

KOMATSU

PC220LC-12 PC220LCi-12



Hydraulic excavator

Engine power
129 kW / 173 HP @ 2000 rpm

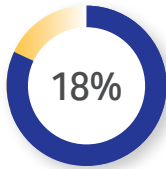
Operating weight
PC220LC-12: 24000 - 24885 kg
PC220LCi-12: 24100 - 24985 kg

Bucket capacity
max. 1.8 m³



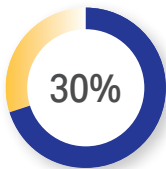
Increased productivity (P+ mode)

Compared to PC210LC-11 (P mode)



Reduced fuel consumption

Compared to PC210LC-11



Increase in legroom

Compared to PC210LC-11

Unrivalled productivity and efficiency

- Highly efficient electronically controlled hydraulic system
- Exceptionally fast and powerful work equipment movements
- Arm crowd force and bucket digging force each increased by 7%
- Highly precise new payload meter
- 2D machine control included as standard
- Powerful next generation EU Stage V engine with 129 kW and lower CO₂ emissions
- Seamless plug-and-play tiltrotator integration

Engine power

129 kW / 173 HP @ 2000 rpm

Operating weight

PC220LC-12: 24000 - 24885 kg

PC220LCi-12: 24100 - 24985 kg

Bucket capacity

max. 1.8 m³



Safety first

- 2D boundary control (virtual walls)
- 360° KomVision surround-view system
- Rollover prevention system
- Heading direction indicator
- Coming home light function

Redefining first-class comfort

An all-new cab

The PC220-12 introduces a completely redesigned, ultra-comfortable cab that is 16% larger than the previous model. Operators enjoy 30% more legroom and significantly enhanced visibility, particularly toward the lower right-hand side. This spacious, ergonomic environment reduces fatigue and supports sustained focus and productivity throughout the workday.



New high-comfort operator seats

The standard operator seat now features an enhanced air-suspension system, dual-zone heating with two intensity levels, and multiple upgraded adjustment options, ensuring optimal posture and maximum comfort throughout the workday. For ultimate comfort, a new premium seat is also available as an option.

Fully adjustable side consoles

Customisable to suit the personal preferences of operators of any size, the side consoles and armrests are fully and easily adjustable. A low-effort, easy-to-engage lock lever is now integrated into the console for added convenience.

Additionally, the tilting left-hand side console further expands the cab's entrance and exit area.

Completely redesigned, enhanced operator environment

The new touchscreen-controlled climate control system, including roof-mounted air vents, delivers improved airflow directly to the operator. A multi-functional utility bar allows for easy installation of personal accessories, while 12/24 V and USB ports provide convenient device charging. Numerous practical storage solutions including boot storage, phone compartment in the console, hot/cool box, and more, help keep the workspace organised and clutter-free. A new two-piece heavy-duty rubber floor mat, combined with a cab drainage hole, makes cleaning fast and effortless. An additional plush, premium floor mat adds an extra layer of comfort and luxury.



New openable, polycarbonate roof window with sun roller blind



Switches are grouped on the right console for optimal visibility and control



Tiltable side console for safer, more comfortable entry and exit



Engineered to adapt to the operator

Personalised control for every operator

Intuitive user interface elements, a new touchscreen monitor, and ultra-versatile, programmable electronic control levers deliver unmatched ergonomics and ease of use. The integrated operator ID system can store up to 50 profiles and automatically loads individual settings upon recognition.

Multi-functional electronic levers

Ultra-versatile, programmable, and ergonomically designed, these electronic short-stroke levers manage everything from controlling the work equipment, operating attachments or switching working modes to answering calls, adjusting audio volume, and selecting music. Seamless integration with tiltrotators is fully supported.

Joystick steering

Travel functions can be controlled using the left and right work equipment lever rollers, allowing the operator to steer, swing, and operate equipment without using the travel pedals, enabling more relaxed, efficient operation.

