

HORSEPOWER

Gross: 116 kW 156 HP @ 2000 rpm  
Net: 110 kW 145 HP @ 2000 rpm

OPERATING WEIGHT

PC200-8: 19400–20010 kg  
42,770–44,110 lb

PC200LC-8: 20630–21460 kg  
45,440–47,310 lb

# KOMATSU®

## PC200-8 PC200LC-8

**PC  
200**

# HYDRAULIC EXCAVATOR



Photo may include optional equipment.

### STANDARD EQUIPMENT

- Alternator, 30 Ampere, 24 V
- Anti-slip plates
- Air cleaner
- Automatic engine warm-up system
- Battery, 110 Ah/2 x 12 V
- Boom holding cable
- Cab: GPS two-speed level 2 capsule with control belt on the panel
- Counterweight
- Day/Night air cleaner, switch element
- Electric horn
- Engine monitoring system
- Engine, Komatsu 3AA100/E-1
- Engine anti-vibration system
- Fan guard structure
- Hydraulic track adjusters (front and rear)
- Multi-function color monitor
- Power monitoring system
- PFC (hydraulic control system)
- Radiator/anti oil cooler dual/dual net
- Rear reflector
- Reverse camera (RPA), LPT, rear, sideview
- Starting motor, 4.5 kW/24 V x 1
- Sunscreen bar

### OPTIONAL EQUIPMENT

- Additional filter system for poor-quality fuel
- Air conditioner with defroster
- Alternator, 40 Ampere, 24 V
- Arms:
  - 2925 mm 9' 7" arm assembly
  - 2410 mm 7' 11" arm assembly
  - 1840 mm 6' 0" arm assembly
- Battery, large capacity
- Backhoe tips guard, (Optional Protection Class) level II
- Boom, 5790 mm 18' 9"
- Cabin accessories:
  - Flat visor
  - Sun visor
- Cab front guard:
  - Full height guard
  - Half height guard
- Heater with defroster
- Long lubricating intervals for work equipment bushings (500 hours)
- Rear view monitoring system
- Seat belt, retractable
- Seat, suspension

### SPECIAL PURPOSE BUCKET

- Ditch cleaning bucket
  - Capacity:  
SAE tapered 0.80 m<sup>3</sup> 1.06 yd<sup>3</sup>  
CECE tapered 0.70 m<sup>3</sup> 0.92 yd<sup>3</sup>  
Width: 1880 mm 70.9"
- Trapezoidal bucket is ideal for digging ditches and for drainage works
  - Capacity:  
SAE tapered 0.7 m<sup>3</sup> 0.92 yd<sup>3</sup>  
CECE tapered 0.6 m<sup>3</sup> 0.81 yd<sup>3</sup>
- Slope finishing bucket for compacting slopes of berms
  - Capacity:  
SAE tapered 0.40 m<sup>3</sup> 0.52 yd<sup>3</sup>  
CECE tapered 0.35 m<sup>3</sup> 0.46 yd<sup>3</sup>  
Width: 2390 mm 78.7"

- Ripper bucket for hard and rock ground
  - Capacity:  
SAE tapered 0.63 m<sup>3</sup> 0.81 yd<sup>3</sup>  
CECE tapered 0.54 m<sup>3</sup> 0.72 yd<sup>3</sup>  
Width: 3900 mm 13' 0"
- Single-wheel ripper and three-wheel ripper are recommended for rock digging and finishing hard soil/digging/piling/mixing works, etc.

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# WALK-AROUND

## Ecology and Economy Features

- **Low fuel consumption by total control of the engine, hydraulic and electronic system.**

Reduces fuel consumption by approx. 10%  
(Compared with the PC200-7).

## • Low emission engine

A powerful, turbocharged and air-to-air aftercooled Komatsu SAA6D107E-1 provides 110 kW / 148 HP. This engine meets EPA Tier 3 and EU Stage 3A emissions certified, without sacrificing power or machine productivity.

