

KOMATSU

Hybrid

HB205-1
HB215LC-1

HB
205

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KOMATSU®

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Advanced Hybrid Hydraulic Excavator **HB205 /215LC-1** Making Full Debut on the Market

What Komatsu Can Do and What It Must Do for the Global Environment

Komatsu, as a global corporation, established the Komatsu Earth Environment Charter, which delineated its basic principles as contribution to realization of a sustainable society, simultaneous realization of environmental and economic performances

and observance of corporate social responsibility.

Komatsu is promoting various activities that will reduce environmental impact.

Under these principles, Komatsu has collected its total technologies to realize the ideal construction equipment of the next generation.

In 2008, Komatsu succeeded in introducing the world's first hydraulic excavator equipped with a hybrid system to the market.*
Now, the next generation machine with upgraded specifications and sophisticated styling, Hybrid hydraulic excavators **HB205/215LC-1** mark their full debut on the market.

The machines achieve 25 % reduction in fuel consumption** and reduced NOx and CO₂ emissions, which are the same as the previous model.

Hybrid hydraulic excavators HB205/215LC-1 establish their position as the next generation of construction equipment.

*: Among marketed hydraulic excavators

** : Compared with PC200-8 according to our test standard.
The value can change depending on the work.

Photo may include optional equipment.

HYBRID SYSTEM

*The Leading-edge Machine of the New Generation of Hydraulic Excavators,
Focus both on Environmental Concerns and Practical Performance*

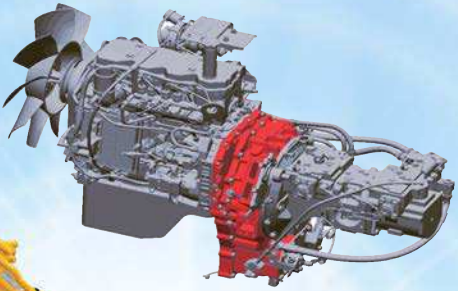
*Most components including those of the hybrid system are developed and manufactured by Komatsu.
They are compact in design and feature excellent reliability and durability.*

Hybrid

Reliable and Durable Hybrid Components Developed and Manufactured by Komatsu

Generator/motor

The generator/motor is positioned between the engine and hydraulic pump for effective power transmission to the hydraulic pump. The generator sometimes produces electric power and charges the capacitor during the period when the engine is idling.



Electric Swing Motor/generator

The electric swing motor/generator is newly developed. This recovers the energy during swing braking. The motor/generator accelerates the swing of the upper structure more efficiently than the conventional hydraulic motor and provides excellent swing performance. The dedicated lubrication and cooling systems are newly developed for reliability and durability.



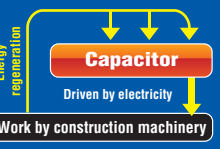
Inverter and Capacitor

The inverter and the capacitor have high reliability with the dedicated cooling system. The capacitor can charge or discharge more quickly than the battery hybrid system, because it doesn't require any chemical reactions that take some lag generating the electric current, while the battery requires. The quickness is the advantage for matching the frequent change of the engine speed of construction equipment. The inverter and the capacitor also have the advantage of long life, which require no maintenance because of its little degradation.



Capacitor Characteristics

The capacitor is charged and discharged by the migration of electrons and ions. A large amount of energy can be recovered efficiently.



Easy-to-understand Hybrid Operation Monitor Screen

Energy Management Screen

The operation status of the hybrid system is displayed on the screen as energy flows, which include capacitor charging/discharging and engine assist by the generator/motor.



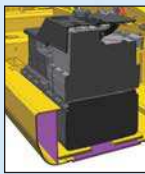
Hybrid System Temperature Gauge

The hybrid system temperature gauge is displayed on the screen. This allows the operator to understand the severity of the load on the hybrid system at a glance.

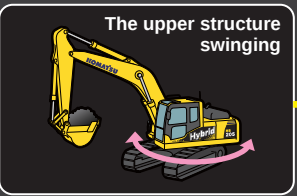


Strengthened Revolving Frame

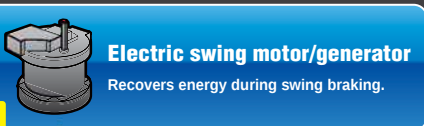
The revolving frame is reinforced to protect the hybrid components from impact.



KOMATSU HYBRID SYSTEM



The upper structure swinging



Electric swing motor/generator

Recovers energy during swing braking.

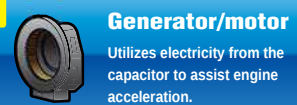


Inverter



Capacitor

Efficiently and instantaneously stores and discharges electric energy.



Generator/motor

Utilizes electricity from the capacitor to assist engine acceleration.



