

KOBELCO

CK
G series

Note: Standard equipment may vary depending on your areas or countries. Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

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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.



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 arrival of the CK-G series, Kobelco Cranes 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 CK-G series responds with the truth demanded by the modern age.

SATISFACTION

Reliable Power for People and the Planet

Max. Lifting Capacity

- CK850G 85Ust × 11.0 ft
- CK1100G 110Ust × 11.0 ft
- CK1200G 120Ust × 12.0 ft
- CK1600G 160Ust × 15.0 ft
- CK2750G 275Ust × 15.0 ft

Refusing to compromise on ability, and made to push its abilities to the limit, the CK-G series also faced other challenges. More efficient transport, an environmentally aware design ideology, control accurate to within tolerances of 1inch, safety, and an attractive design were all factors that had to be considered. Everything about the CK-G series has been revamped, including its handling of foundation and civil engineering work, revolutionizing the values of existing cranes and transforming it into a crane perfect for the modern age.

SPEEDY

ENVIRONMENT

FLEXIBILITY

UTILITY & SAFETY

DESIGN





SPEEDY

When Maneuverability is a Must

How close can the CK-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 CK-G series is both efficient and economical, offering instant access to smooth, reliable transport.

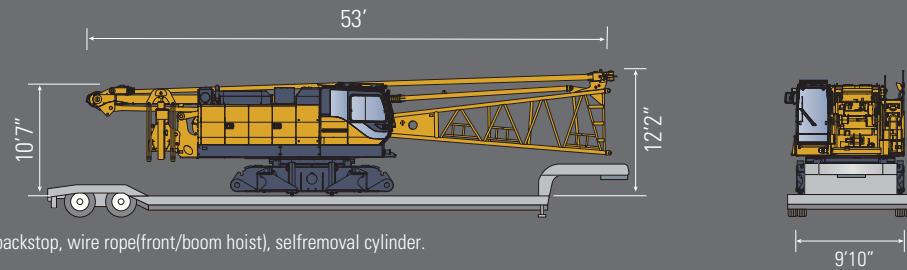
When Maneuverability is a Must

Our efforts to transform thinking about transporting equipment have resulted in greater efficiency in every possible area. We designed the CK-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.

CK1600G

Weight : **84,193lbs**
Width : **9'10"**

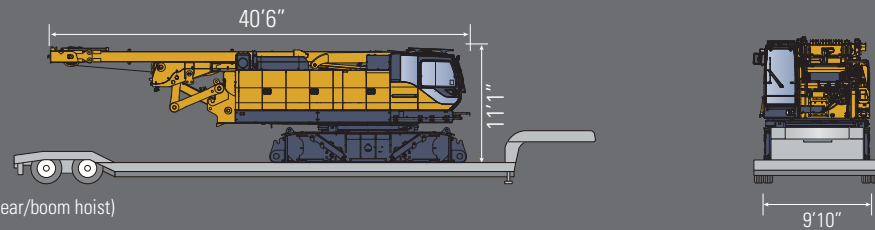
Base machine with boom base, gantry, crane backstop, wire rope(front/boom hoist), selfremoval cylinder.



CK2750G

Weight : **99,760lbs**
Width : **9'10"**

Base machine with gantry, mast, wire rope(front/rear/boom hoist)

