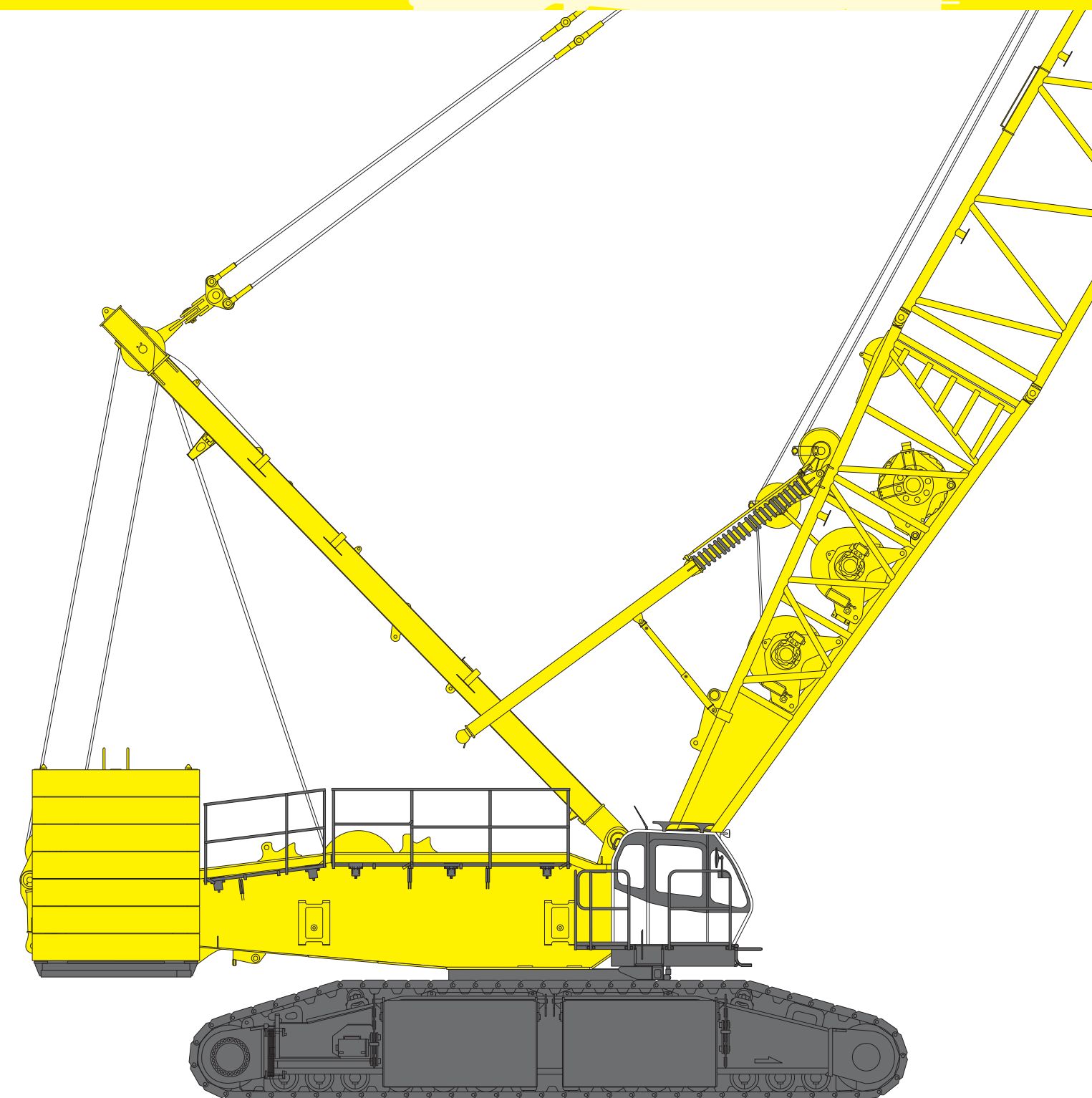


# HYDRAULIC CRAWLER CRANE *SL4500R*

# KOBELCO

STANDARD CONFIGURATION

Model: SL4500

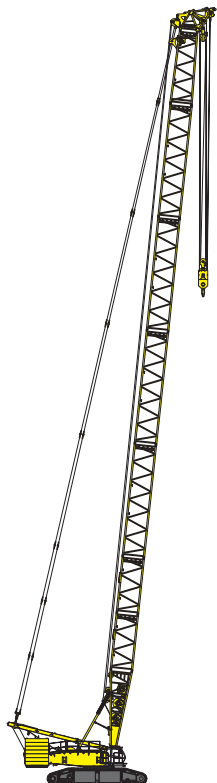


**Max. Lifting Capacity: 440 US ton x 18 ft**  
**Max. Boom Length: 315 ft**  
**Max. Luffing jib Combinations: 256 ft + 217 ft**