Engine

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 used by the generator/motor to assist the engine when it needs to accelerate. Thus, the hybrid system reduces fuel consumption significantly. Most components of the system are developed and manufactured by Komatsu.

*: Except capacitor cells

WORKABILITY & ECOLOGY

Komatsu's Next Generation Technologies that Enabled the Hydraulic Excavator to Satisfy both Environment-friendliness and High Working Performance.

The total vehicle control system and hybrid system from the Komatsu's technologies realize 25 %* reduction in fuel consumption and reduced emissions of NOx and CO₂ while keeping a high level of performance.

* : Compared with PC200-8 according to our test standard.
The value can change depending on the work.

Low Emission Engine

Komatsu SAA4D107E-1-A engine is EPA Tier 3 and EU Stage 3A emissions certified, without sacrificing power or machine productivity.



Low Operation Noise

Enables low noise operation using the low-noise engine and methods to cut noise at source.

Fuel-saving Technology

New technology of Engine and Pump control HB205/215LC-1 introduces new technology of Engine and Hydraulic Pump control, providing further fuel savings with sufficient oil flow at lower Engine speed.

Assistance for Energy-saving Operation for Reduced CO₂ Emissions

Work Mode Selectable

Selectable two work modes - P mode for large production and E mode for fuel-saving, it depends on your priority.

P mode – Power or production priority mode has improved fuel consumption, while maintaining maximum production.

E mode – Economy or fuel priority mode reduces fuel consumption, but maintains the P mode-like work equipment speed for light duty work. You can select Power or Economy modes using a one-touch operation on the monitor panel depending on work loads.



KOMTRAX Report for Supporting Energy-saving Operation

The report includes actual operating hours, hydraulic stall hours, etc of the machine, which are extracted from the KOMTRAX information. Customers can get the report and use it for energy-saving operation.

Idling Caution

To prevent unnecessary fuel consumption, an idling caution is displayed on the monitor, if the engine idles for 5 minutes or more.

Fuel Consumption Monitor and Eco-gauge

The bar chart displayed at the center of the screen shows the average fuel consumption in previous 5 minutes to promote energy-saving operation. The screen can be switched to past average fuel consumption log screens for last one hour, 12 hours, one week and one month. The Eco-gauge appears on the right of the screen. Operating the machine by keeping the gauge in the green zone reduces CO₂ emissions and fuel consumption as well.



Average Fuel consumption monitor

Eco-gauge

TOTAL VEHICLE CONTROL & HYBRID SYSTEM

In addition to the engine, hydraulic components, main valve and electronic components that control them, the hybrid system components such as the generator/motor, swing electric motor/generator, inverter and capacitor are also developed and manufactured by Komatsu. They are neatly arranged on the machine. Controlling the inverter enables the optimum operation of the generator/motor, electric swing motor/generator and engine according to the work at hand, allowing the machine to demonstrate its potential fully while reducing fuel consumption significantly. The machine monitor displays the bar chart that indicates the average fuel consumption in the previous 5 minutes. The Eco-gauge shows the work load to assist the operator to perform energy-saving operations. Hybrid HB205/215LC-1 reduces CO₂ emissions making them environmentally-friendly machines.

Fuel consumption

25% reduced

Compared with PC200-8 according to our test standard.
The value can change depending on the work.



Photo may include optional equipment.

SAFETY & COMFORT

Comfortable and Relaxing Operating Environment for the Operator

The silent and spacious ROPS cab and various safety features allow the operator to operate the machine comfortably and efficiently.



Hybrid

ROPS CAB

The machine is equipped with a ROPS cab that conforms to ISO 12117-2 for excavators as standard equipment. The ROPS cab has high shock-absorption performance, featuring excellent durability and impact strength. It also satisfies the requirements of ISO OPG top guard level 1 for falling objects. Combined with the retractable seat belt, The ROPS cab protects the operator in case of tipping over and against falling objects.



Safety Design to Conform to Safety Standards in Japan, U.S.A and Europe

Lock Lever

The lever makes all hydraulic controls in the cab inoperable. The neutral start function allows the engine to start with this lever only in LOCK position.

Retractable Seat Belt

Emergency Escape Hammer

Reinforced and Tinted Window Glass

Large Side-view, Rear, and Sidewise Mirrors
Enlarged left-side mirror and addition of rear and side mirror allow the HB205/215LC-1 to meet the new ISO visibility requirements.



