

KOMATSU

PC220LC-12/PC220LCi-12 hydraulic excavator



Photo may include optional equipment

Engine power

Net 173 HP (129 kW) @ 2,000 rpm

Operating weight

PC220LC-12: 53,352-54,675 lbs. (24,200-24,800 kg)

PC220LCi-12: 53,352-54,675 lbs. (24,200-24,800 kg)

Bucket capacity

0.65 yd³-1.85 yd³ (0.50 m³-1.41 m³)

Welcome to the next-generation of hydraulic excavators

Improved operator environment +

- Newly designed 28% larger spacious cab
- Premium operator seat with air suspension
- Highly adjustable console position
- Overhead vent heating/air conditioning
- User-friendly and easy to navigate high resolution 8" LCD monitor
- Large full-view polycarbonate tiltable skylight

Quality of life changes +

- Easy to navigate touch panel monitor
- Keyless start
- Integrated bluetooth®/radio through monitor
- Up to 50 Operator ID profiles can be stored
- Lower effort electric work equipment lever controls
- Simplified/savable bucket calibration for the PC220LCi-12

Engine power

Net 173 HP (129 kW) @ 2,000 rpm

Operating weight

PC220LC-12: 53,352-54,675 lbs. (24,200-24,800 kg)

PC220LCi-12: 53,352-54,675 lbs. (24,200-24,800 kg)

Bucket capacity

0.65 yd³-1.85 yd³ (0.50 m³-1.41 m³)

Note:

New features are indicated by a green plus sign (+)



Hydraulic control system changes

- Adjustable boom/swing priority selection +
- Individual work equipment speed adjustments +
- Customizable electric proportional control joystick function mapping by Operator ID +
- Reduced hydraulic tank capacity with improved cooling capability and boom regeneration system

Focus on safety +

- KomVision with human/object detection including auto swing and travel stop integrated functionality
- KomVision 360° view and selectable individual camera through base machine monitor
- Rollover avoidance warning
- Travel heading indicator to recognize track orientation
- Remote courtesy lights
- Seat belt reminder system
- High visibility, colored handrails

Owning and operating

- Improved ground level maintenance +
- Extended hydraulic oil and filter change intervals +
- High-capacity DPF with 8,000 hr. exchange interval +
- Ground level DEF filling access
- Delayed engine shutdown +
- Automatic hydraulic system warm-up +
- Improved cooler cleaning access

Machine performance improvements

- Hydraulic boom regeneration for quicker response and improved fuel efficiency +
- 20% more machine hydraulic flow
- 10% increase in digging force*
- 7% increase in lift capacity*
- 5% increase in engine horsepower*

Introducing iMC3.0 Intelligent Machine Control (PC220LCi only) +

- High resolution 10.1" LCD touch panel ICT monitor
- Auto grade assist with improved performance and stability
- 3D boundary control
- Auto swing functionality
- Enhanced payload meter with tip-off assistance
- "Build to design" capability on the fly

Other standard technology +

- 2D machine control
- 2D boundary control
- Track by joystick control
- Real time payload monitoring

Productivity (P+ mode) up to 18% increase*

Fuel efficiency up to 18% improvement*

Maintenance cost up to 20% reduction*

*compared to the PC210LC-11

Specification

Engine

Model	Komatsu SAA4D107E-5*
Type	Water-cooled, 4-cycle, direct injection
Aspiration	Turbocharged, aftercooled
Number of cylinders	4
Bore	4.21" (107 mm)
Stroke	4.88" (124 mm)
Piston displacement	272.17 in ³ (4.46 L)
Horsepower:	
SAE J1995	173 HP (129 kW)
ISO 14396	173 HP (129 kW)
ISO 9249 / SAE J1349*	172 HP (129 kW)
Rated rpm	2,000 rpm
Fan drive method for radiator cooling	Mechanical
Governor	All-speed, electronic

* U.S. EPA Tier 4 Final and EU Stage 5 emissions certified.

