

KOBELCO

HYDRAULIC CRAWLER CRANE 7250

Standard Crawler Crane

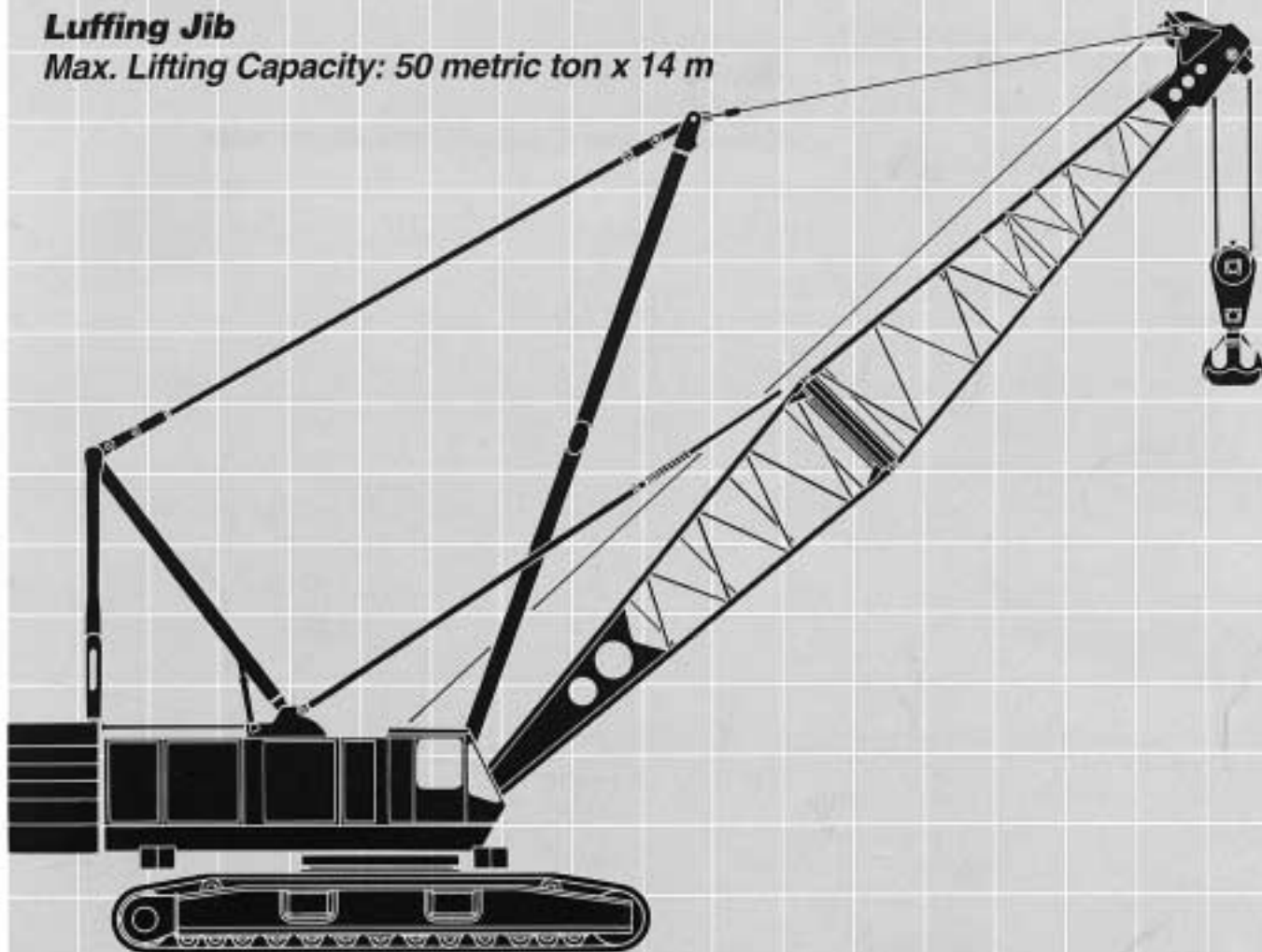
Max. Lifting Capacity: 250 metric ton x 5.0 m

