

PC230NHD-8

ENGINE POWER 116 kW / 156 HP @ 2.000 rpm

OPERATING WEIGHT

22.820 - 24.050 kg **BUCKET CAPACITY**

max. 1,58 m³

PC 230

Hydraulic Excavator



PC230NHD-8

ecot3

WALK-AROUND

A unique machine with unrivalled benefits

The PC230NHD-8 is a rugged, productive, all-European machine. Designed and expressly built for European markets, it delivers outstanding productivity, reliability and operator comforts in a robust, environmentally friendly package. Komatsu's exclusive, on-board, HydrauMind system assists in all operations, providing enhanced machine performance that's always perfectly matched to the task.



Effective fuel management

Improved fuel consumption

Through total Komatsu development and control of the engine, hydraulic and electrical systems.

Up to 10% improvement!

ENGINE POWER 116 kW / 156 HP @ 2.000 rpm

OPERATING WEIGHT 22.820 - 24.050 kg

BUCKET CAPACITY max. 1,58 m³

Total operator comfort

Low-noise cab

Operator ear noise is as low as an average passenger car.

Large TFT monitor

Improved operator interface through Komatsudeveloped information technology. (TFT: Thin Film Transistor)



HD undercarriage

Lateral stability has been improved and the lifting capacity has increased (compared to the PC210-8).



Protecting the environment

The Komatsu SAA6D107E-1 engine meets EU Stage IIIA and EPA Tier III emission regulations.

29% NOx reduction.

TOTAL OPERATOR COMFORT

Wide, spacious cab

The newly designed, wide and spacious cab includes a heated air suspension seat with reclining backrest. The seat height and longitudinal inclination are easily adjusted using a pull-up lever. You can also set the operational posture of the armrest and the position of the console to suit your needs. Reclining the seat further enables you to place it into the fully flat state with the headrest attached.

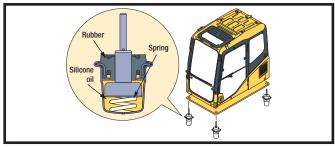
Low-noise design

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

Pressurised cab

An air conditioner and air filter are fitted as standard. Together with a higher internal air pressure (60 Pa), they reduce dust entry into the cab.





Low vibration with cab damper mounting

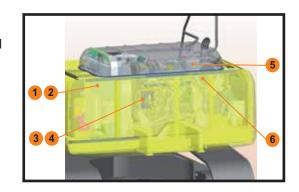
A multi-layer viscous mount system incorporates a longer stroke and the addition of a spring. The new cab damper mounting combined with a high-rigidity deck reduces vibration at the operator's seat.

Reduced noise levels

Low operating noise: -2 dB(A) compared to Dash 7

Reduced noise levels during operation due to low-noise engine and other developments.

- · Reduced fan speed (1)
- Large capacity radiator (2)
- Electronically controlled common rail engine (3)
- · Multi-staged injection (4)
- Sound insulation cover (5) around low noise muffler (6)
- · Optimal arrangement of sound-absorbing materials





Automatic air conditioner

Joysticks with proportional control button for attachments



Additional working lamps (option)

Hot and cool box



Bottle holder and magazine rack





12 Volt power supply



Radio



Quick-coupler piping



Large sun roof with integrated sun shade



Outer air filter Easy removal/installation of the air conditioner filter element, without tools facilitates cleaning.

TOTAL OPERATOR COMFORT

New, large TFT monitor

EMMS (Equipment Management and Monitoring System)

The EMMS is a highly sophisticated system, controlling and monitoring all the excavator functions. The user interface is highly intuitive and provides the operator with easy access to a huge range of functions and operating information.

Large multi-lingual TFT monitor

A large user-friendly color monitor enables safe, accurate and smooth work. Screen visibility is improved through a TFT liquid crystal display that can be easily read at various angles and in various lighting conditions.