Hydraulic system

Type	HydrauMind (Hydraulic Mechanical Intelligence New Design) system, closed-center system with load sensing valves and pressure compensated valves	
Number of selectable working modes	4	
Main pump:		
Type	Variable displacement piston type	
Pumps for	Boom, arm, bucket, swing, and travel circuits	
Maximum flow	133.1 gal/min (504 L/min)	
Supply for control circuit	Self-reducing valve	
Hydraulic motors:		
Travel	2 x axial piston motors with parking brake	
Swing	1 x axial piston motor with swing holding brake	
Relief valve setting:		
Implement circuits	5,400 psi (37.3 MPa 380 kgf/cm ²)	
Travel circuit	5,400 psi (37.3 MPa 380 kgf/cm ²)	
Swing circuit	410 psi (28.9 MPa 295 kgf/cm ²)	
Pilot circuit	470 psi (3.2 MPa 33 kgf/cm ²)	
Hydraulic cylinders: (number of cylinders – bore x stroke x rod diameter)		
Boom	5.1" x 52.7" x 3.5" (130 mm x 1335 mm x 90 mm)	
Arm	5.5" x 58.7" x 3.9" (140 mm x 1490 mm x 100 mm)	
Bucket	4.7" x 43.9" x 3.4" (120 mm x 1114 mm x 85 mm)	

Swing system

Driven method	Hydrostatic
Swing reduction	Planetary gear
Swing circle lubrication	Grease-bathed
Service brake	Hydraulic lock
Holding brake/Swing lock	Mechanical disc brake
Swing speed	12.4 rpm

Drives and brakes

Steering control	Two levers with pedals	
Drive method	Hydrostatic	
Maximum drawbar pull	45,415 lbf (202 kN 20,600 kgf)	
Reduction system	Planetary gear triple reduction	
Maximum drawbar pull	125,002 lbf (556 kN 56,700 kgf)	
Gradeability	70%, 35°	
Maximum travel speed:	High	3.4 mph (5.5 km/h)
(Auto-shift)	Mid	2.6 mph (4.1 km/h)
(Auto-shift)	Low	1.9 mph (3.0 km/h)
Service brake	Hydraulic lock	
Parking brake	Mechanical disc brake	

Undercarriage

Center frame	X-frame
Track frame	Box-section
Seal of track	Sealed track
Track adjuster	Hydraulic
Number of shoes (each side)	49
Number of carrier rollers	2 each side
Number of track rollers (each side)	9

Coolant and lubricant capacity (refilling)