- Economy mode improves fuel consumption.
- Eco-pause for energy-saving operations.
- Extended Idling caution for fuel conservation

## • Low operation noise

The dynamic noise is lowered by 2 dB compared with the PC200-7, realizing a low noise operation.

See page 4 and 5.

## Safety Design

- Cab dedicated to hydraulic excavator for protecting the operator in the event of a roll over accident.
- Anti-slip plates for safe work on machine.
- Safety enhancement with large side-view, midview, and rear mirrors added.
- Rear view monitoring system for easy checking behind the machine (optional).
- OPG top guard level 2, capable with optional bolt-on top guard.

See page 7.



## Large Comfortable Cab

- Low-noise cab, similar to passenger car
- Low vibration with cab damper mounting
- Highly pressurized cab with optional air conditioner
- Operator seat and console with armrest that enables operators to the appropriate operational posture.

See pages 6.



## Easy Maintenance

- Long replacement interval of engine oil, engine oil filter, and hydraulic filter.
- Remote mounted engine oil filter and fuel drain valve for easy access
- Equipped with the fuel pre-filter as standard (with water separator)
- Side-by-side cooling concept enables individual cooling modules to be serviced.
- Equipped with the EMMS monitoring system

See page 3.

Photo may include optional equipment.

## HORSEPOWER

Gross: 116 kW / 155 HP @ 2000 rpm  
Net: 110 kW / 146 HP @ 2000 rpm

## OPERATING WEIGHT

PC200-8: 19400 – 20010 kg  
42,770 – 44,110 lb  
PC200LC-8: 20530 – 21460 kg  
45,480 – 47,310 lb

## BUCKET CAPACITY

0.59 – 1.17 m<sup>3</sup>  
0.65 – 1.53 yd<sup>3</sup>

# ECOLOGY & ECONOMY FEATURES

## Komatsu Technology



Komatsu develops and produces all major components, such as engines, electronics and hydraulic components, in-house.

With this "Komatsu Technology," and adding customer feedback, Komatsu is achieving great advancements in technology.

To achieve both high levels of productivity and economical performance, Komatsu has developed the main components with a total control system. The result is a new generation of high performance and environment friendly excavators.



## Low Fuel Consumption

The newly developed Komatsu SAA6D107E-1 (ecot3) engine enables NOx emissions to be significantly reduced with the accurate multi-stage fuel injection by the engine controller. It improves fuel savings directly using the high pressure fuel injection system developed specifically for construction machinery. This excavator significantly reduces hourly fuel consumption using the highly efficient matching techniques of the engine and hydraulic unit and also provides features that promote energy saving operations such as the E mode and Eco-gauge.

### Fuel consumption 10% reduced

Compared with the PC200-7 at P mode and 100% working efficiency.  
Fuel consumption varies depending on job conditions.



## Low Emission Engine

Komatsu SAA6D107E-1 meets EPA Tier 3 and EU Stage 3A emission standards and reduced NOx emission by 25% compared with the PC200-7.



## Low Operation Noise

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



## Idling Caution

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



## Working Modes Selectable

Two established work modes are further improved.

**P mode** – Power or work priority mode has low fuel consumption, but fast equipment speed and maximum production and power are maintained.

**E mode** – Economy of fuel priority mode further reduces fuel consumption, but minimizes the P-mode-like working equipment speed for light-duty work.

You can select Power or Economy modes using a one-touch operation on the monitor panel depending on needs.



## Eco-gauge that Assists Energy-saving Operations

Equipped with the Eco-gauge that can be recognized as a gauge on the front of the multi-function color monitor for environment friendly energy-saving controls. Allows focus on operation in the green range with reduced CO<sub>2</sub> emissions and efficient fuel consumption.



Eco-gauge

# WORKING ENVIRONMENT



## Low Cab Noise

The newly-designed cab is highly rigid and has excellent sound absorption ability. Thorough improvement of noise source reduction and use of low noise engine, hydraulic equipment, and air conditioner allows this machine to generate a low level of noise similar to that of a passenger car.

