

HEAVY DUTY BASE MACHINE FOR FOUNDATION WORK

KOBELCO

BM700HD-2

Max. Lifting Capacity: 70 t
Max. Boom Length: 54.9 m
Max. Jib Combination: 42.7 + 18.3 m

BM800HD-2

Max. Lifting Capacity: 80 t
Max. Boom Length: 54.9 m

S P E C I F I C A T I O N S

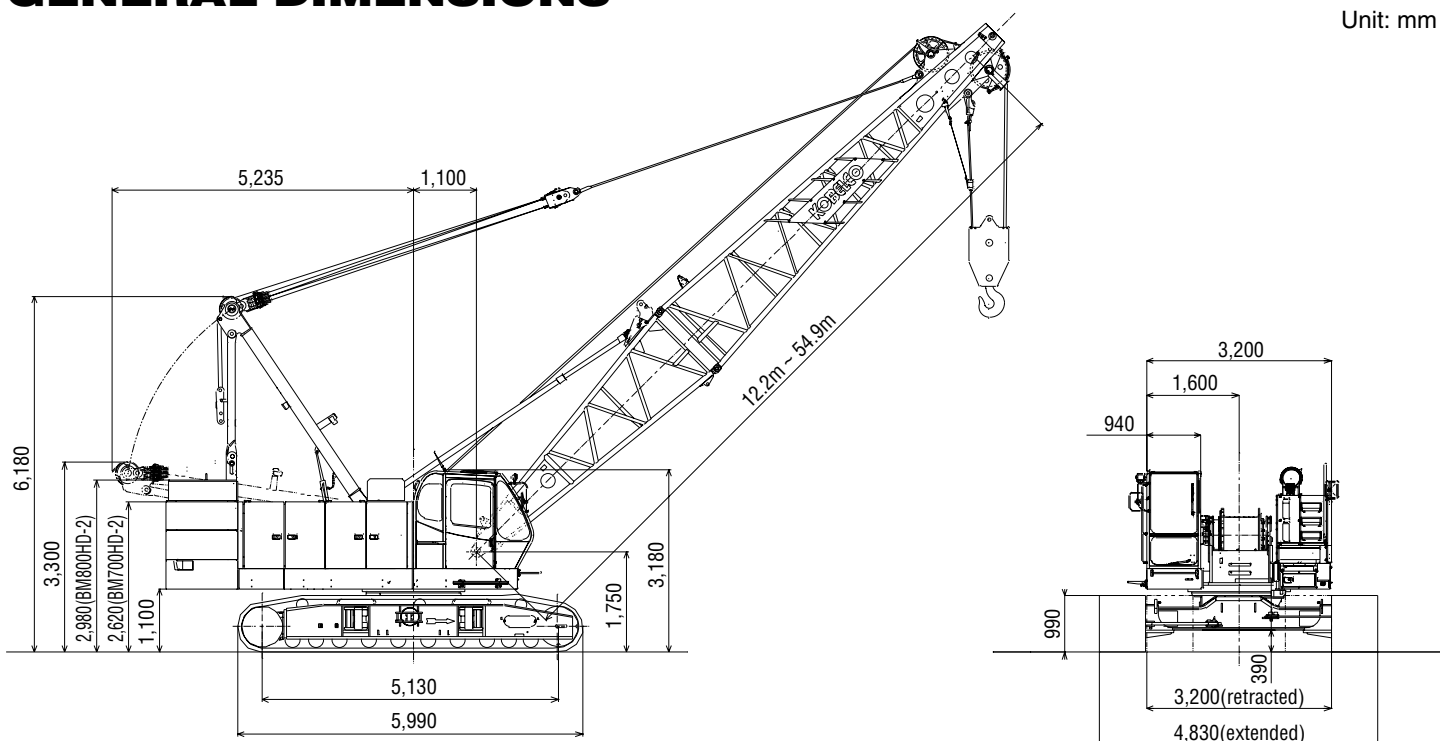
Crane Boom	BM700HD-2	BM800HD-2
Max. Lifting Capacity	70 t/3.7 m	80 t/3.7 m
Max. Length	54.9 m	54.9 m
Crane Jib		
Max. Lifting Capacity	6.6 t	NA
Max. Length	18.3 m	NA
Max. Combination	42.7 m+18.3 m	NA
Main & Aux. Winch		
Max. Line Speed	120 m/min (1st layer)	
Rated Line Pull	108 kN (11 tf)	
Max. Line Pull *	196 kN (20 tf)	
Wire Rope	26 mm	
Wire Rope Length	170m (Main) 125m (Aux.)	170m (Main) 125m (Aux.)
Brake Type	Wet-type multiple - disc brake	
Free-Fall	Standard	
Working Speed		
Swing Speed	4.0 min ⁻¹ (rpm)	
Travel Speed	1.9/1.2 km/h	