Fixed Jib

Max. Lifting Capacity: 25 metric ton x 28 m

Luffing Jib

Max. Lifting Capacity: 50 metric ton x 14 m



THE INVINCIBLE LIFTER IN KNOCK-DOWN MODULES

With a maximum lifting capacity of 250 metric tons at 5 meters for the boom, and 25 metric tons at 28 meters for the fixed jib, big lifts are within easy reach of the KOBELCO 7250. But where this hydraulic crawler crane really excels is in its easy transportability. The optional Trans-lifter assembly system and quick undecking device enable the machine to be knocked down into convenient modules that can be rapidly assembled on site with the minimum of built-up crane support. Called the nesting boom method, one of the diaphragm members of main midsection boom is removed, allowing the jib midsection to fit inside. This reduces the space needed for storage and number of trucks needed for transporting the booms.

Performance

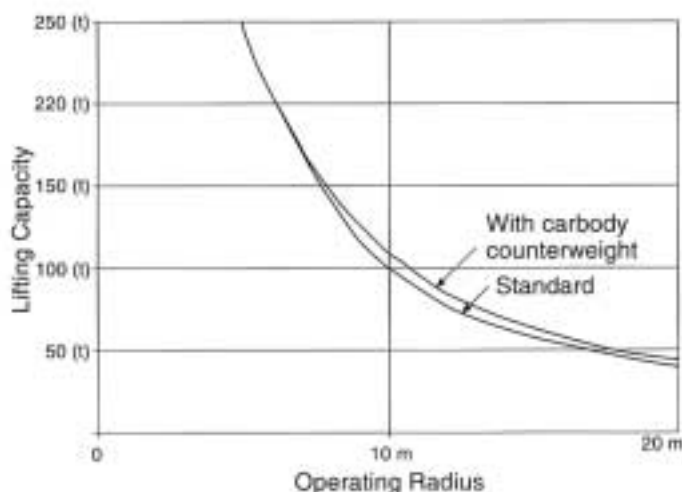
Unbeatable lifting performance

The heavy-duty boom can lift 250 metric tons at 5 meters radius. The light-duty boom can handle 100 metric tons at 10 meters and can be extended to 94.49 meters. When a fixed jib rig is used, lifting of light loads can be done at a maximum heights of 109.73 meters. When a luffing jib is used, close distance lifting can be done at a maximum height of 116.62 meters.

Upgraded long-reach lifting

Long-reach lifting capacity can be substantially increased when the optional carbody counterweight is fitted.

Upgraded lifting capacity



Operation

Precisely controlled hydraulic drives

All machine movements are hydraulically driven and always under precise control, with drum and swing drives offering smooth take-up and accurate load spotting. To further improve the efficiency of this big lifter, the swing drive is supplied by independent hydraulic pumps, and the control circuit provides an ideal amount of 'feel' to all operations.

Positive and negative hook braking systems

Selectable positive and negative braking systems are fitted to the 2-speed hook drums. Negative operation actuates each drum brake when the appropriate clutch lever is returned to the neutral position. Lowering the load under gravity is possible with the drum clutch levers in neutral, positive braking being applied by each drum foot pedal. Negative braking is also used in the boom and propel drive trains, which is spring-set and hydraulically released.

Spacious, well-planned cab

The totally enclosed operator's cab is separated from the machinery compartment and is fitted with a sliding front window to provide outstanding visibility. A fully adjustable, high-backed seat assures operator comfort, with all controls and instruments positioned for maximum ease of operation.

Service

Highly maneuverable crawler propulsion

Each crawler is independently driven by a hydraulic motor to provide skid and counter-rotation steering as well as 2-speed travel. We didn't forget the service engineer either when designing this tough lifter. Durability is built in, and by installing floating seals and using sealed-for-life track rollers and prelubricated bearings the crawlers are virtually maintenance-free.

Quiet and fuel-efficient operation

The turbocharged, direct injection diesel engine delivers quiet, reliable power with low fuel consumption.

Complete safety

In addition to the normal drum and swing locks, and protection devices against over-hoisting, an optional moment limiter can be specified to monitor the safe load in all boom and jib operating attitudes.

