KOMATSU

PC220LC/NLC-12
PC220LCi/NLCi-12



Hydraulic excavator

Engine power
129 kW / 173 HP @ 2000 rpm

Operating weight
PC220LC-12: 24000 - 25585 kg
PC220NLC-12: 23500 - 24930 kg
PC220LCi-12: 24100 - 24985 kg
PC220NLCi-12: 23600 - 24230 kg

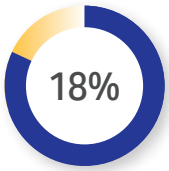
Bucket capacity
max. 1.9 m^3

PC220-12



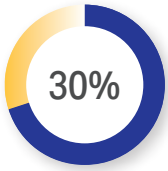
Increased productivity (P+ mode)

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 CO_2 emissions
- Seamless plug-and-play tiltrotator integration

Engine power

129 kW / 173 HP @ 2000 rpm

Operating weight

PC220LC-12: 24000 - 25585 kg
PC220NLC-12: 23500 - 24930 kg
PC220LCi-12: 24100 - 24985 kg
PC220NLCi-12: 23600 - 24230 kg

Bucket capacity

max. 1.9 m³

Safety first

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

The next generation

The most technologically advanced hydraulic excavators

Redefining first-class comfort with our all-new, larger cab

- Cab size increased by 16%
- All-new high-comfort standard and premium seats
- Programmable electronic joysticks with integrated steering function
- User-friendly high-definition touchscreen panel
- Keyless start with operator identification system
- Virtually limitless options to fully customise all machine settings to the operator's preferences



Intelligent machine control 3.0

(PC220LCi/NLCi-12 only)

- Unique, industry-first Auto Swing, Swing-to-line, Travel-along-line, and 3D boundary control functions
- Advanced payload system
- High-definition 10.1-inch touchscreen panel
- Auto grade assist with automatic boom down
- Tiltrotator integration and control
- Smart Construction Remote and Fleet Lite connectivity included as standard
- Fully integrated, concealed, and protected GNSS antennas
- Your PC220LC/NLC-12 can be upgraded to iMC 3.0 at any time with an easy-to-install upgrade kit

Engineered for maximum reliability and easy maintenance

- Reinforced work equipment to match increased digging forces
- Significantly extended service intervals for hydraulic oil, filters, and particle filter
- Improved ground-level access for easier maintenance
- Komatsu Care program (regional differences apply)

PC220-12



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

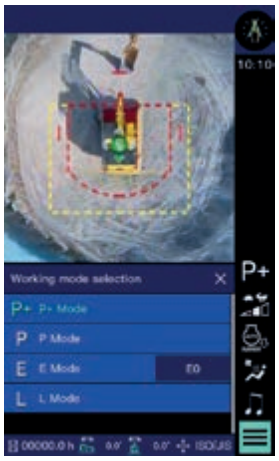


Tiltable side console for safer, more comfortable entry and exit



High-definition touchscreen with intuitive navigation

The 8-inch touchscreen is ergonomically positioned for effortless fingertip access and intuitive operation. Shortcut buttons for core functions ensure fast navigation, while the clear display provides excellent visibility at a glance. The interface also integrates 360° KomVision, climate control, DAB radio, and Bluetooth® media and phone connectivity.



Core functions like work mode selection, air conditioner or phone (Bluetooth®) and radio are accessed via shortcut buttons.



Work equipment settings are easy to access and adjust via slider control, tailored to specific applications and operator preferences.



Attachment control settings are quickly accessed and adjusted using a single shortcut button, enabling fast and precise setup.

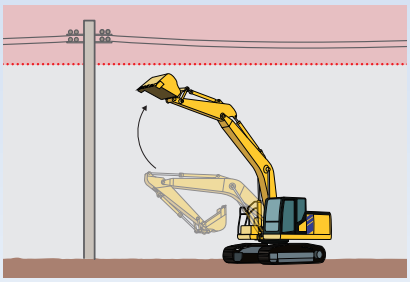
Totally configurable work equipment settings

Machine operation can be programmed to match specific applications and individual operator preferences. This includes work equipment speed selection via an intuitive slider control, adjustment of the combined operation balance between boom raise and swing speed, lever response speed settings, and the ability to select the machine's E-mode for optimised efficiency.



2D machine control

A simple, built-in system for projects where 3D GNSS isn't required. Using integrated work equipment sensors, operators can easily set depth or slope from a reference point via the monitor. The semi-automatic control helps maintain grading accuracy by preventing over-digging and keeping the bucket edge on the set surface.



2D boundary control (virtual walls)

Virtual walls can be set relative to the machine's center, including front, rear, sides, above, and below. The system automatically decelerates and stops swing or work equipment motion near the set boundaries, reducing the risk of collisions with surrounding objects. A swing angle limit function is also included for added safety.

Integrated payload meter

The PC220LC/NLC-12 comes with a factory-integrated dynamic payload meter you can rely on. See the current load of the material in the bucket, total amount of material loaded in the truck and target load. Tip-off guidance helps you to easily achieve the exact target load every time.



Engineered to adapt to the operator

Personalised control for every operator

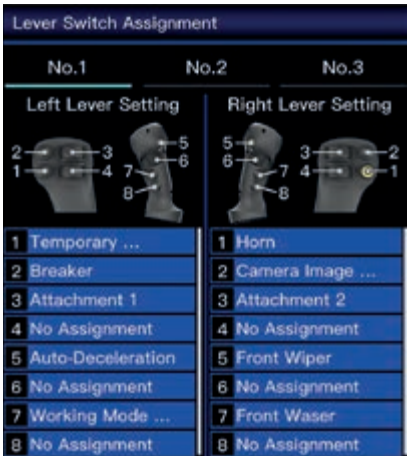
Intuitive user interface elements, a new touchscreen monitor, and ultra-versatile, programmable electronic control levers deliver unmatched ergonomics and ease of use. The integrated operator ID system can store up to 50 profiles and automatically loads individual settings upon recognition.

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 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.



Powerful and environmentally friendly

A quantum leap in productivity

New P+ working mode

- 18% higher productivity, compared to the previous model
- Super fast cycle times
- Greatly reduced fuel consumption and CO_2 emissions





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 CO_2 emissions under all working conditions.

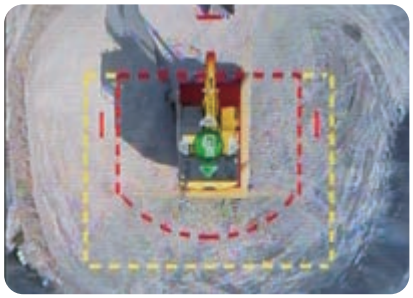
Safety first

Safety features on the Komatsu PC220-12 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.



