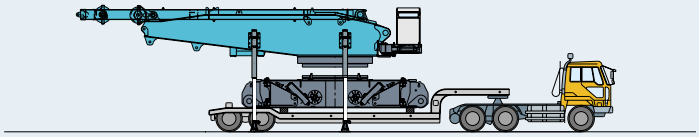
Use the built-in, remote controlled trans-lifter (jack system) to lift the SL6000 clear of the trailer, then drive the trailer away. The self-assembly cylinder installed on the mast is used to install the crawler side frames and/or the boom.

Boom Assembly/Disassembly Mode

The boom assembly/disassembly mode, which is used to release the over-hoist prevention function to facilitate boom assembly and disassembly, is activated with a switch located under the multi-function LCD display of the load moment indicator (LMI). (This switch is different from the switch that releases the auto-stop functions for over-load and hook over-hoist.) When the boom is lifted to a certain angle, it is automatically deactivated and the LMI function is automatically re-engaged to ensure that the boom assembly/disassembly function is used only when needed.

Upper Trans-Lifter (Optional)

The upper frame can be mounted onto the lower frame without the use of an assistant crane.



Quick Connection Device (Optional)

Upper frame is attached to or detached from the lower frame using a swift, reliable hydraulic device.

For greater work efficiency

Smooth Operation and Control

Selectable Swing Modes to Match the Job at Hand

■Free Swing Mode (High/Low):

This mode is designed for material handling and other cycle-duty operations that require consecutive swing cycles. The swing is completely free and can be operated at High or Low speed to suit job requirements.

■Neutral Brake Swing Mode:

When the crane is working on a slope in Free Swing Mode, it may swing in an unintended direction as soon as the swing parking brake is released. To prevent this, the Neutral Brake Swing Mode reduces operating speeds by lowering the flow of oil in the hydraulic circuit, thus making swing starts and stops easy to control when working on a slope or in windy conditions. Swing speed is also reduced in this mode to prevent the load from moving sideways.

Control Levers Connected Directly to Pilot Valves for Smooth Operation

The control levers regulate the pilot valves directly to reduce the amount of play and ensure smooth, precise hoisting start-ups and inching. Control is light and sure, with almost no clatter even over long operating periods.

Winch Speed Controller

The speeds of the hoist winches and boom hoist can be set independently with trimmer controls.

■Hydraulic pilot system detects swing reaction force.
■Electric throttle with a twist grip ensures sensitive engine control.

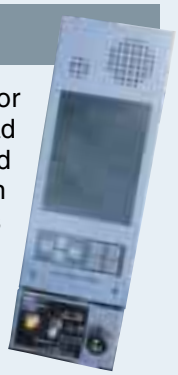
■Red switch on the boom lever grip allows easy inching control for hoist, boom hoist, and travel. The operator can activate it without taking his hands off the boom hoist lever.

For better man-machine communication

Excellent Cab with Enhanced Functions

Multi-Function LMI Display

The newly designed load moment indicator (LMI) system features a large, easy-to-read LCD display. The rated load, actual load, load ratio, and other information are displayed in large characters. Warnings and other items are displayed in color, and text messages and alarms alert the operator to prevent dangerous conditions from developing.



Multi Display

The easy-to-read LCD multi display provides information on the current status.

Normal Displays
- Engine speed (Lifting height*1)
- Engine oil change interval
- Reeving number for hoist winch wire rope
- Low-speed switch status
- Wind speed*2

Warning Displays
- Warning (malfunction, maintenance information, etc.)
- Self-diagnostic function (detects malfunctions in solenoid valves, sensors, etc.)