Optional Devices

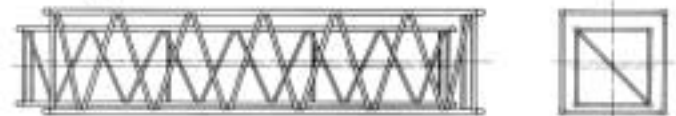
Compact transportability and quick assembly

Kobe Steel has solved the logistic problems in cranes of this size with the optional Trans-Lifter assembly system and quick undecking device. This system incorporates a series of hydraulic jacks that facilitate rapid assembly and dismantling. The heaviest knocked-down unit is the upper machinery module at 41.1 tons (with gantry and Trans-Lifter installed) or 36.8 tons (without gantry). With the help of just two 45-ton hydraulic truck cranes for support, the 7250 can be rigged and working in boom configuration

within hours of its arrival on site. The Trans-lifter can also be used to load the upper machinery onto a trailer (see illustration).

By nesting the jib midsection inside the main mid section boom, less space is needed for storage and fewer trucks are needed for transporting.

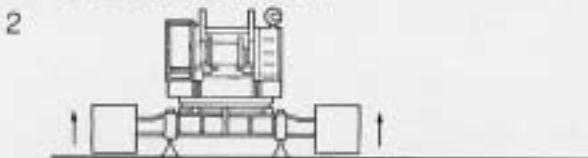
Nesting boom



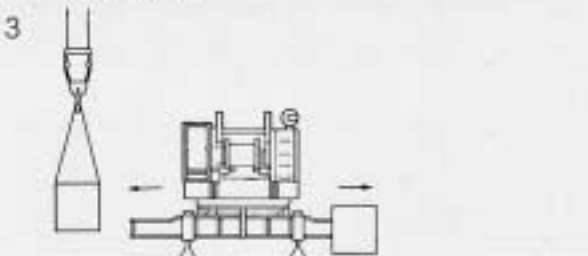
Trans-Lifter Gets the Job Done Fast!



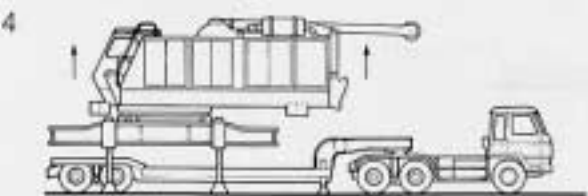
1 The counterweights are removed and the gantry is lowered to folded position.



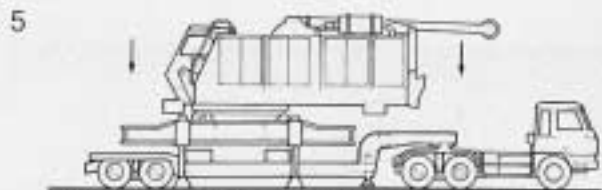
2 The machine is lifted approximately 100mm by means of the translifter jack cylinders operated through remote control.



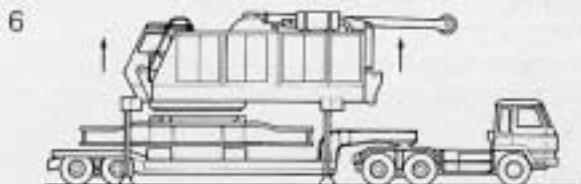
3 The Horizontal cylinders push the crawler frames out, and each crawler frame is lifted with the auxiliary crane 45 tons or larger.



4 The upper frame is turned 90°, the translifter jack cylinders are further extended, and a trailer is positioned beneath the carbody.