## Low Vibration with Cab Damper Mounting

PC200-8 uses vibration damper mounting for cab that incorporates longer stroke and the addition of a spring. The new cab damper mounting combines with high quality shock absorbers to reduce vibration at operator seat.



## Wide Newly-designed Cab

Newly-designed wide spacious cab includes seat with reclining backrest. The seat height and longitudinal inclination are easily adjusted using a pull-up lever. You can set the appropriate operational posture of armrest together with the console.

Reclining the seat further enables you to place it into the fully flat state with the headrests retracted.



## Pressurized Cab

Optional air conditioner, air mix door's higher internal air pressure (+0.0 mm Hg to +0.2 mm Hg) prevent external dust from entering the cab.

## Automatic Air Conditioner (optional)

Enables you to easily and precisely set cab climate-control with the monitor screen on the large LCD.



The driver's control function keeps the operator's head and feet cool and warm respectively. The improved air flow function keeps the inside of the cab comfortable throughout the year. Defroster function keeps front glass clear.



## Safety Features

### Cab Dedicated to Hydraulic Excavator

The cab is designed specifically for hydraulic excavators and gains reinforced strength from the side-structured cab framework. The cab framework provides the high rigidity and impact resistance with very high impact absorbency. The seat belt keeps the operator in the seat in the cab during a roll over.



### Anti-slip Plates

Highly durable anti-slip plates maintain superior traction performance for the long term.



### Pump/engine Room Partition

Pump/engine room partition prevents oil from splashing onto the engine if a hydraulic hose should burst.

### Lock Lever

Lock the hydraulic pressure to prevent unintentional movement. Neutral start function allows machine to be started only in lock position.



### Large Side-view, Rear, and Sideview Mirrors

Extended left-side mirror and addition of rear and side mirror allow the PC200-8 to meet the new ISO visibility requirements.



### Rear View Monitoring System (optional)

The operator can view the rear of the machine with a color monitor screen.



### Thermal and Fan Guards

Thermal and fan guards are placed around high-temperature parts of the engine and fan drive.



# MAINTENANCE FEATURES

## Large LCD Color Monitor

### Large Multi-lingual LCD Monitor

A large unit-friendly color monitor enables safe, accurate and smooth work. Enhanced screen visibility is achieved by the use of TFT liquid crystal display that can easily be read at various angles and lighting conditions. Simple and easy to navigate software. Industry link function keys facilitate multi-function operations. Displays data in 12 languages to greatly support operators around the world.



### Mode Selection

The multi-function color monitor has Power mode, Economy mode, Lifting mode, Breaker mode and Attachment mode.

Working Mode	Application	Description
P	Power mode	<ul style="list-style-type: none"> <li>• Maximum productivity</li> <li>• Fast cycle time</li> </ul>
E	Economy mode	<ul style="list-style-type: none"> <li>• Excellent fuel economy</li> </ul>
L	Lifting mode	<ul style="list-style-type: none"> <li>• Hydraulic pressure is increased by 7%</li> </ul>
B	Breaker control	<ul style="list-style-type: none"> <li>• Optimum engine rpm, hydraulic flow</li> </ul>
ATT	Attachment mode	<ul style="list-style-type: none"> <li>• Optimum engine rpm, hydraulic flow, 2-way</li> </ul>

### Lifting Mode

When the Lifting mode is selected, lifting capacity is increased 7% by raising hydraulic pressure.

### EMMS

#### (Equipment Management Monitoring System)

##### Monitor Function

Monitors monitor engine oil level, coolant temperature, battery charge and air filtering. If controller finds any abnormality, it is displayed on the LCD.



##### Maintenance Function

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



##### Trouble Data Memory Function

Monitors stores abnormalities for effective troubleshooting.

### Side-by-side Cooling

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



### Easy Access to Engine Oil Filter and Fuel Drain Valve

Engine oil filter and fuel drain valve are remote mounted to improve accessibility.