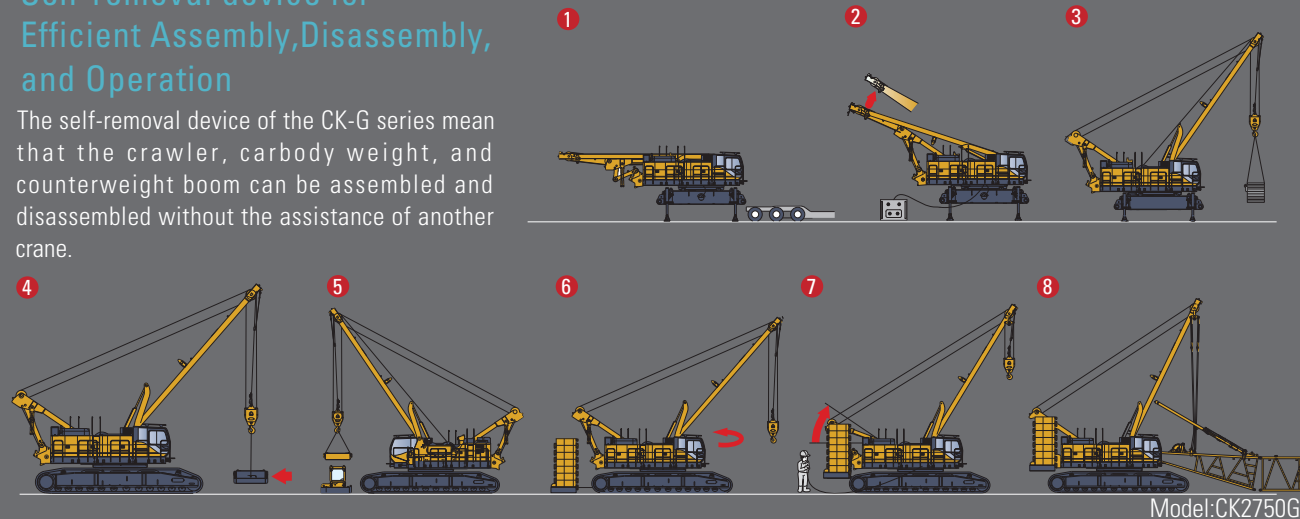


Kobelco's Unique "Lightweight Upper Frame"

Thanks to superbly rigid construction, and the use of high quality high tensile steel plate, we have been able to create a Upper Frame and body much lighter than other vehicles in the same class, with a greatly reduced width. Not only is assembly and disassembly more efficient, the CK-G series is easier to transport than any previous system.

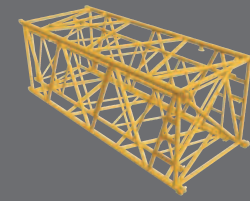
Self-removal device for Efficient Assembly, Disassembly, and Operation

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



Model:CK2750G

Four Major Attachments That Make Transport More Efficient



1 A "nested boom" that is easy to transport efficiently

The CK-G series features a nested boom that allows the luffing insert jib to be stored in the middle boom. This reduces the number of vehicles needed for transport, and requires less space for storage.

2 A "boom connector pin holder" that prevents losses during assembly and disassembly

Connect pins can be stored in disassembly of the boom. This prevents losses during assembly, disassembly, and transport.

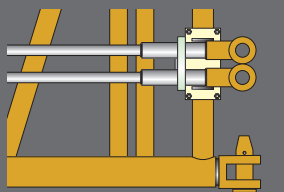


3 A folding "Axle extension adapter"

Previously, the "axle extension adapter" used for extensions had to be removed and shipped separately when breaking the crawler down for transport. The axle extension adapter can now be folded for storage in the crawler, saving on labor.

