

**HEAVY DUTY BASE MACHINE
FOR FOUNDATION WORK**

BM800HD

Max. Lifting Capacity: 80 t at 3.7 m

Max. Boom Length: 54.9 m

A New Generation of Base Machines for Heavy-Duty Foundation Work

Heavy-duty reliability from wet-type disc brakes. Powerful and large capacity drums to handle any job with power to spare. Drawing on long experience in crane manufacture, KOBELCO researched the bottom line in boosting operating efficiency in civil engineering and foundations work, and has unveiled a new generation of base machines. The BM800HD features power and precision in operations, simple controls and comprehensive safety features. Economic to run, easy to transport, kind to operator and environment alike. In every respect the BM800HD delivers a performance that sets new standards for heavy-duty foundation work.



**A machine born for real
Toward the next generation**



**1. Innovative Wet-Type
Disc Brake System**

2. High Line-pull Winches

**3. Wide, Large-Capacity
Winches**

4. Large Third Winch (Optional)

5. Easy Maintenance

**foundation work.
with power, speed, and strength.**

High and Tough Performance

Max. lifting capacity

80 t at 3.7 m

Max. boom length

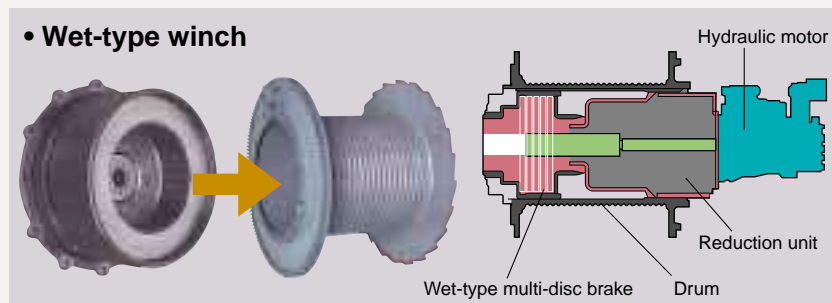
54.9 m

Innovative Wet-Type Disc Brake System

KOBELCO's new oil cooled wet-type multi-disc brake system provides quiet, dependable braking power.

Multiple discs are self-adjusting and self-equalizing. Forced oil circulation keeps brake temperatures cooler during long, continuous operations and ensures smooth braking. The completely enclosed system eliminates the possibility of outside contamination, providing years of problem-free service life. In free-fall mode, the brake pedal is easily depressed to reduce operator fatigue.

• Wet-type winch



High-Output Engine

The engine has an impressive rated output of 247 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

247 kW

Meets NRMM (Europe) Stage IIIA



High-Speed Lifting Increases Work Efficiency

The main and auxiliary winches deliver a fast maximum hoisting and lowering speed of 120 m/min. Faster operation in throating work cuts cycle times and boosts operating efficiency.

Max. line speed

120 m/min (First layer)

Double Auxiliary Sheave (Optional)

By using a double auxiliary sheave, the hammer-grab bucket can be suspended on the auxiliary winch with the crown on the main winch. And the optional third wire rope on a point sheave can accommodate a large capacity hook for greater operating versatility.



Wide, Large Capacity Winches

The wide hoist winches with 617 mm width provide an impressive spooling capacity of 42 m (22 rows) on the first layer with $\varnothing 26$ mm hoist rope. Their large capacity and large diameter help to prevent uneven spooling and wear while enabling the hammer grabbing operation at depths of 30 to 50 m within the 2nd layers.

Wire rope (main/aux.)

$\varnothing 26$ mm



High Line-pull Winches

Through the efficient match-up of a high-output engine and high-performance hydraulic motors, the winches deliver plenty of line pull. It delivers highly reliable performance for continuous, hard work such as bucket lifting or material handling for large foundation work.

Rated line-pull (main/aux.)

108 kN {11.0 tf}
(First layer)

Max. line-pull (main/aux.)*

208 kN {21.2 tf}
(First layer)

*Max. line-pull is theoretical values under certain test condition.



Large Third Winch (Optional)

Because of KOBELCO's innovative internal disc brake system and side engine layout, the optional third winch is the same size as the main and auxiliary winches, making the BM800HD ideal for foundation work.