Side View Mirror

Rear View Monitoring System (optional)

Anti-slip Plates

Thermal and Fan Guards

Pump/engine Room Partition

Large Handrail

Large Step

Travel Alarm

Comfortable Cab for Reduced Operator Fatigue

Low Noise Level similar to that of a modern automobile

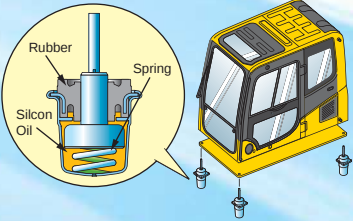
Wide Cab

Wide and spacious cab provides ample leg room, allowing an operator with a large body frame to take the appropriate operational posture. Reclining it further allows it to be placed into fully flat state with the headrest attached. The operator seat can be reclined, and the adjustment is up to fully flat position with the headrest attached.



Cab Damper Mounts

Significantly reduces vibration at operator seat.



Full-automatic Air Conditioner, with fresh air in take

Pressurized Cab

Auto air conditioner, air filter and a higher internal air pressure prevent external dust from entering the cab.

Standard Equipment



Sliding window glass (left side)

Remote intermittent wiper with windshield washer



Opening and closing skylight

Defroster (conform to the ISO standard)



Cigar lighter

Magazine Rack and cup holder



Plastic bottle storage

One-touch storable front window lower glass

Hybrid



Photo may include optional equipment.

Komatsu hybrid hydraulic excavators working around the world demonstrate excellent fuel consumption and high reliability.



ICT & KOMTRAX

The up-to-date ICT Makes the KOMTRAX System Easy-to-use, Convenient, and Worthy of Your Confidence

KOMTRAX with advanced ICT assists the operator in operating the machine and the administrator in managing their machines and reducing fuel cost.

Large Multi-lingual LCD Monitor

A large user-friendly color monitor enables safe, accurate and smooth work. Improved screen visibility is achieved by the use of TFT liquid crystal display that can easily be read at various angles and lighting conditions. The switches are simple and easy to operate. Industry first function keys facilitate multi-function operations. Displays data in 12 languages to globally support operators around the world.



Basic operation switches

Air conditioner operation switches

Function switches

Indicators

- 1 Auto-decelerator
- 2 Working mode
- 3 Travel speed
- 4 Engine coolant temperature gauge
- 5 Hydraulic oil temperature gauge
- 6 Hybrid system temperature gauge
- 7 Fuel gauge
- 8 Eco-gauge
- 9 Average fuel consumption monitor
- 10 Function switches menu

Basic operation switches

- 1 Auto-decelerator
- 2 Working mode selector
- 3 Traveling selector
- 4 Buzzer cancel
- 5 Wiper
- 6 Windshield washer

Operator Assistance Function for Effective and Efficient Operation

Fuel Consumption and Energy Flow Screens

The operator can check information of recent fuel consumption rates and the energy flow among engine and hybrid components on the machine monitor at any time.



Rear View Monitoring system that Conforms to New ISO Standard (optional)

The machine is equipped with a rear view camera, allowing the operator to see the blind spot behind the machine on the large LCD monitor screen.



Password Protection for Engine Start (Immobilizer)

The engine cannot be started unless the registered password is entered correctly.



KOMTRAX Message

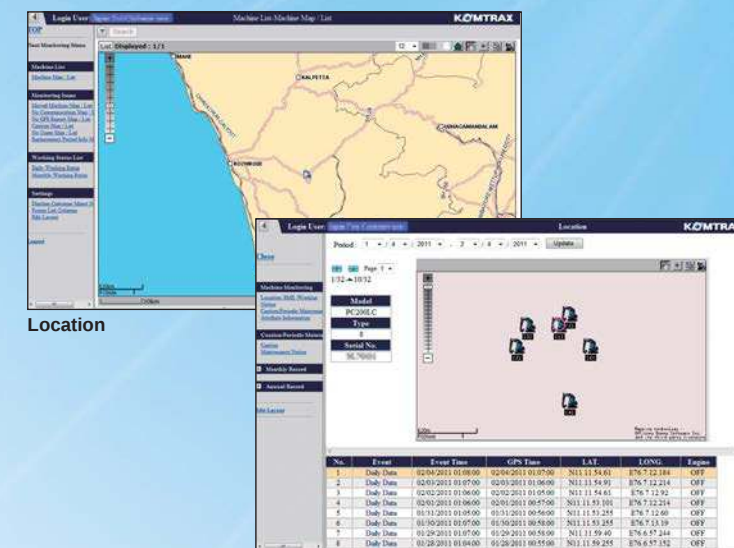
KOMTRAX communication function allows you to get and read messages from your Komatsu dealer on the machine monitor.