4 "Guy cable Stowing brackets" that can be securely fastened

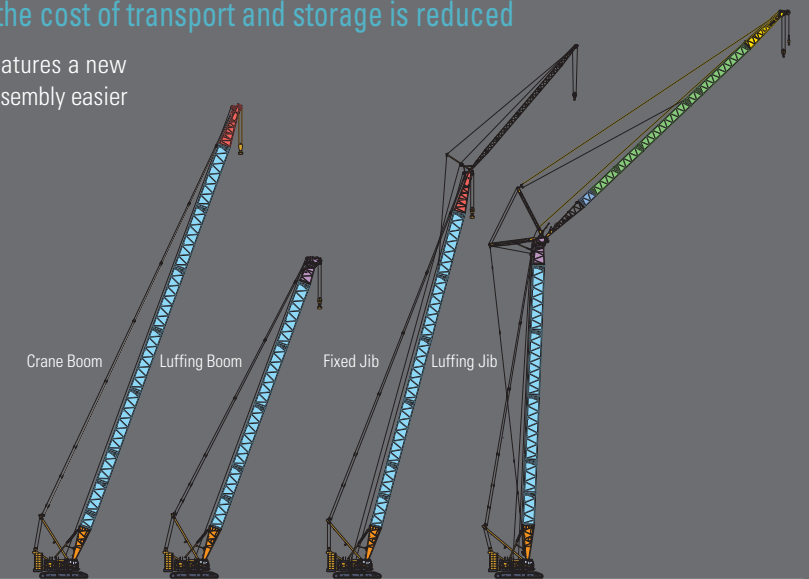
The guy cables can be fastened safely and securely by inserting them in the boom, allowing them to be correctly positioned during transport.



Because the boom and jib are shared, the cost of transport and storage is reduced

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
- Tapered Insert Jib



A "boom assembly/disassembly mode" for increased safety

The CK-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

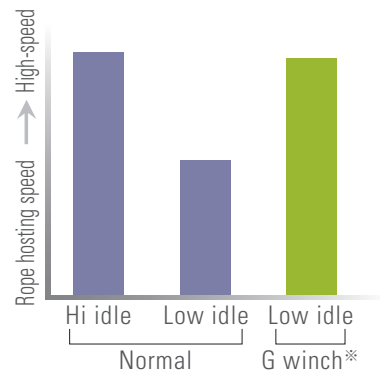
Environmental considerations are a common theme when creating anything, which is why there are daunting obstacles that must be overcome. Designed for use in any conceivable situation, the CK-G series is equipped with new functions for conserving energy – with the earth as its stage, it must meet the highest ecological standards.

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.

A "G-Winch" that provides higher speed without rising engine speed.