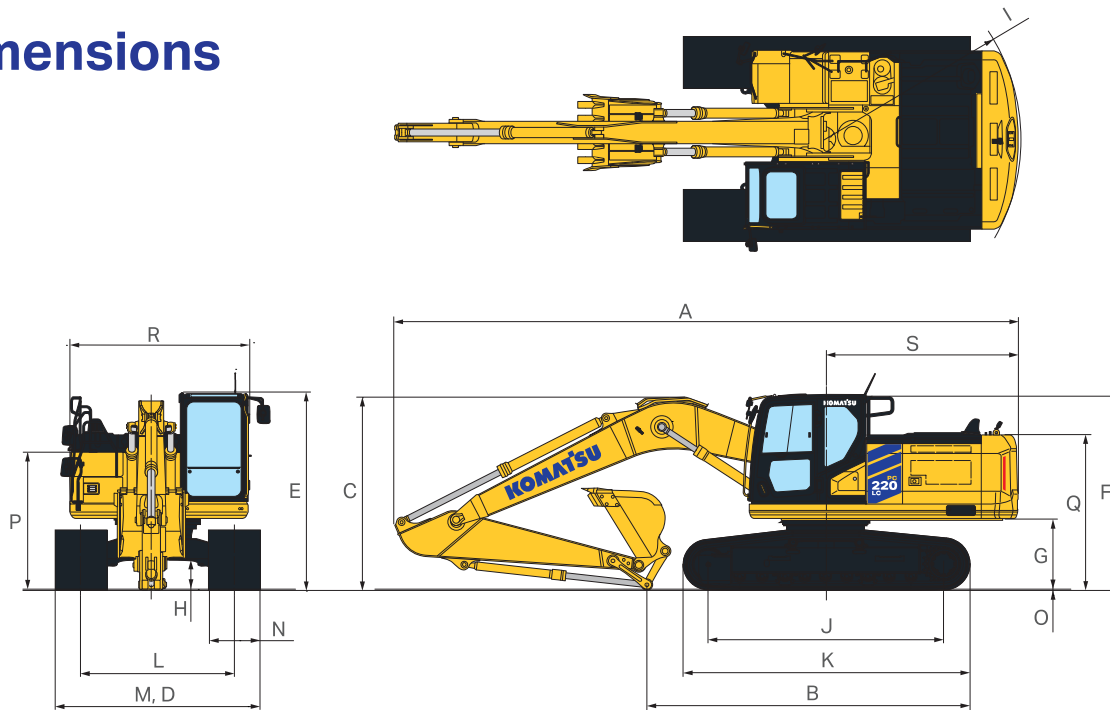
Fuel tank	92.5 U.S. gal (350 L)
Coolant	7.6 U.S. gal (28.2 L)
Engine	4.8 U.S. gal (18.0 L)
Final drive, each side	1.1 U.S. gal (4.1 L)
Swing drive	1.7 U.S. gal (6.5 L)
Hydraulic tank	31.4 U.S. gal (119 L)
DEF tank	16.6 U.S. gal (62.9 L)

Operating weight (approximate)

Operating weight including 5,700 mm one-piece boom, 2,925 mm arm, heaped 0.8 m³ bucket, rated capacity of lubricants, coolant, full fuel tank, operator, and standard equipment.

Shoes	PC220LC-12		PC220LCi-12	
	Operating weight	Ground pressure	Operating weight	Ground pressure
27.6" (700 mm)	53,352 lb (24,200 kg)	6.3 psi (43 kPa 0.44 kgf/cm ²)	53,352 lb (24,200 kg)	6.3 psi (43 kPa 0.44 kgf/cm ²)
31.5" (800 mm)	54,013 lb (24,500 kg)	5.6 psi (38 kPa 0.39 kgf/cm ²)	54,013 lb (24,500 kg)	5.6 psi (38 kPa 0.39 kgf/cm ²)
35.4" (900 mm)	54,675 lb (24,800 kg)	5 psi (34 kPa 0.35 kgf/cm ²)	54,675 lb (24,800 kg)	5 psi (34 kPa 0.35 kgf/cm ²)

Dimensions



Machine dimensions

Arm length	9' 7" (2,925 mm)
A Overall length	31' 9.5" (9,690 mm)
B Length on ground (transport)	16' 5" (5,000 mm)
C Overall height (to top of boom)*	9' 10" (2,995 mm)
D Overall width	10' 5" (3,180 mm)
E Overall height (to top of cab)*	10' .5" (3,060 mm)
F Overall height (to top of handrail)*	9' 10" (3,000 mm)
G Ground clearance, counterweight	3' 7" (1,085 mm)
H Ground clearance (minimum)	1' 5" (440 mm)
I Tail swing radius	9' 11" (3,020 mm)

J Track length on ground	12' (3,655 mm)
K Track length	14' 7" (4,450 mm)
L Track gauge	7' 10" (2,380 mm)
M Width of crawler	10' 5" (3,180 mm)
N Shoe width	2' 7.5" (800 mm)
O Grouser height	1" (26 mm)
P Machine cab height	6' 11" (2,115 mm)
Q Machine height to top of engine cover	7' 11" (2,420 mm)
R Machine upper width	9' 3" (2,810 mm)
S Distance, swing center to rear end	9' 9" (2,975 mm)

