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CE



# REALITY

The Power to Deal with Reality

It is always people that change the times. The potential within us offers a new future, constantly buffeted by the seas of change. Thus, the highest standards are continually improving, and with them the workplace. With the CKE-G series, BME-G series, we offer more capability than can be expressed in mere numbers. These capabilities contain the truth that we search for today.

Beyond power, we seek new environmental qualities that the earth holds and in answer, the CKE-G series, BME-G series responds with the truth demanded by the modern age.

## SATISFACTION

Reliable Power for People and the Plane

 Max. Lifting Capacity

 CKE800G-2
 80t×3.0m

 CKE900G-2
 90t×3.9m\*

 CKE1100G-2
 110t×3.6m\*

 CKE1350G-2
 150t×4.4m\*

 CKE2500G-2
 250t×4.6m\*

 BME800G-2
 80t×3.6m

Retusing to compromise on ability, and made to push its abilities to the limit, the CKE-G series, BME-G series also faced other challenges. More efficient transport, an environmentally aware design ideology, control accurate to within tolerances of 1cm, safety, and an attractive design were all factors that had to be

considered. Everything about the CKE-G series, BME-G series, including its handling of foundation and civil engineering work, revolutionizes the values of existing cranes, transforming it into a crane perfect for the modern age.

### SPEEDY

### ENVIRONMENT

ELEXIBILITY

### UTILITY&SAFETY

DESIGN



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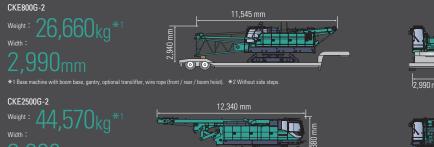
When Maneuverability is a Must

How close can the CKE-G series, BME-G series to the ideal of a transport system based on maneuverability? The assembling and disassembling that go hand-in-hand with transporting a crane is always difficult. But faced with these challenges, we have achieved real progress in transportability. Built to exceed the expectations that stem from the varied transportation needs of many different nations, the CKE-G series, BME-G series is both efficient and economical, offering instant access to smooth, reliable transport.

ORFICO

### **SPEEDY**

Our efforts to transform thinking about transporting equipment have resulted in greater efficiency in every possible area. We designed the CKE-G series, BME-G series to require less work and to be easier to transport, and to ensure safety during assembly and disassembly. What's more, simpler, more efficient loading for transport have reduced the cost of both transport and storage.



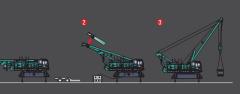
\*1 Base machine with gantry, mast, wire rope (front and boom hoist). \*2 Without side steps

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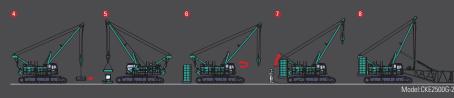
Thanks to its superbly rigid construction and the use of high-quality high tensile steel plate, we have been able to create a lightweight upper frame and body with a greatly reduced width.

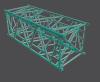
Not only is assembly and disassembly efficient, the CKE-G series, BME-G series is also easy to transport.

The self-removal device of the CKE-G series, BME-G series mean that the crawler, carbody weight, and counterweight boom can be assembled and disassembled without the assistance of another crane



2 990 mm\*



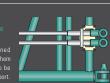


insert jib to be stored in the middle





in the boom, allowing them to be





attachment design, a new insertion design is used, making it possible to



In combination with the jib, this boom, which features a new design and increased lifting capacity, makes disassembly easier and reduces transport and storage costs. Boom Base Insert Boom Boom Top Luffing Boom Top Luffing Insert Jib Luffing Jib Top Relay Jib Tapered Insert Boom

The CKE-G series. BME-G series is equipped with a seat switch separate to the automatic overload and over-hoist prevention systems, which can be set as a boom assembly/disassembly switch able to cancel the over-hoist prevention function. This function is automatically cancelled when the boom reaches a preset angle, while the LMI function is only cancelled automatically when the boom assembly/disassembly function is needed.



# ENVIRONMENT

Applying Energy-saving Concepts Everywhere

invironmental considerations are a common theme when reating anything, which is why there are daunting obstacles hat must be overcome. Designed for use in any conceivable ituation, the CKE-G series, BME-G series is equipped with unctions for conserving energy – with the earth as its stage, t must meet the highest ecological standards.

KOBELCO

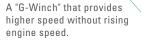
### ENVIRONMENT

### The Beginning of a Cycle That Contributes to the Environment

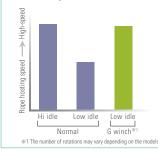
We have raised the standards created for the environment by re-examining the energy we consume. Eliminating needless operations and innovating engine functions allowed us to reduce fuel consumption and transformed the mechanisms that move the crane into a cycle that benefits the environment.