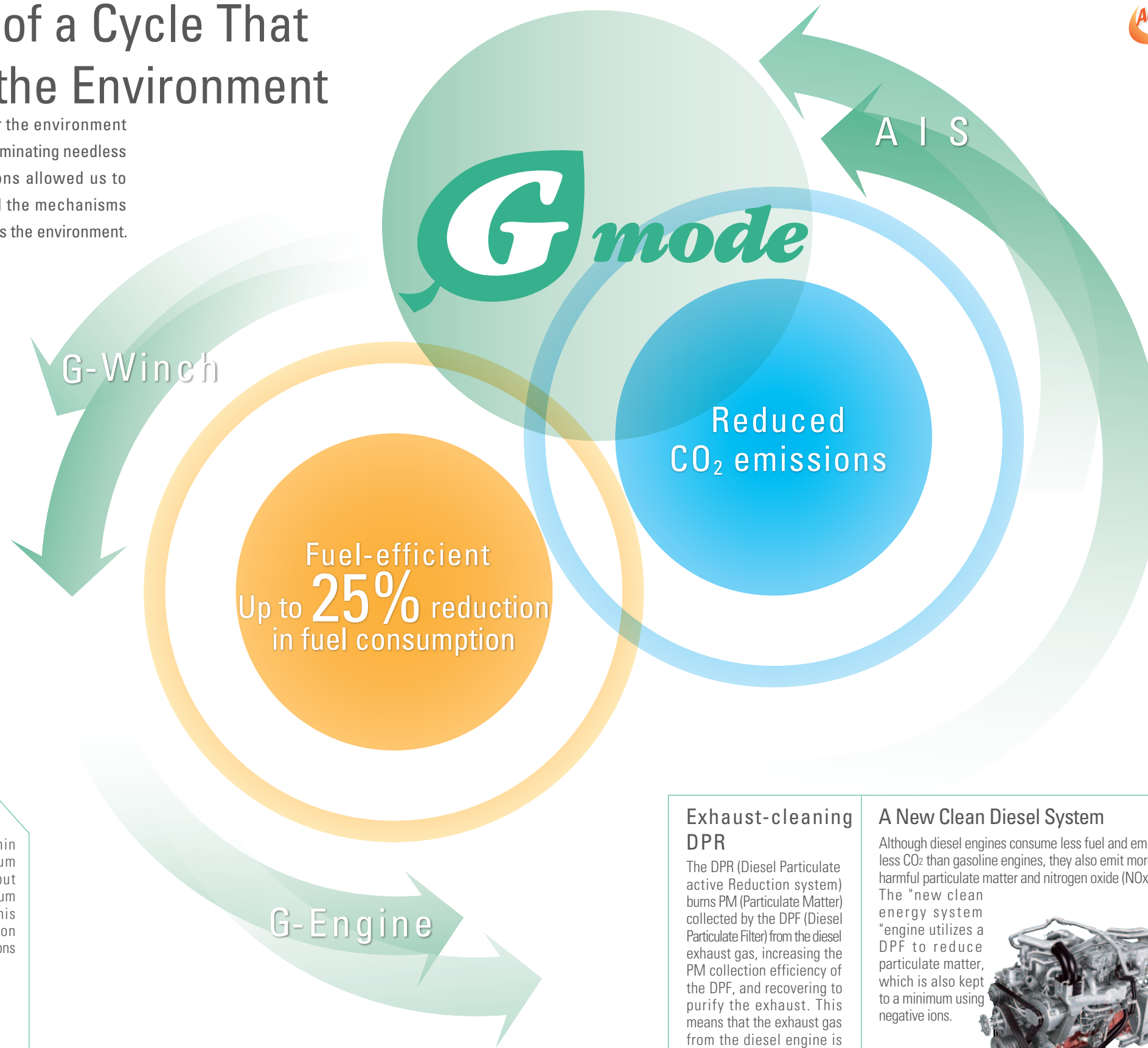
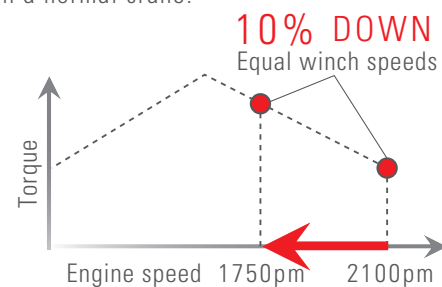
The high-speed mode allows the line to be raised or lowered at maximum line speed without raising engine speed when lifting without a load, or even with a light load.



**The number of rotations may vary depending on the models.

"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.



An "Auto Idle Stop (AIS)" Function for Eco-driving.

This Auto Idle Stop (AIS) function stops the engine when the vehicle is stopped, and is the first such function to be used in this industry. AIS 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. Simply turning the accelerator bar starts the engine again – there is no need to turn the key.

Performance That Complies with Many Different Environmental Standards.

The CK-G series utilizes a low-emission engine that enables it to comply with the United States' US EPA interim Tier IV emissions regulations.



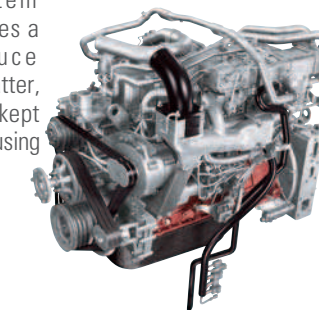
*Act on Regulation, Etc. of Emissions from Non-road Special Motor Vehicles.

Exhaust-cleaning DPR

The DPR (Diesel Particulate active Reduction system) burns PM (Particulate Matter) collected by the DPF (Diesel Particulate Filter) from the diesel exhaust gas, increasing the PM collection efficiency of the DPF, and recovering to purify the exhaust. This means that the exhaust gas from the diesel engine is cleaner.