- · Simple and easy-to-operate switches
- · Industry first function keys facilitate multi-function operations
- Displays data in 10 languages to support operators around the world

On-screen symbols

- 1 Auto deceleration
- 2 Working mode
- 3 Travel speed
- 4 Engine water temperature gauge
- 5 Hydraulic oil temperature gauge
- 6 Fuel level gauge
- 7 Eco-gauge
- 8 Function switch menu

Basic operation switches

- 1 Auto deceleration
- Working mode
- 3 Travel speed
- 4 Buzzer cancel
- 5 Window wiper
- 6 Window washer



Working mode	Application	Advantage		
Р	Power mode	Maximum production/power		
		Fast cycle times		
E	Economy mode	Excellent fuel economy		
В	Breaker mode	Optimum engine RPMs and hydraulic flow		
L	Lifting mode	Hydraulic pressure has been increased by 7%		
ATT	Attachment mode	Optimum engine RPMs, hydraulic flow, 2 way		



Monitor function

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



Maintenance function

The monitor indicates when the replacement interval has been reached for the oil and filters.

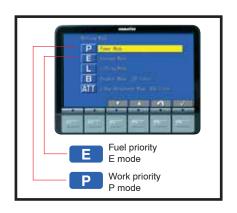


Fingertip hydraulic pump oil flow adjustment

From the LCD monitor, you can automatically select the optimal hydraulic pump oil flow for breaking, crushing and other operations in the B and ATT modes. In addition, the flow to the attachment is automatically reduced during simultaneous operation with other working equipment. This ensures smooth motion of all working equipment. Hydraulic pump oil flow adjustment for both attachment lines is now possible.



EFFECTIVE FUEL MANAGEMENT



Working modes

Two established work modes are further improved.

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

E mode - Economy or fuel priority mode further reduces fuel consumption, but maintains P mode-like working speed for light operations.

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



Eco-gauge assists energy-saving operations

The Eco-gauge can be seen on the right hand side of the monitor. Working within the green range for environmentally friendly, energy-saving operations reduces CO₂ emissions and fuel consumption.

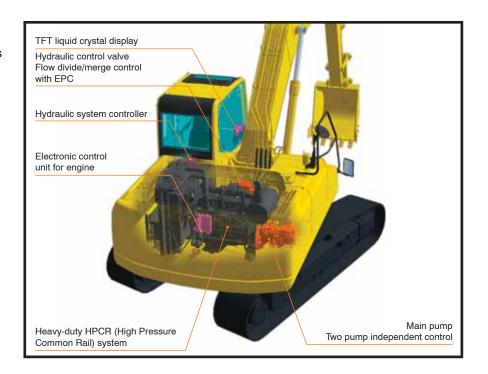


Idle caution

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

Reliable components

All of the major machine components (such as the engine, hydraulic pump, hydraulic motor and control valves) are designed and manufactured by Komatsu. This guarantees that each component is expressly built for the class and model of machine. This ensures that the engineering, manufacturing standards and testing that go into each component are 'totally Komatsu'.



PROTECTING THE ENVIRONMENT

New ECOT3 engine



The new PC230NHD-8 offers up to 10% fuel savings over Dash 7 machines

With its newly developed Komatsu ECOT3 engine, the PC230NHD-8 significantly reduces hourly fuel consumption through highly efficient techniques for matching the engine and hydraulic unit. It also includes a number of features to promote energy-saving operation such as the variable E mode and Eco-gauge. The Komatsu SAA6D107E-1 engine meets EPA Tier III, and EU Stage IIIA emissions regulations and reduces NOx emissions by 29% compared with Dash 7.



Komatsu SAA6D107E-1

Diesel particulate filter (option)

Removes particulate matter from exhaust emissions. Essential in many urban applications.

Easy end-of-life recycling

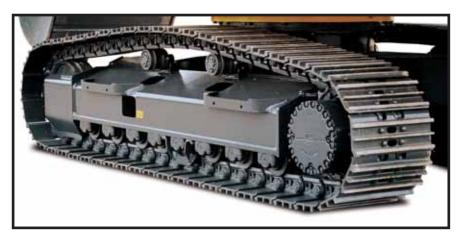
The PC230NHD-8 is designed with the consideration of end-of-life recycling, effectively reducing its environmental impact.

- · All exterior parts are made of steel.
- Extended engine oil, hydraulic oil and filter replacement intervals reduce environmental impact.
- · All plastic parts are given a material code symbol.

HEAVY DUTY UNDERCARRIAGE

Bigger, heavier and sturdy undercarriage structure

The PC230NHD-8 is a unique configuration. It has a bigger and heavier undercarriage than the standard 210NLC-8 specifically designed for jobs in severe duty ground conditions. The PC230NHD-8 has a narrow gauge (shipping width 2,5 m) for easy transport, and is intended for mountainous and other areas requiring an extra strong undercarriage. The revolving frame, centre frame and undercarriage have been designed using the most advanced threedimensional computer aided design (CAD) and FEM (Finite Elements Modelling) analysis technology.



