

# KOMATSU

## **HB215LC-3**

*EU Stage IV Engine*

# Hybrid

## HYDRAULIC EXCAVATOR



# HB215

### **ENGINE POWER**

110 kW / 148 HP @ 2.000 rpm

### **OPERATING WEIGHT**

23.000 - 23.870 kg

### **BUCKET CAPACITY**

max. 1,68 m<sup>3</sup>

# Walk-Around

HB215LC-3



**ENGINE POWER**

110 kW / 148 HP @ 2.000 rpm

**OPERATING WEIGHT**

23.000 - 23.870 kg

**BUCKET CAPACITY**

max. 1,68 m<sup>3</sup>

# Hybrid

## Fuel consumption

Based on typical work pattern collected via KOMTRAX

Reduced by

**22% / 20% / 5%**

(vs. PC210LC-10)

(vs. PC210LC-11)

(vs. HB215LC-2)

## OUTSTANDING PRODUCTIVITY & FUEL ECONOMY

### **Powerful and Environmentally Friendly**

- EU Stage IV engine
- Engine fan clutch
- Adjustable idle shutdown
- Komatsu Hybrid fuel-saving technology

### **First-Class Comfort**

- Fully air-suspended operator station
- Ultra low noise level
- Widescreen monitor
- Komatsu Integrated Attachment Control (KIAC)

### **Safety First**

- Komatsu SpaceCab™
- KomVision surround view system
- Neutral position detection system

### **Improved Komatsu Hybrid System**

- Proven technology
- Reliable and durable hybrid system components
- Electric swing to capture and regenerate energy
- Massive reduction in fuel consumption & emissions

### **Maximised Efficiency**

- Increased productivity
- Built-in versatility and superior productivity
- Enhanced engine management
- Improved hydraulic efficiency

### **Quality You Can Rely On**

- Komatsu-quality components
- Extensive dealer support network
- Maintenance free Hybrid components with a 5 years /10.000 hrs warranty

### **KOMTRAX**

- Komatsu Wireless Monitoring System
- 3G mobile communications
- Integrated communication antenna
- Increased operational data and reports



A maintenance program for Komatsu customers

# Powerful and Environmentally Friendly



## Higher productivity

The HB215LC-3 is quick and precise. It features a powerful Komatsu EU Stage IV engine, Komatsu's Closed Center Load Sensing (CLSS) hydraulic system and first-class Komatsu comfort to provide a fast response and unrivalled productivity for its class.

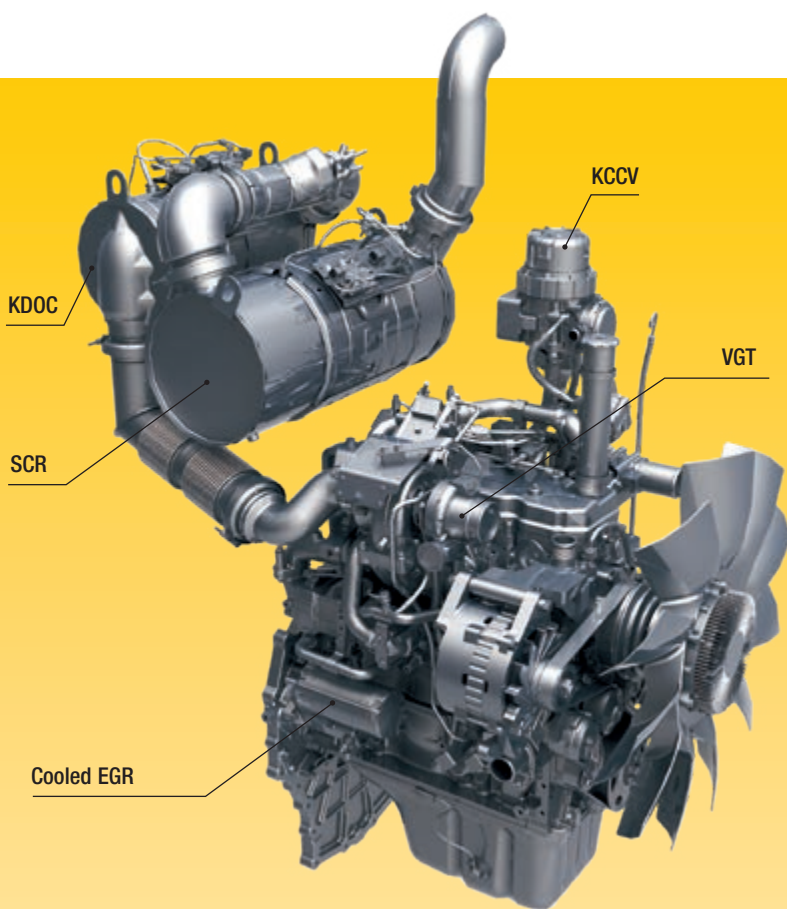
## Komatsu fuel-saving technology

Fuel consumption on the HB215LC-3 is lower by up to 20%. Engine management is enhanced. The optimal speed matching of the engine and hydraulic pumps guarantee efficiency and precision during single and combined movements.