Lever Switch Assignment			
No.1	No.2	No.3	
Left Lever Setting		Right Lever Setting	
2	3	5	6
1	4	7	8
1 Temporary ...		1 Horn	
2 Breaker		2 Camera Image ...	
3 Attachment 1		3 Attachment 2	
4 No Assignment		4 No Assignment	
5 Auto-Deceleration		5 Front Wiper	
6 No Assignment		6 No Assignment	
7 Working Mode ...		7 Front Waser	
8 No Assignment		8 No Assignment	

Lever functions and joystick responsiveness can be customised via the monitor and adjust automatically to the selected Operator ID.

Operator ID and keyless start

This machine is designed to adapt effortlessly to the individual preferences of every operator. Up to 50 individual users can store their personal settings using Operator ID, with preferences automatically recalled at startup. The ID is accessed through code entry or a Bluetooth® key, which also allows for a secure, keyless start. Stored settings include basic preferences such as joystick configuration, work equipment speed, and the selected working mode at startup.





Electronically controlled hydraulic system

The new electronically controlled hydraulic system features independently controlled oil flow, cylinder energy regeneration circuits, and higher-capacity pumps. Revised arm and bucket cylinder sizes increase digging force, boosting both arm crowd and bucket breakout force by 7%. The result is more powerful operation, higher loading performance, super-fast cycle times, and greatly reduced fuel consumption.

Next generation engine

The new next generation Komatsu EU Stage V engine delivers higher engine power, with an output of 129 kW, and increased engine torque. Advanced control technologies ensure peak engine efficiency, delivering optimum fuel economy and reduced CO₂ emissions under all working conditions.

Boom float mode

The boom can float upwards, with only its weight acting as downward force, reducing lifting of the machine front. This supports smooth gathering and levelling. Reduced downward pressure is also recommended to avoid overloading during breaker operation.

Safety first

Safety features on the Komatsu PC220LC/LCi-12 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 increases 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.



Specifications

Engine

Model	Komatsu Next Generation engine
Type	Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel
Engine power	
at rated engine speed	2000 rpm
ISO 14396	129 kW / 173 HP
ISO 9249 (net engine power)	129 kW / 173 HP
No. of cylinders	4
Bore × stroke	107 × 124 mm
Displacement	4.46 l
Fuel	Diesel fuel, conforming to EN590 Class 2/Grade D. Paraffinic fuel capability (HVO, GTL, BTL), conforming to EN 15940:2016

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

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

Service refill capacities

Fuel tank	350 l
Radiator	28.2 l
Engine oil	18.0 l
Final drive (each side)	4.1 l
Swing drive	6.5 l
Hydraulic tank	119 l
AdBlue® tank	62.9 l

Hydraulic system

Type	HydrauMind. Closed-centre system with load sensing and pressure compensation valves
Number of selectable working modes	7
Main pump	
Type	Variable displacement piston type
Pumps for	Boom, arm, bucket, swing, and travel circuits
Maximum flow	504 l/min
Supply for control circuit	Self-reducing valve
Hydraulic motors:	
Travel	2× axial piston motors with parking brake
Swing	1× axial piston motor with swing holding brake
Relief valve setting:	
Implement circuits	37.3 MPa / 380 kgf/cm ²
Travel circuit	37.3 MPa / 380 kgf/cm ²
Swing circuit	28.9 MPa / 295 kgf/cm ²
Pilot circuit	3.2 MPa / 33 kgf/cm ²
Hydraulic cylinders: (number of cylinders – bore × stroke × rod diameter)	
Boom	2–130 mm × 1335 mm × 90 mm
Arm	1–140 mm × 1490 mm × 100 mm
Bucket	1–120 mm × 1114 mm × 85 mm