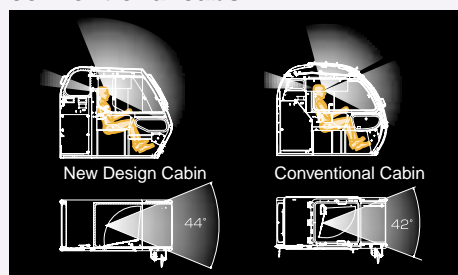
Wire rope (Third) **ø26 mm**

Comfortable Cab

Clear, Panoramic View

The BM800HD has a new cabin design with sash-less front and top glass that provides a panoramic frontward and skylight view. The glass also has less curvature to minimize distortion. The front upper window has been broadened on both sides for a view that is 31 % wider than a conventional cab, while the top-window view is widened toward the rear.

Visual comparison of new and conventional cabs



■ Reinforced Green Glass

Comfortable 940mm-Wide Cab



- Fully adjustable, high bucked seat with a head-rest and arm rests
- Air conditioner
- Intermittent wiper and window washer
- Cup holder ■ Luggage tray
- Sun visor ■ Roof blind

Smooth Operation and Control

Winch Speed Controller

The speeds of the main winch, auxiliary winch and boom hoist can be set independently with trimmer controls.



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.

Free-fall Switch with Interlock

The free-fall switches are strategically located on the hoist levers, allowing the operator to engage free-fall without removing his hands from the control levers. To prevent the load from accidentally dropping, the interlock function makes it impossible to initiate free-fall unless the foot brake is fully depressed.



To prevent the load from accidentally dropping because of operator error, do not use free-fall when lifting.



Excellent Transportability

Crawler Retraction to 3.2 m Designed for Easier Transport

With its crawlers retracted, the BM800HD measures just 3.2 m wide for easy transport.

Safety and Easy Assembly

- Boom assembly/disassembly mode
- Boom base connecting tapered pins at both ends
- Big tool box
- Thin counterweights
- Maximum 36.6 m cantilever boom
- Boom side steps
- Upper spreader storage guides
- Gantry raising/lowering cylinder

Easy maintenance

Multi-Display

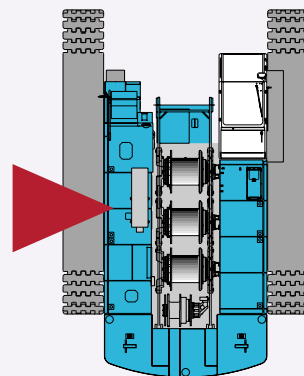


The easy-to-read LCD multi-display provides information on the current status of such functions as engine rpm, maintenance and on-board troubleshooting, so that the operator has an ongoing, real-time assessment of the machine's conditions at a glance.

- The lifting height gauge can also be used as a depth gauge when digging underground (optional).

Side Engine Layout for Easy Maintenance

A new engine layout on the side of the machine provides easy access for routine inspections and servicing.



Safe, Environmentally-Conscious Design

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. Other information can also be displayed, including a rated load chart and rated load curve, in addition to a function that regulates the working range.



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.



- The boom lowering slow stop function allows smooth automatic stop at the overload and reduces dangerous swinging of the load.

Other Safety Features

- Function lock lever helps prevent accidental operation when the operator enters or leaves the cab.
- Swing flashers and warning buzzer warn surrounding workers when the machine is swinging.



Complying with Worldwide Exhaust Gas Regulations

Adopting the low pollution engine, the BM800HD meets NRMM (Europe) Stage IIIA and U.S. EPA Tier III exhaust emissions regulations.

Complying with Japanese Noise Regulations

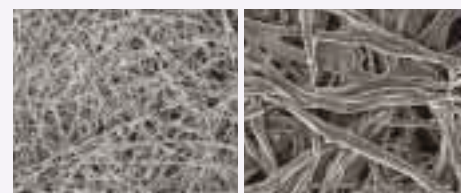
The BM800HD is designed with advanced KOBELCO low noise construction technologies, as specified by the Japanese Ministry of Land, Infrastructure and Transport.

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 life-long operating costs.