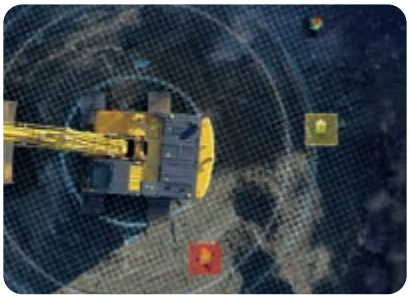


Even safer – enhanced and upgraded safety features



360° KomVision surround-view system

Four wide-angle high-definition cameras provide a seamless 360° field of view of the safety zone around the machine. This allows the operator to focus on the work at hand even in low light conditions. With KomVision, various camera view options are available whilst maintaining a constant bird's eye view from above the machine.



Human detection system with auto-stop (option)

A unique, factory-integrated system uses cameras to detect personnel around the machine. Two detection zones automatically trigger a staged response, first slowing and then stopping machine travel and swing movements.



Heading direction indicator

A travel direction indicator arrow is always visible on the monitor. If the upper structure has rotated beyond the set travel heading range, the arrow changes color, making it easy to confirm machine orientation before moving, thus enhancing operational safety.



Coming home light function

When the machine detects the electronic key or the operator unlocks the cab door, the working lamps automatically switch on, allowing safe boarding. After the cab door is closed and the operator exits, the lamps remain illuminated for a programmable period to ensure safe disembarkation.



Large parallel wiper

The parallel wiper on the cabin's front windscreen cleans nearly the entire area within the operator's line of vision, ensuring a clear view that enhances both operator confidence and safety.



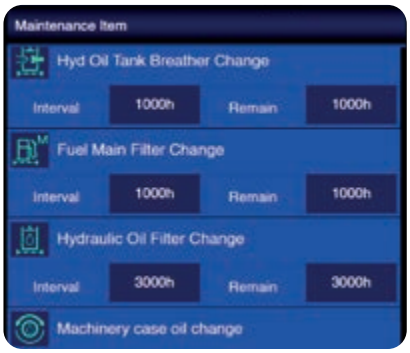
Rollover prevention system

The system calculates the machine's center of gravity and alerts the operator of potential rollover risk with a monitor indicator and audible warning.

Easy maintenance







Ground level access

Large doors provide safe and convenient ground-level access to centralised maintenance points.

Komatsu Care

Komatsu Care is a complimentary customer support program that comes with your new Komatsu machine. Depending on the region, it may include maintenance and/or an additional warranty. Please contact your local distributor for details.

Software updates

The machine's software can be periodically updated to the latest version via over-the-air (OTA) updates, just like a smartphone, enabling remote installation of new features and enhancements.

Relocated AdBlue® tank

Ground-level access now allows for easy AdBlue® refilling.

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.

New aftertreatment module

The Komatsu Diesel Particulate Filter (KDPF) is now a compact module that integrates both the DPF and SCR into a single unit.

Maintenance information

The monitor provides easy, at-a-glance access to all relevant maintenance information and alerts the operator in advance before any service is due.

Extended service intervals

Further extension of service intervals reduce maintenance interruptions, lower operating costs, and minimise environmental impact.

Service intervals:
Engine oil change: 1000 h
Hydraulic oil change: 6000 h
KDPF cleaning: 8000 h

Quality you can rely on



Komatsu-quality

With the latest computer techniques and a thorough test programme, Komatsu produces equipment to meet your highest standards. All major components of the PC220-12 are designed and directly manufactured by Komatsu, and essential machine functions are perfectly matched for a highly reliable and productive excavator. Each and every PC220-12 undergoes additional system calibration and accuracy tests before delivery, to ensure optimum performance in line with strict Komatsu Engineering Standards.

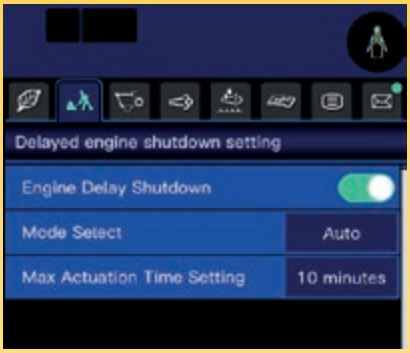
Extensive support network

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.
Highly trained and dedicated Technical Support Engineers are always available to ensure intelligent Machine Control performance is maintained.



Heavy-duty work equipment

Newly designed, reinforced boom and arms, along with larger-diameter cylinders, pins, and bushings, deliver the strength and durability needed to match the significant increase in digging force.



Delayed engine shutdown

Allows cooling to continue after the ignition is turned off if the engine or aftertreatment system is still hot. The engine and main power shut off automatically once safe temperatures are reached.



Easier cleaning of track frame

A new track frame design makes it much easier to remove accumulated dirt.

intelligent Machine Control 3.0 (PC220LCi/NLCi only)

New generation intelligent Machine Control

Building on Komatsu's deep experience of more than a decade of delivering fully factory-integrated machine control to customers, the 3.0 generation comes with more advanced and unique-in-the market assistant features, helping operators get their job done with incredible precision, efficiency and guaranteed return on investment.





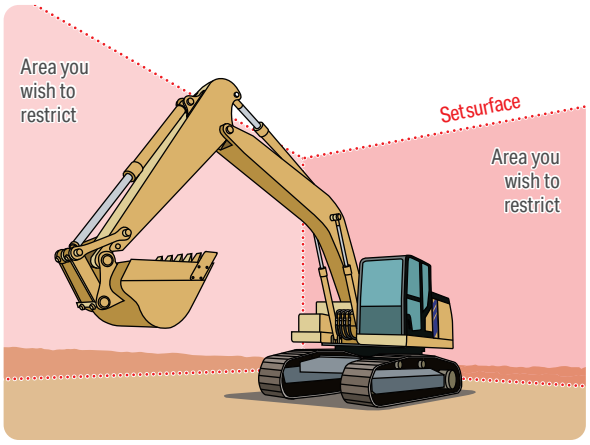
Plug-and-play upgrade kit

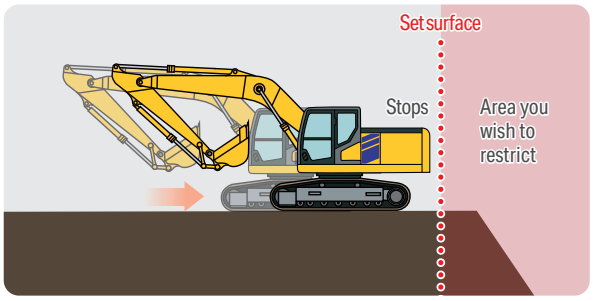
A plug-and-play upgrade kit allows every PC220LC/NLC-12 owner to benefit from fully factory-integrated machine control technology. In less than half a day, an LC machine can be upgraded with the latest intelligent Machine Control 3.0 technology that is identical to the LCi machine, with the same strict quality and standard as from the factory. Designed, integrated and fully supported by Komatsu.