Power Plant	BM700HD-2	BM800HD-2
Model	Mitsubishi 6D24-TLE2A	
Engine Output	235 kW/2,000 min ⁻¹ (rpm)	
Fuel Tank Capacity	400 liters	
Hydraulic System		
Main Pumps	3 variable displacement	
Max. Pressure	30.9 MPa (315 kgf/cm ²)	
Hydraulic Tank Capacity	380 liters	
Weight		
Operating Weight	Approx. 69 t	Approx. 75 t
Counterweight	22.9 t	25.9 t
Transport Weight	43.9 t	44.2 t
	(Main machine with crawler and lower boom)	
Ground Pressure	77 kPa (0.80 kgf/cm ²)	82 kPa (0.84 kgf/cm ²)

*) Max. Line Pull is theoretical values and for reference only.

GENERAL DIMENSIONS

Unit: mm



KOBELCO CRANES CO., LTD.

MAIN BOOM LIFTING CAPACITY

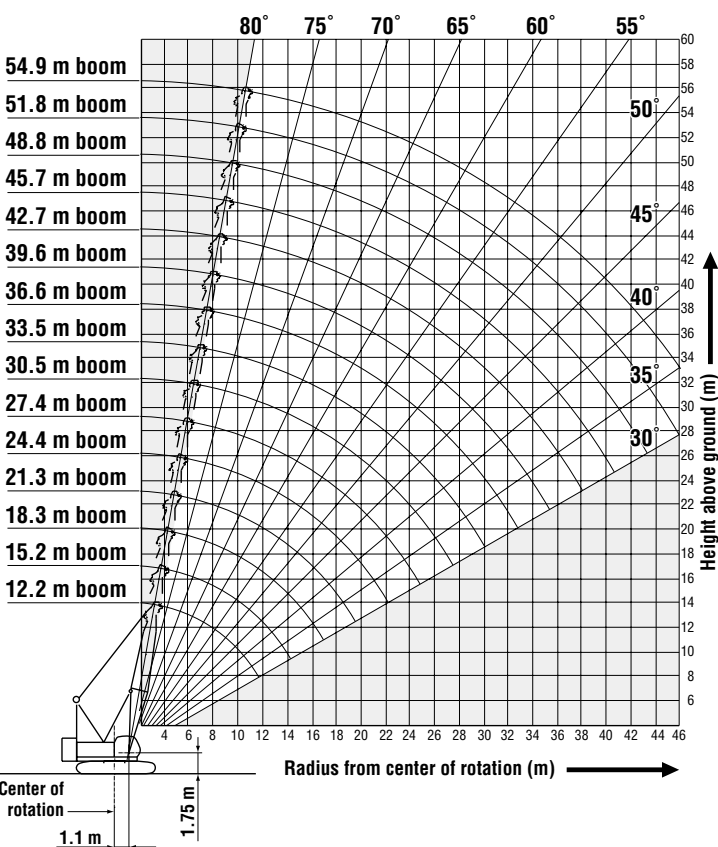
Rated loads in metric tons for 360° working area (Counterweight: 22.9 t)