Photomicrograph (x250)



● Super fine filter (glass fiber)

● Conventional filter (paper fiber)

Main Specification (Model: BM800HD-2F)

Crane Boom	
Max. Lifting Capacity	80 t/3.7 m
Max. Length	54.9 m
Main & Aux. Winch	
Max. Line Speed	120 m/min (1st layer)
Rated Line Pull (Single-line)	108 kN {11.0 tf}
Max.Line Pull(Single-line)***	208 kN {21.2 tf}
Wire Rope Diameter	26 mm
Wire Rope Length	170 m (Main) 125 m (Aux.)
Brake Type	Forced-circulation oil-cooled wet-type multi-disc brake (Positive & Negative)
Working Speed	
Swing Speed	4.0 min ⁻¹ {rpm}
Travel Speed	1.9 /1.2 km/h

Units are SI units. { } indicates conventional units.

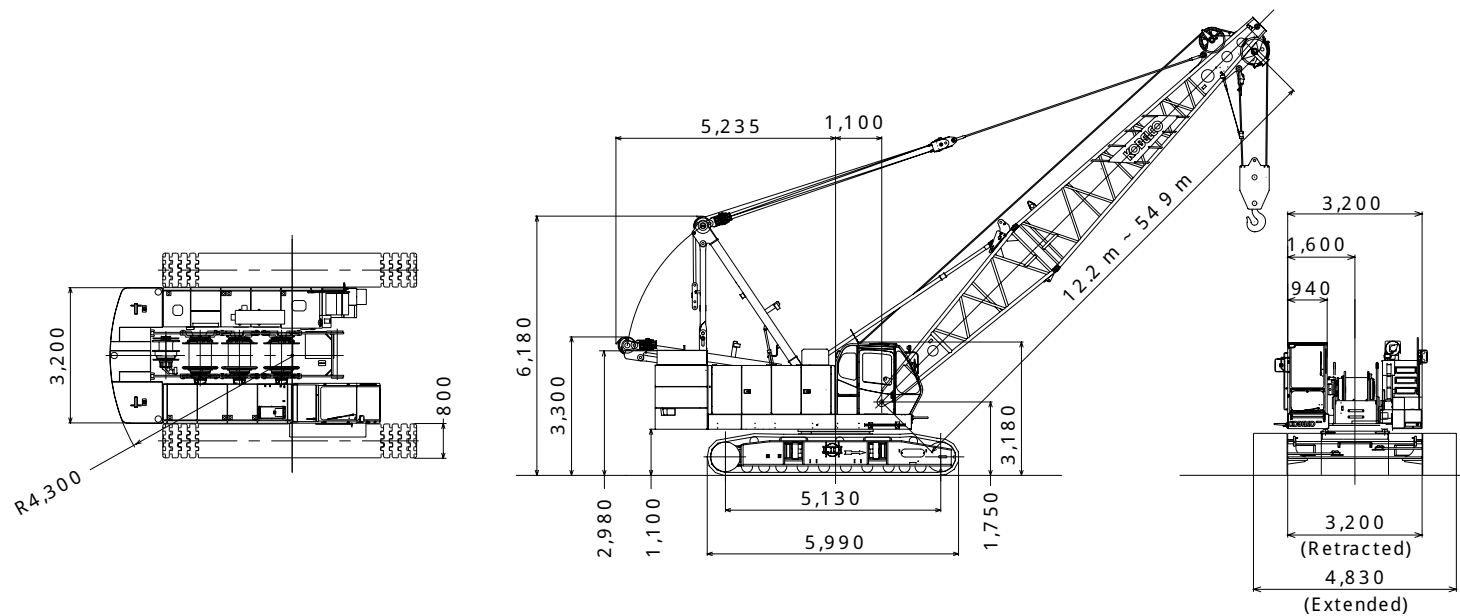
*Including upper and lower machine, 25.8 ton counterweight, basic boom, hook and other accessories.

**Base machine with gantry, crawlers, wire ropes for main and boom hoist winches and lower spreader.

***Max. line-pull is theoretical values under certain test condition.

Power Plant	
Model	Hino P11C-UN
Engine Output	247 kW/2,000 min ⁻¹
Fuel Tank Capacity	400 liters
Hydraulic System	
Main Pumps	3 variable displacement
Max. Pressure	31.9 MPa {325 kgf/cm ² }
Hydraulic Tank Capacity	440 liters
Weight	
Operating Weight*	Approx. 75 t
Ground Pressure*	82 kPa {0.84 kgf/cm ² }
Counterweight	25.8 t
Transport Weight**	Approx. 44.8 t

General Dimensions (Unit:mm)



Note: This catalogue 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.

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