* : Including grouser height

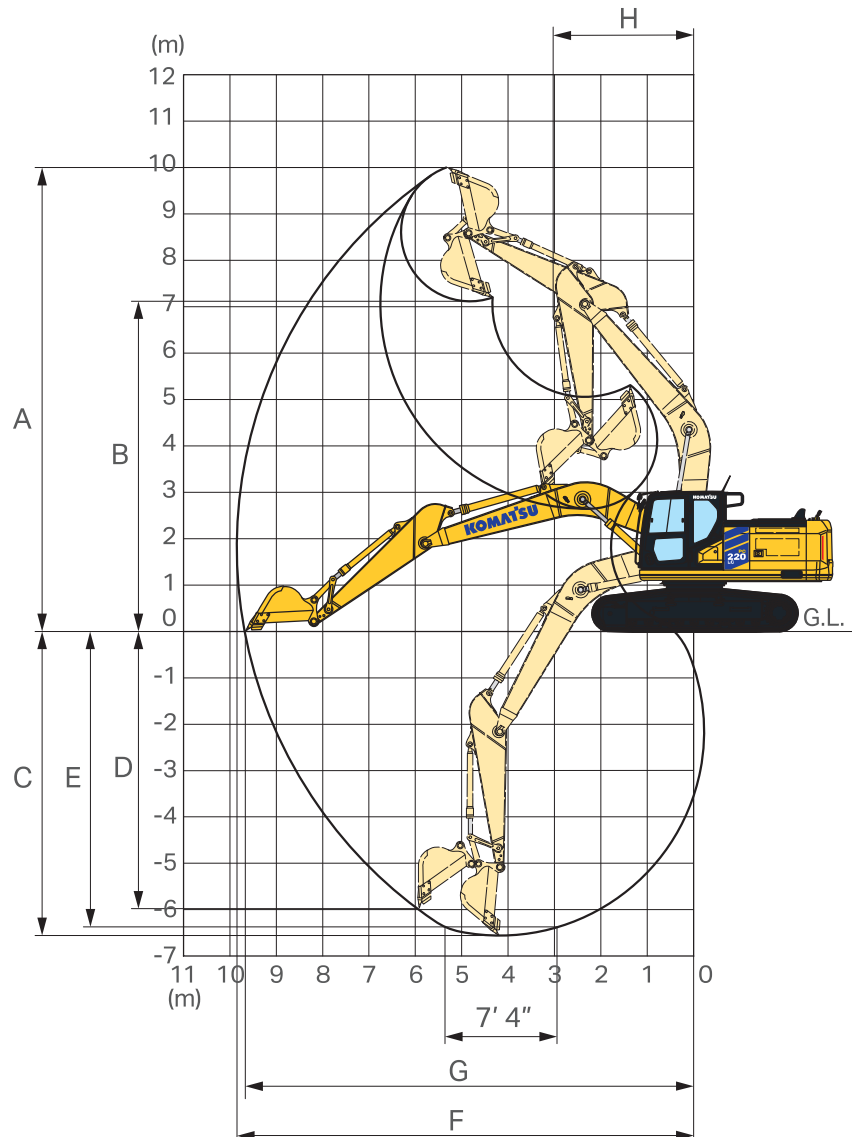
Backhoe bucket, arm, and boom combination

Bucket capacity	Width		Weight	Number of teeth	Arm length
	Without side cutters	With side cutters	With side cutters		9' 7" (2.92 m)
1.02 yd ³ (0.78 m ³)	29.44" (748 mm)	31.5" (800 mm)	1,998 lbs. (906 kg)	4	/
1.29 yd ³ (0.99 m ³)	35.44" (900 mm)	37.5" (952 mm)	2,308 lbs. (1,047 kg)	5	/
1.57 yd ³ (1.2 m ³)	41.44" (1,053 mm)	43.5" (1,105 mm)	2,523 lbs. (1,144 kg)	5	/
1.85 yd ³ (1.41 m ³)	47.44" (1,205 mm)	49.5" (1,257 mm)	2,740 lbs. (1,243 kg)	5	/