Massively improve jobsite safety with 3D boundary control

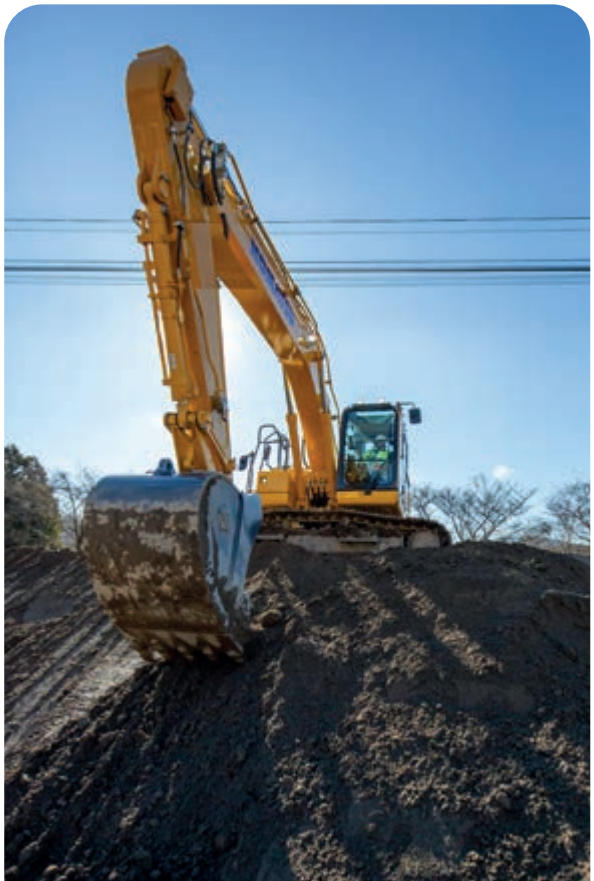
Operators or site managers can set up restricted work areas within the 3D environment. When any part of the machine – including its work equipment, upper structure, or undercarriage – approaches the restricted area, the system automatically initiates a controlled stop. Simultaneously, operators receive visual and audible warnings, ensuring safe and controlled operation at all times.

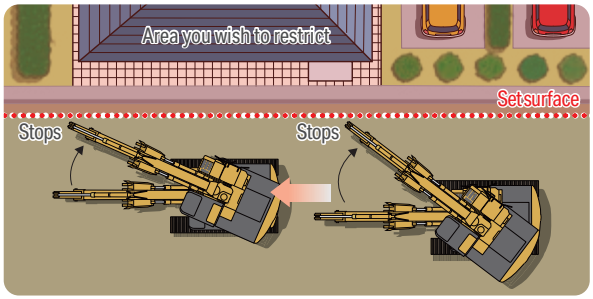
The restricted zones can be defined on the iMC monitor in the field or pre-configured in the design model. No need to adjust the restricted zones setting when moving as they remain fixed relative to the jobsite – independent of the machine's position.



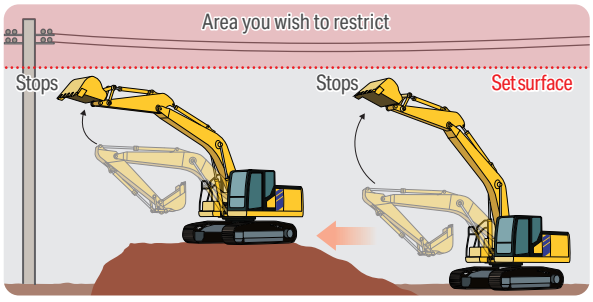


Prevent machine roll-over or tipping incidents on or near slopes





Prevent contact with adjacent buildings



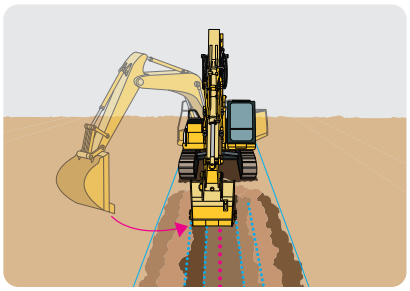
Prevent contact with high-voltage cables

intelligent Machine Control 3.0 (PC220LCi/NLCi only)

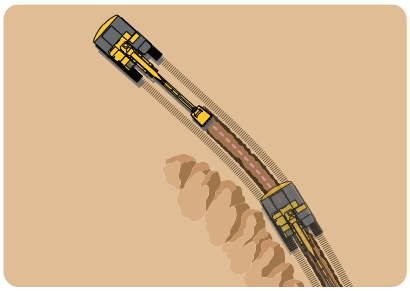
Unique intelligent automation features

Semi-automatic operation in trenching application

iMC 3.0 comes with features that are specially designed to simplify trenching work for operators. Designed to minimise the need for constant minor adjustments so that the operators can work in a more productive way with less fatigue.



Swing-to-line
Swing the upper structure and align the bucket center with the center of the trench automatically with the press of a button.



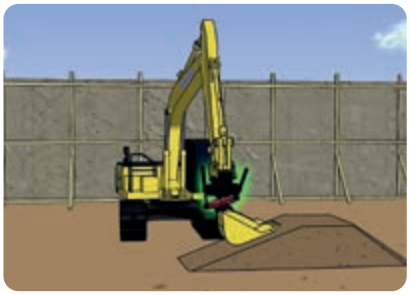
Travel-along-line
Set a center line for a trench, and it will automatically steer the tracks to keep you centered with every movement of the machine.

Fully integrated tiltrotator control

Continuously evolving to bring our technology in line with market demands, Komatsu intelligent Machine Control 3.0 is compatible with tiltrotators. This allows operators to move materials with even greater speed and accuracy.



Auto-tilt and auto-rotate
iMC 3.0 is fully compatible with tiltrotators, allowing for semi-automatic control for both the tilting and rotating of the bucket.



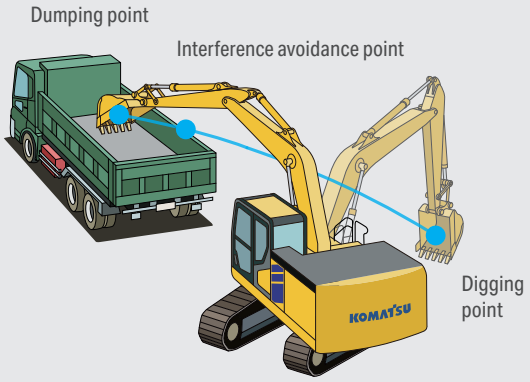
Auto-return to zero
When operator finishes the digging or grading pass and raises the tiltrotator or tilting bucket to dump the material, it will automatically rotate and tilt to the zero position.

iMC 3.0 machine control functions are also compatible with a wide range of tilt buckets, as well as non-bucket attachments/work equipment such as breaker, twin header, compactor and grapple.