5 Cribbings are placed, and the machine is lowered onto the trailer.



6 The upper is supported by upper translifter and carbody is separated by "Quick undecking device"



7 The trailer bearing the carbody is removed and another trailer is positioned beneath the upper frame.



8 Cribbings are placed and the upper is lowered onto the trailer.



9 The translifter jack cylinders are fully retracted inside the upper frame.

CONFIGURATION AND STYLE OF ATTACHMENT

Boom Configuration	Standard Crawler Crane				Fixed Jib		Luffing Jib
	Heavy Duty Boom		Light Duty Boom		Light Duty Boom		
Counterweight	Standard	Carbody	Standard	Carbody	Standard	Carbody	
SPECIFICATION							
Max. lifting capacity	250 ton x 5.0 m	250 ton x 5.0 m	100 ton x 10.0 m	100 ton x 10.0 m	25 ton x 26.0 m	25 ton x 28.0 m	50 ton x 14.0 m
Max. total length (Boom + Jib)	42.67 m	42.67 m	94.49 m	73.15 m	73.15 m +36.58 m	73.15 m +36.58 m	61.76 m +54.86 m
COUNTERWEIGHT							
Std. Counterweight (65.0 metric ton)	○	○	○	○	○	○	○
Carbody weight (30.0 metric ton)	—	○	—	○	—	○	○*
BASIC BOOM							
9.14 m (30') lower boom and mast x1	1	1	1	1	1	1	1