G-Winch

G-Engine

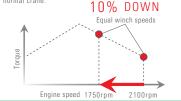


The high-speed mode allows the line to be raised or lowered at maximum line speed without raising engine speed when lifting without a load, or even with a light load.



### "G-Engine" Improves Fuel Consumption by 10%.

G-Engine keeps the engine running within fuel-efficient parameters by limiting maximum engine speed. Engine speed is reduced but pump capacity is controlled to maintain maximum winch speed for running or lifting. Using this "G-Engine" function reduces fuel consumption by approximately 10% when compared to operations on a normal crane.



Amode Reduced CO<sub>2</sub> emissions NEW A New Clean Diesel System SCR & DPF

> Although diesel engines consume less fuel and emit less CO2 than gasoline engines, they also emit more harmful particulate matter and nitrogen oxide (NOx). The "new clean energy system" engine utilizes a DPF to reduce particulate matter and an SCR to reduce NOx, both of which are also

kept to a minimum using negative ions.

### Exhaust-cleaning

Idle Stop

SCR(Selective Catalytic Reduction) is an exhaust gas after-treatment system. It converts harmful NOx (nitrogen oxides), which are contained in the diesel engine exhaust gas, with the aid of a catalyst (AdBlue®) into harmless diatomic nitrogen and water. With the combination of a DPF (Diesel Particulate Filter) which is perfect for reducing PM (particulate matter), the exhaust gas from the engine is much cleaner and eco-friendly.

### An Idle Stop Function for Eco-driving.

The Auto Idle Stop (AIS) function stops the engine automatically in situations such as when you are waiting for the next trailer to come and have checked that everything is safe, reducing energy consumption in any operation, be it construction, or loading and unloading at a port. In addition to the AIS function. there is also a new manual stop function. In either case, simply turning the accelerator bar starts the engine again - there is no need to turn the key.

### NEW

#### Performance That Complies with Many Different Environmental Standards.

The CKE-G series. BME-G series utilizes a low-emission engine that enables it to comply with Euro stage IV emissions regulations



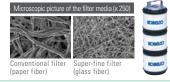
\*Act on Regulation, Etc. of Emissions from Non-road Special Motor Vehicles

Bio Oil provides environment friendly solution.

More environmentally friendly hydraulic oil is also available, helping conserve the environment and meeting societal needs.

### A super-fine Filter

Steel wire reinforced glass fiber gives the new oil filter excellent dirt capturing gualities, making it truly a "super-fine filter." What's more, the time between filter changes has been lengthened by a factor of four. A partitioned configuration in which only the filter media is changed reduces scrap and extends the interval between changes, significantly reducing the burden on the environment.



# FLEXIBILITY

### Flexible Enough to Meet the Demands of Worksites

Our task was to create a crane capable of responding to the operator's every thought. Construction work demands excellent handling characteristics, and as such it was essential that this crane be adaptable enough to answer the demands of the operator in a wide variety of working environments. In the CKE-G series, BME-G series, it is advanced technology that powers the dynamic action so essential to a crane.

### FLEXIBILITY

### Flexibility Offers New Dimensions of Operational Performance

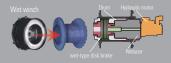
#### Switch between Dual and Independent circuit system

### Completely independent main and secondary hoists for better composite operation

when using both hoists simultaneously, with no adverse effect on either oricruit. As a result, this crane lets you demonstrate your true worth as a professional when working in construction, where positioning requires adjustments of as little as a single inch.

### Dual circuits, perfect for bucket, material handling

### Wet-type disk brake that offer powerful, stable braking

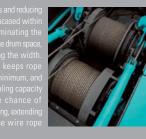


#### Reduced counterweight specification, for reduced impact on the work site





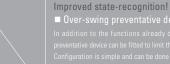
### Wide, large capacity drums

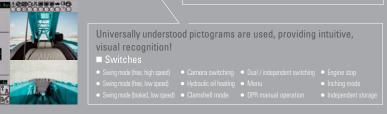


### Intuitive, easy to understand interface

15

provides full display of essential data and ameters in a compact space. Arranged in an t perfectly suited to the task at hand, the interaction the advance in the the manufactor	Greater visibility	Greater visibility of conventional functions!			
Engine speed     Wind speed     O . 0		Error message Touch to display details in a pop-up window.			
	№ ГЕВ49         № № №           № № №         № №           № №         №           №	■ Gauges • Coolant temperature • Fuel remaining • DEF/Aa Blue® remaining • Sediment accumulated			
		Machine inclination sensor An optional machine inclination sensor offers a visual representation of the current inclination of the crane body.			