Semi-automatic loading with auto swing control

By setting a digging point, dumping point and an interference avoidance point with a dump truck or crusher hopper, the system can automatically swing the machine and lift the bucket to the truck body or crusher hopper and then back again to the digging point.



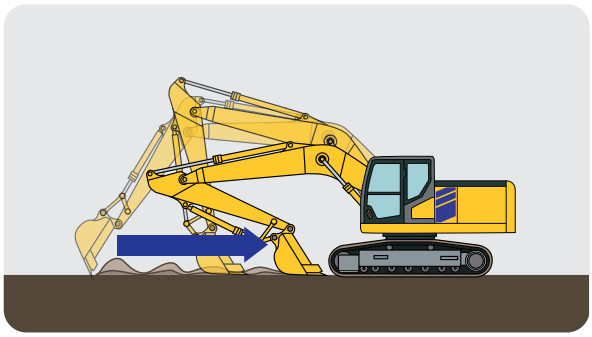


intelligent Machine Control 3.0 (PC220LCi/NLCi only)

Machine control functions

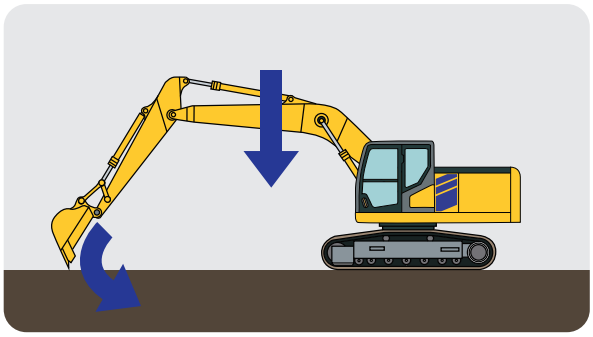
Achieve the perfect grade with auto grade assist

During a grading pass, the system automatically raises and lowers the boom with the bucket edge precisely tracing the design surface. The operator just needs to control the desired grading speed with the left hand lever.



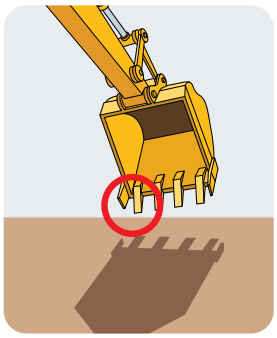
No more over-digging with auto stop control

Auto stop control stops the bucket edge on the design surface during boom, arm or bucket operation. No more over-digging past the desired grade. Operators can safely rely on the semi-automatic system – just relax and be productive.



Minimum distance control regardless of the bucket orientation

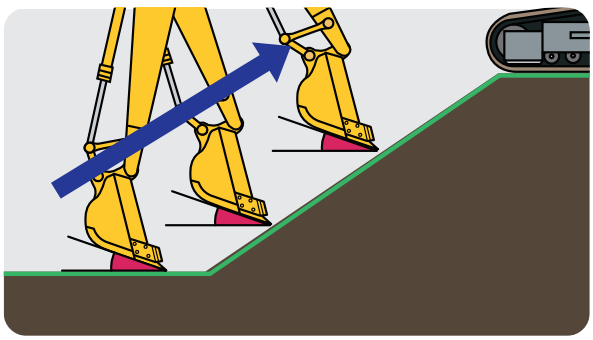
Each bucket is easily calibrated to the excavator so that the iMC system can always calculate the bucket's nearest point or the "minimum distance" to the design model. Regardless of the bucket's orientation, the operator can always be confident that they will never damage the surface.





Easy and precise final grade with bucket angle hold

Bucket angle hold enables the operator to automatically set the bucket grading or digging angle, and then maintain this angle constantly. No need for the operator to adjust manually, boosting the ease of operation in final grading or trimming work.





A brand-new 10.1-inch touchscreen monitor

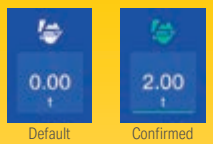
The new iMC 3.0 monitor offers a user experience just like a smartphone, making it incredibly easy and intuitive to use. Operators can effortlessly zoom, rotate 3D graphics, and navigate the system thanks to its user-friendly design. Beyond its intuitive interface, the iMC 3.0 allows for simple on-site design creation and supports all major industry file formats, including LandXML, DWG, DXF, and TP3, ensuring seamless integration into your workflow.

Advanced payload meter

Get more in-depth payload data on the iMC monitor: The advanced payload meter offers a significant upgrade from the standard version, providing more in-depth payload data. It also features integrated Smart Construction Fleet Lite, allowing customers to easily transfer payload data for comprehensive analysis within the application.



1 Bucket payload

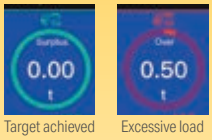


Default | Confirmed weight

2 Dump truck remaining payload space



Loading in progress | Confirmed weight



Target achieved | Excessive load

3 Loading count and weight history
4 Delete latest load
5 Dump truck payload loading rate
6 Material selection
7 Select dump truck
8 Start loading
9 Dump truck list/Material list
10 Loading history/Performance data
11 Settings

Digital assistance & guidance

In addition to setting new standards of productivity and efficiency, the Komatsu PC220LCi/NLCi-12 connects seamlessly with various digital solutions, simplifying digital transformation of any jobsite.

Smart Construction Remote

Smart Construction Remote is included as standard on PC220LCi/NLCi-12. This software solution enables the customer to remotely send and update design plans even when the machine is offline. It also supports your operators remotely with shared screen control. Does an operator have an issue? Spare yourself that trip to the machine and resolve the problem from home, your office, or another jobsite.