## Adjustable idle shutdown

The Komatsu auto idle shutdown automatically turns off the engine after it idles for a set period of time. This feature can easily be programmed from 5 to 60 minutes, to reduce unnecessary fuel consumption and exhaust emissions, and to lower operating costs. An Eco-gauge and the Eco guidance tips on the cab monitor further encourage efficient operations.

HB215LC-3



### Komatsu EU Stage IV

The Komatsu EU Stage IV engine is productive, dependable and efficient. With ultra-low emissions, it provides a lower environmental impact and a superior performance to help reduce operating costs and lets the operator work in complete peace of mind.

### Heavy-duty aftertreatment

The aftertreatment system combines a Komatsu Diesel Oxidation Catalyst (KDOc) and Selective Catalytic Reduction (SCR). The SCR injects the correct amount of AdBlue® into the system at the proper rate to break down NOx into water (H<sub>2</sub>O) and non-toxic nitrogen gas (N<sub>2</sub>).

#### Exhaust Gas Recirculation (EGR)

Cooled EGR is a technology well-proven in current Komatsu engines. The increased capacity of the EGR cooler now ensures very low NOx emissions and a better engine performance.

#### Komatsu Closed Crankcase Ventilation (KCCV)

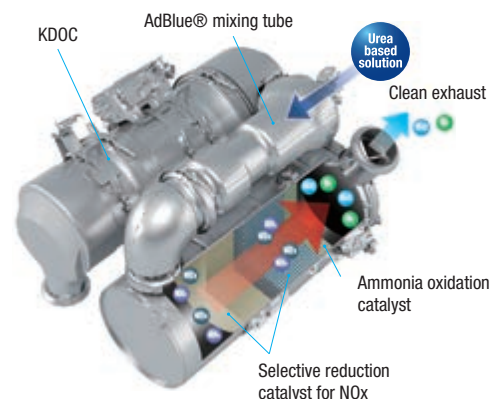
Crankcase emissions (blow-by gas) are passed through a CCV filter. The oil mist trapped in the filter is returned back to the crankcase while the filtered gas is returned to the air intake.

#### High-Pressure Common Rail (HPCR)

To achieve complete fuel burn and lower exhaust emissions, the heavy-duty High-Pressure Common Rail fuel injection system is computer controlled to deliver a precise quantity of pressurised fuel into the redesigned engine combustion chamber by multiple injections.

#### Variable Geometry Turbo (VGT)

The VGT provides optimal airflow to the engine combustion chamber under all speed and load conditions. Exhaust gas is cleaner, fuel economy is improved while machine power and performance are maintained.



Eco-gauge, Eco guidance and fuel consumption gauge



ECO guidance record



Fuel consumption history

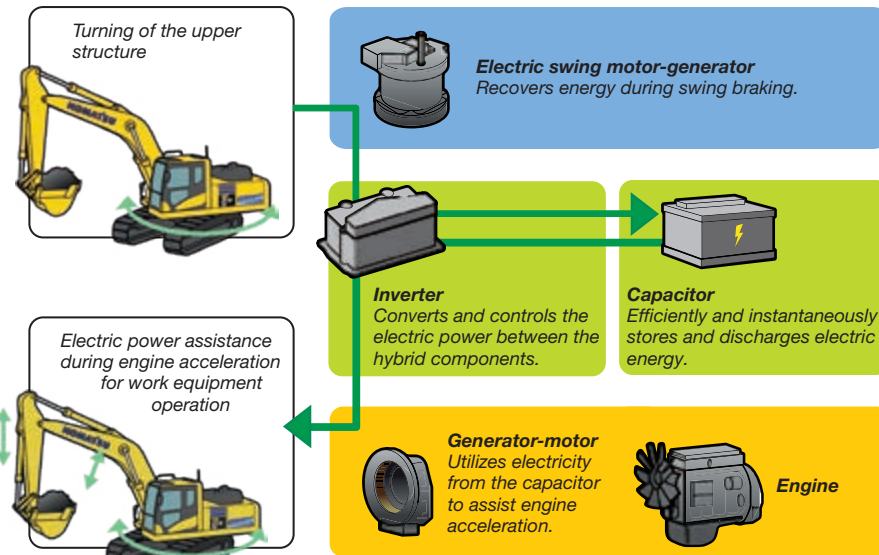
# Komatsu Hybrid System

## The Komatsu hybrid system

In Komatsu's unique hybrid system, the electric swing motor-generator captures and regenerates energy as the upper structure slows down and converts it into electric energy. The regenerated energy is stored in the capacitor and can be used to swing, or by the generator-motor to help the engine accelerate. Thus, the hybrid system significantly reduces fuel consumption.



- 1 Generator-motor
- 2 Electric swing motor-generator
- 3 Inverter and capacitor



## Reliable and durable hybrid system components

Most components of the Hybrid system are developed and manufactured by Komatsu. The electric swing motor-generator, inverter and the capacitor feature dedicated cooling systems for maximum reliability and durability. The long life inverter and capacitor require no maintenance.