REVOLUTIONARY MACHINE MANAGEMENT



The Komatsu Tracking System, KOMTRAX™, provides a revolutionary new way to monitor your equipment, anytime, anywhere. It lets you pin-point the precise location of your machines and obtain real-time machine data. Using GPS location and communication satellite technology, it's designed to be future proof and will meet your demands today and tomorrow.

Komtrax will help you to answer the three most important questions you have about your machine:

- · Is the machine making money
- · Is the machine safe
- · Is the machine in good health

For more details, please ask your distributor for a copy of the Komtrax brochure.



Annual working hour record



Caution and periodic maintenance



Working record (fuel level, hours etc.)



There are certain countries where KOMTRAX™ is not yet available, please contact your distributor when you want to activate the system. Komtrax will not operate if the satellite signal is blocked or obscured.

COMPLETE SAFETY

New, safe SpaceCab™

Specifically developed for Komatsu excavators, the new cab is designed with a tubular steel frame. The framework provides high durability and impact resistance with very high impact absorbancy. The seat belt keeps the operator in the safety zone of the cab in the event of a roll over.











Rear view camera system standard





Anti-slip plates

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



Thermal and fan guards

Placed around high-temperature parts of the engine. The fan belt and pulleys are well protected.



Pump/engine room partition

Prevents hydraulic oil from spraying onto the engine to reduce the risk of fire.





Lock lever

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



Arm safety valve

(optional)









Large side-view, rear, and sidewise mirrors

Enlarged left-side mirror and addition of rear and side mirror allow the machine to meet the new ISO visibility requirements.

Auto shut-off refuel pump

The new auto shut-off refuel pump prevents fuel spills onto hot or electrical areas, and prevents wasting fuel.

MAINTENANCE FEATURES

Side-by-side cooling

Since the radiator, aftercooler and oil cooler are arranged in parallel, it is easy to clean, remove and install them.

Easy access to the engine oil filter and fuel drain valve

The engine oil filter and fuel drain valve are mounted remotely to improve accessibility.

Gas-assisted engine hood damper cylinders

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









Water separator

This is standard equipment which removes any water that has become mixed with the



fuel, preventing fuel system damage.

Washable floor

The floor is easy to keep clean.

The gently inclined surface has a
flanged floormat and drainage holes
to facilitate runoff.

Inclined track frame

The track frame is sloped so that dirt will not accumulate and can be removed easily.

Long-life oil filters

The hydraulic oil filter uses high-performance filtering material for long

element replacement intervals, which significantly reduces maintenance costs.





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.

SPECIFICATIONS



FNGINE

Model
Engine power
at rated engine speed2.000 rpm
ISO 14396116 kW / 156 HP
ISO 9249 (net engine power)110 kW / 148 HP
No. of cylinders6
Bore × stroke
Displacement
Battery
Alternator
Starter motor24 V/5,5 kW
Air filter type Double element type with
monitor panel dust indicator and auto dust evacuator
CoolingSuction type cooling fan with radiator fly screen



HYDRAULIC SYSTEM



ENVIRONMENT

Engine emissions	Fully complies with EU Stage IIIA
	and EPA Tier III exhaust emission regulations
Noise levels	
LwA external	102 dB(A) (2000/14/EC Stage II)
LpA operator ear	69 dB(A) (ISO 6396 dynamic test)



SWING SYSTEM

Туре	Axial piston motor driving through
	planetary double reduction gearbox
Swing lock	. Electrically actuated wet multi-disc
	brake integrated into swing motor
Swing speed	0 - 12,4 rpm
Swing torque	68 kNm
Max pressure	295 bar



DRIVES AND BRAKES

Steering control	2 levers with pedals giving
-	full independent control of each track
Drive method	Hydrostatic
Travel operation	Automatic 3-speed selection
Gradeability	70%, 35°
Max. travel speeds	
Lo / Mi / Hi	2,6 / 3,6 / 5,4 km/h
Maximum drawbar pull	20.570 kg
Brake system	Hydraulically operated discs
	in each travel motor



UNDERCARRIAGE

Construction	X-frame centre section
	with box section track frames
Track assembly	
Туре	Fully sealed
Shoes (each side)	47
Tension	Combined spring and hydraulic unit
Rollers	
Track rollers (each side)	8
Carrier rollers (each side)	2



COOLANT AND LUBRICANT CAPACITY (REFILLING)

Fuel tank	325,0 ltr
Radiator	20,4 ltr
Engine oil	23,1 ltr
Swing drive	6,6 ltr
Hydraulic tank	137,0 ltr
Final drive (each side)	4,5 ltr



OPERATING WEIGHT (APPR.)