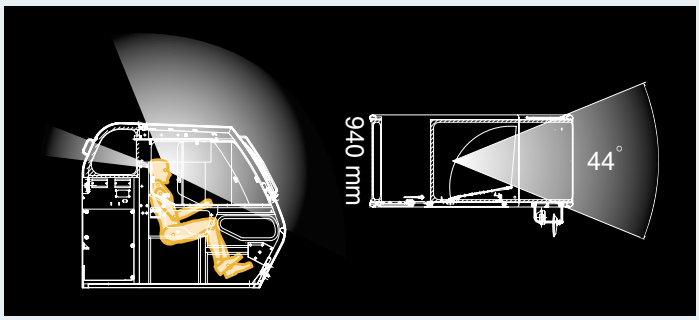
*1 *With the optional lifting height gauge installed*
*2 *With optional anemometer installed*

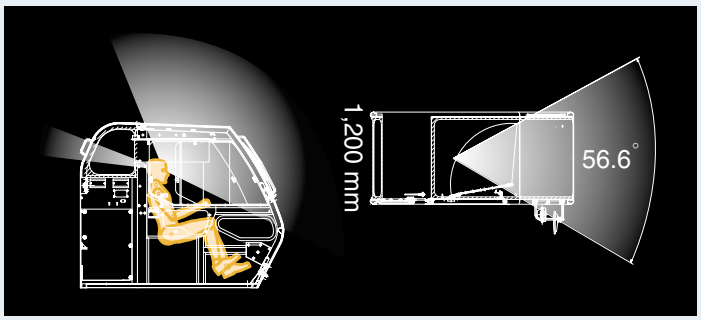
Clear, Panoramic Cabin

The SL6000 has a new cabin design with sash-less front and top glass that provides a panoramic frontward and skylight view. The glass has less curvature to minimize distortion.

Standard equipment

■Air conditioner ■Fully adjustable, high backed seat with a headrest and armrests ■Intermittent wipers and window washers ■Sun visor ■Roof blind ■Luggage tray ■Cup holder





940 mm-Wide Cab (Standard)

1,200 mm-Wide Cab (Optional)

Tilting cab

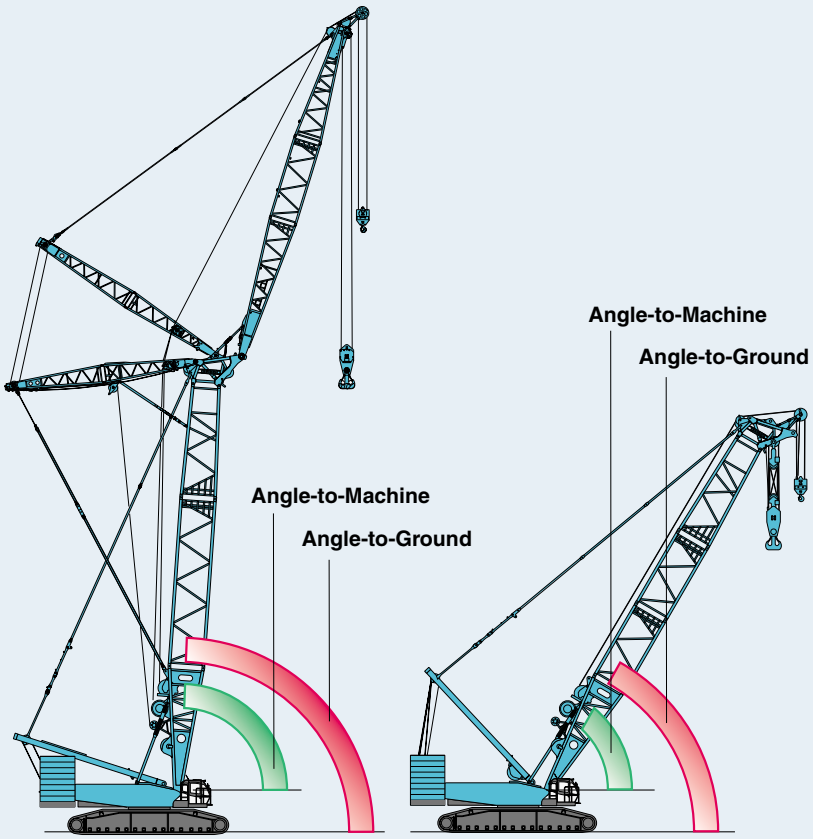
A tilting device allows the cab to be tilted up to 15° to give the operator a more comfortable working position over long periods of high-rise work.