# UTILITY & SAFETY

Greated from the User's Standpoint

Ease of use and safety are two factors that support construction quality at its very roots. To achieve these, it is essential to consider the workplace environment, and more importantly, the user's point of view. Roomier, easier to use, and safer, the CKE-G series, BME-G series aims to achieve standards that raise the bar in terms of satisfaction in the workplace.

### UTILITY & SAFETY

### Delivering Comfort and Peace of Mind

The design of the CKE-G series, BME-G series represents a new approach to safety and the human senses. Together with improved safety, the layout of the cab space offers heightened levels of comfort and ease of use. What's more, consideration for safety permeates throughout the entire design, all with the aim of preventing accidents.



### Better visibility, better mobility, and a relaxed cab environment create efficiency

3

4

- The spacious cabin (3.10m<sup>2</sup>) provides a comfortable working environment. The massive front windshied (1.09m<sup>2</sup>) provides visibility over a wide area, making operation safer and easier.
- 2 1 monitor (ML screen): Provides a clear image for checking the angles that are difficult to see by eyes, improving the operation safety. It is movable, so the angle can be adjusted as you wish for smoothing various checks and instructions.



Cab entrance (785mm) for easier access / the wide cab entrance makes it easier to get in and out of the cab, so work is more comfortable.

5 Foot space / legroom decreases operational fatigue and reduces stress.

6 Counterweight detect system / reduced counterweight setting errors for increased safety.

State-recognition / accurate comprehension of factors such as attachments and the current inclination of the crane body is possible, improving manipulation performance.

High-quality seat materials / luxurious seat materials offer excellent ride quality, and both the lever stand and the seat are fitted with adjusters for operator comfort.

8

9 Full interior trim / all the instruments in the cab are covered, giving the cab the comfort of a living space.

An air conditioner vent has been added below the monitor. This improves air conditioning performance and provides greater comfort.

#### Double or triple redundant prevention of boom over-hoists

When hoisting the boom and jib, the primary boom (jib) over-hoisting prevention device automatically halts hoisting when the boom reaches a prescribed angle. When operating as a crane, the boom angle is observed using an angle to ground. For jib operations, the CKE-G series, BME-G series employs a system that measures the jib angle relative to both the ground and the machine, allowing quick detection of any danger. Moreover, it features a dual layer safety system, with a secondary boom (jib) over-hoisting prevention device equipped with an extreme limit function that will not allow the automatic stop point to be overridden. The jib also features both primary and secondary over-hoisting protection devices that prevent boom reversal.



### Automatic soft-stop function that mitigates shock when automatic stop occurs

The over-hoisting prevention device prevents the boom from lowering and the jib from hoisting, and softens automatic stopping when the boom is overloaded, swinging sideways.

### Better state-recognition

A variety of options, including a counterweight detect system, an over-swing preventative device, and a machine inclination sensor make it possible to more accurately assess main unit and attachment conditions.



#### Industry-standard automatic stop release switch

Replacing the system of separate keys used to override automatic stop functions for over-load, hook over-hoist, and boom over-hoist, the CKE-6 series, BME-6 series employs a more reliable two-stage system utilizing a master key and individual switches. A single master key poses no administrative difficulties, and prevents easy override of the automatic stop.



#### Highly acclaimed safety devices of all types

- A swing flasher and warning buzzer that warning people in the surround areas when swinging.
- A one-way call system to ensure operator safety
- Function lock lever to prevent accidental operation
- Easily-seen crawler movement directional markings
- External alarms when moving or swing
- M/L external display lights informing those in the surrounding area of the load state of the crane
- Rear / main and aux hoist drum / boom hoist state drum camera and monitor (color)



### Tilting Cab

A tilting device allows the cab to be tilted up to 15° to provide the operator with an excellent view and a relaxed and safe working environment when lifting loads higher-up.



Tractor-Type Tracks (2 types)

Flat shoe type provides a smoother ride.
Triple grouser type provides a smoother ride and additional grip.



Flat shoe type

# DESIGN

A Design You can be Proud to Drive

An elegant form that emphasizes curves welcomes the operator and blends into the surrounding city. With a pared-down, simple, non-intimidating design and a full-trim interior that has taken even the finest details into consideration, the CKE-G series, BME-G series offers both luxury and comfort. This welcoming design harmonizes naturally with an urban area, delivering an image well suited to a workplace that creates a new background for the city. This is a design that people can be proud to use in a variety of situations.