Drives and brakes

Steering control	Electronic control levers and pedals for steering and travel and selectable joystick steering
Drive method	Hydrostatic
Maximum drawbar pull	202 kN / 20600 kgf
Reduction system	Planetary gear triple reduction
Gradeability	70%, 35°
Maximum travel speed:	
(Auto-shift) High	5.5 km/h
(Auto-shift) Mid	4.1 km/h
(Auto-shift) Low	3.0 km/h
Service brake	Hydraulic lock
Parking brake	Mechanical disc brake

Environment

Engine emissions	Fully complies with EU Stage V and EPA Tier 4 final exhaust emission regulations
Noise levels	
LwA external	100 dB(A) (2000/14/EC Stage II)
LpA operator ear	67 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096:1997)	
Hand/arm	≤ 2.5 m/s ² (uncertainty K = 0.38 m/s ²)
Body	≤ 0.5 m/s ² (uncertainty K = 0.16 m/s ²)
Contains fluorinated greenhouse gas HFC-134a (GWP 1430). Quantity of gas 0.9 kg, CO ₂ equivalent 1.29 t	

Operating weight (appr.)

Triple grouser shoes	PC220LC-12		PC220LCi-12	
	Operating weight	Ground pressure	Operating weight	Ground pressure
600 mm	24000 kg	0.51 kg/cm ²	24100 kg	0.51 kg/cm ²
700 mm	24270 kg	0.44 kg/cm ²	24370 kg	0.44 kg/cm ²
800 mm	24540 kg	0.39 kg/cm ²	24640 kg	0.39 kg/cm ²
900 mm	24885 kg	0.35 kg/cm ²	24985 kg	0.35 kg/cm ²
600 mm double grouser shoes	24280 kg	0.51 kg/cm ²	24380 kg	0.51 kg/cm ²

Operating weight, including specified work equipment, 2.9 m arm, 633 kg bucket, operator, lubricant, coolant, full fuel tank and the standard equipment

Max. bucket capacity and weight

Mono boom

Arm length	2.9 m
Material density up to 1.2 t/m ³	1.80 m ³ 1337 kg
Material density up to 1.5 t/m ³	1.55 m ³ 1172 kg
Material density up to 1.8 t/m ³	1.36 m ³ 1055 kg

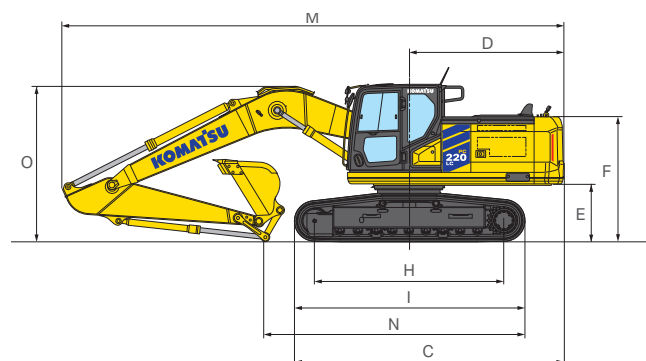
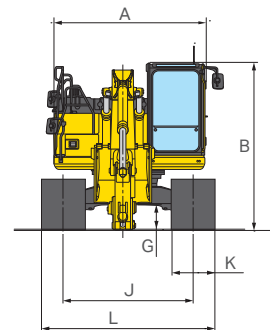
Max. capacity and weight have been calculated according to ISO 10567:2007.

Please consult with your distributor for the correct selection of buckets and attachments to suit the application.