KOMTRAX

Assists Customer's Equipment Management and Contributes to Fuel Cost Cutting

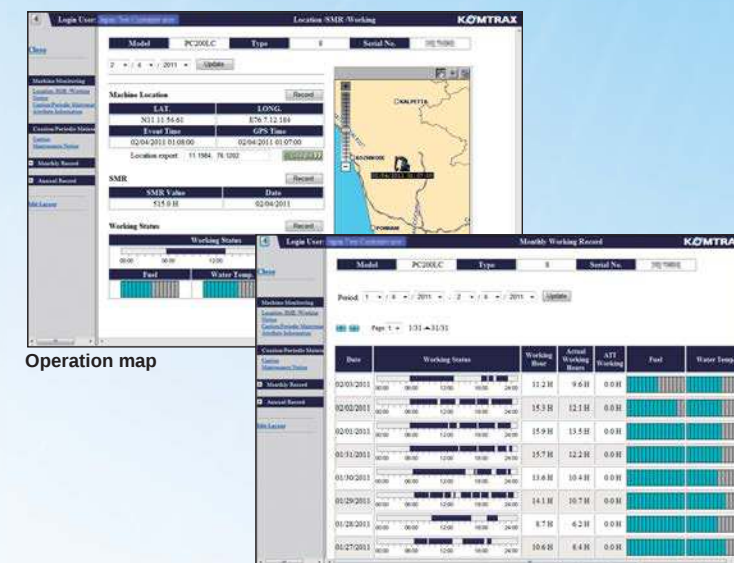
Equipment Management Support

KOMTRAX terminal installed on your machine collects and sends information such as machine location, working record, machine conditions, etc. using wireless communication. You can review the KOMTRAX data remotely via the online application. KOMTRAX not only gives you the informations on your machine, but also the convenience of managing your fleet on the Web.



Location

Movement generated position

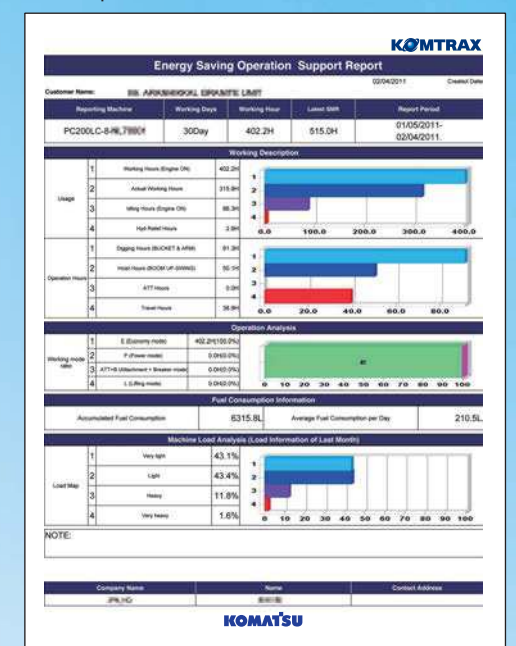


Operation map

Monthly status summary

Energy-saving Operation Support Report

KOMTRAX can provide various useful information which includes the energy-saving operation support report created based on the operating information of your machine such as fuel consumption and idle time.



MAINTENANCE

*Simplified Check and Maintenance Work
for Keeping the Machine at its Best*

Excellent Maintainability for Reduced Check and Maintenance Time

Side-by-side Cooling

Since radiator, aftercooler and oil cooler are arranged in parallel, they are easy to clean, remove and install. Radiator, aftercooler, and oil cooler are made of aluminum, have high cooling efficiency, and are easily recycled.



Toolbox

The toolbox is installed currently with the step.



Air Conditioner Filter

The air conditioner filter is removed and installed without the use of tools facilitating filter maintenance.



Equipped with the engine Eco-drain Valve as Standard.



Large capacity fuel tank of 400 liters with rustproof treatment

Sloping track frame for reduced accumulation of dirt and sand and easy removal

Washable cab floor mat

Gas Assisted Engine Hood Damper Cylinders



Hybrid

EMMS

EMMS
Equipment Management Monitoring System

Accurate and Prompt Diagnosis
Thanks to EMMS

EMMS (Equipment Management Monitoring System)

Monitor Function

Controller monitors engine oil level, coolant temperature, battery charge and air clogging, etc. If controller finds any abnormality, it is displayed on the LCD.



Maintenance Function

Monitor informs replacement time of oil and filters on LCD when the replacement interval is reached.



Trouble Data Memory Function

Monitor stores abnormalities for effective troubleshooting.

Equipped with the Fuel Pre-filter (with Water Separator)

Removes water and contaminants in the fuel to prevent fuel problems. (With built-in priming pump)



High Efficiency Fuel Filter

Fuel system reliability is even better with high efficiency fuel filter.



Easy Access to Engine Oil Filter and Fuel Drain Valve



Long-life Oil, Filter

Uses high-performance filtering materials and long-life oil. Extends the oil and filter replacement interval.



Hydraulic oil filter
(Eco-white element)

Engine oil & Engine oil filter	every 500 hours
Hydraulic oil	every 5000 hours
Hydraulic oil filter	every 1000 hours

Work Equipment Greasing Interval;
Every 500 Hours

Photo may include optional equipment.