9.14 m (30') heavy duty upper boom x1	1	1	—	—	—	—	—
9.14 m (30') light duty upper boom x1	—	—	1	1	1	1	—
0.80 m upper boom for luffing jib (cap boom) x1	—	—	—	—	—	—	1
BOOM INSERT							
3.05 m (10') insert x1	1	1	1	1	1	1	1
6.10 m (20') insert x2	1	1	2	2	2	2	2
12.19 m (40') insert x2	—	—	2	1	1	1	—
9.14 m (30') insert (A) x4	2	2	4	4	4	4	3
9.14 m (30') insert (B) for luffing jib	—	—	—	—	—	—	1 ^{*2}
FIXED JIB							
4.57 m (15') lower jib x1	—	—	—	—	1	1	—
4.57 m (15') upper jib x1	—	—	—	—	1	1	—
3.05 m (10') insert jib x1	—	—	—	—	1	1	—
6.10 m (20') insert jib x1	—	—	—	—	1	1	—
9.14 m (30') insert jib x2	—	—	—	—	2	2	—
LUFFING JIB							
9.14 m (30') lower jib x1	—	—	—	—	—	—	1
9.14 m (30') upper jib x1	—	—	—	—	—	—	1
9.14 m (30') insert jib x3	—	—	—	—	—	—	3
3.05 m (10') insert jib x1	—	—	—	—	—	—	1
6.10 m (20') insert jib x1	—	—	—	—	—	—	1

Note:

Number of boom and jib above shown means the numbers for the maximum length respectively.

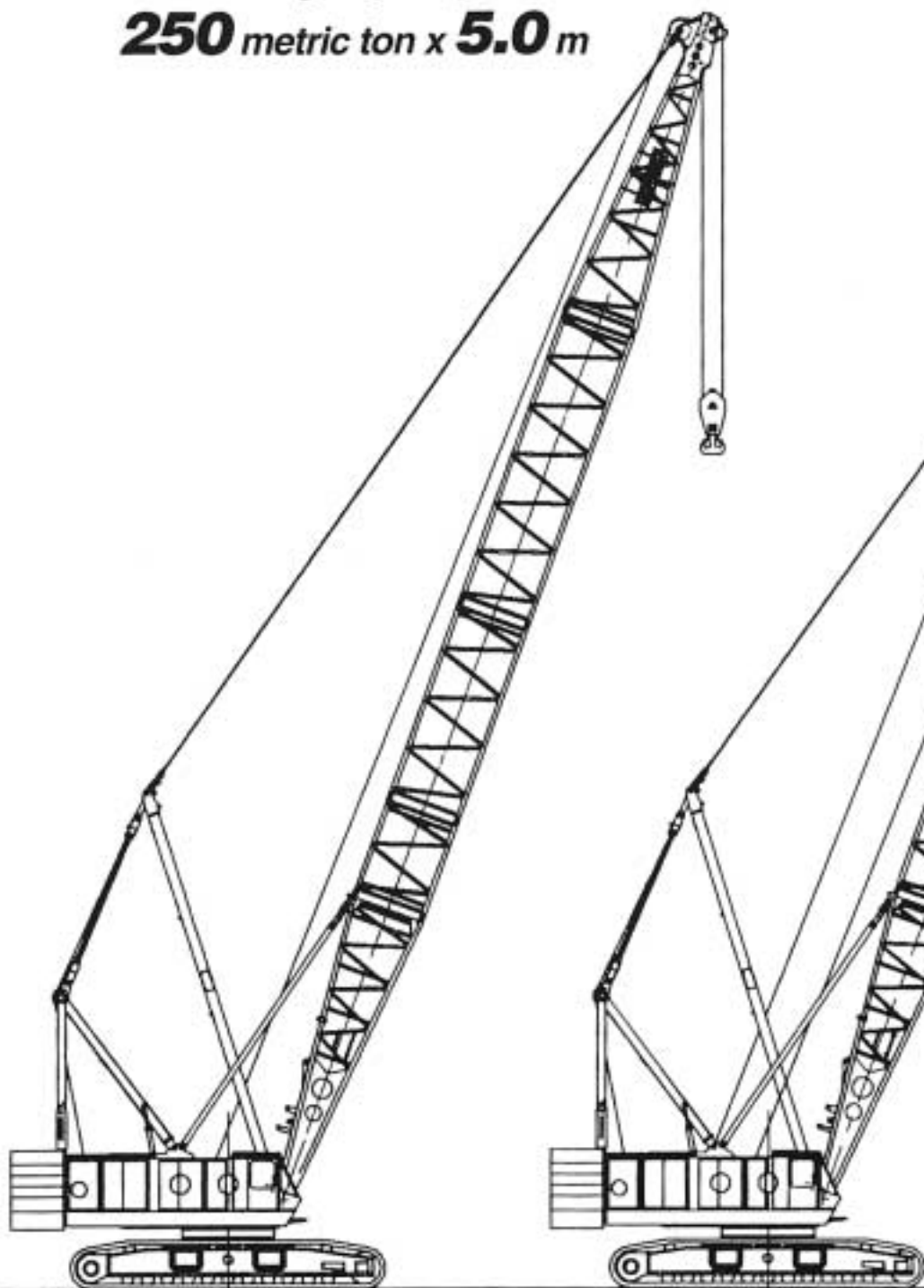
*1. When the boom length is more than 58.71 meters, the carbody weight (30 ton) must be installed.