No compromise in KOBELCO's safety policy

Safe, Environmentally-Conscious Design

Two-Stage System to Prevent Boom and Jib Over-Hoists

With primary and secondary over-hoist prevention devices, this new safety system can prevent boom over-hoist at two stages. The primary stop function is activated when the boom or luffing boom approaches the critical angle-to-ground during hoisting. This new system monitors the angle-to-ground the boom, luffing boom or jib with a sensor, and swiftly alerts the operator of danger. For the luffing boom, the angle-to-machine is also monitored at this stage. The secondary stop function uses a device that monitors the angle-to-machine of the boom, luffing boom, or jib through a limit switch fitted to the boom and jib backstops. It stops the machine automatically to prevent it from working outside of the safety range, and once activated it cannot be cancelled.



Automatic Soft-Stop Function Reduces Shocks

This function is activated automatically when boom or luffing jib lowering, or boom hoisting is stopped by the over-hoist prevention system. It makes for a smooth stop and prevents the load from swinging sideways.

Automatic Stop Release Switch with Safety Function

The automatic stop system prevents over-load, hook over-hoist and boom over-hoist. To deactivate the system, a two-stage release procedure is employed that uses a master key and separate switches. This makes it easy to supervise the use of the single key and prevent unauthorized release of the automatic stop system.

Other Safety Features

■Function lock lever helps prevent accidental operation when the operator enters or leaves the cab.

■One-way call supports the safety of onsite personnel (Optional).

■External lamp for over-load alarm notifies surrounding workers of the load condition (optional).

New Base Machine Layout for Easy Maintenance

The new layout eliminates winches on the base machine, providing more space for easier maintenance.

Dust-Resistant Internally Cut Swing Bearing

The standard KOBELCO internally gear swing bearing resists dust penetration and holds grease better than outer-cut bearings.

Auto-Greasers

Auto-greasers are fitted to the side frame of the crawlers to grease the lower rollers.

Super-Fine Filter, a Long- Life Filter for Hydraulic Oil

The large-capacity, super-fine filter is made of a high-performance filter medium consisting of glass fiber reinforced with steel wires. The replacement cycle is extended to four times longer than that of conventional filters to reduce lifelong operating costs.

Photomicrograph (× 250)

Super fine filter
(glass fiber)

Conventional filter
(paper fiber)

Conforms with European Exhaust-Gas and Noise Regulations

The SL6000 meets NRMM (Europe) Stage IIIA and US EPA Tier III exhaust emissions regulations, and is designed with advanced KOBELCO low-noise construction technologies to comply with European Noise Regulations.

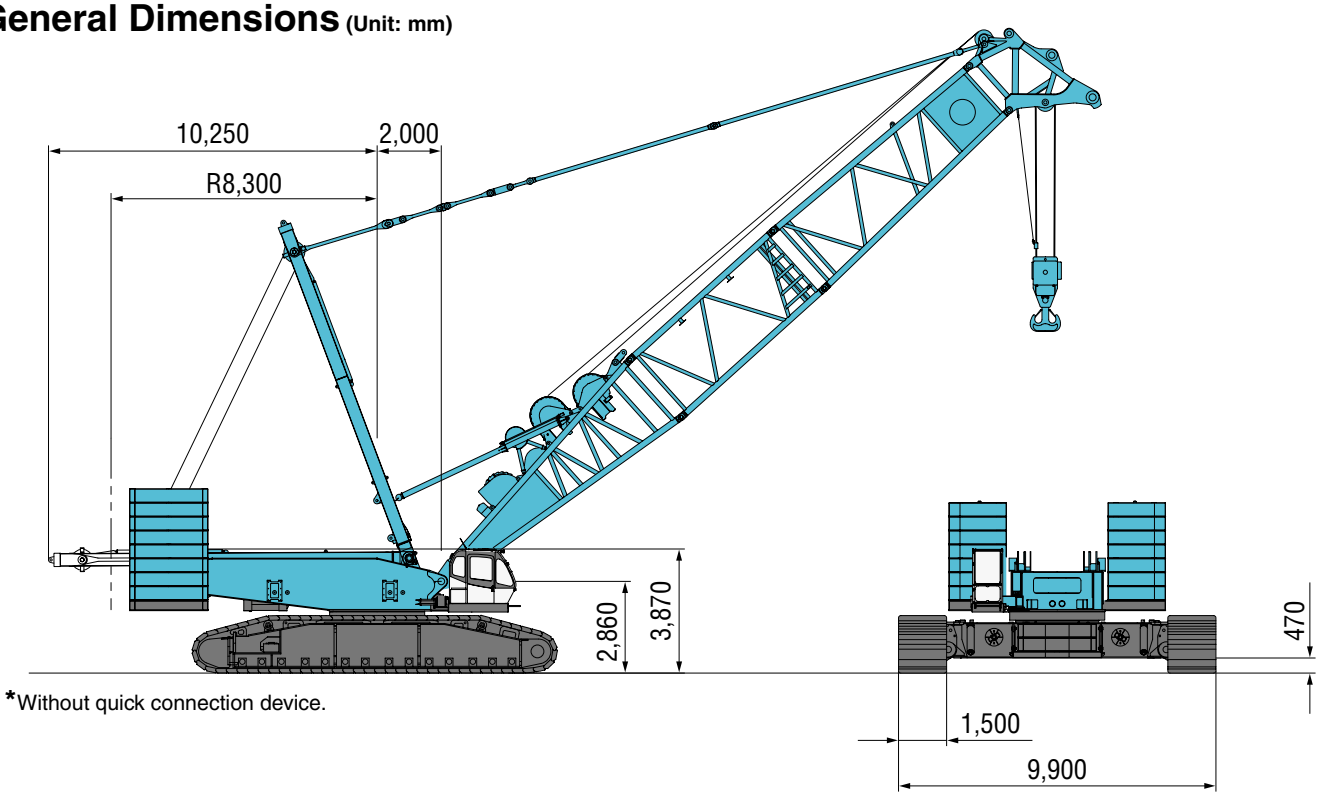
Main Specifications (Model: SL6000)