SPECIFICATIONS



ENGINE

Model Komatsu SAA4D107E-1-A
Type Water-cooled, 4-cycle, direct injection
Aspiration..... Turbocharged, aftercooled
Number of cylinders 4
Bore **107 mm** 4.21"
Stroke..... **124 mm** 4.88"
Piston displacement..... **4.46 ltr** 272 in³
Horsepower:
SAE J1995..... Gross **110 kW** 148 HP
ISO 9249 / SAE J1349 Net **104 kW** 139 HP
Rated rpm 2000 rpm
Fan drive method for radiator cooling Mechanical
Governor All-speed control, electronic
EPA Tier 3 and EU Stage 3A emission certified



HYDRAULICS

Type .. HydrauMind (Hydraulic Mechanical Intelligence New Design)
system, closed-center system with load sensing valves and
pressure compensated valves
Number of selectable working modes 5
Main pump:
Type Variable displacement piston type
Pumps for Boom, arm, bucket and travel circuits
Maximum flow..... **439 ltr/min** 116 U.S. gal/min
Supply for control circuit Self-reducing valve
Hydraulic motors:
Travel..... 2 x axial piston motor with parking brake
Relief valve setting:
Implement circuits **37.3 MPa** 380 kgf/cm² 5,400 psi
Travel circuit **37.3 MPa** 380 kgf/cm² 5,400 psi
Pilot circuit **3.2 MPa** 33 kgf/cm² 470 psi
Hydraulic cylinders:
(Number of cylinders – bore x stroke x rod diameter)
Boom **2–120 mm x 1334 mm x 85 mm** 4.7" x 52.5" x 3.3"
Arm **1–135 mm x 1490 mm x 95 mm** 5.3" x 58.7" x 3.7"
Bucket: for **2.41 m** 7'11" and **2.93 m** 9'7" Arm
1–115 mm x 1120 mm x 80 mm 4.5" x 44.1" x 3.2"



DRIVES AND BRAKES

Steering control Two levers with pedals
Drive method..... Hydrostatic
Maximum drawbar pull **178 kN** 18200 kg 40,120 lb
Gradeability 70%, 35°
Maximum travel speed: High **5.5 km/h** 3.4 mph
(Auto-Shift) Mid..... **4.1 km/h** 2.5 mph
(Auto-Shift) Low **3.0 km/h** 1.9 mph
Service brake Hydraulic lock
Parking brake Mechanical disc brake



SWING SYSTEM

Drive method Electric drive
Swing reduction Planetary gear
Swing circle lubrication Grease-bathed
Service brake Electric brake
Holding brake/Swing lock Mechanical disc brake
Swing speed..... 12.4 rpm



UNDERCARRIAGE

Center frame X-frame
Track frame Box-section
Seal of track Sealed track
Track adjuster Hydraulic
Number of shoes (each side):
HB205-1..... 45
HB215LC-1..... 49
Number of carrier rollers 2 each side
Number of track rollers (each side):
HB205-1..... 7
HB215LC-1..... 9



COOLANT AND LUBRICANT CAPACITY (REFILLING)

Fuel tank..... **400 ltr** 105.7 U.S. gal
Coolant (Engine) **17.3 ltr** 4.6 U.S. gal
(Hybrid)..... **5.2 ltr** 1.4 U.S. gal
Final drive, each side **3.3 ltr** 0.9 U.S. gal
Swing drive **7.1 ltr** 1.9 U.S. gal
Swing motor..... **1.6 ltr** 0.4 U.S. gal
Generator motor..... **6.0 ltr** 1.6 U.S. gal
Hydraulic tank..... **135 ltr** 35.7 U.S. gal



OPERATING WEIGHT (APPROXIMATE)

Operating weight including **5700 mm** 18'8" one-piece boom,
2925 mm 9'7" arm, SAE heaped **0.80 m³** 1.05 yd³ backhoe bucket,
rated capacity of lubricants, coolant, full fuel tank, operator, and
standard equipment.