*2. 9.14 m (30') insert (B) is required only when luffing jib configuration is included.

Std. Crawler Crane

Max. Lifting Capacity

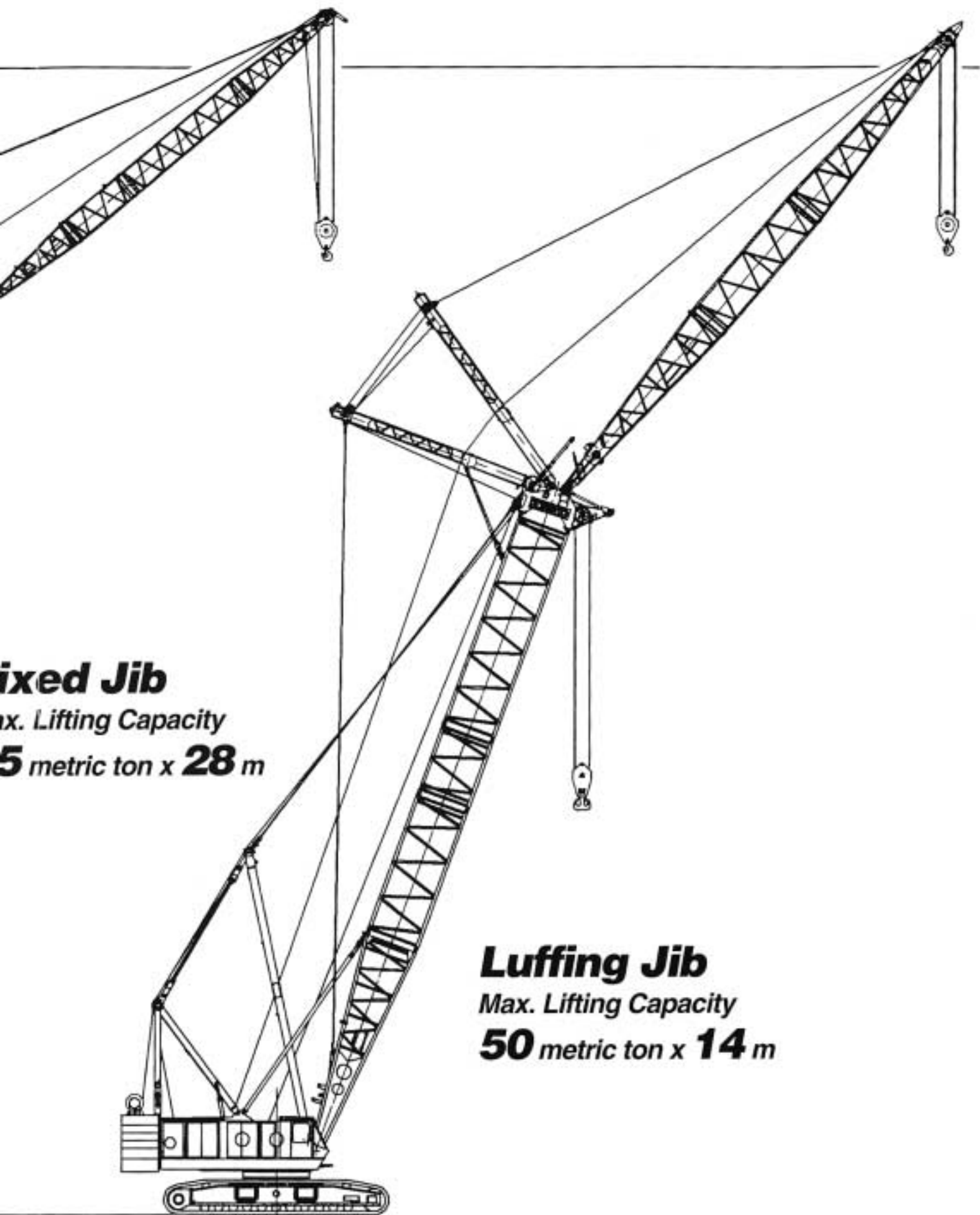
250 metric ton x **5.0** m



Fixed

Max. Lifting

25 m



Fixed Jib
Max. Lifting Capacity
5 metric ton x **28** m

Luffing Jib
Max. Lifting Capacity
50 metric ton x **14** m

Specifications

Upper machinery



Power plant

ModelMitsubishi 8DC9T diesel

TypeTurbocharged direct injection

No. of cylinders8

Bore and stroke 135 mm x 140 mm

Displacement16,031 liters

Rated power (SAE gross)351 HP at 2,000 rpm

Max. torque 138 kg-m at 1,400 rpm

Cooling systemThermostatic, pressurized water

Starter 24 V, 6.0 kW

Generator24 V, 1.0 kW

Cycles4

RadiatorVertical tubes in a finned core

Air cleaner.....Dry type with replaceable paper element

Fuel tank capacity 500 liters

Batteries Two 12V, 200A-hr capacity batteries
are series connected



Hydraulic system

Pumps: All are driven from a heavy-duty pump drive. Two variable displacement pumps are used. One pump is used in the right propel circuit, boom hoist circuit, and hook hoist circuit. The other pump is used in the left propel circuit and hook hoist circuit, and can accommodate an optional third hoist circuit. Two gear pumps are used in the swing circuit, one in control system circuit, and one in the control system for the clutch and brakes.

Control: Full-flow hydraulic control system for infinitely variable pressure to front and rear drums, boom hoist brakes and clutches. Response to the operator's touch is instant, positive, and smooth. Pumped fluid is filtered before returning to pump.

Pressure: .280 kg/cm² maximum relief valve pressure (Except for the swing, which is 230 kg/cm²)

Reservoir capacity: 600 liters

Cooling: Hydraulic oil is cooled in an oil-to-air heat exchanger

Filtration: Full-flow filters with replaceable paper elements are fitted in each circuit.



Boom hoisting system

Powered by a hydraulic axial piston 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. A safety pawl (external ratchet) is fitted for locking the drum.

Drum: Two in-line drums, each grooved for 22 mm dia. wire rope.

Line speed: Single line on first drum layer

Hoisting (max.)20 m/min

Lowering (max.) 20 m/min



Load hoist system (front and rear drum)

Powered by two hydraulic axial piston motors driving through a planetary reducer.

Clutches: Internally expanding band clutches.

Brakes: Externally contracting band brakes are used, with both positive and negative actuation. Each is hydraulically set, with an additional spring-set, hydraulically released brake lock, and a spring-set hydraulically released safety pawl (external ratchet) for locking the drum.

Drums: (front and rear): 588 mm P.D. x 990 mm long drums, each grooved for 28 mm wire rope. Rope capacity of 530 m working length and 720 m storage length.