### Sloping Track Frame

Prevents dirt and sand from accumulating and allows easy mud removal.

### Gas Assisted Engine Hood Damper Cylinders

The engine hood can be easily opened and closed with the assistance of the gas assisted engine hood damper cylinders.



### 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 filter	every 500 hours
Hydraulic oil filter	every 5000 hours
Hydraulic oil	every 1000 hours

### Equipped with the Eco-drain Valve as Standard

Prevents oil loss and the ground from becoming contaminated due to oil leakage when replacing the engine oil.



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

Removes water and contaminants in the fuel to prevent fuel problems, with built-in pre-filtration pump.



### Washable Cab Floormat

The PC200-8's cab floormat is easy to keep clean. The gently inclined surface has a textured bottom and deep-seated holes to facilitate runoff.



### Air Conditioner Filter (optional)

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



### Long Work Equipment Greasing Interval (optional)

Long-duty EPIC bearings and seal units are optionally available for work equipment sites requiring bucket extending greasing intervals to 600 hours.

# SPECIFICATIONS


**ENGINE**

Model	Fançois SAE00107E-1
Type	Water-cooled, 4-cyl., direct injection
Aeration	Turbocharged, aftercooled
Number of cylinders	4
Bore	107 mm 4.21"
Stroke	124 mm 4.88"
Piston displacement	0.69 ltr 40.6 cu.in.
Horsepower	
SAE J1366	Diesel 196 kW 265 HP
ISO 8524 / SAE J1366	Nat 190 kW 248 HP
Rated rpm	2000 rpm
Can drive method for auxiliary power	Mechanical
Governor	All-speed control electronic
EPA Tier 2 and STI Stage IIIA emission certified	


**UNDERCARRIAGE**

Center frame	Aluminum
Track frame	Box section
Steel of track	Steel track
Track adjuster	Hydraulic
Number of shoes (each side)	4
Bore	107 mm 4.21"
Stroke	124 mm 4.88"
Piston displacement	0.69 ltr 40.6 cu.in.
Hydrocylinder	
SAE J1366	Diesel 196 kW 265 HP
ISO 8524 / SAE J1366	Nat 190 kW 248 HP
Rated rpm	2000 rpm
Can drive method for auxiliary power	Mechanical
Governor	All-speed control electronic
EPA Tier 2 and STI Stage IIIA emission certified	


**COOLANT AND LUBRICANT CAPACITY**

Fuel tank	400 ltr 105.7 U.S. gal
Coolant	20.4 ltr 5.4 U.S. gal
Engine	23.1 ltr 6.1 U.S. gal
Final drive, each side	3.8 ltr 1.0 U.S. gal
Steering case	6.8 ltr 1.7 U.S. gal
Hydraulic tank	126 ltr 32.7 U.S. gal

**HYDRAULICS**

Type: HydroMech (Hydraulic Mechanical) (Intelligence New Design) system, closed-center system with load-sensing valves and pressure compensated valves.

Number of solenoid-controlled valves: 9

Hydraulic pump:

Type: Variable displacement piston pump.  
Pump for: Boom, arm, bucket, pump, and travel pump.  
Maximum flow: 403 liters/min 10.6 U.S. gallons.  
Supply for continuous: Self-priming valve.

Hydraulic motors:  
Travel: 24 volt DC motor with parking brake.

Swing: 48 volt DC motor with swing locking brake.

Relief valve setting:  
Implement circuit: 37.3 MPa 540 kg/cm<sup>2</sup> 5,400 psi  
Travel circuit: 37.3 MPa 540 kg/cm<sup>2</sup> 5,400 psi  
Swing circuit: 38.0 MPa 545 kg/cm<sup>2</sup> 5,100 psi  
Bucket circuit: 3.2 MPa 33 kg/cm<sup>2</sup> 400 psi