A New Clean Diesel System

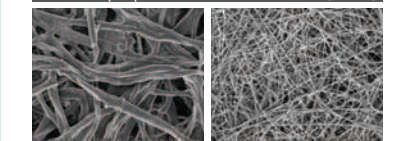
Although diesel engines consume less fuel and emit less CO₂ than gasoline engines, they also emit more harmful particulate matter and nitrogen oxide (NOx). The "new clean energy system" engine utilizes a DPF to reduce particulate matter, which is also kept to a minimum using negative ions.



A super-fine Filter

Steel wire reinforced glass fiber gives the new oil filter excellent dirt capturing qualities, 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.

Microscopic picture of the filter media (x 250)



Conventional filter (paper fiber) Super-fine filter (glass fiber)





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 CK-G series, it is advanced technology that powers the dynamic action so essential to a crane.

FLEXIBILITY

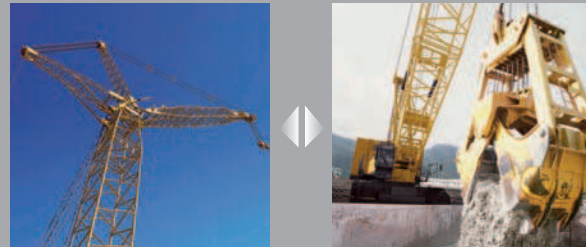
Flexibility Offers New Dimensions of Operational Performance

The CK-G series offers new dimensions of flexibility for bucket, material handling and building construction. This allows the same crane to function equally well in any work environment, providing precision in any situation, and preventing any missed opportunities.

Switch between Dual and Independent circuit system

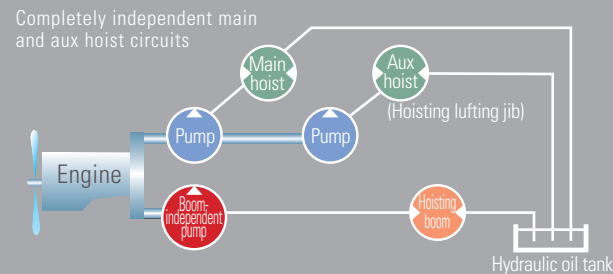
This crane offers the operator the choice of "independent circuits" that allow hydraulic pumps to drive the main and aux hoists and operate the boom independently, or "dual circuits" that use both pumps to drive hydraulic fluid together to operate the hoist motor; both circuits are available with a single touch.

Whether working on bucket, material handling work site or building construction site, optimal performance is always available, resulting in improved operational efficiency.



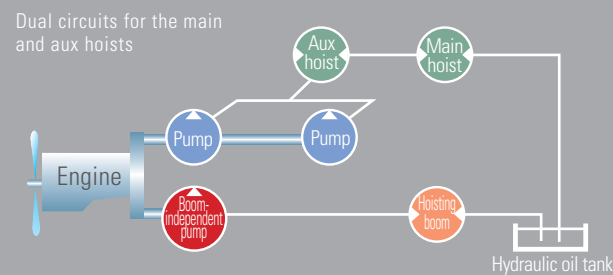
Completely independent main and secondary hoists for better composite operation

Completely independent circuits for the main and aux hoists provide even when using both hoists simultaneously, with no adverse effect on either circuit. 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

The CK-G series has been designed to dual hoist circuits equipped with a free-fall function, allowing the speed of both winches to be synchronized easily even when the load on the main and support hoists is different. This offers the powerful, speedy response needed for material, handling bucket in ports or foundation and civil engineering construction work. The CK-G series is equipped with a separate pump for hoisting the boom, allowing smooth operation when hoisting boom and rope.