Line speed: Single line on the first drum layer

Hoisting (max.)90/60 m/min

Lowering (max.) 90/60 m/min



Swing system

Swing unit: Powered by dual hydraulic axial piston motors driving spur gears through planetary reducers, the swing system provides 360° of rotation.

Max. Swing speed2.0 rpm

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

Swing circle: Triple-row roller bearing with an integral, internally cut swing gear.

The swing bearing can be fitted with an optional connection/disconnection system (Quick Undecking Device) that is actuated by the swing units and locked by hydraulic jacks.

House lock: Four position pin-in-hole lock (manually engaged)



Operator's cab

Totally enclosed from the weather, full-vision cab is fitted with safety glass and a sliding front window. A fully adjustable, high-backed seat is provided so that all operators can set their ideal working position. A signal horn, cigarette lighter, windshield wiper and inspection lamp socket are standard features.



Controls

In front of the operator are foot pedals for the front and rear drum brakes, adjustable hand levers for swing control, front and rear drum control, boom hoist control, the hand throttle, switches for the front and rear drum pawls and brake locks, and the positive/negative brake selector. The propel control levers are on the right of the operator's seat. The swing brake switch and signal horn button are on the swing lever. On the operator's left are console-mounted switches for the engine starter, lights, gantry cylinders and windshield wipers.

Gauges: Fuel, engine water temperature, engine oil pressure and hydraulic oil temperature gauges are provided along with tachometer and hour meter.

Warning lamps: Engine oil pressure, hydraulic oil pressure, battery charge, engine oil filter and swing brake warning lamps are fitted.

Safety devices:

Over-hoist alarm and shut-off switch, boom over-hoist limit switch, boom angle indicator, signal horn, boom hoist and front and rear drum locks, swing lock, boom back stop, hook safety latch and optional load moment limiters (overload protection device) are provided.



Gantry

Folding type, fitted with sheave frame for boom hoist reeving, lowers toward rear onto cab roof. Hydraulic lift is standard. Full up, middle, and full down positions with linkage.

Counterweight

Six-piece stack mounted behind the machinery compartment

Total weight 65,000 kg



Tools

Tool set and accessories for routine machine maintenance are provided.

Lower machinery

Carbody: Steel-welded carbody with axles.

Crawler: Crawler assemblies designed with a quick disconnect feature for individual removal as a unit from the axles. Crawler belt tension is maintained by hydraulic jack force on the track-adjusting bearing block.

Crawler drive: Independent hydraulic propel drive is built into each crawler side frame. Each drive consists of a hydraulic motor propels a driving tumbler through a planetary gear box.

Crawler brakes: Spring-set, hydraulically released multiple-disc parking brakes are built into each propel drive.

Steering mechanism: The hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving tracks in opposite directions).

Track rollers: 13 lower rollers and 2 upper rollers are fitted to each side frame, all permanently sealed and maintenance-free.

Shoes:

Number 59 each side
Standard flat shoe width 1,220 mm

Max. travel speed:

High range 1.2 km/h
Low range 0.6 km/h

Max. gradeability: 30%



Carbody counterweight (optional)

A four piece weight can be optionally specified for mounting on the carbody to increase lifting capacity.

Total weight 30,000 kg

Trans-Lifter (optional)

As each of the four cylinders on both the carbody and upper frame are used at the time of assemblage and disassemblage, loading and unloading onto the trailer are made easy.

Crane attachments



Boom

Boom sections all employ a welded lattice construction, using tubular, high-tensile steel chords with pin connections between sections.



Jib (optional)

The optional jib sections all employ a welded lattice construction, using tubular, high-tensile steel chords with pin connections between sections.

Mast: Required for all booms.



Hook blocks

A range of hook blocks can be specified, each with a safety latch.

Lifting capacity	250 ton	100 ton	65 ton	30 ton	12.5 ton
No. of sheaves	12	5	3	1	—
Weight (ton)	4.5	1.7	1.5	1.2	0.55

Diameter of wire ropes

Standard:

Hook hoist 28 mm dia
Boom hoist (18-part line) 22 mm dia
Boom pendants (4-part line) 36 mm dia

Optional:

Jib hook hoist 28 mm dia
Jib back stay pendants 30 mm dia
Boom midpoint suspension
(for boom lengths of 64.01 m and over) 24 mm dia
Boom backstops: Recommended for all boom lengths.