### Electric swing motor-generator

An electric swing motor-generator is used in place of the usual hydraulic swing motor and is designed to recover energy during swing braking. Energy is sent to the capacitor for storage. The motor-generator accelerates the swing of the upper structure more efficiently than a conventional hydraulic motor and provides excellent swing performance.



### Inverter and capacitor

The capacitor assembly includes an inverter that switches the AC electricity from the generator-motor and electric swing motor-generator into DC electricity for storage in the capacitor. Since capacitors require migration of electrons and ions for charging and discharging, they can transfer power much faster than batteries, which use chemical reactions to produce electricity.



### Generator-motor

The generator-motor is positioned between the engine and hydraulic pumps. The generator produces electric power to charge the ultra-capacitor as needed. The motor uses electricity from the ultra-capacitor to provide power up engine assistance to the engine.

HB215LC-3



# Maximised Efficiency

## Large digging force

The two boom mode settings provide a “power” mode for a more effective excavating digging force and a “smooth” mode for gathering material and for fine grading operations. Pressing the PowerMax function button temporarily gives the HB215LC-3’s digging force a further boost.



*Large digging force*

## A wide choice of options

Two optional attachment lines are available and 15 attachment memory settings are simply customised. Combined with a standard-fit hydraulic quick coupler power circuit, it’s easier than ever to switch working styles. With a choice of four arms, you can configure the HB215LC-3 to match specific demands for transport, working envelope or duty.



*Two optional hydraulic lines to mount a variety of attachments*

## 6 working modes

The HB215LC-3 delivers the power required with the lowest fuel usage. 6 working modes are available: Power, Lifting/Fine Operation, Breaker, Economy, Attachment Power and Attachment Economy. The operator can ideally balance the Economy mode between power and economy to match the work at hand. The oil flow delivered to hydraulic attachments is also adjustable directly on the class-leading widescreen monitor panel.



*Komatsu Integrated Attachment Control (KIAC) for up to 15 tool presets for oil flow and pressure*



*Versatility at your fingertips: select the perfect setting for each job*



HB215LC-3





# First-Class Comfort

## Increased comfort

In the wide Komatsu SpaceCab™, a standard air-suspended high-back seat, heated for improved comfort and with fully adjustable armrests, is the centre of a comfortable and low-fatigue working environment. High visibility and ergonomic controls further assist to maximise the operator's productivity.

## Perfect operator convenience

In addition to the standard radio, the HB215LC-3 has an auxiliary input for connecting external devices and play music through the cab speakers. Two 12-volt power ports are also incorporated in the cab. Proportional controls are fitted as standard for safe and precise operation of attachments.

## Low-noise design

Komatsu Hybrid crawler excavator have ultra low external and internal noise levels and are especially well-suited for work in confined spaces or urban areas. The optimal usage of sound insulation and of sound absorbing materials helps to make noise levels inside the cab comparable to those of an executive car.



Convenient, ergonomic and precise control: joysticks with proportional control button for attachments



Plenty of storage room, a hot and cool box, a magazine box and a cup holder



Armrest with simple height adjustment

HB215LC-3

# Information & Communication Technology



## Lower operating costs

Komatsu ICT contributes to the reduction of operating costs by assisting to comfortably and efficiently manage operations. It raises the level of customer satisfaction and the competitive edge of our products.

## Widescreen monitor

Conveniently customisable and with a choice of 26 languages, the wide-screen monitor with simple switches and multifunction keys gives fingertip access to a large range of functions and operating info. The rear camera view and an AdBlue® level gauge are now incorporated into the default main screen.

## An evolutionary interface

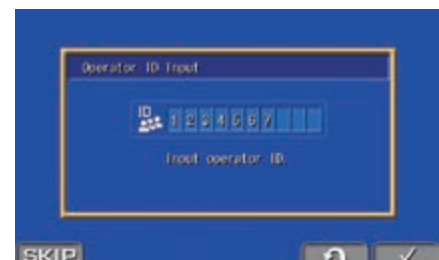
Helpful information is now easier than ever to find and understand with the upgraded monitor interface. An optimal main screen for the ongoing work can be selected simply by pressing the F3 key.



Quick view on the operation logs



With KomVision, various camera view options help to maintain a constant bird's eye view from above the machine



Operator identification function

# Safety First

HB215LC-3



## Optimal jobsite safety

Safety features on the Komatsu HB215LC-3 comply with the latest industry standards and work in synergy to minimise risks to people in and around the machine. A neutral detection system for travel and work equipment levers increase jobsite safety, along with a seat belt caution indicator and an audible travel alarm. Highly durable anti-slip plates – with additional high friction covering – maintain long term traction performance.



Hand rails and anti-slip plates



Exceptional operator protection



KomVision cameras

## Safe maintenance

Thermal guards around high temperature areas of the engine, protected fan belt and pulleys, a pump/engine partition that prevents hydraulic oil from spraying onto the engine, and exceptionally sturdy handrails: in Komatsu tradition, the highest safety level is provided for a fast and smooth maintenance.