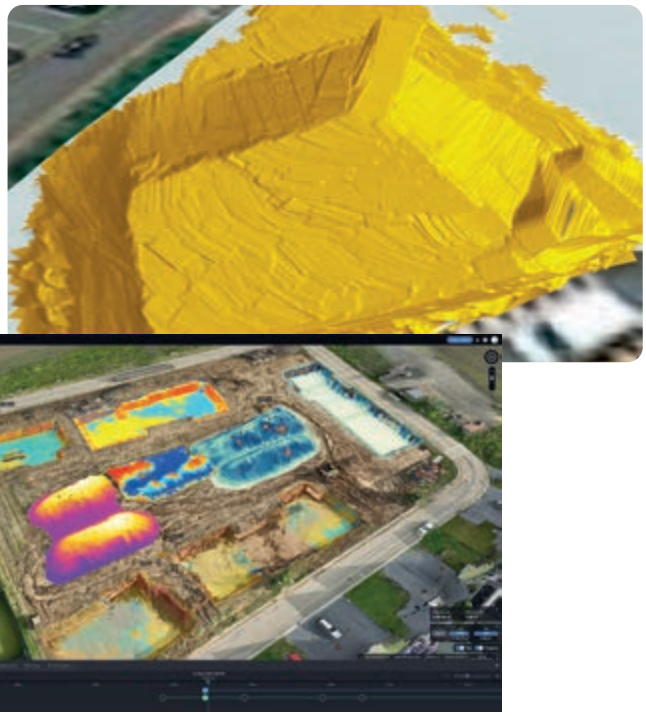


Smart Construction Fleet

Standard with all PC220LCi/NLCi-12 units, customers gain access to Fleet Lite, a web-based application allowing site managers to view and download historical payload measurements. For those looking to go further, an upgrade to the full Smart Construction Fleet application connects all equipment on site (including the PC220LCi/NLCi-12), unlocking deeper insights. This includes contextualising payload data within full load cycles, dump/load operations, and idle times, among others. All this is automatically compiled into a site-wide productivity report. Giving you a comprehensive overview of site performance across your entire fleet, in just seconds.

Smart Construction Dashboard

Available to connect with PC220LCi/NLCi-12, Smart Construction Dashboard allows site managers to create an automatic and precise digital twin that enables everyone in the team to monitor earth movement progress with survey-grade accuracy. Seamlessly update the jobsite digital twin with automatic as-built data from your PC220LCi/NLCi-12 and other iMC machines.





KOMTRAX

The way to higher productivity (PC220-12)

Komtrax turns telematics data into actionable insights for your fleet and equipment, empowering your business to make well-informed, data-driven decisions. By creating a tightly integrated web of support, Komtrax allows for proactive and preventive maintenance to minimise downtime and facilitate peak machine 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

Drive 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 (NLC/NLCi)	350 l (270 l)
Radiator	28.2 l
Engine oil	18.0 l
Final drive (each side)	4.1 l
Swing drive	6.5 l
Hydraulic tank (NLC/NLCi)	119 l (120.3 l)
AdBlue® tank (NLC/NLCi)	62.9 l (35.9 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/cm²
Travel circuit	37.3 MPa / 380 kgf/cm²
Swing circuit	28.9 MPa / 295 kgf/cm²
Pilot circuit	3.2 MPa / 33 kgf/cm²
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:	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/s² (uncertainty K = 0.38 m/s²)
Body	≤ 0.5 m/s² (uncertainty K = 0.16 m/s²)
Contains fluorinated greenhouse gas HFC-134a (GWP 1430). Quantity of gas 0.9 kg, CO_2 equivalent 1.29 t	

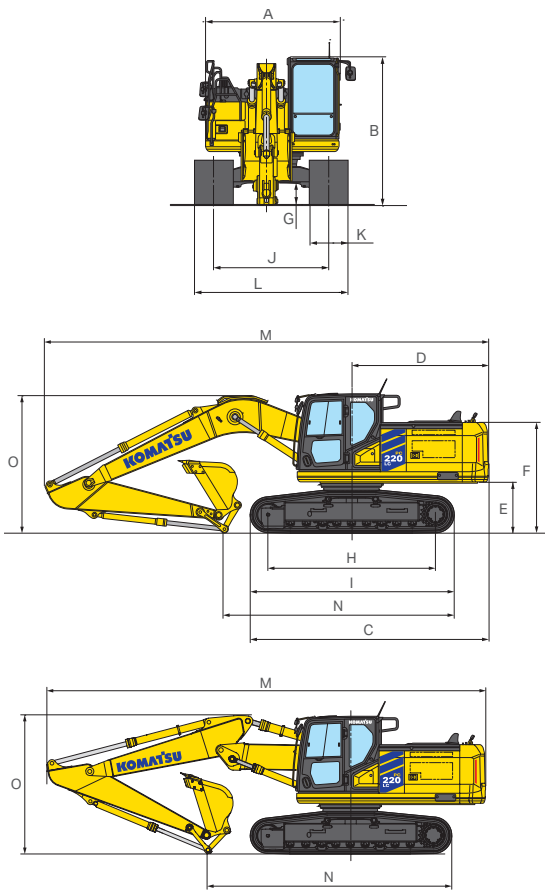
Operating weight (appr.)

	Mono boom				Two-piece boom			
	PC220LC/LCi-12*		PC220NLC/NLCi-12*		PC220LC-12		PC220NLC-12	
Triple grouser shoes	Operating weight	Ground pressure	Operating weight	Ground pressure	Operating weight	Ground pressure	Operating weight	Ground pressure
500 mm	–	–	23500 kg	0.60 kg/cm²	–	–	24300 kg	0.61kg/cm²
600 mm	24000 kg	0.51 kg/cm²	23860 kg	0.51 kg/cm²	24700 kg	0.52 kg/cm²	24660 kg	0.52 kg/cm²
700 mm	24270 kg	0.44 kg/cm²	24130 kg	0.44 kg/cm²	24970 kg	0.45 kg/cm²	24930 kg	0.45 kg/cm²
800 mm	24540 kg	0.39 kg/cm²	–	–	25240 kg	0.40 kg/cm²	–	–
900 mm	24885 kg	0.35 kg/cm²	–	–	25585 kg	0.36 kg/cm²	–	–
600 mm double grouser shoes	24280 kg	0.51 kg/cm²	–	–	24980 kg	0.53 kg/cm²	–	–
600 mm road-liner shoes	24400 kg	0.51 kg/cm²	–	–	25100 kg	0.53 kg/cm²	–	–

Operating weight, including specified work equipment, 2.9 m arm, 633 kg bucket, operator, lubricant, coolant, full fuel tank and the standard equipment
* intelligent Machine Control: +100 kg

Machine dimensions

PC220		LC/LCi-12	NLC/NLCi-12
A	Overall width of upperstructure	2810 mm	2535 mm
B	Overall height of cab	3060 mm	3065 mm
C	Overall length of basic machine	5200 mm	5110 mm
D	Tail length	2975 mm	2885 mm
	Tail swing radius	3020 mm	2920 mm
E	Clearance under counterweight	1085 mm	1090 mm
F	Machine tail height	2420 mm	2425 mm
G	Ground clearance	440 mm	457 mm
H	Tumbler centre distance	3655 mm	3655 mm
I	Track length	4450 mm	4450 mm
J	Track gauge	2380 mm	2040 mm
K	Track shoe width (triple)	600, 700, 800, 900 mm	500, 600, 700 mm
L	Undercarriage width 500 mm	–	2540 mm
	Undercarriage width 600 mm	2980 mm	2640 mm
	Undercarriage width 700 mm	3080 mm	2740 mm
	Undercarriage width 800 mm	3180 mm	–
	Undercarriage width 900 mm	3280 mm	–