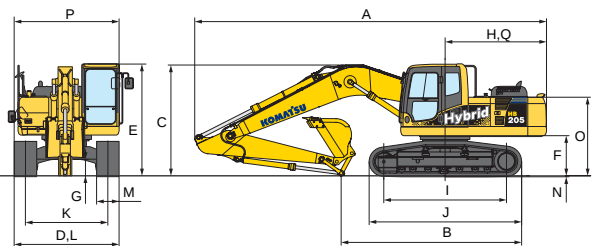
Shoes	HB205-1		HB215LC-1	
	Operating Weight	Ground Pressure	Operating Weight	Ground Pressure
600 mm 24"	20200 kg 44,537 lb	46.3 kPa 0.47 kgf/cm² 6.7 psi	21220 kg 46,786 lb	44.0 kPa 0.45 kgf/cm² 6.4 psi
700 mm 28"	20580 kg 45,375 lb	40.4 kPa 0.41 kgf/cm² 5.9 psi	21600 kg 47,624 lb	38.3 kPa 0.39 kgf/cm² 5.6 psi
800 mm 31.5"	20830 kg 45,926 lb	35.8 kPa 0.37 kgf/cm² 5.2 psi	21850 kg 48,175 lb	33.9 kPa 0.35 kgf/cm² 4.9 psi



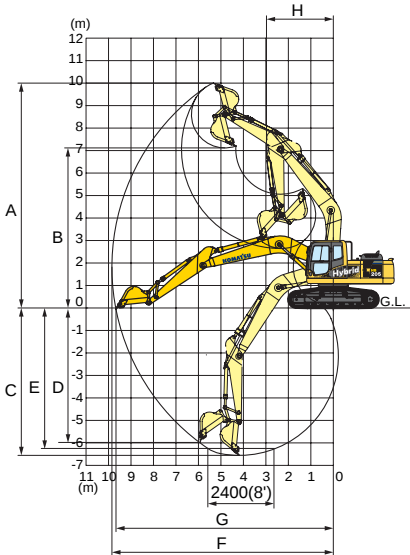
DIMENSIONS

	Arm Length	2925 mm	9'7"
A	Overall length	9425 mm	30'11"
B	Length on ground (transport): HB205-1 HB215LC-1	4815 mm 5000 mm	15'10" 16'5"
C	Overall height (to top of boom)	2970 mm	9'9"

		HB205-1		HB215LC-1	
D	Overall width	2800 mm	9'2"	3080 mm	10'1"
E	Overall height (to top of cab)	3040 mm	10'0"	3040 mm	10'0"
F	Ground clearance, counterweight	1085 mm	3'7"	1085 mm	3'7"
G	Ground clearance (minimum)	440 mm	1'5"	440 mm	1'5"
H	Tail swing radius	2750 mm	9'0"	2750 mm	9'0"
I	Track length on ground	3275 mm	10'9"	3655 mm	12'0"
J	Track length	4070 mm	13'4"	4450 mm	14'7"
K	Track gauge	2200 mm	7'3"	2380 mm	7'10"
L	Width of crawler	2800 mm	9'2"	3080 mm	10'1"
M	Shoe width	600 mm	24"	700 mm	28"
N	Grouser height	26 mm	1.0"	26 mm	1.0"
O	Machine cab height	2095 mm	6'10"	2095 mm	6'10"
P	Machine cab width	2710 mm	8'11"	2710 mm	8'11"
Q	Distance, swing center to rear end	2710 mm	8'11"	2710 mm	8'11"



WORKING RANGE



	Arm	2925 mm	9'7"
A	Max. digging height	10000 mm	32'10"
B	Max. dumping height	7110 mm	23'4"
C	Max. digging depth	6620 mm	21'9"
D	Max. vertical wall digging depth	5980 mm	19'7"
E	Max. digging depth of cut for 8' level	6370 mm	20'11"
F	Max. digging reach	9875 mm	32'5"
G	Max. digging reach at ground level	9700 mm	31'10"
H	Min. swing radius	3040 mm	10'0"
SAE rating	Bucket digging force at power max.	138 kN 14100 kgf/31,080 lb	
	Arm crowd force at power max.	101 kN 10300 kgf/22,710 lb	
ISO rating	Bucket digging force at power max.	149 kN 15200 kgf/33,510 lb	
	Arm crowd force at power max.	108 kN 11000 kgf/24,250 lb	



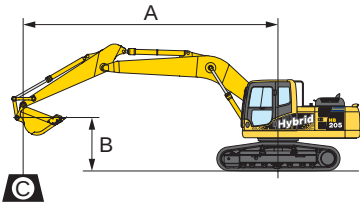
BACKHOE BUCKET, ARM, AND BOOM COMBINATION

Bucket Capacity (heaped)		Width				Weight		Number of Teeth	Arm Length		
SAE, PCSA		CECE		Without Side Cutters		With Side Cutters			2.93 m 9'7"		
0.80 m³	1.05 yd³	0.70 m³	0.92 yd³	1045 mm	41.1"	1170 mm	46.1"	635 kg	1,400 lb	5	○
0.93 m³	1.22 yd³	0.80 m³	1.05 yd³	1200 mm	47.2"	1325 mm	52.2"	696 kg	1,530 lb	5	●
1.05 m³	1.37 yd³	0.90 m³	1.18 yd³	1330 mm	52.4"	1455 mm	57.3"	757 kg	1,670 lb	6	●