Hydraulic cylinders:  
Number of cylinders - boom x arm x rod diameter:  
Boom: 2-120 mm x 1314 mm x 85 mm 4.7" x 52.3" x 3.3"  
Arm: 1-135 mm x 1490 mm x 95 mm 5.3" x 58.7" x 3.7"  
Bucket: 4x 2.41 m<sup>3</sup> 7.11 cu.yd 2.53 m<sup>3</sup> 8.7 cu.yd  
1-115 mm x 1120 mm x 80 mm 4.5" x 44.1" x 3.2"  
Loc 1.84 m 6.07 Arm  
1-125 mm x 1110 mm x 85 mm 4.9" x 43.7" x 3.3"

**DRIVES AND BRAKES**

Steering: Torsion bar with positive hydrostatic  
Drive method: Hydrostatic  
Maximum steering pull: 178 kN 19300 kg 40,320 lb  
Groundability: 7% 25  
Maximum travel speed: High: 3.5 km/h 2.2 mph  
(Auto Shift): Mid: 2.1 km/h 1.3 mph  
(Auto Shift): Low: 1.0 km/h 0.6 mph  
Service brake: Hydraulic tank  
Parking brake: Mechanical disc brake

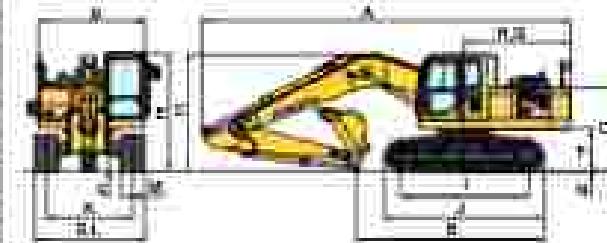
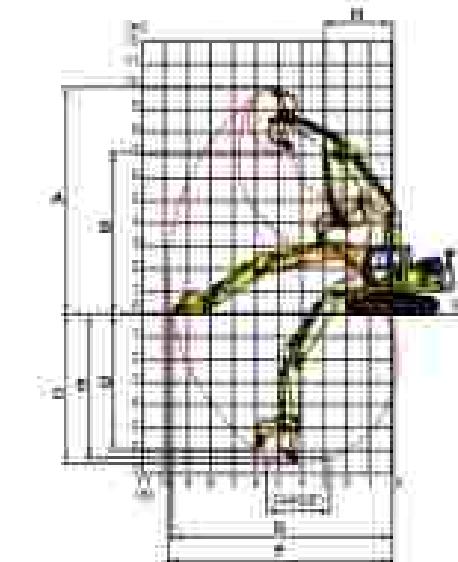
**SWING SYSTEM**

Drive method: Hydrostatic  
Swing reduction: Planetary gear  
Swing track lubrication: Grease bath  
Service brake: Hydraulic tank  
Parking brake: Mechanical disc brake  
Swing speed: 12.4 rpm


**DIMENSIONS**

	Model Length	PC200-8	PC200LC-8
A	Total length	1045 mm 3' 5"	1045 mm 3' 5"
B	Bucket height	1440 mm 4' 8"	1440 mm 4' 8"
C	Length of ground clearance: PC200-8 PC200LC-8	6230 mm 20' 5" 6430 mm 21' 0"	6160 mm 20' 0" 6360 mm 20' 0"
D	Ground height to top of boom	2330 mm 7' 7"	2330 mm 7' 7"

	PC200-8	PC200LC-8	
E	Ground width	2330 mm 7' 7"	2330 mm 7' 7"
F	Bucket height to top of boom	1440 mm 4' 8"	1440 mm 4' 8"
G	Ground clearance: boom	400 mm 1' 3"	400 mm 1' 3"
H	Bucket digging force:	2350 mm 7' 8"	2350 mm 7' 8"
I	Bucket digging force:	1220 mm 4' 0"	1220 mm 4' 0"
J	Bucket weight	1030 mm 3' 4"	1030 mm 3' 4"
K	Bucket digging force:	1230 mm 4' 0"	1230 mm 4' 0"
L	Bucket weight	1230 mm 4' 0"	1230 mm 4' 0"
M	Bucket digging force:	880 mm 2' 10"	880 mm 2' 10"
N	Bucket weight	880 mm 2' 10"	880 mm 2' 10"
O	Bucket digging force:	2330 mm 7' 7"	2330 mm 7' 7"
P	Bucket weight	2330 mm 7' 7"	2330 mm 7' 7"
Q	Distance from boom to rear end	2710 mm 8' 10"	2710 mm 8' 10"