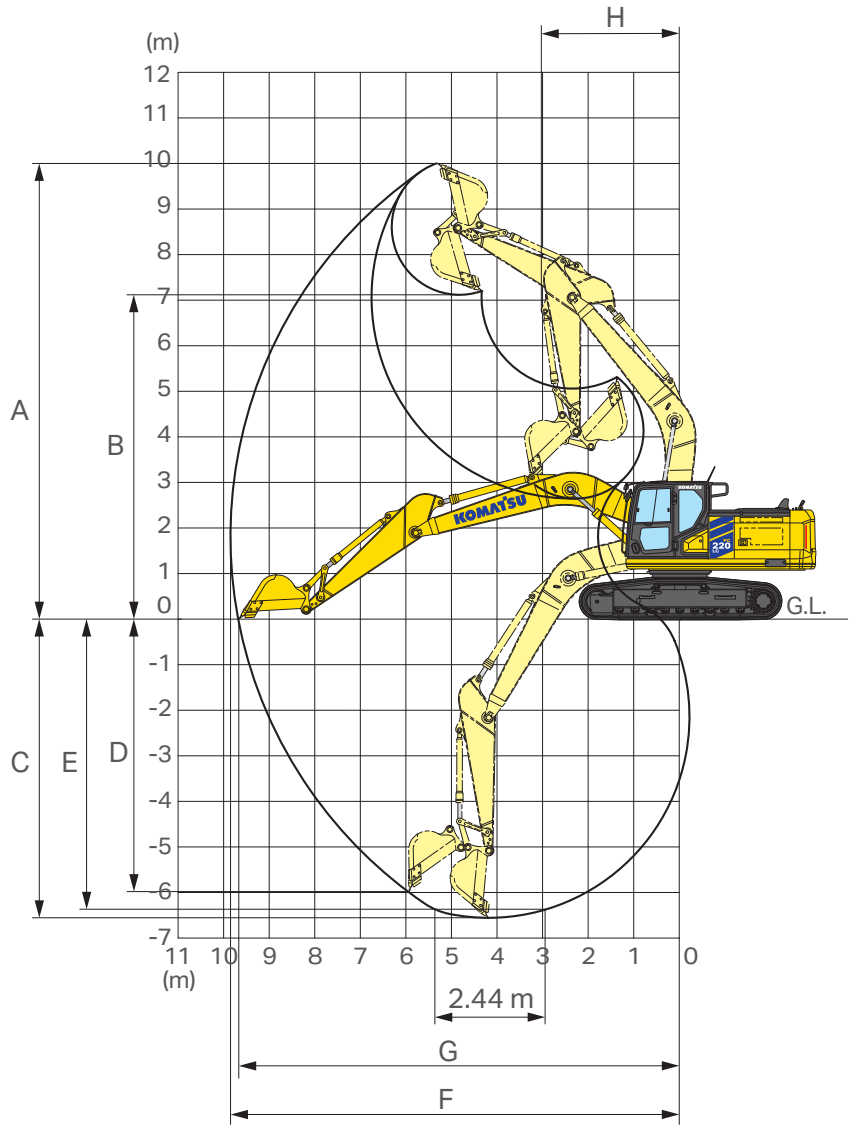


Transport dimensions

	Mono boom				Two-piece boom			
	PC220LC/LCi-12		PC220NLC/NLCi-12		PC220LC-12		PC220NLC-12	
Arm length	2.4 m	2.9 m	2.4 m	2.9 m	2.4 m	2.9 m	2.4 m	2.9 m
M Transport length	9765 mm	9690 mm	9675 mm	9600 mm	9570 mm	9545 mm	9570 mm	9545 mm
N Length on ground (transport)	5755 mm	5000 mm	5847 mm	5094 mm	6045 mm	5400 mm	6045 mm	5400 mm
O Overall height (to top of boom)	3035 mm	2995 mm	3190 mm	3150 mm	3035 mm	3030 mm	3035 mm	3030 mm