○: General purpose use, density up to **1.8 ton/m³** 1.52 U.S. ton/yd³ ●: Light duty work, density up to **1.2 ton/m³** 1.01 U.S. ton/yd³



LIFTING CAPACITY WITH LIFTING MODE



- A: Reach from swing center
B: Bucket hook height
C: Lifting capacity
Cf: Rating over front
Cs: Rating over side
☉: Rating at maximum reach

- Conditions:
- 5700 mm 18'8" one-piece boom
 - 0.8 m³ 1.05 yd³ SAE heaped bucket
 - Shoe width:
 - HB205-1 600 mm 24" triple grouser

HB205-1		Arm: 2925 mm 9'7"				Bucket: 0.8 m³ 1.05 yd³ SAE heaped		Shoe: 600 mm 24" triple grouser					
B	A	☉ MAX		7.6 m 25'		6.1 m 20'		4.6 m 15'		3.0 m 10'		1.5 m 5'	
		Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
7.6 m 25'		*2750 kg *6,100 lb	*2750 kg *6,100 lb			*3800 kg *8,300 lb	*3800 kg *8,300 lb						
6.1 m 20'		*2600 kg *5,800 lb	*2600 kg *5,800 lb			*4300 kg *9,500 lb	4050 kg 8,900 lb						
4.6 m 15'		*2650 kg *5,800 lb	2150 kg 4,800 lb	3950 kg 8,800 lb	2600 kg 5,700 lb	*4900 kg *10,800 lb	3900 kg 8,600 lb						
3.0 m 10'		*2800 kg *6,100 lb	1950 kg 4,300 lb	3850 kg 8,500 lb	2500 kg 5,500 lb	5650 kg 12,500 lb	3700 kg 8,100 lb	*7350 kg *16,200 lb	5850 kg 12,900 lb	*11350 kg *25,000 lb	*11350 kg *25,000 lb		
1.5 m 5'		3000 kg 6,600 lb	1850 kg 4,100 lb	3750 kg 8,300 lb	2350 kg 5,200 lb	5400 kg 11,900 lb	3450 kg 7,600 lb	8600 kg 19,000 lb	5350 kg 11,800 lb	*7500 kg *16,500 lb	*7500 kg *16,500 lb		
0 m 0'		3050 kg 6,700 lb	1900 kg 4,200 lb	3650 kg 8,000 lb	2300 kg 5,000 lb	5200 kg 11,500 lb	3250 kg 7,200 lb	8250 kg 18,200 lb	5050 kg 11,100 lb	*8000 kg *17,700 lb	*8000 kg *17,700 lb		
-1.5 m -5'		3350 kg 7,400 lb	2050 kg 4,600 lb	3600 kg 7,900 lb	2250 kg 4,900 lb	5100 kg 11,200 lb	3150 kg 7,000 lb	8100 kg 17,900 lb	4900 kg 10,800 lb	*11200 kg *24,700 lb	9500 kg 20,900 lb	*6800 kg *15,000 lb	*6800 kg *15,000 lb
-3.0 m -10'		4000 kg 8,800 lb	2500 kg 5,500 lb			5100 kg 11,200 lb	3150 kg 7,000 lb	8100 kg 17,900 lb	4950 kg 10,900 lb	*15600 kg *34,400 lb	9650 kg 21,300 lb	*10550 kg *23,200 lb	*10550 kg *23,200 lb
-4.6 m -15'		5650 kg 12,500 lb	3550 kg 7,900 lb					8300 kg 18,300 lb	5100 kg 11,200 lb	*13050 kg *28,800 lb	10000 kg 22,000 lb		

* 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.



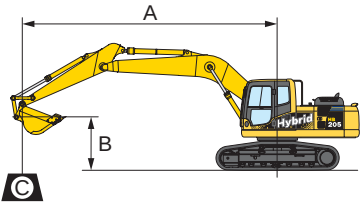
STANDARD EQUIPMENT

- Air conditioner with defroster
 - Alternator, 35 Ampere, 24 V
 - Anti-slip plates
 - Auto-decel
 - Automatic engine warm-up system
 - Batteries, 110 Ah/2 x 12 V
 - Boom holding valve
 - ROPS cab (ISO 12117-2)
 - Counterweight
 - Dry type air cleaner, double element
 - Electric horn
 - EMMS monitoring system
- Engine, Komatsu SAA4D107E-1-A
 - Engine overheat prevention system
 - Fan guard structure
 - Hydraulic track adjusters (each side)
 - KOMTRAX
 - Multi-function color monitor
 - Power maximizing system
 - PPC hydraulic control system
 - Radiator and oil cooler dust proof net
 - Rear reflector
 - Rear view mirrors (RH, LH, rear, sidewise)
 - Starting motor, 5.5 kW/24 V x 1
- Suction fan
 - Track guiding guard, center section
 - Track roller
 - HB205-1, 7 each side
 - HB215LC-1, 9 each side
 - Track shoe
 - HB205-1, 600 mm 24" triple grouser
 - HB215LC-1, 700 mm 28" triple grouser
 - Travel alarm
 - Working light, 2 (boom and RH)
 - Working mode selection system