○: General purpose use, density up to 2.6 tons/yard³ (1.8 tonnes/m³)

●: Light duty work, density up to 1.73 tons/yard³ (1.2 tonnes/m³)

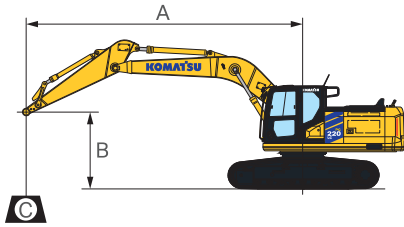
Working range



Working range

Arm length		9' 7" (2,925 mm)
A	Max. digging height	32' 10" (10,000 mm)
B	Max. dumping height	23' 4" (7,110 mm)
C	Max. digging depth	21' 9" (6,620 mm)
D	Max. vertical wall digging depth	19' 7" (5,980 mm)
E	Max. digging depth of cut for 2,440 mm level	20' 11" (6,370 mm)
F	Max. digging reach	32' 5" (9,875 mm)
G	Max. digging reach at ground level	31' 10" (9,700 mm)
H	Min. swing radius	10' 1" (3,065 mm)
ISO 6015 rating	Bucket digging force at power max.	35,715 lbf (159 kN) 16,200 kgf
	Arm crowd force at power max.	26,015 lbf (116 kN) 11,800 kgf

Lifting capacity with lifting mode



- A: Reach from swing center
- B: Arm top pin height
- C: Lifting capacity
- Cf: Rating over front
- Cs: Rating over side
- ⊗: Rating at maximum reach

- Conditions:**
- 18' 8" (5,700 mm) one-piece boom

Lifting capacity

Arm: 9' 7" (2,925 mm) without bucket Shoe: 31.5" (800 mm) triple grouser

B	A		⊗ MAX		25' (7.6 m)		20' (6.1 m)		15' (4.6 m)		10' (3.0 m)		5' (1.5 m)	
	Radius		Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
25' (7.6 m)	20' (6.0 m)		* 8,800 lb * 4,000 kg	* 8,800 lb * 4,000 kg										
20' (6.1 m)	24' (7.2 m)		* 8,150 lb * 3,700 kg	* 8,150 lb * 3,700 kg										
15' (4.6 m)	26' (7.9 m)		* 8,050 lb * 3,650 kg	* 8,050 lb * 3,650 kg	* 11,450 lb * 5,200 kg	9,600 lb 4,350 kg	* 15,000 lb * 6,800 kg	13,650 lb 6,200 kg	* 16,750 lb * 7,600 kg	* 16,750 lb * 7,600 kg				
10' (3.0 m)	27' (8.3 m)		* 8,400 lb * 3,800 kg	8,250 lb 3,750 kg	14,100 lb 6,400 kg	9,350 lb 4,250 kg	* 17,200 lb * 7,800 kg	13,100 lb 5,950 kg	* 21,850 lb * 9,900 kg	19,950 lb 9,050 kg	* 30,100 lb * 13,650 kg	* 30,100 lb * 13,650 kg		
5' (1.5 m)	28' (8.4 m)		* 9,050 lb * 4,100 kg	8,050 lb 3,650 kg	13,800 lb 6,250 kg	9,150 lb 4,150 kg	19,300 lb 8,750 kg	12,550 lb 5,700 kg	* 16,550 lb * 12,050 kg	18,750 lb 8,500 kg				
0' (0 m)	27' (8.1 m)		* 10,150 lb * 4,600 kg	8,150 lb 3,700 kg	13,550 lb 6,150 kg	8,950 lb 4,050 kg	18,850 lb 8,550 kg	12,150 lb 5,500 kg	* 29,200 lb * 13,250 kg	18,100 lb 8,200 kg	* 17,200 lb * 7,800 kg	* 17,200 lb * 7,800 kg		
-5' (-1.5 m)	25' (7.6 m)		* 12,250 lb * 5,550 kg	8,800 lb 4,000 kg	* 12,700 lb * 5,750 kg	8,950 lb 4,050 kg	18,650 lb 8,450 kg	11,900 lb 5,400 kg	29,450 lb 13,350 kg	17,850 lb 8,100 kg	* 28,000 lb * 12,700 kg	* 28,000 lb * 12,700 kg	* 17,400 lb * 7,900 kg	* 17,400 lb * 7,900 kg
-10' (-3.0 m)	22' (6.7 m)		16,200 lb 7,350 kg	10,600 lb 4,800 kg			18,750 lb 8,500 kg	12,000 lb 5,450 kg	* 27,800 lb * 12,600 kg	18,100 lb 8,200 kg	* 39,450 lb * 17,900 kg	34,700 lb 15,750 kg	* 28,650 lb * 13,000 kg	* 28,650 lb * 13,000 kg
-15' (-4.6 m)	17' (5.3 m)		* 18,500 lb * 8,400 kg	15,200 lb 6,900 kg					* 22,250 lb * 10,100 kg	18,500 lb 8,400 kg	* 31,550 lb * 14,300 kg	* 31,500 lb * 14,300 kg		