### PRODUCT STORY

A design that welcomes people gently and blends into an urban environment, a design that people can be proud to drive. That was the starting point for the CKE-G series, BME-G series concept, something never seen in a crane before. After the initial pipe-frame design, we followed a plan that used press casting to emphasize freedom in a design that pursued our ideals, making forays into uncharted territory time and again. However, we were also careful to listen directly to people in the workplace and examine world market trends, maintaining an awareness of the needs of the times. This was reflected in a completed design that closely mirrored the actual viewpoint of our customers.



From pipe frame to press-casting Although designs based on combining flat panels with pipe frames offer excellent cost benefits, we adopted press casting to allow us more freedom in design.



Operator comfort From the conceptual stage, repeated tests were conducted that helped to improve the comfort of the area around the operator's seat.



Full trim – the cab as living space Luxurious, reassuring, comforting... the cab interior has been fully trimmed in the manner of a living space, and is complemented by a wide field of view for easy becation

An expressive exterior Surfaces that are curved yet rigid possess a rich texture and capture the light beautifully, giving the crane an impressively warm, expressive exterior.

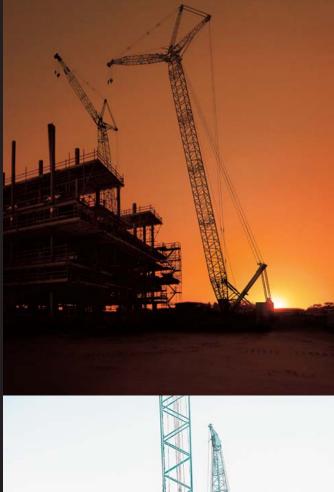


Land, Sea, and Sky - the World is Full of workplaces



Land, sea, or sky – there is literally no limit to the locations where Kobelco Cranes may be called upon to work. From tall buildings that seem to pierce the heavens, huge bridges spanning the sea, expressways that support transport on land, to airport construction site access routes, the CKE-G series, BME-G series is set to be a major player in the coming years.

We offer a comprehensive lineup in every field, with detailed functions that meet the differing needs of any worksite. The CKE-G series, BME-G series is crystallization of technology we have developed through our quest for the highest standard in cranes, one that has continued since we completed the first truck crane ever made in Japan in 1953, and demonstrates to perfection our abilities in worksites throughout the world.