Working range

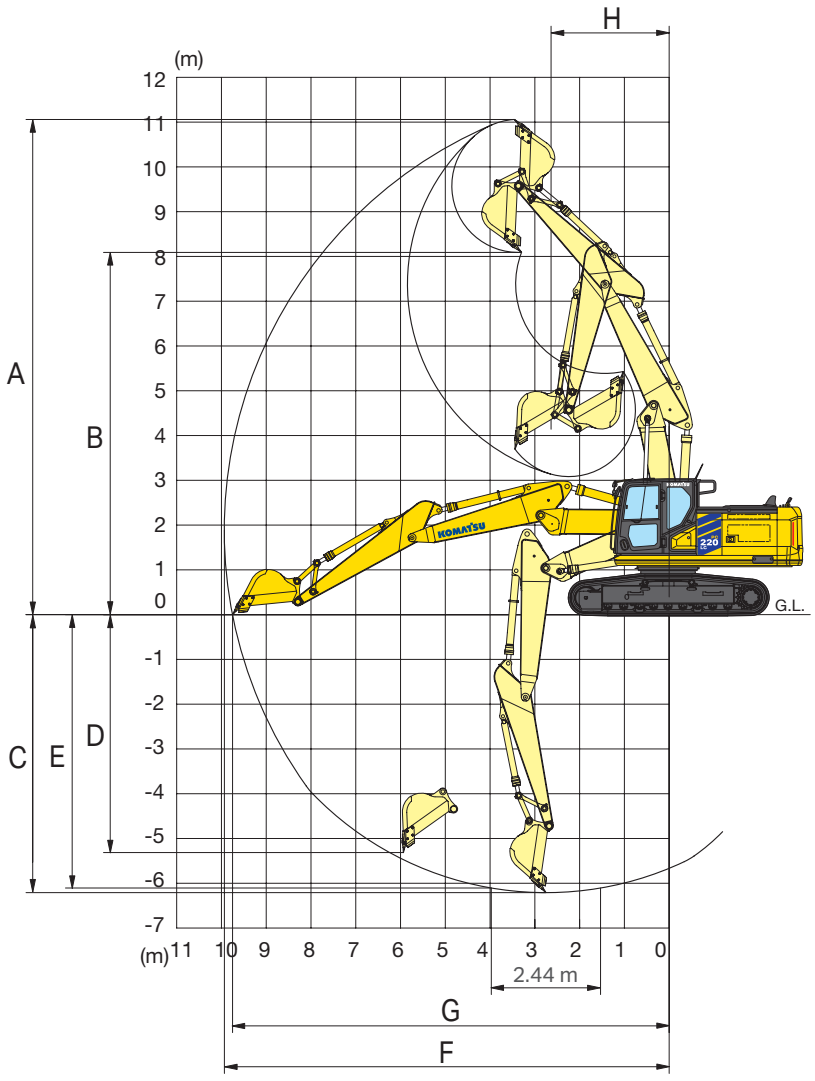
Mono boom



Working range		PC220LC/LCi-12		PC220NLC/NLCi-12	
	Arm length	**2400 mm**	**2925 mm**	**2400 mm**	**2925 mm**
A	Max. digging height	9695 mm	10000 mm	9760 mm	10065 mm
B	Max. dumping height	6770 mm	7110 mm	6840 mm	7180 mm
C	Max. digging depth	6070 mm	6620 mm	5950 mm	6500 mm
D	Max. vertical wall digging depth	5665 mm	5980 mm	5610 mm	5925 mm
E	Max. digging depth of cut for 2.44 m level	5820 mm	6370 mm	5765 mm	6315 mm
F	Max. digging reach	9375 mm	9875 mm	9350 mm	9850 mm
G	Max. digging reach at ground level	9195 mm	9700 mm	9160 mm	9665 mm
H	Min. swing radius	3140 mm	3065 mm	3160 mm	3060 mm
	Bucket digging force	171 kN / 17400 kgf	146 kN / 14900 kgf	171 kN / 17400 kgf	146 kN / 14900 kgf
	Bucket digging force at power max.	183 kN / 18700 kgf	159 kN / 16200 kgf	183 kN / 18700 kgf	159 kN / 16200 kgf
	Arm crowd force	127 kN / 13000 kgf	106 kN / 10800 kgf	127 kN / 13000 kgf	106 kN / 10800 kgf
	Arm crowd force at power max.	136 kN / 13900 kgf	116 kN / 11800 kgf	136 kN / 13900 kgf	116 kN / 11800 kgf

Working range

Two-piece boom

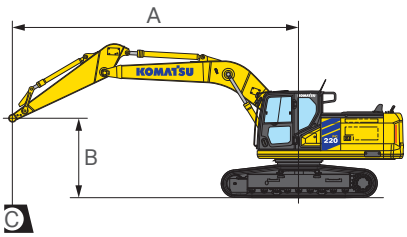


Working range		PC220LC-12		PC220NLC-12	
	Arm length	**2400 mm**	**2925 mm**	**2400 mm**	**2925 mm**
A	Max. digging height	10605 mm	11070 mm	10610 mm	11080 mm
B	Max. dumping height	7645 mm	8095 mm	7650 mm	8105 mm
C	Max. digging depth	5665 mm	6190 mm	5670 mm	6195 mm
D	Max. vertical wall digging depth	4556 mm	5270 mm	4560 mm	5275 mm
E	Max. digging depth of cut for 2.44 m level	5550 mm	6085 mm	5555 mm	6095 mm
F	Max. digging reach	9415 mm	9935 mm	9415 mm	9935 mm
G	Max. digging reach at ground level	9220 mm	9750 mm	9220 mm	9750 mm
H	Min. swing radius	2800 mm	2645 mm	2800 mm	2645 mm
	Bucket digging force	171 kN / 17400 kgf	146 kN / 14900 kgf	171 kN / 17400 kgf	146 kN / 14900 kgf
	Bucket digging force at power max.	183 kN / 18700 kgf	159 kN / 16200 kgf	183 kN / 18700 kgf	159 kN / 16200 kgf
	Arm crowd force	127 kN / 13000 kgf	106 kN / 10800 kgf	127 kN / 13000 kgf	106 kN / 10800 kgf
	Arm crowd force at power max.	136 kN / 13900 kgf	116 kN / 11800 kgf	136 kN / 13900 kgf	116 kN / 11800 kgf

Lifting capacity

Mono boom

PC220LC/LCi-12



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 / B		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m	
2400 mm	7.5 m	kg	*5980	*5980								
	6.0 m	kg	*5610	5020			*6720	5990	*6100	*6100		
	4.5 m	kg	*5590	4160			*7300	5810	*8540	*8540	*11020	*11020
	3.0 m	kg	5620	3760	5950	3980	*8290	5540	*10780	8400		
	1.5 m	kg	5440	3620	5830	3860	8150	5290	*12660	7880		
	0.0 m	kg	5610	3700	5750	3790	7960	5120	12610	7650		
	-1.5 m	kg	6220	4080			7910	5080	12570	7620	*13460	*13460
	-3.0 m	kg	7760	5030			8030	5180	*12040	7750	*16610	15100
	-4.5 m	kg										

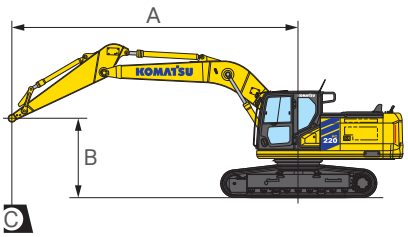
Arm length	A / B		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m	
2925 mm	7.5 m	kg	*3900	*3900			*4500	*4500				
	6.0 m	kg	*3650	*3650			*6000	*6000				
	4.5 m	kg	*3600	*3600	*5650	4100	*6700	5850	*7250	*7250		
	3.0 m	kg	*3700	3400	5950	3950	*7750	5550	*9900	8550		
	1.5 m	kg	*4000	3250	5800	3850	8150	5300	*12000	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
	-3.0 m	kg	6600	4300			7900	5050	*12550	7600	*17850	14850
	-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.

Lifting capacity

Mono boom

PC220NLC/NLCi-12



A – Reach from swing center

B – Bucket hook height

C – Lifting capacities

– Rating over front

– Rating over side

– Rating at maximum reach

With 500 mm shoes

Arm length	A / B		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m	
2400 mm	7.5 m	kg	*6850	5850								
	6.0 m	kg	*6800	4150			*6700	4950	*6100	*6100		
	4.5 m	kg	5950	3400			*7300	4800	*8550	7450	*11100	*11100
	3.0 m	kg	5400	3050	5700	3250	8150	4550	*10800	6800		
	1.5 m	kg	5250	2950	5600	3150	7850	4300	12400	6350		
	0.0 m	kg	5400	3000	5500	3050	7650	4150	12150	6100		
	-1.5 m	kg	6000	3300			7600	4100	12100	6100	*13500	11450
	-3.0 m	kg	7450	4100			7700	4200	*12050	6200	*16600	11700
	-4.5 m	kg										