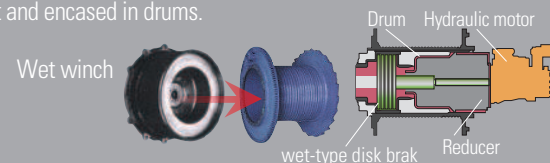
Wide, large capacity drums

Both the brakes and reducing devices are encased within the drum, eliminating the need for a brake drum space, and increasing the width. Lap spooling keeps rope damage to a minimum, and the large spooling capacity reduces the chance of irregular spooling, extending the life of the wire rope significantly.



Wet-type disk brake that offer powerful, stable braking

The winches feature Kobelco's independently developed wet brakes. Forced-oil-cooling makes these brakes resistant to the reduction in braking ability that occurs when temperatures rise, so that they are well suited to working for long periods. The use of multi-plate disks ensures sufficient braking capacity and means that braking can be performed with a modicum of force. What's more, the brakes themselves are compact and encased in drums.



Reduced counterweight specification, for reduced impact on the work site

Each model has been equipped with reduced counterweight specification, allowing the number of counterweights to be cut, reducing the overall weight. Other aspects, such as the set weight of platform, are also flexible enough to cope with any worksite. What's more, the counterweight detect system helps to prevent any configuration errors.

Intuitive, easy to understand interface

The interface provides full display of essential data and operational parameters in a compact space. Arranged in an efficient layout perfectly suited to the task at hand, the gauges and switches have been placed with the movement of the operator's hands and eyes in mind, ensuring smooth operation. Each design utilizes intuitive pictograms that offer at-a-glance comprehension while working, allowing operators to feel easy from the instant they begin working. Moreover, with no needless operations required, efficiency gains an immediate boost.

Greater visibility of conventional functions!

- Display lamp
 - G-Engine
 - G-Winch
 - AIS operation
 - Slow speed state
 - Remote control connection
 - Oil cooler operation
 - Free fall (main)
 - Free fall (auxiliary)
 - Free fall (3rd)
 - Dual circuit

■ Error message

Touch to display details in a pop-up window.

■ Gauges

- Hydraulic oil temperature
- Fuel remaining
- Sediment accumulated
- Coolant temperature

■ Machine inclination sensor

An optional machine inclination sensor offers a visual representation of the current inclination of the crane body.

Improved state-recognition!

■ Over-swing preventative device

In addition to the functions already detailed, a over-swing preventative device can be fitted to limit the swing of the crane. Configuration is simple and can be done from the touch panel.

Universally understood pictograms are used, providing intuitive, visual recognition!

■ Switches

- Swing mode (free, high speed)
- Swing mode (free, low speed)
- Swing mode (braked, low speed)
- Camera switching
- Hydraulic oil heating
- Clamshell mode
- Dual / independent switching
- Menu
- DPR manual operation
- Independent storage
- Assembly / Disassembly



UTILITY & SAFETY

Created 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 CK-G series aims to achieve standards that raise the bar in terms of satisfaction in the workplace.