LINE UP							Preliminary
Model		CKE800G-2	CKE900G-2	CKE1100G-2	CKE1350G-2	CKE2500G-2	BME800G-2
CRANE BOOM							DIVILOUUU 2
	Max. Lifting Capacity	80 t x 3.0 m	100 t* x 3.6 m 90 t x 3.9 m *2	110 t x 3.6 m *2	150 t x 4.4 m *2	250 t x 4.6 m *2	80 t x 3.6 m
	Max. Length	54.9 m	61.0 m	70.1 m	76.2 m	91.4 m	54.9 m
FIXED JIB							
	Max. Lifting Capacity	7.0 t x 20.0 m	10.9 t x 18.0 m	10.9 t x 22.0 m	26.8 t x 16.0 m	27.0 t x 10.4 m	NA
	Max. Jib Length	18.3 m	18.3 m	21.3 m	30.5 m	30.5 m	NA
	Max . Combination	42.7 m + 18.3 m, 45.7 m +12.2 m	51.8 m + 18.3 m	61.0 m + 21.3 m	61.0 m + 30.5 m	76.2 m + 30.5 m	NA
LUFFING JIB							
	Max . Lifting Capacity	NA	NA	NA	36.0 t x 12.0 m	80.0 t x 9.8 m	NA
	Max. Jib Length	NA	NA	NA	53.3 m	61.0 m	NA
	Max . Combination	NA	NA	NA	44.8 m + 53.3 m, 47.9 m + 32.0 m	61.0 m + 61.0 m	NA
MAIN & AUX. WINCH		400 ( )	100 / .	400 / .:	400 /	440 / .:	400 / 1
	Max. Line Speed (1st layer)	120 m/min	120 m/min	120 m/min	120 m/min	110 m/min	120 m/min
	Rated Line Pull (Single line) Wire Rope Diameter	78.0 kN {8.0 tf} 22 mm	112 kN {11.4 tf} 26 mm	108 kN {11.0 tf} 26 mm	132 kN {13.5 tf} 26 mm	132 kN {13.5 tf} 26 mm	108 kN{11.0 tf} 26 mm
	Wire Rope Length	22 min 220 m (Main), 130 m (Aux.)	240 m (Main), 165 m (Aux.)	265 m (Main), 235 m (Aux.)	20 min 275 m (Main), 255 m (Aux.)	460 m (Main), 390 m (Aux.)	175 m (Main), 130 m (Aux.)
	Brake Type	Wet-type multiple disc brake (Optional)	Wet-type multiple disc brake (Optional)	Wet-type multiple disc brake (Optional)	Wet-type multiple disc brake (Optional)	Wet-type multiple disc brake (Optional)	Wet-type multiple disc brake
WORKING SPEED	Diako typo						
	Swing Speed	4.0 min <sup>-1</sup> {rpm}	4.0 min <sup>-1</sup> {rpm}	3.2 min <sup>-1</sup> {rpm}	2.1 min <sup>-1</sup> {rpm}	2.2 min <sup>-1</sup> {rpm}	4.0 min <sup>-1</sup> {rpm}
	Travel Speed	1.7 / 1.1 km/h	1.7 / 1.1 km/h	1.4 / 1.0 km/h	1.3 / 0.9 km/h	1.0 / 0.5 km/h	1.7 / 1.1 km/h
POWER PLANT							
	Model	HINO J08E-VV	HINO JO8E-VV	HINO J08E-VV	HINO P11C-VN	HINO P11C-VN	HINO P11C-VN
	Engine Output	213 kW / 2100 min <sup>-1</sup>	213 kW / 2100 min <sup>.1</sup>	213 kW / 2100 min <sup>.1</sup>	271 kW / 1850 min <sup>.1</sup>	271 kW / 1850 min <sup>-1</sup>	271 kW / 1850 min <sup>.1</sup>
	Fuel Tank	400 liters	400 liters	400 liters	400 liters	400 liters	400 liters
HYDRAULIC SYSTEM							
	Main Pumps	3 variable displacement	3 variable displacement	4 variable displacement	4 variable displacement	4 variable displacement	3 variable displacement
	Max. Pressure	31.9 MPa {325 kgf/cm²}	31.9 MPa {325 kgf/cm²}	31.9 MPa {325 kgf/cm <sup>2</sup> }	31.9 MPa {325 kgf/cm²}	31.9 MPa {325 kgf/cm²}	31.9 Mpa (325 kgf/cm²)
	Hydraulic Tank Capacity	440 liters	440 liters	535 liters	535 liters	650 liters	440 liters
SELF-REMOVAL DEVICE		counterweight self-removal device (Option)	counterweight self-removal device (Option)	counterweight/crawler self-removal device	counterweight/crawler self-removal device	counterweight/crawler self-removal device	counterweight self-removal device (Option)
WEIGHT		·····	··· · ···				110 TT
WEIGHT	Operating Weight	75.2 t	90.0 t	102 t	137 t	220 t	75.0 t
	Ground Pressure	84.8 kPa	101.5 kPa	95.8 kPa	107.1 kPa	112 kPa	84.5 kPa
	Counterweight	27,180 kg (26,120 kg)* <sup>7</sup>	31,900 kg (31,310 kg) *7	34,600 kg	55,000 kg	90,400 kg	25,400 kg (26,120 kg)*7
	Transport Weight (Base Machine)	39,780 kg *1	41,350 kg *1	33,660 kg *6	33,070 kg *3	44,570 kg *4	41,180 kg *1
DIMENSIONS							
	Transportation Width	3,500 mm	3,500 mm	2,990 mm*9	2,990 mm*9	2,990 mm* <sup>9</sup>	3,500 mm
	Transportation Height	3,300 mm	3,315 mm	3,125 mm *5	3,215 mm *5	3,380 mm *5	3,300 mm
	Crawler Width	5,130 mm	5,130 mm	5,300 mm	6,310 mm	7,620 mm	5,130 mm
	Crawler Shoe Width	800 mm	800 mm	900 mm	910 mm	1,220 mm	800 mm
	Crawler Length	6,280 mm	6,280 mm	6,770 mm	7,895 mm	8,970 mm	6,280 mm
	Tail Swing Radius	4,300 mm (4,500 mm)*7	4,500 mm (4,700 mm)* <sup>7</sup>	4,860 mm	5,500 mm	6,000 mm	4,300 mm (4,500 mm)*7

 \*1: Base machine with boom base, gantry, crawler, wire ropes (front/ear/boom hoist)
 \*2: Auxiliary sheave is necessary

 \*5: Without crawler
 \*6: Base machine with boom base, gantry, wire ropes (front/rear/boom hoist)

★3 : Base machine with gantry, wire ropes (front/sar/boom hoist)
 ★7 : With optional counterweights
 ★8 : 11 ton counterweight
 ★9 : Without side steps
 ★1 : The value are theoretical result