## Komatsu SpaceCab™

The ROPS cab has a tubular steel frame and provides high shock absorbency, impact resistance and durability. The seat belt is well designed to keep the operator in the safety zone of the cab in the event of a rollover. Optionally the cab can be fitted with a Falling Object Protective System (FOPS) with openable front guard.

## KomVision

With a series of high definition networked cameras fitted on the machine, KomVision provides a crystal clear, real-time bird's eye view of the immediate surroundings on the wide-screen cab monitor. The operator can quickly and easily check the machine's vicinity prior to making any movement, and focus on the work at hand even in low light conditions.

# Quality You Can Rely On



## **Komatsu-quality**

With the latest computer techniques and a thorough test programme, Komatsu's global know-how produces equipment to meet your highest standards. All major components of the HB215LC-3 are designed and directly manufactured by Komatsu, and essential machine functions are perfectly matched for a highly reliable and productive excavator.

## **Rugged design**

Maximum toughness and durability are the cornerstones of Komatsu's philosophy – along with safety and top class customer service. Single piece plates and castings are used in key areas of the machine's structure for good load distribution. Highly durable rubbing strips on the underside of the arm protect the structure against impact damage.

## **5 years or 10.000 hours warranty on hybrid components**

The reliability of Komatsu hybrid components is world renowned and they are covered by a free "5 years or 10.000 hours" warranty. In case of breakdown, new spare components are ready for express delivery, for the quick restart of your operations.

## **Extensive support network**

The extensive Komatsu distribution and dealer network is standing by to help keep your fleet in optimum condition. Customised servicing packages are available, with express availability of spare parts, to make sure that your Komatsu equipment continues to perform at its peak.



*Proven technology: Komatsu 4th generation hybrid system components*



*Durable and reliable undercarriage design for maximum protection*

# Easy Maintenance



## Central service points

Komatsu designed the HB215LC-3 with centralised and conveniently located service points to make necessary inspections and maintenance quick and easy.

## Komatsu CARE™

Komatsu CARE™ is a maintenance program that comes as standard with your new Komatsu machine. It covers factory-scheduled maintenance, performed with Komatsu Genuine parts by Komatsu-trained technicians. Depending on your machine's engine, it also offers extended coverage of the Komatsu Diesel Particulate Filter (KDPF) or the Komatsu Diesel Oxidation Catalyst (KDOC), and of the Selective Catalytic Reduction (SCR). Please contact your local Komatsu distributor for terms and conditions.



## Long-life oil filters

The Komatsu Genuine hydraulic oil filter uses high-performance filtering material for long replacement intervals, which significantly reduces maintenance costs.

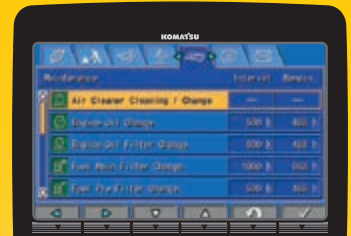


## AdBlue® tank

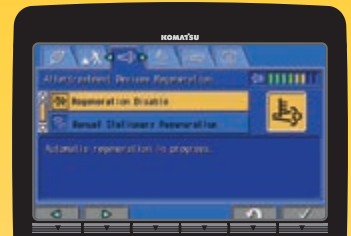
For simple access, the AdBlue® tank is installed on the front stairway.

## Flexible warranty

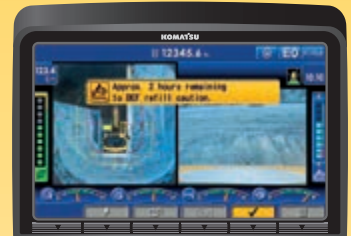
When you purchase Komatsu equipment, you gain access to a broad range of programmes and services that have been designed to help you get the most from your investment. For example, Komatsu's Flexible Warranty Programme provides a range of extended warranty options on the machine and its components. These can be chosen to meet your individual needs and activities. This programme is designed to help reduce total operating costs.



Basic maintenance screen



Aftertreatment device regeneration screen for the KDOC



AdBlue® level and refill guidance



# KOMTRAX

## The way to higher productivity

KOMTRAX uses the latest wireless monitoring technology. Compatible on PC, smartphone or tablet, it delivers insightful and cost saving information about your fleet and equipment, and offers a wealth of information to facilitate peak machine performance. By creating a tightly integrated web of support it allows proactive and preventive maintenance and helps to efficiently run a business.



## Knowledge

You get quick answers to basic and critical questions about your machines – what they're doing, when they did it, where they're located, how they can be used more efficiently and when they need to be serviced.

Performance data is relayed by wireless communication technology (Satellite, GPRS or 3G depending on model) from the machine to a computer and to the local Komatsu distributor – who's readily available for expert analysis and feedback.

## Power

The detailed information that KOMTRAX puts at your fingertips 24 hours a day, 7 days a week gives the power to make better daily and long-term strategic decisions – at no extra cost. Problems can be anticipated, maintenance schedules customised, downtime minimised and machines kept where they belong: working on the jobsite.