Weight

Working weight: Approx. 200,000 kg
(including 18.29 m boom and 250 metric ton hook block and standard counterweights.)

Ground pressure: 0.89 kg/cm² with 1,220 mm shoes

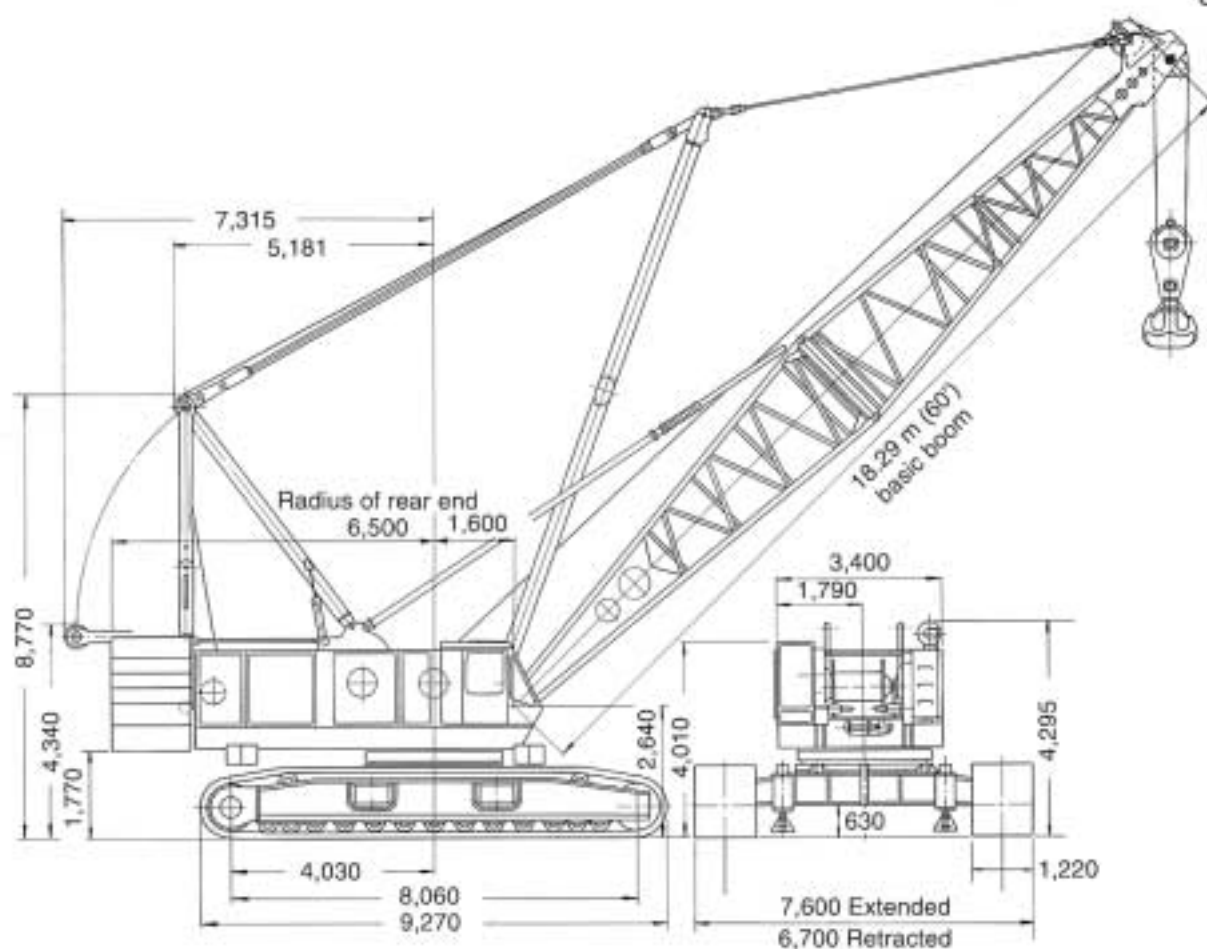
KOBELCO

7250

Hydraulic Crawler Crane

GENERAL DIMENSIONS

Unit: mm



Address inquiries to:

NOTE: Due to our policy of continual product improvement, all designs and specifications are subject to change without advance notice.

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