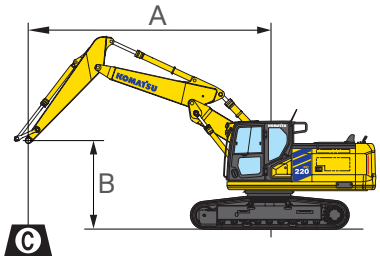
Arm length	A / B		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m	
2925 mm	7.5 m	kg	*4800	*4800			*5550	5100				
	6.0 m	kg	*4500	3650			*6000	5050				
	4.5 m	kg	*4450	3050	5900	3400	*6750	4850	*7650	7600		
	3.0 m	kg	*4600	2750	5750	3250	*7800	4600	*9950	6950		
	1.5 m	kg	4750	2650	5600	3150	7900	4300	*12050	6400		
	0.0 m	kg	4850	2700	5500	3050	7650	4100	12150	6100	*7500	*7500
	-1.5 m	kg	5300	2950	5450	3000	7550	4050	12000	6000	*12300	11200
	-3.0 m	kg	6400	3500			7600	4100	12100	6050	*17850	11400
	-4.5 m	kg	*8200	5000					*10250	6300	*14350	11850

*7750	*7750
*12750	*12750

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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.

Lifting capacity

Two-piece boom



A – Reach from swing center

B – Bucket hook height

C – Lifting capacities

– Rating over front

– Rating over side

– Rating at maximum reach

PC220LC-12

With 600 mm shoes

Arm length	A / B		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m	
2400 mm	9.0 m	kg	*7600	*7600								
	7.5 m	kg	*5900	*5900					*7600	*7600		
	6.0 m	kg	*5400	4700			*6100	5800	*7750	*7750		
	4.5 m	kg	*5150	3900			*6400	5600	*8750	*8750		
	3.0 m	kg	*5000	3500	*5250	3800	*6950	5300	*10950	8050		
	1.5 m	kg	*5100	3400	*5500	3650	*7700	5000	12550	7500		
	0.0 m	kg	5400	3500	5600	3600	7750	4850	12250	7250		
	-1.5 m	kg	6050	3900			7750	4850	*11000	7300	*12900	*12900
	-3.0 m	kg										
2925 mm	9.0 m	kg	*4550	*4550								
	7.5 m	kg	*3700	*3700			*4950	*4950	*6700	*6700		
	6.0 m	kg	*3400	*3400			*5750	*5750	*7050	*7050		
	4.5 m	kg	*3300	*3300	*4800	3950	*6050	5700	*8100	*8100	*10750	*10750
	3.0 m	kg	*3350	3150	*5000	3800	*6600	5350	*9950	8250		
	1.5 m	kg	*3550	3050	*5250	3650	*7350	5050	12650	7600		
	0.0 m	kg	*3900	3150	*5500	3550	7750	4850	12250	7250	*6900	*6900
	-1.5 m	kg	*4550	3450	5550	3550	7650	4800	*11700	7200	*11800	*11800
	-3.0 m	kg	*5150	4150			*6850	4900	*9200	7350		

PC220NLC-12

With 500 mm shoes

Arm length	A / B		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m	
2400 mm	9.0 m	kg	*7600	*7600								
	7.5 m	kg	*6100	5450					*7600	*7600		
	6.0 m	kg	*5550	3850			*6100	4800	*7750	7750		
	4.5 m	kg	*5150	3150			*6400	4600	*8750	7200		
	3.0 m	kg	*5000	2850	*5250	3050	*6950	4300	*10950	6500		
	1.5 m	kg	5050	2750	5450	2950	7650	4050	12100	5950		
	0.0 m	kg	5200	2800	5400	2900	7450	3900	11850	5750		
	-1.5 m	kg	5800	3100			7450	3900	*11100	5750	*12950	11000
	-3.0 m	kg										
2925 mm	9.0 m	kg	*4550	*4550								
	7.5 m	kg	*3700	*3700			*4950	4900	*6700	*6700		
	6.0 m	kg	*3400	3350			*5750	4900	*7050	*7050		
	4.5 m	kg	*3300	2800	*4800	3200	*6050	4700	*8100	7400	*10750	*10750
	3.0 m	kg	*3350	2550	*5000	3050	*6600	4350	*9950	6650		
	1.5 m	kg	*3550	2450	*5250	2950	*7350	4050	12200	6050		
	0.0 m	kg	*3900	2500	5350	2850	7450	3850	11800	5700	*6900	*6900
	-1.5 m	kg	*4550	2750	5350	2850	7400	3800	*11700	5650	*11800	10700
	-3.0 m	kg	*5150	3300			*6850	3900	*9200	5800		

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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.

Max. bucket capacity and weight	Mono boom			
	PC220LC/LCi-12		PC220NLC/NLCi-12	
Arm length	**2.4 m**	**2.9 m**	**2.4 m**	**2.9 m**
Material density up to 1.2 t/m³	1.92 m³ 1318 kg	1.70 m³ 1206 kg	1.70 m³ 1159 kg	1.54 m³ 1004 kg
Material density up to 1.5 t/m³	1.63 m³ 1169 kg	1.45 m³ 1073 kg	1.44 m³ 1037 kg	1.29 m³ 921 kg
Material density up to 1.8 t/m³	1.42 m³ 1058 kg	1.26 m³ 975 kg	1.25 m³ 947 kg	1.11 m³ 853 kg

Max. bucket capacity and weight	Two-piece boom			
	PC220LC-12		PC220NLC-12	
Arm length	**2.4 m**	**2.9 m**	**2.4 m**	**2.9 m**
Material density up to 1.2 t/m³	1.79 m³ 1251 kg	1.59 m³ 1145 kg	1.53 m³ 1115 kg	1.33 m³ 1009 kg
Material density up to 1.5 t/m³	1.53 m³ 1112 kg	1.35 m³ 1021 kg	1.30 m³ 997 kg	1.13 m³ 906 kg
Material density up to 1.8 t/m³	1.33 m³ 1009 kg	1.18 m³ 930 kg	1.13 m³ 909 kg	0.98 m³ 830 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.

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/NLCi-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	○
Ergonomic arm rests	○
Rain visor (not with OPG)	○

Undercarriage

Track roller guards	●
Track frame under-guards	●
In cab undercarriage direction indicator	●
500, 600, 700, 800, 900 mm triple grouser shoes	○
600 mm double grouser shoes	○
600 mm road-liner 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	○
Human detection system with auto-stop	○

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	●
Two-piece boom (PC220LC/NLC-12)	○
iMC 3.0 upgrade kit (PC220LC/NLC-12)	○
Arm ICT harness for tiltrotator integration (PC220LC/NLC-12)	○
IMU sensor kit for tilt bucket integration (PC220LCi/NLCi-12)	○
Bucket linkage with lifting eye	○
2400 mm arm	○
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) (PC220LC/LCi-12 only)	○
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.

Your Komatsu partner:

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