## Convenience

KOMTRAX enables convenient fleet management on the web, wherever you are. Data is analysed and packaged specifically for effortless and intuitive viewing in maps, lists, graphs and charts. You can foresee eventual maintenance issues and required spare parts, and troubleshoot a problem before Komatsu technicians arrive on site.



# Specifications

## ENGINE

Model	Komatsu SAA4D107E-3
Type	Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel
Engine power	
at rated engine speed	2.000 rpm
ISO 14396	110 kW/148 HP
ISO 9249 (net engine power)	110 kW/148 HP
No. of cylinders	4
Bore × stroke	107 × 124 mm
Displacement	4,46 l
Air filter type	Double element type with monitor panel dust indicator and auto dust evacuator
Cooling	Suction type cooling fan with radiator fly screen

## HYDRAULIC SYSTEM

Type	HydrauMind. Closed-centre system with load sensing and pressure compensation valves
Additional circuits	2 additional circuits with proportional control can be installed
Main pump	2 variable displacement piston pumps supplying boom, arm, bucket and travel circuits
Maximum pump flow	452 l/min
Relief valve settings	
Implement	380 kg/cm <sup>2</sup>
Travel	380 kg/cm <sup>2</sup>
Pilot circuit	33 kg/cm <sup>2</sup>

## SERVICE REFILL CAPACITIES

Fuel tank	400 l
Coolant engine	28,0 l
Coolant Hybrid	5,0 l
Engine oil	18,0 l
Swing drive	6,5 l
Swing motor	1,6 l
Generator-motor	6,5 l
Hydraulic tank	132 l
Final drive (each side)	5,0 l
AdBlue® tank	23,1 l

## OPERATING WEIGHT (APPR.)

Triple grouser shoes	Operating weight	Ground pressure
600 mm	23.000 kg	0,48 kg/cm <sup>2</sup>
700 mm	23.280 kg	0,42 kg/cm <sup>2</sup>
800 mm	23.600 kg	0,37 kg/cm <sup>2</sup>
900 mm	23.870 kg	0,39 kg/cm <sup>2</sup>

Operating weight, including specified work equipment, 2,9 m arm, 650 kg bucket, operator, lubricant, coolant, full fuel tank and the standard equipment.

## SWING SYSTEM

Type	Electric motor driving through planetary triple reduction gearbox
Swing lock	Electrically actuated wet multidisc brake integrated into swing motor
Swing speed	0 - 12,4 rpm
Swing torque	69 kNm

## DRIVES AND BRAKES

Steering control	2 levers with pedals giving full independent control of each track
Drive method	Hydrostatic
Travel operation	Automatic 3-speed selection
Gradeability	70%, 35°
Max. travel speeds	
Lo / Mi / Hi	3,0 / 4,1 / 5,5 km/h
Maximum drawbar pull	20.600 kg
Brake system	Hydraulically operated discs in each travel motor

## UNDERCARRIAGE

Construction	X-frame centre section with box section track frames
Track assembly	
Type	Fully sealed
Shoes (each side)	49
Tension	Combined spring and hydraulic unit
Rollers	
Track rollers (each side)	9
Carrier rollers (each side)	2

## ENVIRONMENT

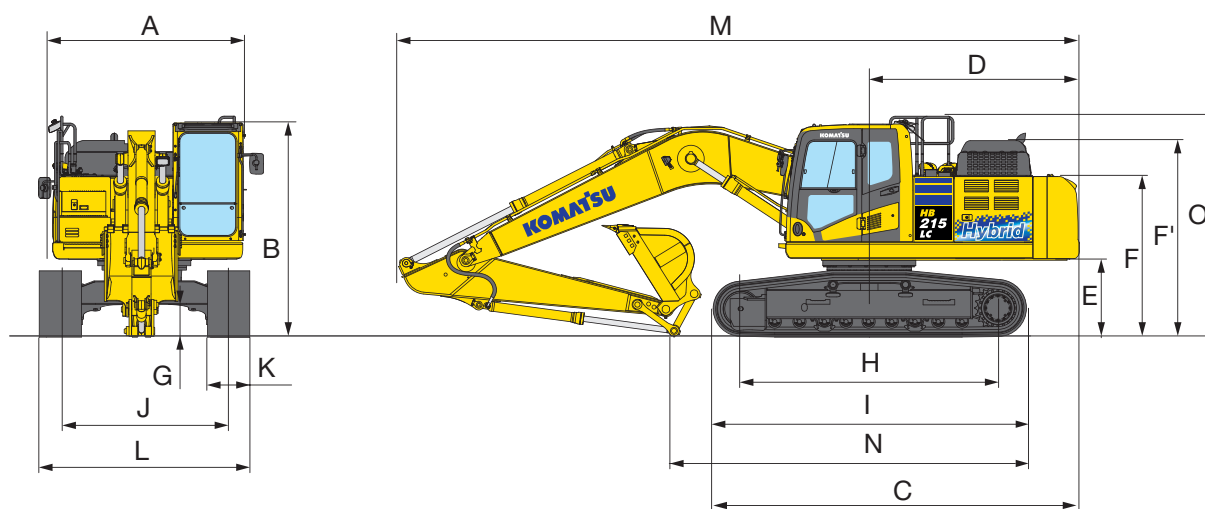
Engine emissions	Fully complies with EU Stage IV exhaust emission regulations
Noise levels	
LwA external	100 dB(A) (2000/14/EC Stage II)
LpA operator ear	69 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096:1997)	
Hand/arm	≤ 2,5 m/s <sup>2</sup> (uncertainty K = 0,51 m/s <sup>2</sup> )
Body	≤ 0,5 m/s <sup>2</sup> (uncertainty K = 0,30 m/s <sup>2</sup> )
Contains fluorinated greenhouse gas HFC-134a (GWP 1430). Quantity of gas 0,9 kg, CO <sub>2</sub> equivalent 1,29 t	