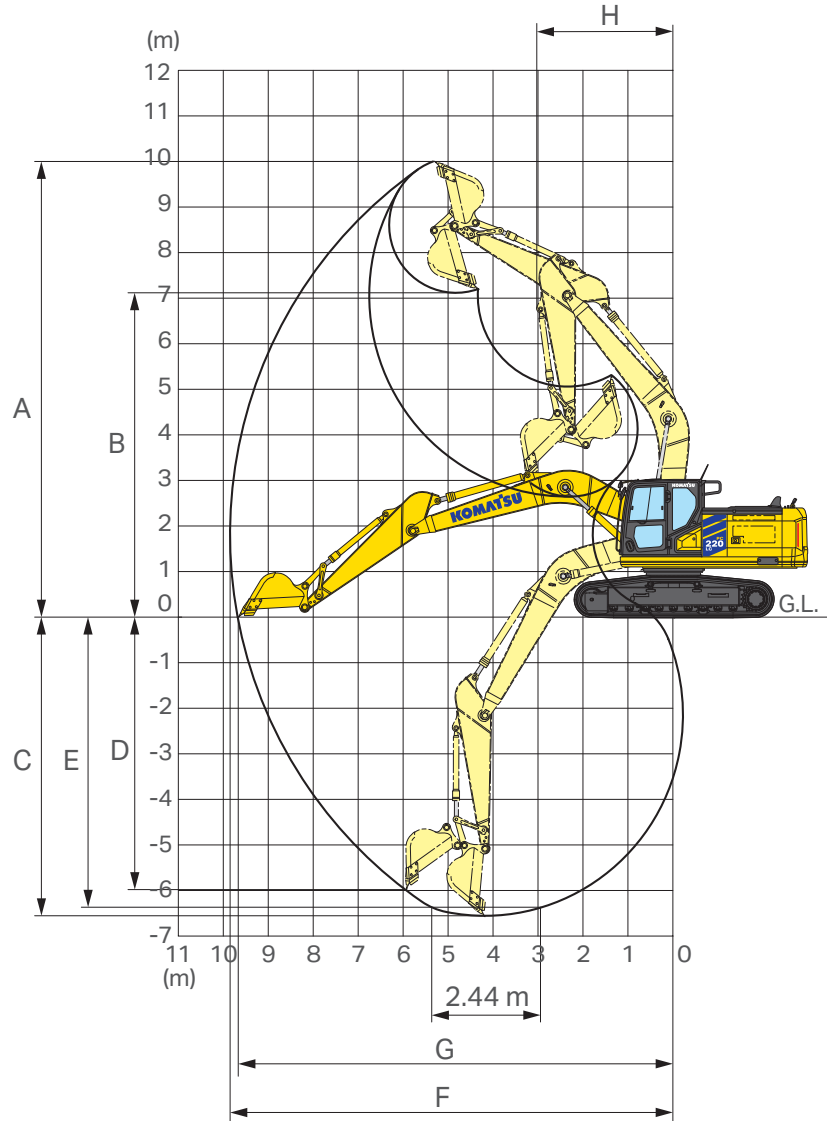
Machine dimensions

PC220LC-12/PC220LCi-12

Arm length	2925 mm
A Overall width of upperstructure	2810 mm
B Overall height of cab	3060 mm
C Overall length of basic machine	5200 mm
D Tail length	2975 mm
Tail swing radius	3020 mm
E Clearance under counterweight	1085 mm
F Machine tail height	2420 mm
G Ground clearance	440 mm
H Tumbler centre distance	3655 mm
I Track length	4450 mm
J Track gauge	2380 mm
Track gauge (transport)	2380 mm
K Track shoe width (triple)	600, 700, 800, 900 mm
L Undercarriage width 600 mm	2980 mm
Undercarriage width 700 mm	3080 mm
Undercarriage width 800 mm	3180 mm
Undercarriage width 900 mm	3280 mm
M Transport length	9690 mm
N Length on ground (transport)	5000 mm
O Overall height (to top of boom)	2995 mm