**WORKING RANGE**


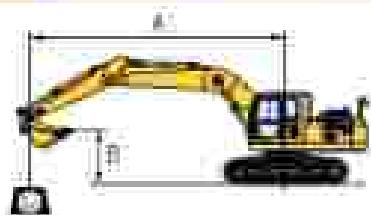
	Max	1045 mm 3' 5"	1045 mm 3' 5"	2330 mm 7' 7"
A	Max digging force	880 mm 2' 10"	880 mm 2' 10"	2330 mm 7' 7"
B	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2110 mm 6' 11"
C	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
D	Max vertical force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
E	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
F	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
G	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
H	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
I	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
J	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
K	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
L	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
M	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
N	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
O	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
P	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
Q	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
R	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
S	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
T	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
U	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
V	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
W	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
X	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
Y	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"
Z	Max digging force	6330 mm 20' 5"	6330 mm 20' 5"	2090 mm 6' 10"

**BACKHOE BUCKET, ARM, AND BOOM COMBINATION**

	Bucket Capacity (cu.m)	Max	Weight	Bucket of	Arm Length
A	0.00 ft <sup>3</sup>	2552	Without Side Cutters	With Side Cutters	1.60 m 5'
B	0.10 ft <sup>3</sup>	0.00 ft <sup>3</sup>	762 mm 2' 6"	875 mm 2' 10"	433 kg 95 lb
C	0.20 ft <sup>3</sup>	0.20 ft <sup>3</sup>	1040 mm 3' 5"	1110 mm 3' 7"	622 kg 137 lb
D	0.30 ft <sup>3</sup>	0.30 ft <sup>3</sup>	1318 mm 4' 3"	1388 mm 4' 6"	811 kg 179 lb
E	0.40 ft <sup>3</sup>	0.40 ft <sup>3</sup>	1596 mm 5' 2"	1666 mm 5' 5"	1000 kg 220 lb
F	0.50 ft <sup>3</sup>	0.50 ft <sup>3</sup>	1874 mm 6' 1"	1944 mm 6' 4"	1188 kg 262 lb
G	0.60 ft <sup>3</sup>	0.60 ft <sup>3</sup>	2152 mm 7' 0"	2222 mm 7' 3"	1377 kg 304 lb
H	0.70 ft <sup>3</sup>	0.70 ft <sup>3</sup>	2430 mm 8' 0"	2500 mm 8'	



## LIFTING CAPACITY WITH LIFTING MODE



- A: Reach from swing center
- B: Bucket back height
- C: Lifting capacity
- D: Rating over side
- E: Rating over side
- F: Rating at maximum reach

Conditions:  
 • 5700 mm 100° one-piece boom  
 • 0.8 m<sup>3</sup> 1.05 m³ DAE bucket factor  
 • Site width:  
     - PC200 LC-8: 600 mm 24° high ground