# Dimensions & Performance Figures

## MACHINE DIMENSIONS

A	Overall width of upper structure	2.705 mm
B	Overall height of cab	3.045 mm
C	Overall length of basic machine	5.915 mm
D	Tail length	2.990 mm
	Tail swing radius	3.020 mm
E	Clearance under counterweight	1.085 mm
F	Machine tail height	2.250 mm
F'	Machine tail height (top of engine cover)	2.765 mm
G	Ground clearance	440 mm
H	Tumbler centre distance	3.655 mm
I	Track length	4.450 mm
J	Track gauge	2.380 mm
K	Track shoe width	600, 700, 800 mm
L	Overall track width with 600 mm shoe	2.980 mm
	Overall track width with 700 mm shoe	3.080 mm
	Overall track width with 800 mm shoe	3.180 mm
	Overall track width with 900 mm shoe	3.280 mm

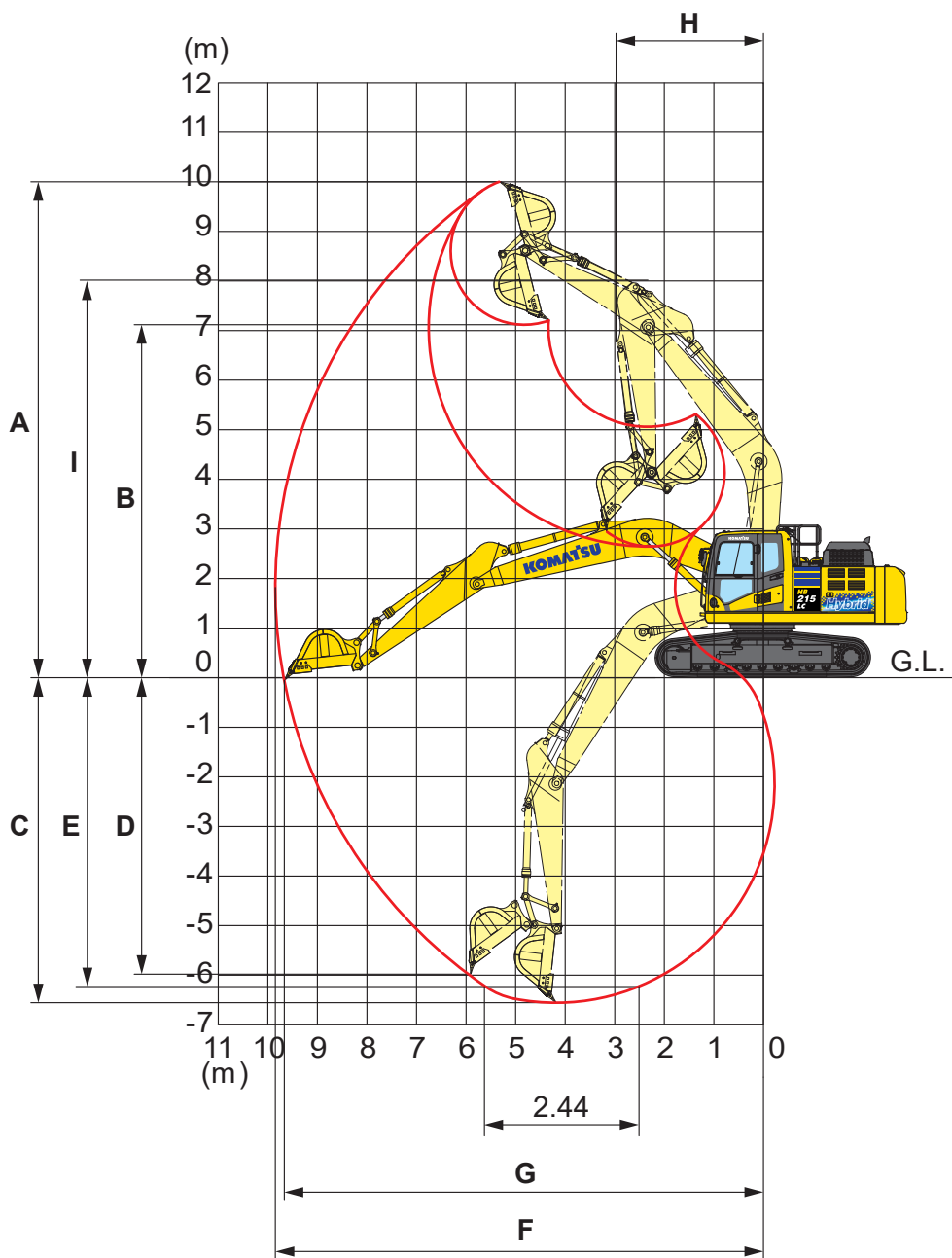


## TRANSPORT DIMENSIONS

	Arm length	2,4 m	2,9 m
M	Transport length	9.775 mm	9.705 mm
N	Length on ground (transport)	5.695 mm	5.000 mm
O	Overall height (to top of handrail)	3.280 mm	3.135 mm

# Working Range

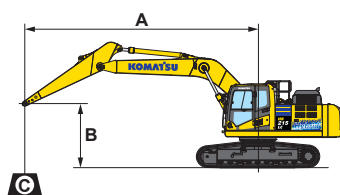
HB215LC-3



## WORKING RANGE

Arm length	2,4 m	2,9 m
A Max. digging height	9.800 mm	10.000 mm
B Max. dumping height	6.890 mm	7.110 mm
C Max. digging depth	6.095 mm	6.620 mm
D Max. vertical wall digging depth	5.430 mm	5.980 mm
E Max. digging depth of cut for 2,44 m level	5.780 mm	6.370 mm
F Max. digging reach	9.380 mm	9.875 mm
G Max. digging reach at ground level	9.190 mm	9.700 mm
H Min. swing radius	3.090 mm	3.040 mm
I Max. height at min. swing radius	8.080 mm	8.005 mm

# Lifting Capacity



- A – Reach from swing center
- B – Bucket hook height
- C – Lifting capacities

- Rating over front
- Rating over side
- Rating at maximum reach

Weights:

With 2,4 m arm: bucket linkage and bucket cylinder: 359 kg

With 2,9 m arm: bucket linkage and bucket cylinder: 335 kg

With 600 mm shoes

Arm length	A				7,5 m		6,0 m		4,5 m		3,0 m		1,5 m	
	B													
 2,4 m	7,5 m	kg	*6.080	*6.080										
	6,0 m	kg	*5.680	4.930			*7.170	5.900	*7.420	*7.420				
	4,5 m	kg	*5.640	4.150			*7.780	5.750	*9.050	8.810	*12.390	*12.390		