*: Load is limited by hydraulic capacity rather than tipping. Ratings are based on ISO 10567. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

Equipment

Functions and hydraulic system

Dial type fuel control	●
Auto-decelerator	●
Swing lock switch	●
Working mode selector	●
Three-gear travel	●
Travel automatic gear shift	●
Auto idle stop	●

Functions and hydraulic system

ROPS cab (compliant with ISO 12117-2)	●
Keyless start	●
Engine shutdown secondary switch	●
Battery disconnect switch	●
Cab rear window for emergency escape	●
Emergency escape hammer	●
Large movable side view mirror (left and right) and side confirmation mirror	●
LED working lamp (left and right boom, front right of the cab, rear of machine)	●
LED headlamp (two on cab)	●
KomVision (Object avoidance)	●
Oil pressure lock lever	●
Retractable seat belt	●
Handrail	●
Anti-slip plate	●
Thermal guard	●
Full cover fan guard	●
Firewall divider	●
Travel alarm (with on/off switch function)	●
Reflector	●

Fitted inside the operator cab

Large damper-mounted pressurized cab	●
Air suspension seat	●
High definition 8 inch touch panel monitor	●
Large-capacity, fully automatic air conditioner with fresh air intake	●
Defroster	●
Room light	●
Drink box	●
Front window sunroller blind	●
Luggage box	●
Magazine rack	●
USB charging terminal	●
Cup holder	●

Remote intermittent wiper (with washer)	●
Multi functional audio	●
Washable floor mat	●
Footrest	●
Travel pedal with wing	●
12 V accessory power supply	●
Openable polycarbonate roof window	●

Other

Air cleaner double element	●
Cab guard - Full front guard OPG level 2 (ISO 10262)	○
Cab guard - Bolt-on top guard OPG level 2 (ISO 10262)	○
Cab guard - Half front guard	○
Deck guard	●
Fire extinguisher	○
Handrail (rear of the cab)	○
High efficiency fuel filter	●
Hydraulic oil filter	●
In-line filter	○
Komtrax	●
Lockout, tagout	●
Radiator dustproof net	●
Revolving lamp for stoppage control identification	○
Seat belt reminder revolving lamp	○
Track frame full roller guard	○
Track frame undercover	○
V-shaped fin radiator	●

Standard equipment	●
Optional equipment	○

Product designs, specifications and/or data in this document are provided for informational purposes only and are not warranties of any kind. Product designs and/or specifications may be changed at any time without notice. The only warranties that apply to sales of products and services are Komatsu's standard written warranties, which will be furnished upon request.

Komatsu and other trademarks and service marks used herein are the property of Komatsu Ltd. or its subsidiaries, or the respective owners or licensees.

KOMATSU

komatsu.com