Crawlers fully extended

Boom length m (ft)	12.2 (40)	15.2 (50)	18.3 (60)	21.3 (70)	24.4 (80)	27.4 (90)	30.5 (100)	33.5 (110)	36.6 (120)	39.6 (130)	42.7 (140)	45.7 (150)	48.8 (160)	51.8 (170)	54.9 (180)	
Working radius (m)	3.7	70.0														
	4.0	65.0														
	4.2	65.0	64.2/4.3	57.2/4.8												
	5.0	53.2	53.1	53.0	50.3/5.3	43.4/5.9										
	6.0	41.3	41.2	41.1	41.1	41.0	38.0/6.4	33.5/6.9								
	7.0	32.6	32.5	32.4	32.4	32.3	32.2	32.1	30.3/7.5							
	8.0	26.9	26.8	26.7	26.7	26.6	26.5	26.4	26.3	26.1/8.0	24.3/8.5					
	9.0	22.8	22.7	22.6	22.6	22.5	22.4	22.3	22.2	22.1	22.0	20.8/9.0	19.9/9.6			
	10.0	19.7	19.6	19.5	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.7	17.7/10.1	16.3/10.6	13.2/11.2
	12.0	15.9/11.8	15.7	15.6	15.5	15.4	15.3	15.2	15.1	15.0	14.9	14.9	14.7	14.6	13.5	13.2
	14.0		12.9	12.8	12.6	12.5	12.4	12.3	12.2	12.1	12.0	12.0	11.8	11.7	11.6	11.1
	16.0		12.5/14.5	10.7	10.6	10.5	10.3	10.2	10.1	10.0	9.9	9.9	9.7	9.6	9.5	9.4
	18.0			9.7/17.1	9.0	8.9	8.8	8.7	8.6	8.5	8.3	8.3	8.2	8.1	7.9	7.8
	20.0				7.9/19.8	7.7	7.6	7.5	7.4	7.3	7.1	7.1	7.0	6.8	6.7	6.6
	22.0					6.8	6.7	6.5	6.4	6.3	6.2	6.1	6.0	5.8	5.7	5.6
	24.0					6.6/22.4	5.9	5.8	5.6	5.5	5.4	5.3	5.2	5.0	4.9	4.8
	26.0						5.5/25.0	5.1	5.0	4.9	4.7	4.7	4.5	4.4	4.3	4.2
	28.0							4.6/27.7	4.5	4.3	4.2	4.1	4.0	3.8	3.7	3.6
	30.0								4.0	3.9	3.7	3.7	3.5	3.3	3.2	3.1
	32.0								3.9/30.3	3.5	3.3	3.2	3.1	2.9	2.8	2.6
34.0									3.2/33.0	3.0	2.9	2.7	2.5	2.4	2.2	
36.0										2.7/35.6	2.6	2.4	2.2	2.0	1.8	
38.0											2.2	2.0	1.9	1.7	1.5	
40.0											2.2/38.2	1.8	1.6	1.4	1.2	
42.0												1.6/40.9	1.3/42.0	1.1/42.0	1.1/41.0	

Note: Rating do not exceed 78% of tipping load. Deduct the weight of main hook, and other load handling accessories from the ratings shown.
 Rating shown in are determined by the strength of the boom or other structural components.
 When actually operating the machine, strictly observe the instruction of the operator's manual.

WORKING RADIUS (BM800HD-2)



BOOM & JIB ARRANGEMENT

BOOM ARRANGEMENT CHART (BM700HD-2/BM800HD-2)

Boom length m (ft)	Boom arrangement
12.2 (40)	Base-Tip
15.2 (50)	Base-A-Tip
18.3 (60)	Base-A-A-Tip, Base-B-Tip
21.3 (70)	Base-A-B-Tip, Base-C-Tip
24.4 (80)	Base-A-A-B-Tip, Base-A-C-Tip, Base-B-B-Tip
27.4 (90)	Base-A-B-B-Tip, Base-B-C-Tip, Base-A-A-C-Tip
30.5 (100)	Base-A-B-C-Tip, Base-C-C-Tip
33.5 (110)	Base-A-A-B'-C-Tip, Base-B-B'-C-Tip, Base-A-C'-C-Tip
36.6 (120)	Base-A-B-B'-C-Tip, Base-B-C'-C-Tip, Base-A-A-C'-C-Tip
39.6 (130)	Base-A-B-C'-C-Tip, Base-C-C'-C-Tip
42.7 (140)	Base-A-A-B-C'-C-Tip, Base-B-B-C'-C-Tip, Base-A-C'-C'-C-Tip
45.7 (150)	Base-A-B-B-C'-C-Tip, Base-A-A-C'-C'-C-Tip, Base-B-C'-C'-C-Tip
48.8 (160)	Base-A-B-C-C'-C-Tip
51.8 (170)	Base-A-A-B-C-C'-C-Tip, Base-B-B-C-C'-C-Tip
54.9 (180)	Base-A-B-B-C-C'-C-Tip