	3,0 m	kg	5.650	3.790	6.010	4.020	8.420	5.510	*11.380	8.240				
	1,5 m	kg	5.490	3.660	6.900	3.920	8.160	5.290	12.780	7.780				
	0,0 m	kg	5.650	3.740	5.820	3.850	7.990	5.140	12.520	7.560				
	- 1,5 m	kg	6.240	4.100			7.940	5.090	12.480	7.530	*12.390	*12.390		
- 3,0 m	kg	7.690	4.980			8.030	5.170	12.590	7.620	*17.380	14.600			
 2,9 m	7,5 m	kg	*4.020	*4.020			*4.620	*4.620						
	6,0 m	kg	*3.780	*3.780			*6.460	5.950						
	4,5 m	kg	*3.760	3.760	*5.730	4.110	*7.160	5.780	*8.090	*8.090				
	3,0 m	kg	*3.890	3.450	6.000	4.010	*8.250	5.530	*10.440	8.350				
	1,5 m	kg	*4.170	3.330	5.870	3.880	8.150	5.270	*12.620	7.810				
	0,0 m	kg	*4.670	3.390	5.760	3.780	7.940	5.080	12.470	7.510	*7.160	*7.160		
	- 1,5 m	kg	5.580	3.660	5.730	3.750	7.850	5.000	12.360	7.410	*11.640	*11.640	*7.440	*7.440
- 3,0 m	kg	6.640	4.310			7.880	5.030	12.420	7.470	*17.890	14.310	*12.060	*12.060	
- 4,5 m	kg	*8.710	6.030					*10.790	7.680	*15.040	14.700			

\* Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE Standard No. J1097. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load. When lifting with additional equipment installed to the arm, please subtract the weight of all additional equipment from the values stated.

## BUCKET AND ARM FORCE

Arm length	2,4 m	2,9 m
Bucket digging force	16.500 kg	14.100 kg
Bucket digging force at PowerMax	17.500 kg	15.200 kg
Arm crowd force	12.200 kg	10.300 kg
Arm crowd force at PowerMax	13.000 kg	11.000 kg

## MAX. BUCKET CAPACITY AND WEIGHT

Arm length	2,4 m		2,9 m	
Material weight up to 1,2 t/m <sup>3</sup>	1,68 m <sup>3</sup>	1.200 kg	1,65 m <sup>3</sup>	1.150 kg
Material weight up to 1,5 t/m <sup>3</sup>	1,53 m <sup>3</sup>	1.100 kg	1,40 m <sup>3</sup>	1.025 kg
Material weight up to 1,8 t/m <sup>3</sup>	1,30 m <sup>3</sup>	1.000 kg	1,22 m <sup>3</sup>	925 kg

This table is for reference only. Buckets shown are not necessarily available. Please consult with your distributor for the correct selection of buckets and attachments to suit the application.