OPTIONAL EQUIPMENT

- Additional filter system for poor-quality fuel
 - Alternator, 60 Ampere, 24 V
 - Arms
 - 2925 mm 9'7" arm assembly
 - Batteries, large capacity
 - Bolt-on top guard, [Operator Protective Guards level 2]
 - Boom, 5700 mm 18'8"
- Cab accessories
 - Rain visor
 - Sun visor
 - Cab front guard
 - Full height guard
 - Half height guard
 - Convertor, 12V
 - Long lubricating intervals for work equipment bushing (500 hours)
 - Rear view monitoring system
- Seat belt, retractable
 - Seat, suspension
 - Service valve
 - Shoes, triple grouser
 - HB205-1: 700 mm 28", 800 mm 31.5"
 - HB215LC-1: 600 mm 24", 800 mm 31.5"
 - Working lights
 - 2 on cab
 - 1 on counterweight



- A: Reach from swing center
B: Bucket hook height
C: Lifting capacity
Cf: Rating over front
Cs: Rating over side
☉: Rating at maximum reach

- Conditions:
- 5700 mm 18'8" one-piece boom
 - 0.8 m³ 1.05 yd³ SAE heaped bucket
 - Shoe width:
 - HB215LC-1 700 mm 28" triple grouser

HB215LC-1		Arm: 2925 mm 9'7"				Bucket: 0.8 m³ 1.05 yd³ SAE heaped		Shoe: 700 mm 28" triple grouser					
B A	☼ MAX		7.6 m 25'		6.1 m 20'		4.6 m 15'		3.0 m 10'		1.5 m 5'		
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
7.6 m 25'	*2750 kg *6,100 lb	*2750 kg *6,100 lb			*3800 kg *8,300 lb	*3800 kg *8,300 lb							
6.1 m 20'	*2600 kg *5,800 lb	*2600 kg *5,800 lb			*4300 kg *9,500 lb	*4300 kg *9,500 lb							
4.6 m 15'	*2650 kg *5,800 lb	2550 kg 5,600 lb	*4650 kg *10,300 lb	3000 kg 6,600 lb	*4900 kg *10,800 lb	4500 kg 9,900 lb							
3.0 m 10'	*2800 kg *6,100 lb	2300 kg 5,100 lb	4750 kg 10,500 lb	2900 kg 6,400 lb	*5850 kg *12,900 lb	4250 kg 9,400 lb	*7350 kg *16,200 lb	6750 kg 14,900 lb	*11350 kg *25,000 lb	*11350 kg *25,000 lb			
1.5 m 5'	*3050 kg *6,700 lb	2200 kg 4,900 lb	4650 kg 10,200 lb	2800 kg 6,200 lb	6700 kg 14,700 lb	4000 kg 8,900 lb	*9300 kg *20,500 lb	6250 kg 13,800 lb	*7500 kg *16,500 lb	*7500 kg *16,500 lb			
0 m 0'	*3500 kg *7,800 lb	2250 kg 5,000 lb	4550 kg 10,000 lb	2700 kg 5,900 lb	6450 kg 14,300 lb	3850 kg 8,400 lb	10450 kg 23,000 lb	5900 kg 13,000 lb	*8000 kg *17,700 lb	*8000 kg *17,700 lb			
-1.5 m -5'	4150 kg 9,200 lb	2450 kg 5,400 lb	4500 kg 9,900 lb	2650 kg 5,800 lb	6350 kg 14,000 lb	3750 kg 8,200 lb	*10250 kg *22,700 lb	5800 kg 12,700 lb	*11200 kg *24,700 lb	*11200 kg *24,700 lb	*6800 kg *15,000 lb	*6800 kg *15,000 lb	
-3.0 m -10'	4950 kg 11,000 lb	2950 kg 6,500 lb			6350 kg 14,000 lb	3750 kg 8,200 lb	10300 kg 22,700 lb	5800 kg 12,800 lb	*15600 kg *34,400 lb	11500 kg 25,400 lb	*10550 kg *23,200 lb	*10550 kg *23,200 lb	
-4.6 m -15'	*6750 kg *14,900 lb	4150 kg 9,200 lb					*9050 kg *20,000 lb	6000 kg 13,200 lb	*13050 kg *28,800 lb	11900 kg 26,200 lb			

* 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.