Note:
 Base = 6.1 m (20')
 Tip = 6.1 m (20')
 Insert Boom:
 A = 3.0 m (10')
 B = 6.1 m (20')
 C = 9.1 m (30')
 B' = 6.1 m (20') with lug for jib
 C' = 9.1 m (30') with lug for jib

JIB ARRANGEMENT CHART (BM700HD-2)

Jib length m (ft)	jib arrangement
6.1 (20)	Base-Tip
12.2 (40)	Base-A-Tip
18.3 (60)	Base-A-A-Tip

Note: Base = 3.0 m (10'), Tip = 3.0 m (10')
 Insert Boom: A = 6.0 m (20')

- Jib can be fitted to main boom between 30.5 m (100') and 45.7 m (150') in length.
- Fitting a jib requires 6.1 m (20') or 9.1 m (30') insert boom with lug.

MAIN BOOM LIFTING CAPACITY

Rated loads in metric tons for 360° working area (Counterweight: 25.9 t)

Crawlers fully extended

Boom length m (ft)	12.2 (40)	15.2 (50)	18.3 (60)	21.3 (70)	24.4 (80)	27.4 (90)	30.5 (100)	33.5 (110)	36.6 (120)	39.6 (130)	42.7 (140)	45.7 (150)	48.8 (160)	51.8 (170)	54.9 (180)	
Working radius (m)	3.7	80.0														
	4.0	70.5	64.2/4.3	57.2/4.8												
	5.0	56.5	56.4	56.3	51.2/5.3	45.9/5.9										
	6.0	45.7	45.6	45.5	45.5	45.4	41.1/6.4	36.5/6.9								
	7.0	36.3	36.2	36.1	36.1	36.0	35.9	35.8	32.4/7.5							
	8.0	30.0	29.9	29.8	29.7	29.6	29.6	29.4	29.4	29.3	26.7/8.5					
	9.0	25.5	25.4	25.3	25.2	25.1	25.0	24.9	24.9	24.8	24.7	22.0	19.9/9.6			
	10.0	22.2	22.0	21.9	21.9	21.7	21.7	21.5	21.5	21.4	21.3	21.2	18.7	17.7/10.1	16.3/10.6	13.2/11.2
	12.0	15.9/11.8	17.3	17.2	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.5	16.4	16.2	13.5	13.2
	14.0		14.1	14.1	14.0	13.8	13.8	13.6	13.6	13.4	13.3	13.3	13.2	13.1	12.9	12.8
	16.0		13.0/14.5	11.9	11.8	11.6	11.5	11.4	11.3	11.2	11.1	11.0	10.9	10.8	10.7	10.6
	18.0			10.7/17.1	10.1	9.9	9.9	9.7	9.7	9.5	9.4	9.3	9.2	9.1	9.0	8.9
	20.0				9.0/19.8	8.6	8.6	8.4	8.3	8.2	8.1	8.0	7.9	7.8	7.7	7.5
	22.0					7.6	7.5	7.4	7.3	7.2	7.0	7.0	6.9	6.7	6.6	6.5
	24.0					7.5/22.4	6.7	6.5	6.5	6.3	6.2	6.1	6.0	5.9	5.8	5.6
	26.0						6.3/25.0	5.8	5.8	5.6	5.5	5.4	5.3	5.1	5.0	4.9
	28.0							5.3/27.7	5.2	5.0	4.9	4.8	4.7	4.5	4.4	4.3
	30.0								4.7	4.5	4.4	4.3	4.2	4.0	3.9	3.8
	32.0								4.6/30.3	4.1	3.9	3.8	3.7	3.6	3.5	3.3
	34.0									3.9/30.3	3.6	3.5	3.3	3.2	3.1	2.9
36.0										3.3/35.6	3.1	3.0	2.9	2.7	2.5	
38.0											2.8	2.7	2.5	2.4	2.2	
40.0											2.8/38.2	2.4	2.2	2.1	1.9	
42.0												2.3/40.9	2.0	1.8	1.6	
44.0													1.8/43.5	1.5	1.3	
46.0														1.3	1.1	

Note: Rating do not exceed 78% of tipping load. Deduct the weight of main hook, and other load handling accessories from the ratings shown.
 Rating inside shown in are determined by the strength of the boom or other structural components.
 When actually operating the machine, strictly observe the instruction of the operator's manual.