# Standard and Optional Equipment

## ENGINE

Komatsu SAA4D107E-3 turbocharged common rail direct injection diesel engine	●
EU Stage IV compliant	●
Suction type cooling fan with radiator fly screen	●
Automatic engine warm-up system	●
Engine overheat prevention system	●
Fuel control dial	●
Auto-deceleration function	●
Adjustable idle shutdown	●
Engine key stop	●
Engine ignition can be password secured on request	●
Alternator 24 V/90 A	●
Starter motor 24 V/5,5 kW	●
Batteries 2 × 12 V/140 Ah	●

## HYBRID SYSTEM

Electrical swing motor energy recover system	●
Capacitor and inverter	●
Combined generator-motor	●

## HYDRAULIC SYSTEM

Electronic closed-centre load sensing (E-CLSS) hydraulic system (HydrauMind)	●
Pump and engine mutual control (PEMC) system	●
6-working mode selection system; Power mode, Economy mode, Breaker mode, Attachment Power and Attachment Economy modes and Lifting/Fine Operation mode	●
PowerMax function	●
Adjustable PPC wrist control levers for arm, boom, bucket and swing, with sliding proportional control for attachments and 3 auxiliary buttons	●
Prepared for hydraulic quick-coupler	●
Komatsu Integrated Attachment Control (KIAC)	○
Additional hydraulic functions	○

## WORK EQUIPMENT

Mono boom	●
2,4 m; 2,9 m arms	○
Komatsu buckets	○
Komatsu breakers	○

## CABIN

Reinforced safety SpaceCab™; highly pressurised and tightly sealed hyper viscous mounted cab with tinted safety glass windows, large roof window with sun shade, pull-up type front window with locking device, removable lower window, front window wiper with intermittent feature, sun roller blind, cigarette lighter, ashtray, luggage shelf, floor mat	●
Heated, high-back air-suspended seat with lumbar support, console mounted height adjustable arm rests, and retractable seat belt	●
Automatic climate control system	●
12/24 Volt power supplies	●
Beverage holder and magazine rack	●
Hot and cool box	●
Radio	●
Auxiliary input (MP3 jack)	●
Lower wiper	○
Rain visor (not with OPG)	○

## SERVICE AND MAINTENANCE

Automatic fuel line de-aeration	●
Double element type air cleaner with dust indicator and auto dust evacuator	●
KOMTRAX – Komatsu wireless monitoring system (3G)	●
Komatsu CARE™ – a maintenance program for Komatsu customers	●
Multifunction video compatible colour monitor with Equipment Management and Monitoring System (EMMS) and efficiency guidance	●
Toolkit	●
Service points	●
Automatic greasing system	○

## DRIVES AND BRAKES

Hydrostatic, 3-speed travel system with automatic shift and planetary gear type final drives, and hydraulic travel and parking brakes	●
PPC control levers and pedals for steering and travel	●

## UNDERCARRIAGE

Track roller guards	●
Track frame under-guards	●
600, 700, 800, 900 mm triple grouser shoes	○
Full length track roller guards	○

## SAFETY EQUIPMENT

KomVision surround view system	●
Electric horn	●
Overload warning device	●
Audible travel alarm	●
Boom safety valves	●
Large handrails, rear-view mirrors	●
Battery main switch	●
ROPS compliant to ISO 12117-2:2008	●
Emergency engine stop switch	●
Seat belt caution indicator	●
Neutral position detection system	●
Arm safety valve	●
OPG Level II front guard (FOPS), hinged type	○
OPG Level II top guard (FOPS)	○

## LIGHTING SYSTEM

Working lights: 2 revolving frame, 1 boom (l.h.)	●
Additional working lights: 4 cab roof (front), 1 cab roof (rear), 1 boom (r.h.), 1 counterweight (rear), beacon	○
LED working lights: 2 revolving frame (halogen), 2 boom (LED, l.h. & r.h.), 2 boom cylinders (LED), 4 cab roof (LED, front), 1 cab roof (halogen, rear), 2 counterweight (halogen, rear), 1 right side machine (halogen), beacon	○

## OTHER EQUIPMENT

Standard counterweight	●
Remote greasing for swing circle and pins	●
Electric refuelling pump with automatic shut-off function	●
Biodegradable oil for hydraulic system	○
Customised paint	○

Further equipment on request

- standard equipment
- optional equipment

Your Komatsu partner:

# KOMATSU

**Komatsu Europe  
International N.V.**

Mechelsesteenweg 586  
B-1800 VILVOORDE (BELGIUM)  
Tel. +32-2-255 24 11  
Fax +32-2-252 19 81  
[www.komatsu.eu](http://www.komatsu.eu)

UENSS18900 10/2018

**KOMATSU** is a trademark of Komatsu Ltd. Japan.