# CONFIGURATION

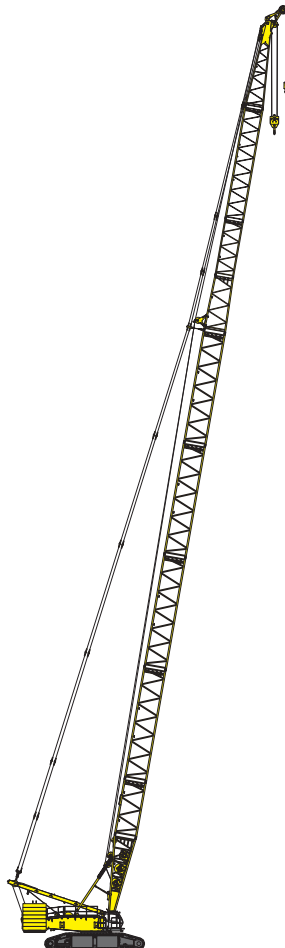
## STD Luffing Boom

Max. Lifting Capacity:  
881,800 lbs x 18 ft  
Max. Boom Length: 256 ft



## STD Long Boom

Max. Lifting Capacity:  
250,200 lbs x 32 ft  
Max. Boom Length: 315 ft



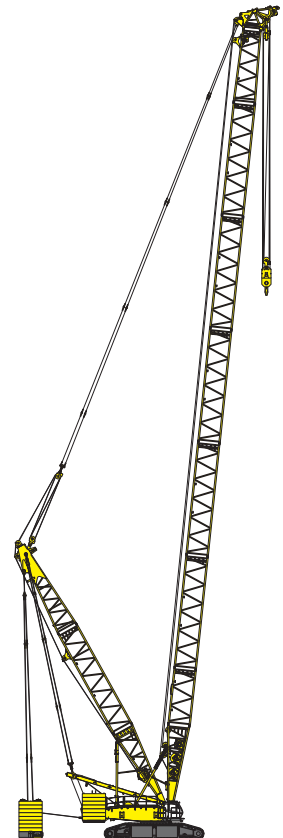
## HL Luffing Boom

Max. Lifting Capacity:  
771,600 lbs x 20.0 ft  
Max. Boom Length: 276 ft



## SHL Luffing Boom

Max. Lifting Capacity:  
771,600 lbs x 38.0 ft  
Max. Boom Length: 276 ft



**STD  
Luffing Jib**

Max. Lifting Capacity:  
244,000 lbs x 55 ft

Max. Combination:  
217 ft + 217 ft



**HL  
Luffing Jib**

Max. Lifting Capacity:  
248,200 lbs x 55 ft

Max. Combination:  
236 ft + 217 ft



**SHL  
Luffing Jib**

Max. Lifting Capacity:  
248,200 lbs x 55 ft

Max. Combination:  
256 ft + 217 ft



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# SPECIFICATIONS



## Power Plant

**Model:** Hino diesel engine E13C-UV

**Type:** Water-cooled, direct fuel injection, with turbocharger  
Complies with NRMM (Europe) Stage IIIA and US EPA Tier III.

**Displacement:** 788 cu in (12.913 liters)

**Rated Power:** 429 HP/2,000 rpm (320 kW/2,000 min<sup>-1</sup>)

**Max. torque:** 1,218 lb-ft/1,300 rpm (1,650 N-m/1,300 min<sup>-1</sup>)

**Cooling system:** Liquid, recirculating bypass

**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 12V x 136Ah/5HR capacity batteries, parallel connected.

**Fuel tank capacity:** 158 US gal. (600 liters)



## Hydraulic System

Six variable displacement piston pumps are driven by heavy-duty pump drive. Two variable displacement pumps are used in H1 (main hook hoist) and left hand side propel circuit. Two variable displacement pumps are used in H2 (auxiliary hook hoist) and right 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.