CLAMSHELL

Clamshell ratings in metric tons for 360° working area (Crawler fully extended)

(With side load condition)

Boom length (m)	12.2	15.2	18.3	21.3	24.4
5.0	7.5		7.5		
5.5	7.5		7.5	7.5	
6.0	7.5	7.5	7.5	7.5	7.4
7.0	7.5	7.5	7.5	7.5	7.4
8.0	7.5	7.5	7.5	7.5	7.4
9.0	7.5	7.5	7.5	7.5	7.4
10.0	7.5	7.5	7.5	7.5	7.1
12.0	7.5	7.5	7.5	7.2	6.8
14.0		7.5	7.5	7.0	6.5
16.0			7.5	6.8	6.2
18.0				6.5	5.9
20.0				6.2	5.6
22.0					5.3

(No side load condition)

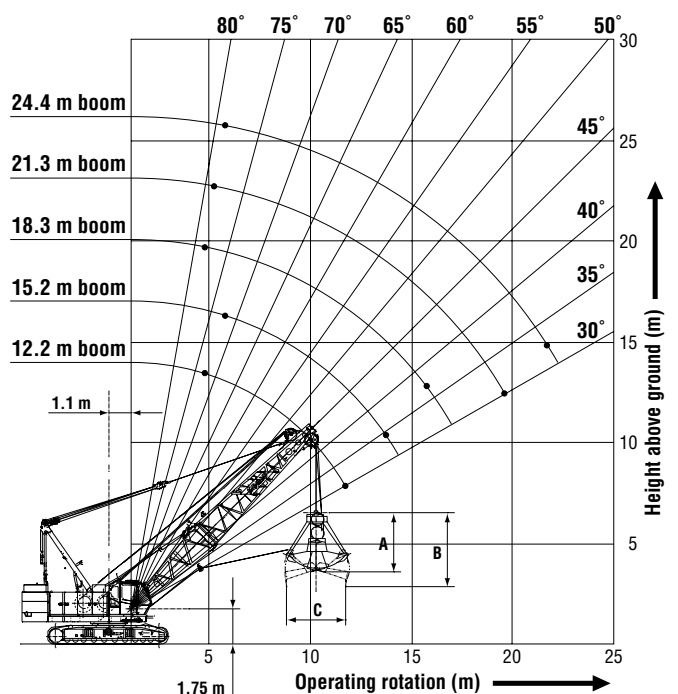
Boom length (m)	12.2	15.2	18.3	21.3	24.4
5.0	10.0		10.0		
5.5	10.0		10.0	10.0	
6.0	10.0	10.0	10.0	10.0	9.8
7.0	10.0	10.0	10.0	10.0	9.8
8.0	10.0	10.0	10.0	10.0	9.8
9.0	10.0	10.0	10.0	10.0	9.8
10.0	10.0	10.0	10.0	10.0	9.4
12.0	10.0	10.0	10.0	9.6	9.0
14.0		10.0	10.0	9.3	8.6
16.0			10.0	9.0	8.2
18.0				8.1	7.8
20.0				7.0	6.9
22.0					6.1

Note: 1. Total weight of bucket and materials must not exceed rated load.
 $\text{Bucket capacity (m}^3\text{)} \times \text{Specified gravity of material (t/m}^3\text{)} + \text{Bucket weight (t)} \leq \text{Rated load}$

CLAMSHELL BUCKET (Reference only)

Bucket capacity (m³)	Approximate weight (t)	Bucket dimensions (m)		
		A	B	C
1.6	3.2	3.3	3.6	3.0
2.0	3.8	3.5	3.9	3.1
1.25	3.6	2.9	3.7	3.0
1.6	4.6	3.2	4.0	3.2

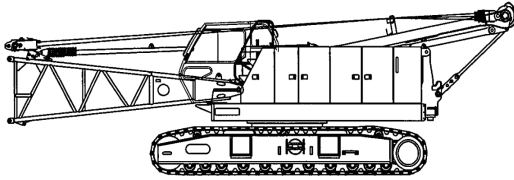
WORKING RADIUS



SPECIFICATIONS OF PARTS AND ATTACHMENTS

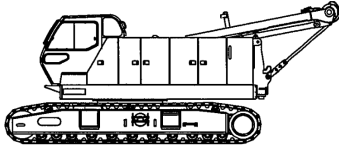
Base Machine + Boom Base + Crawler

weight: 44,200 kg
Dimensions: 3,300 mm height x 3,200 mm width x 11,690 mm length