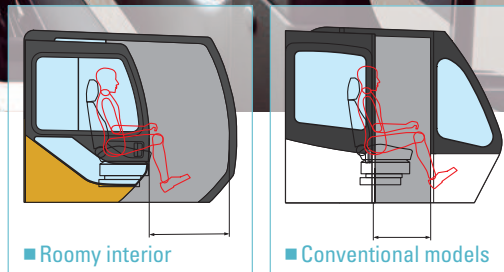
Delivering Comfort and Peace of Mind

The design of the CK-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

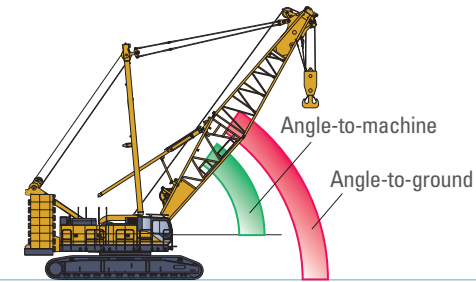
- 1 Increased cab volume (from 77.34ft³ to 109.5ft³) / The increased space gives the entire cab a more relaxed feel, offering a pleasant working environment and better ride quality.
- 2 Increased front glass area (up from 10.8ft² to 11.7ft²) / an expanded field of view provides improved operating conditions, greatly increasing safety and operability. Furthermore, the new wipers have a larger contact surface, for even more convenience.
- 3 New type ML screen / crystal-clear image quality even at angles difficult for improved safety in the workplace. The angle view can be adjusted to the operator's favorite. Easy-to-see interface / located in an optimal viewing position, the monitor facilitates smooth checking and direction.
- 4 Short levers / easily-held grips that fit the hand perfectly. The CK-G series offers mobility, as well as instantaneous course changes and swing.
- 5 Wider cab entrance (from 22.2inch to 30.9inch) for easier access / the wide cab entrance makes it easier to get in and out of the cab, so work is more comfortable.
- 6 Wider foot space / increased legroom decreases operational fatigue and reduces stress.
- 7 Counterweight detect system / reduced counterweight setting errors for increased safety.



- 8 Better state-recognition / more accurate comprehension of factors such as attachments and the current inclination of the crane body is now possible, improving manipulation performance.
- 9 High-quality seat materials / luxurious seat materials offer improved ride quality, and both the lever stand and the seat are fitted with adjusters for greater operator comfort.
- 10 Full interior trim / all the instruments in the cab are covered, giving the cab the comfort of a living space.

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 CK-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.

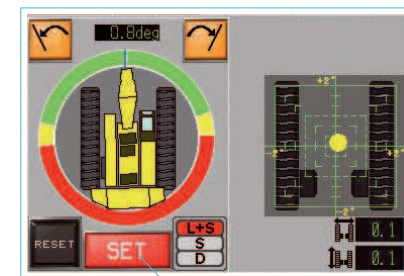


Automatic soft-stop function that mitigates shock when automatic stop occurs

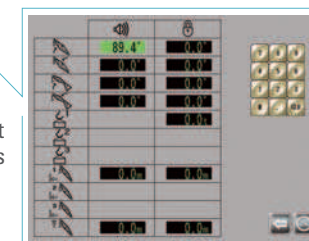
The over-hoisting prevention device prevents the boom from lowering and the jib from hoisting, and softens automatic stopping when the boom is overloaded, swinging sideways.

Better state-recognition

A variety of new options have been added, including a counterweight detect system, an over-swing preventative device and a machine inclination sensor.



A new M/L monitor that makes existing functions even easier to see.



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 CK-G 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)



One-way call



Function lock lever



Directional marking

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 CK-Gseries 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; this is the new CK-G series.

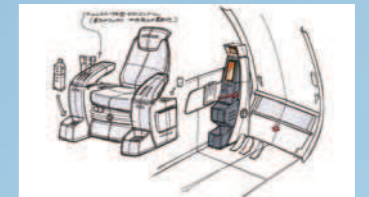
PRODUCT STORY

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 CK-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.



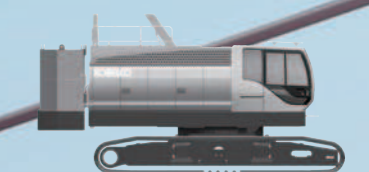
Operator comfort

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 operation.



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.

FIELD

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 new CK-G series is set to be a major player in the coming years.

Kobelco Cranes offer a comprehensive lineup in every field, with detailed functions that meet the differing needs of any worksite. The CK-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