PC200 LC-8		Arm: 5700 mm 100°		Bucket: 0.8 m <sup>3</sup> / 1.05 m <sup>3</sup> DAE		Boom: 600 mm 24°		Site: 600 mm 24°	
A	B	C	D	E	F	G	H	I	J
7.5 m	1400 kg 10.000 N	7400 kg 10.000 N			7400 kg 10.000 N	7400 kg 10.000 N			
8.1 m 10°	1440 kg 10.400 N	8000 kg 10.000 N			8000 kg 10.000 N	7200 kg 10.000 N			
8.6 m 10°	1520 kg 10.800 N	8700 kg 10.000 N			8700 kg 10.000 N	7900 kg 10.000 N			
9.3 m 10°	1600 kg 11.200 N	9400 kg 10.000 N			9400 kg 10.000 N	8600 kg 10.000 N			
10.0 m 10°	1680 kg 11.600 N	10100 kg 10.000 N			10100 kg 10.000 N	9300 kg 10.000 N			
11.0 m	1850 kg 12.000 N	10800 kg 10.000 N			10800 kg 10.000 N	10000 kg 10.000 N			
12.0 m	2000 kg 12.400 N	11500 kg 10.000 N			11500 kg 10.000 N	10700 kg 10.000 N			
13.0 m	2150 kg 12.800 N	12200 kg 10.000 N			12200 kg 10.000 N	11400 kg 10.000 N			
14.0 m	2300 kg 13.200 N	12900 kg 10.000 N			12900 kg 10.000 N	12100 kg 10.000 N			
15.0 m	2450 kg 13.600 N	13600 kg 10.000 N			13600 kg 10.000 N	12800 kg 10.000 N			
16.0 m	2600 kg 14.000 N	14300 kg 10.000 N			14300 kg 10.000 N	13500 kg 10.000 N			
17.0 m	2750 kg 14.400 N	15000 kg 10.000 N			15000 kg 10.000 N	14200 kg 10.000 N			
18.0 m	2900 kg 14.800 N	15700 kg 10.000 N			15700 kg 10.000 N	14900 kg 10.000 N			
19.0 m	3050 kg 15.200 N	16400 kg 10.000 N			16400 kg 10.000 N	15600 kg 10.000 N			
20.0 m	3200 kg 15.600 N	17100 kg 10.000 N			17100 kg 10.000 N	16300 kg 10.000 N			
21.0 m	3350 kg 16.000 N	17800 kg 10.000 N			17800 kg 10.000 N	17000 kg 10.000 N			
22.0 m	3500 kg 16.400 N	18500 kg 10.000 N			18500 kg 10.000 N	17700 kg 10.000 N			
23.0 m	3650 kg 16.800 N	19200 kg 10.000 N			19200 kg 10.000 N	18400 kg 10.000 N			
24.0 m	3800 kg 17.200 N	19900 kg 10.000 N			19900 kg 10.000 N	19100 kg 10.000 N			
25.0 m	3950 kg 17.600 N	20600 kg 10.000 N			20600 kg 10.000 N	19800 kg 10.000 N			
26.0 m	4100 kg 18.000 N	21300 kg 10.000 N			21300 kg 10.000 N	20500 kg 10.000 N			
27.0 m	4250 kg 18.400 N	22000 kg 10.000 N			22000 kg 10.000 N	21200 kg 10.000 N			
28.0 m	4400 kg 18.800 N	22700 kg 10.000 N			22700 kg 10.000 N	21900 kg 10.000 N			
29.0 m	4550 kg 19.200 N	23400 kg 10.000 N			23400 kg 10.000 N	22600 kg 10.000 N			
30.0 m	4700 kg 19.600 N	24100 kg 10.000 N			24100 kg 10.000 N	23300 kg 10.000 N			
31.0 m	4850 kg 20.000 N	24800 kg 10.000 N			24800 kg 10.000 N	24000 kg 10.000 N			
32.0 m	5000 kg 20.400 N	25500 kg 10.000 N			25500 kg 10.000 N	24700 kg 10.000 N			
33.0 m	5150 kg 20.800 N	26200 kg 10.000 N			26200 kg 10.000 N	25400 kg 10.000 N			
34.0 m	5300 kg 21.200 N	26900 kg 10.000 N			26900 kg 10.000 N	26100 kg 10.000 N			