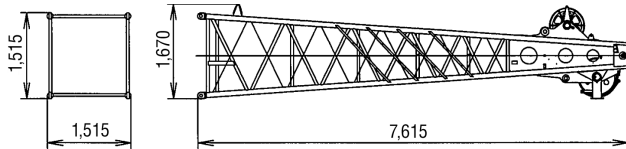
Base Machine + Crawler

weight: 42,600 kg
Dimensions: 3,300 mm height x 3,200 mm width x 8,170 mm length



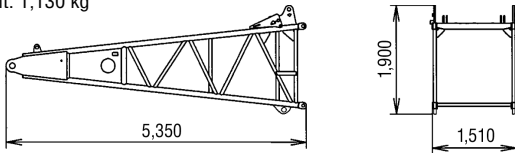
Upper Boom

weight: 1,340 kg



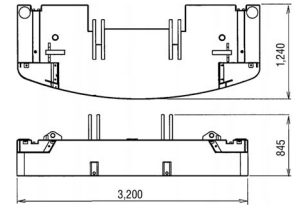
Lower Boom

weight: 1,130 kg

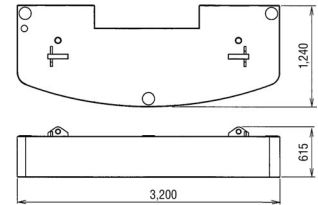


Counterweight

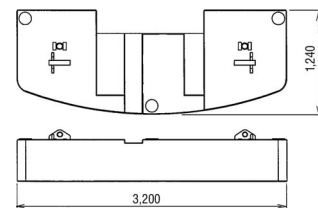
No.1 Counterweight
weight: 7,650 kg



No.2 Counterweight
weight: 7,560 kg

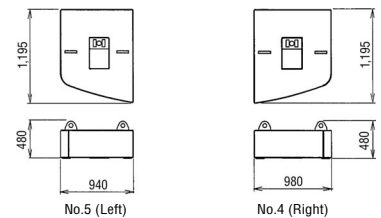


No.3 Counterweight
weight: 7,560 kg



No.4, No.5 Counterweight (BM800HD-2 only)

weight: 1,500 kg (1pc)



OTHER ATTACHMENTS

Attachment	Weight	Dimensions (L x W x H)
3.1 m (10 ft) insert boom	310 kg	3,160 mm x 1,510 mm x 1,515 mm
6.1 m (20 ft) insert boom	522 kg	6,210 mm x 1,510 mm x 1,515 mm
6.1 m (20 ft) insert boom with lug	545 kg	6,210 mm x 1,510 mm x 1,645 mm
9.1 m (30 ft) insert boom	742 kg	9,260 mm x 1,510 mm x 1,515 mm
9.1 m (30 ft) insert boom with lug	765 kg	9,260 mm x 1,510 mm x 1,645 mm
Jib tip *	180 kg	3,475 mm x 675 mm x 625 mm
Jib base *	125 kg	3,190 mm x 675 mm x 625 mm
6.1 m (20 ft) insert Jib *	140 kg	6,160 mm x 675 mm x 625 mm
Jib Strut *	220 kg	3,700 mm x 670 mm x 500 mm
Auxiliary sheave	138 kg	1,010 mm x 1,310 mm
Upper spreader	280 kg	1,580 mm x 300 mm x 680 mm
Lower spreader	170 kg	870 mm x 300 mm x 610 mm
80-ton hook block **	950 kg	700 mm x 452 mm x 1,825 mm
70-ton hook block *	900 kg	700 mm x 370 mm x 1,780 mm
50-ton hook block	700 kg	700 mm x 370 mm x 1,696 mm
32-ton hook block	660 kg	700 mm x 364 mm x 1,570 mm
11-ton ball hook	300 kg	∅ 357 mm x 1,050 mm
11-ton ball hook (light weight type)	100 kg	∅ 300 mm x 815 mm

* BM700HD-2 use only

** BM800HD-2 use only

Note: Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

KOBELCO is the corporate mark used by Kobe Steel on a variety of products and in the names of a number of Kobe Steel Group companies.

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