Model	CK850G CK850G	CK1100G CK1100G	CK1200G CK1200G	CK1600G CK1600G	CK2750G CK2750G
CRANE BOOM					
Max. Lifting Capacity	85USt × 11ft	110USt × 11ft	120USt × 12ft	160USt × 15ft	275USt × 15ft
Max. Length	200'	200'	230'	250'	300'
FIXED JIB					
Max. Lifting Capacity	24,000lbs × 50ft	24,000lbs × 60ft	24,000lbs × 70ft	59,000lbs × 40ft	59,500lbs × 34.1ft
Max. Jib Length	60ft	60ft	70ft	100ft	100ft
Max. Combination	180ft + 60ft	190ft + 60ft	200ft + 70ft	200ft + 100ft	250ft + 100ft
LUFFING JIB					
Max. Lifting Capacity	-	-	-	79,000lbs × 40.0ft	176,300lbs × 32.1ft
Max. Jib Length	-	-	-	175ft	200ft
Max. Combination	-	-	-	157ft + 175ft	200ft + 200ft
MAIN & AUX. WINCH					
Max. Line Speed (1st layer)	390 ft/min	390 ft/min	390 ft/min	390 ft/min	361 ft/min
Rated Line Pull (Single line)	17,000lbs	25,200lbs	25,000lbs	29,500 lbs	29,700 lbs
Wire Rope Diameter	7/8 in	1-1/32 in	1-1/32 in	1-1/32 in	1-1/32 in
Wire Rope Length	869 ft(main) 673 ft(aux)	771 ft(main) 525ft(aux)	853 ft(main) 755ft(aux)	902 ft(main) 837ft(aux)	1,575 ft(main) 1,280ft(aux)
Brake Type	Wet-type multiple disc brake	Wet-type multiple disc brake	Wet-type multiple disc brake	Wet-type multiple disc brake(Option)	Wet-type multiple disc brake(Option)
WORKING SPEED					
Swing Speed	4.0 rpm	4.0 rpm	3.2 rpm	2.1 rpm	2.0 rpm
Travel Speed	1.07/0.71 mph	1.07/0.71 mph	0.86/0.62 mph	0.7/0.56 mph	0.69/0.43 mph
POWER PLANT					
Model	HINO J08E-UV	HINO J08E-UV	HINO J08E-UV	HINO P11C-VC	HINO P11C-VC
Engine Output	285 HP/2,100rpm	285 HP/2,100rpm	285 HP/2,100rpm	363 HP/1,850rpm	363 HP / 1,850 rpm
Fuel Tank	106 US Gal	106 US Gal	106 US Gal	106 US Gal	106 US Gal
HYDRAULIC SYSTEM					
Main Pumps	3 variable displacement piston pumps	3 variable displacement piston pumps	3 variable displacement piston pumps	3 variable displacement piston pumps	4 variable displacement piston pumps
Max. Pressure	4,626 psi	4,626 psi	4,626 psi	4,626 psi	4,626 psi
Hydraulic Tank Capacity	116.2 US Gal	116.2 US Gal	141.3 US Gal	141.3 US Gal	171.7 US Gal
SELF-REMOVAL DEVICE					
	counterweight/crawler self-removal device (Option)	counterweight/crawler self-removal device (Option)	counterweight/crawler self-removal device (Standard)	counterweight/crawler self-removal device (Standard)	counterweight/crawler self-removal device (Standard)
WEIGHT					
Operating Weight	165,600lbs	198,500lbs	220,300lbs	304,200lbs	487,700lbs
Ground Pressure	10.8 psi	12.9 psi	13.6 psi	11.7 psi	15.0 psi
Counterweight	57,800lbs	69,000lbs	76,300lbs	121,300lbs	199,300lbs
Transport Weight (Base Machine)	91,677lbs*1	95,128lbs*1	74,206lbs*2	84,193lbs*3	99,760lbs*4
DIMENSIONS					
Transportation Width	11'10"	11'10"	9'10"	9'10"	9'8"
Transportation Height	10'11"	11'	10'2"	12'2"	11'1"
Crawler Width	17'2"	17'2"	17'5"	20'8"	25'4"
Crawler Shoe Width	3'	3'	2'11"	4'	4'4"
Crawler Length	20'7"	20'7"	22'2"	25'11"	29'5"
Tail Swing Radius	14'9"	15'15"	15'11"	18'	19'8"