35.0 m	5450 kg 21.600 N	27600 kg 10.000 N			27600 kg 10.000 N	26800 kg 10.000 N			
36.0 m	5600 kg 22.000 N	28300 kg 10.000 N			28300 kg 10.000 N	27500 kg 10.000 N			
37.0 m	5750 kg 22.400 N	29000 kg 10.000 N			29000 kg 10.000 N	28200 kg 10.000 N			
38.0 m	5900 kg 22.800 N	29700 kg 10.000 N			29700 kg 10.000 N	28900 kg 10.000 N			
39.0 m	6050 kg 23.200 N	30400 kg 10.000 N			30400 kg 10.000 N	29600 kg 10.000 N			
40.0 m	6200 kg 23.600 N	31100 kg 10.000 N			31100 kg 10.000 N	30300 kg 10.000 N			
41.0 m	6350 kg 24.000 N	31800 kg 10.000 N			31800 kg 10.000 N	31000 kg 10.000 N			
42.0 m	6500 kg 24.400 N	32500 kg 10.000 N			32500 kg 10.000 N	31700 kg 10.000 N			
43.0 m	6650 kg 24.800 N	33200 kg 10.000 N			33200 kg 10.000 N	32400 kg 10.000 N			
44.0 m	6800 kg 25.200 N	33900 kg 10.000 N			33900 kg 10.000 N	33100 kg 10.000 N			
45.0 m	6950 kg 25.600 N	34600 kg 10.000 N			34600 kg 10.000 N	33800 kg 10.000 N			
46.0 m	7100 kg 26.000 N	35300 kg 10.000 N			35300 kg 10.000 N	34500 kg 10.000 N			
47.0 m	7250 kg 26.400 N	36000 kg 10.000 N			36000 kg 10.000 N	35200 kg 10.000 N			
48.0 m	7400 kg 26.800 N	36700 kg 10.000 N			36700 kg 10.000 N	35900 kg 10.000 N			
49.0 m	7550 kg 27.200 N	37400 kg 10.000 N			37400 kg 10.000 N	36600 kg 10.000 N			
50.0 m	7700 kg 27.600 N	38100 kg 10.000 N			38100 kg 10.000 N	37300 kg 10.000 N			
51.0 m	7850 kg 28.000 N	38800 kg 10.000 N			38800 kg 10.000 N	38000 kg 10.000 N			
52.0 m	8000 kg 28.400 N	39500 kg 10.000 N			39500 kg 10.000 N	38700 kg 10.000 N			
53.0 m	8150 kg 28.800 N	40200 kg 10.000 N			40200 kg 10.000 N	39400 kg 10.000 N			
54.0 m	8300 kg 29.200 N	40900 kg 10.000 N			40900 kg 10.000 N	40100 kg 10.000 N			
55.0 m	8450 kg 29.600 N	41600 kg 10.000 N			41600 kg 10.000 N	40800 kg 10.000 N			
56.0 m	8600 kg 30.000 N	42300 kg 10.000 N			42300 kg 10.000 N	41500 kg 10.000 N			
57.0 m	8750 kg 30.400 N	43000 kg 10.000 N			43000 kg 10.000 N	42200 kg 10.000 N			
58.0 m	8900 kg 30.800 N	43700 kg 10.000 N			43700 kg 10.000 N	42900 kg 10.000 N			
59.0 m	9050 kg 31.200 N	44400 kg 10.000 N			44400 kg 10.000 N	43600 kg 10.000 N			
60.0 m	9200 kg 31.600 N	45100 kg 10.000 N			45100 kg 10.000 N	44300 kg 10.000 N			
61.0 m	9350 kg 32.000 N	45800 kg 10.000 N			45800 kg 10.000 N	45000 kg 10.000 N			
62.0 m	9500 kg 32.400 N	46500 kg 10.000 N			46500 kg 10.000 N	45700 kg 10.000 N			
63.0 m	9650 kg 32.800 N	47200 kg 10.000 N			47200 kg 10.000 N	46400 kg 10.000 N			
64.0 m	9800 kg 33.200 N	47900 kg 10.000 N			47900 kg 10.000 N	47100 kg 10.000 N			
65.0 m	9950 kg 33.600 N	48600 kg 10.000 N			48600 kg 10.000 N	47800 kg 10.000 N			
66.0 m	10100 kg 34								