Working range

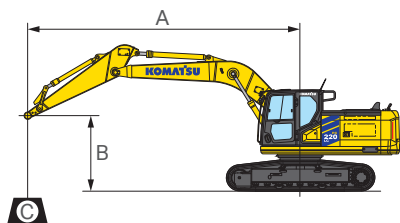


Working range

PC220LC-12/PC220LCi-12

Arm length	2925 mm
A Max. digging height	10000 mm
B Max. dumping height	7110 mm
C Max. digging depth	6620 mm
D Max. vertical wall digging depth	5980 mm
E Max. digging depth of cut for 2.44 m level	6370 mm
F Max. digging reach	9875 mm
G Max. digging reach at ground level	9700 mm
H Min. swing radius	3065 mm
Bucket digging force	146 kN / 14900 kgf
Bucket digging force at power max.	159 kN / 16200 kgf
Arm crowd force	106 kN / 10800 kgf
Arm crowd force at power max.	116 kN / 11800 kgf

Lifting capacity



A – Reach from swing center

B – Bucket hook height

C – Lifting capacities

– Rating over front

– Rating over side

– Rating at maximum reach

With 600 mm shoes

Arm length	A		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m	
	B											

	7.5 m	kg	*3900	*3900			*4500	*4500						
	6.0 m	kg	*3650	*3650			*6000	*6000						
	4.5 m	kg	*3600	*3600	*5650	4100	*6700	5850	*7250	*7250				
	3.0 m	kg	*3700	3400	5950	3950	*7750	5550	*9900	8550				
	1.5 m	kg	*4000	3250	5800	3850	8150	5300	*12000	7950				
	0.0 m	kg	*4500	3300	5700	3750	7950	5100	12600	7650	*7450	*7450		
	-1.5 m	kg	*5450	3600	5650	3700	7850	5000	12500	7550	*12250	*12250	*7700	*7700
	-3.0 m	kg	6600	4300			7900	5050	*12550	7600	*17850	14850	*12650	*12650
	-4.5 m	kg	*8200	6150					*10250	7850	*14350	*14350		

* Load is limited by hydraulic capacity rather than tipping.

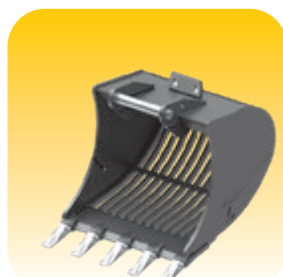
Ratings are based on SAE Standard No. J1097.

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.

Komatsu attachments

A broad range of buckets and attachments is available to suit various applications. Your Komatsu distributor is ready to assist you with the selection of suitable options.



Standard and optional equipment

Engine

Next generation Komatsu turbocharged common rail direct injection engine	●
EU Stage V and EPA Tier 4 final 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	●
Adjustable delayed engine shutdown	●
Engine keyless start / stop	●
Engine ignition can be password secured on request	●
Alternator 24 V / 85 A	●
Starter motor 24 V / 5.5 kW	●
Batteries 2 × 12 V / 180 Ah	●

intelligent Machine Control 3.0 (PC220LCi-12 only)

Factory installed integrated 3D GNSS intelligent Machine Control system	●
3D Boundary control	●
Auto swing	●
Swing-to-line	●
Travel-along-line	●
Tiltrotator control	●
Smart Construction Remote	●
Smart Construction Fleet Lite	●

Hydraulic system

Closed-centre load sensing hydraulic system (HydrauMind)	●
Pump and engine mutual control (PEMC) system	●
7-working mode selection system; Power + mode, Power mode, 4 Economy modes and Lifting mode	●
PowerMax function	●
Electronic control levers for arm, boom, bucket and swing, with 3 proportional controls for attachments and 5 auxiliary buttons	●
Prepared for hydraulic quick-coupler	●
High-efficiency large spool main valve with separate meter in and meter out spools and regeneration	●
Hydraulic tuning according to operator preference possible	●
Low back-pressure drain line for attachment	○
Additional hydraulic functions	○
Komatsu Integrated Attachment Control (KIAC)	○