Lift Enhancer	STD	HL	SHL	
HL Mast	-	30 m	30 m	
Additional Weight	-	-	~ 250 t	
Heavy Duty Crane Boom				
Max. Lifting Capacity	450 t	367.5 t	550 t	
	6.7 m			
Length	24 ~ 42 m	36 ~ 42 m	36 ~ 42 m	
Crane Boom				
Max. Lifting Capacity	300 t	300 t	300 t	
	9 m			
Length	30 ~ 84 m	36 ~ 84 m	36 ~ 84 m	
Long Boom				
Length	90 ~ 108 m	90 ~ 108 m	90 ~ 126 m	
Heavy Fixed Jib			*1	*2
Max. Lifting Capacity	105 t	120 t	120 t	105 t
Max. Combination (Boom)	78 m	78 m	78 m	102 m
(Jib)	18 m	18 m	18 m	18 m
Luffing Jib				
Max. Lifting Capacity	184 t	200 t	200 t	
Max. Combination (Boom)	60 m	66 m	84 m	
(Jib)	72 m	72 m	84 m	
Luffing Angle	66˚ ~ 86˚			

Power Plant	
Model	Hino E13C-UV
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	6 variable displacement
Max. Pressure	31.9 MPa {325 kgf/cm^2}
Hydraulic Tank Capacity	710 liters
Weight	
Operating Weight*3	Approx. 424 t
Ground Pressure*3	136 kPa {1.4 kgf/cm^2}
Counterweight	180.0 t (Upper) + 50.0 t (Lower)

*1 Heavy Fixed Jib Type B2
*2 Heavy Fixed Jib Type C
*3 Including base machine, counterweights (= 180 t), carbody weights (= 50 t), 24 m boom with heavy boom top and 450 t hook block.
Not include quick connection devise and upper translifter.
Units are SI units. { } indicates conventional units.

General Dimensions (Unit: mm)



*Without quick connection device.

Note: This catalog may contain photographs of machines with specifications, attachments and optional equipment not certified for operation in your country. Please consult KOBELCO for those items you may require. Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

KOBELCO CRANES CO., LTD.
17-1, Higashigotanda 2-chome, Shinagawa-ku, Tokyo 141-8626 JAPAN
Tel: +81-3-5789-2130 Fax: +81-3-5789-3372
URL: http://www.kobelco-cranes.com/

Inquiries To:

Bulletin No.SL6000-EU2 100301IF Printed in Japan