**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

**Electrical system:** All wiring corded for easy servicing, individual fused branch circuits.

**Max. relief valve pressure:** 4,640 psi (32.0 MPa)

**Reservoir capacity:** 188 US gal. (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:** Double line on first drum layer

**Hoisting/Lowering:** 66~7 ft/min (20~2 m/min) x 2

**Boom hoist reeving:** 28 parts of 28 mm dia. high strength wire rope

**Boom backstops:** Required for all boom lengths



## Load Hoist System

H1 (Front) and H2 (Rear) 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 (Front) and H2 (Rear) :**

24.8 " (630 mm) P.C.D. x 39.9" (1,014 mm) Lg. wide drum, grooved for 28 mm wire rope.

Rope capacity is 2,590 ft (790 m) working length.

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

**Line speed:** 360 ~ 10 ft/min (110 ~ 3 m/min<sup>\*1</sup>)

Single line on the first layer

**Rated line pull:** 29,700 lbs (132 kN)



## Swing System

Swing unit is powered by hydraulic motor driving spur gears through planetary reducers (3 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:** 1.2 min<sup>-1</sup> {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, high backed seat with a head-rest and armrests, and intermittent wiper and window washer (roof 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

# SL4500B



## 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):** 4' (1,220 mm) wide each crawler

**Max. travel speed:** 0.6/0.4 mph (1.0/0.6 km/h)

**Max. gradeability:** 20%



## Weight

Including base machine, counterweights = 352,700 lbs, carbody weights = 112,400 lbs, crawler weight = 44,100 lbs, 79 ft Luffing boom and 21,100 lbs hook block. Not include quick connection STD device and upper translifter.

**Weight:** Approx. 910,500 lbs (413 metric ton)\*1

**Ground pressure:** 25.8 psi (25.8 kPa)\*1



## 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)
<b>STANDARD</b>		
Luffing Boom	79 ft	256 ft
Luffing Jib	79 ft + 79 ft	217 ft + 217 ft
<b>HEAVY LIFT</b>		
Luffing Boom	98 ft	276 ft
Luffing Jib	98 ft + 79 ft	236 ft + 217 ft
<b>SUPER HEAVY LIFT</b>		
Luffing Boom	98 ft	236 ft
Luffing Jib	98 ft + 79 ft	256 ft + 217 ft

## Main Specifications (Model: SL4500)

Lift Enhancer	STD	HL	SHL
HL Mast	-	98 ft	98 ft
Additional Weight	-	-	~551,100 lbs
<b>Luffing Boom</b>			
Max. Lifting Capacity	881,800 lbs 18 ft	771,600 lbs 20.0 ft	771,600 lbs 38.0 ft
Length	79 ~ 256 ft	98 ~ 276 ft	98 ~ 276 ft
<b>Long Boom</b>			
Max. Lifting Capacity	250,200 lbs	-	-
Length	197 ~ 315 ft	-	-
<b>Luffing Jib</b>			
Max. Lifting Capacity	250,200 lbs	250,200 lbs	250,200 lbs
Boom (Min ~ Max)	79 ~ 217 ft	98 ~ 236 ft	98 ~ 256 ft
Jib (Min ~ Max)	79 ~ 217 ft	79 ~ 217 ft	79 ~ 217 ft
Luffing Angle	66β ~ 86β		
<b>Power Plant</b>			
Model	Hino E13C-UV		
Engine Output	429 HP (320 kW)/2,000 rpm (min <sup>-1</sup> )		
Fuel Tank Capacity	158 US gal. (600 liters)		