Cabin

Reinforced safety SpaceCab™; highly pressurised and tightly sealed hyper viscous mounted cab with tinted safety glass windows, large clear polycarbonate opening roof window with sun blind, wide pull-up type front window with locking device, removable lower window, large parallel front window wiper with intermittent feature covers upper and lower screens, sun roller blind, luggage shelf, 2-piece floor mat, additional floor mat, 8-inch close at hand touchscreen monitor	●
Heated, high-back air-suspended seat with lumbar support, console mounted height adjustable arm rests, and retractable seat belt	●
Tilt-up console for easier access	●
Super ergonomic short stroke, low effort electronic levers	●
Keyless start system	●
Operator ID system linked to personalised settings	●
Automatic climate control system	●
12/24 Volt power supplies	●
USB-A power supply	●
Utility bar	●
Beverage holder and magazine rack	●
Hot and cool box	●
Integrated DAB+ radio with Bluetooth®	●
Remote electric door lock	●
Remote key fob	●
Premium comfort seat with adjustable horizontal and vertical damping	○
Rain visor (not with OPG)	○

Undercarriage

Track roller guards	●
Track frame under-guards	●
In cab undercarriage direction indicator	●
600, 700, 800, 900 mm triple grouser shoes	○
600 mm double grouser shoes	○
Full length track roller guards	○

Drives and brakes

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

Safety equipment

KomVision surround view system	●
Electric horn	●
Overload warning device	●
Audible travel alarm	●
Boom safety valves	●
Large contrasting colour handrails	●
Rear-view mirrors (for cab adjustable without tools)	●
Battery main switch with lock out	●
ROPS compliant to ISO 12117-2:2008	●
Emergency engine stop switch	●
Seat belt caution indicator with optional exterior green lamp	●
Neutral position detection system	●
Arm safety valve	●
Electronic spirit level	●
Rollover prevention warning	●
2D Boundary Control	●
OPG Level II front guard (FOPS), hinged type	○
4 point seat belt (Opt. when fitted with Premium seat)	○
OPG Level II top guard (FOPS)	○
White noise travel alarm	○
External seat belt indication lamp	○

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 (4G)	●
Komatsu Care program (regional differences apply)	●
Multifunction video compatible colour monitor with Equipment Management and Monitoring System (EMMS) and efficiency guidance	●
Service points	●
Fuel refill pump	●
Ground level AdBlue® fill	●
3 point of contact access system (r.h. side)	●
Extended service intervals	●
Automatic greasing system	○

LED lighting system

Working lights: 1 revolving frame, 1 boom (l.h.), 1 cab roof (l.h.)	●
Coming home light function	●
Additional working lights (#1): 1 cab roof (front r.h.), 1 cab roof (rear), 1 boom (r.h.), 1 counterweight, beacon	○
Additional working lights (#2): 3 cab roof (front), 1 cab roof (rear), 1 boom (r.h.), 1 counterweight, 2 boom cylinders, 2 revolving frame (l.h. + r.h.), beacon	○

Work equipment

IMU (Inertial Measurement Units) fitted to boom, arm and revolving frame	●
Stroke sensing bucket cylinder	●
Plug and Play solution for tiltrotators	●
Payload meter	●
Mono boom	●
iMC 3.0 upgrade kit (PC220LC-12)	○
Arm ICT harness for tiltrotator integration (PC220LC-12)	○
IMU sensor kit for tilt bucket integration (PC220LCi-12)	○
Bucket linkage with lifting eye	○
2925 mm arm	○
Komatsu buckets, breakers, grapples, pulverizers	○

Other equipment

2D machine control	●
Upgradeable to iMC 3.0 spec	●
Upgradeable to Smart Construction 3DMG Kit	●
Upgradeable software system	●
Standard counterweight	●
Remote greasing for swing circle and pins	●
Electric refuelling pump with automatic shut-off function	●
Can also be installed with 3rd party machine guidance equipment	○
Revolving frame side guards (15 mm)	○
Biodegradable oil for hydraulic system	○
Customised paint	○

Further equipment on request

- standard equipment
- optional equipment

This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.