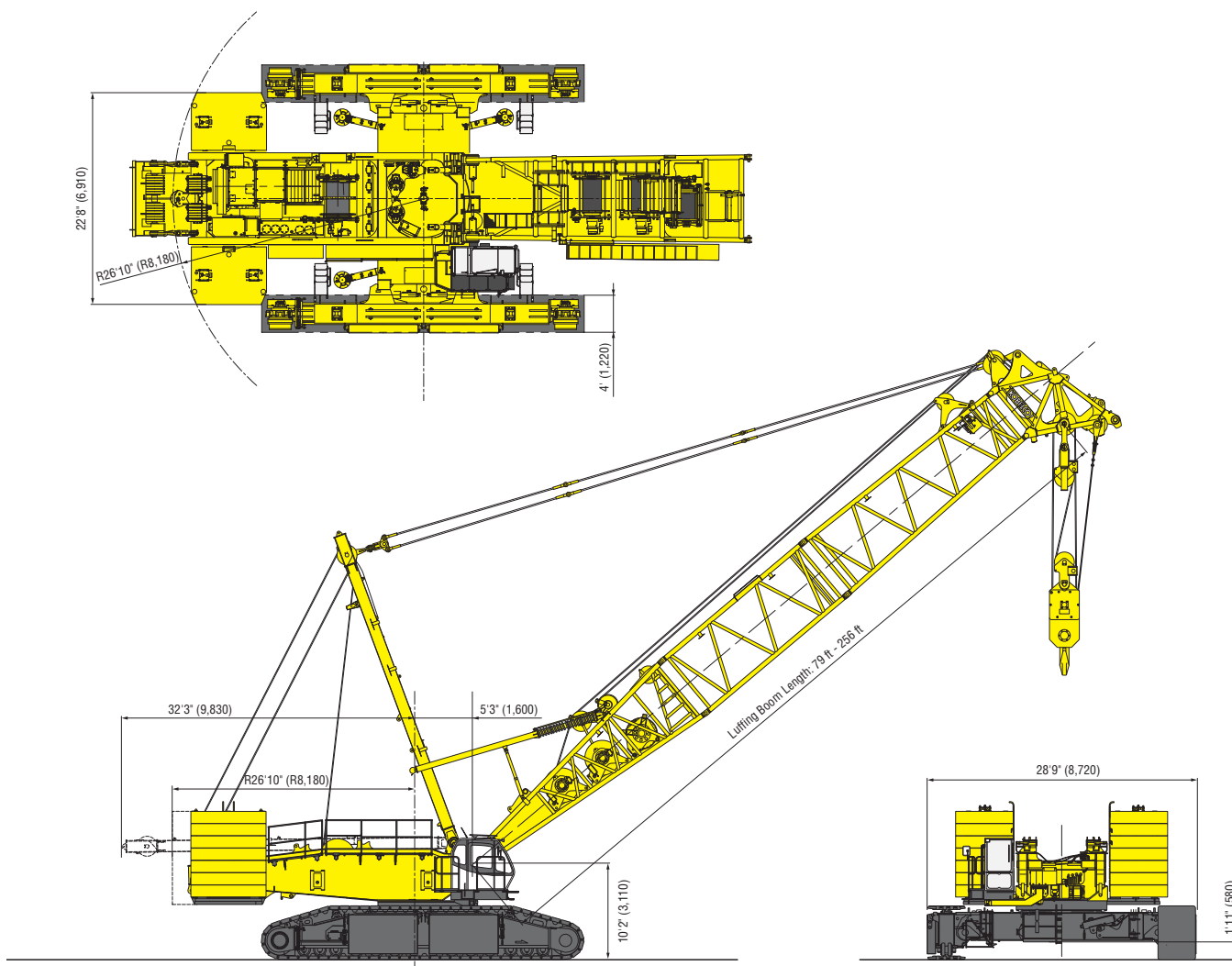
<b>Hoist Winch (H1, H2)</b>	
Max. Line Speed	360 ft (110 m/min): 1st layer
Rated Line Pull (Single line)	30,860 lbs (137 kN)
Wire Rope Diameter	28 mm
Wire Rope Length	2,590 ft (790 m)
<b>Working Speed</b>	
Swing	1.2 rpm (min <sup>-1</sup> )
Travel	0.6/0.4 mph (1.0/0.6 km/h)
<b>Hydraulic System</b>	
Pumps	6 variable displacement
Max. Pressure	4,640 psi (32.0 MPa)
Hydraulic Tank Capacity	188 US gal (710 liters)
<b>Weight</b>	
Working Weight*	881,800 lbs
Ground Pressure*	25.1 psi (173 kPa)
Counterweight	Upper: 352,700 lbs (160 metric ton)
	Lower: 112,400 lbs (51 metric ton) + 44,100 lbs (20 metric ton)

\*1: Including upper and lower machines, counterweights = 352,700 lbs (160 metric ton), carbody weights = 112,400 lbs (51 metric ton), crawler weights = 44,100 lbs (20 metric ton), 79 ft luffing boom, and 21,100 lbs hook block. Not include quick connection device and upper translifter

# GENERAL DIMENSIONS

## Crane Boom

Unit: ft-in (mm)



## Lift Enhancer



SHL CRANE

SHL LUFFING