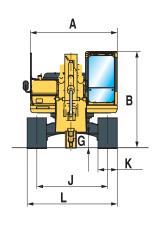
Operating weight including 2,9 m arm, 900 kg bucket, operator, lubricant, coolant, full fuel tank and the standard equipment.

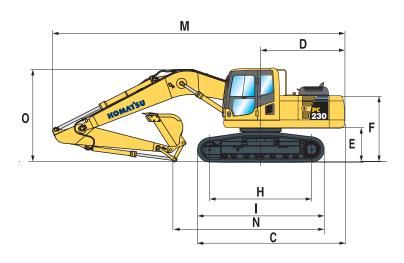
PC230NHD-8						
	MONO	BOOM	TWO-PIECE BOOM			
Triple grouser shoes	Operating weight	Ground pressure	Operating weight	Ground pressure		
550 mm	22.820 kg	0,56 kg/cm ²	24.050 kg	0,59 kg/cm ²		

MACHINE DIMENSIONS

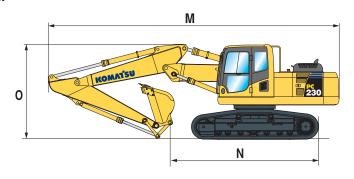
MA	CHINE DIMENSIONS	PC230NHD-8
Α	Overall width of upper structure	2.500 mm
В	Overall height of cab	3.060 mm
С	Overall length of basic machine	4.995 mm
D	Tail length	2.770 mm
	Tail swing radius	2.800 mm
Ε	Clearance under counterweight	1.125 mm
F	Machine tail height	2.135 mm
G	Ground clearance	465 mm
Н	Tumbler centre distance	3.460 mm
1	Track length	4.305 mm
J	Track gauge	1.990 mm
K	Track shoe width	550 mm
L	Overall track width with 550 mm shoe	2.540 mm

MONO BOOM





TWO-PIECE BOOM



ARM LENGTH		MONO BOOM			TWO-PIECE BOOM		
		1,8 m 2,4 m 2,9 m		1,8 m	2,4 m	2,9 m	
M	Transport length	9.540 mm	9.555 mm	9.485 mm	9.515 mm	9.420 mm	9.395 mm
N	Length on ground (transport)	6.385 mm	5.815 mm	4.930 mm	6.485 mm	6.065 mm	5.280 mm
0	Overall height (to top of boom)	2.985 mm	3.190 mm	2.970 mm	2.875 mm	3.100 mm	3.040 mm



BUCKET OPTIONS & DIGGING FORCES

Specifications and equipment may vary according to regional availability

BUCKET AND ARM CO	ARM LENGTH				
Width	Capacity SAE	Weight	1,8 m	2,4 m	2,9 m
600 mm	0,43 m³	570 kg	0	0	0
700 mm	0,525 m ³	605 kg	0	0	0
800 mm	0,63 m³	650 kg	0	0	0
900 mm	0,73 m³	690 kg	0	0	0
1.000 mm	0,84 m³	740 kg	0	0	0
1.100 mm	0,94 m³	820 kg	0	0	0
1.200 mm	1,05 m³	850 kg	0	0	0
1.300 mm	1,16 m³	880 kg	0	0	0
1.400 mm	1,26 m³	950 kg	0	0	0
1.500 mm	1,37 m³	1.000 kg	0	0	0
1.600 mm	1,49 m³	1.100 kg			
1.700 mm	1,58 m³	1.150 kg		_	_

Please consult with your distributor for the correct selection of buckets and attachments to suit the application. The recommendations are given as a guide only, based on typical operating conditions.

- $\begin{tabular}{ll} \circ & Material weight up to 1,8 t/m^3 \\ \Box & Material weight up to 1,5 t/m^3 \end{tabular}$
- \triangle Material weight up to 1,2 t/m³
- Not usable

A full range of Komatsu wear parts is available.

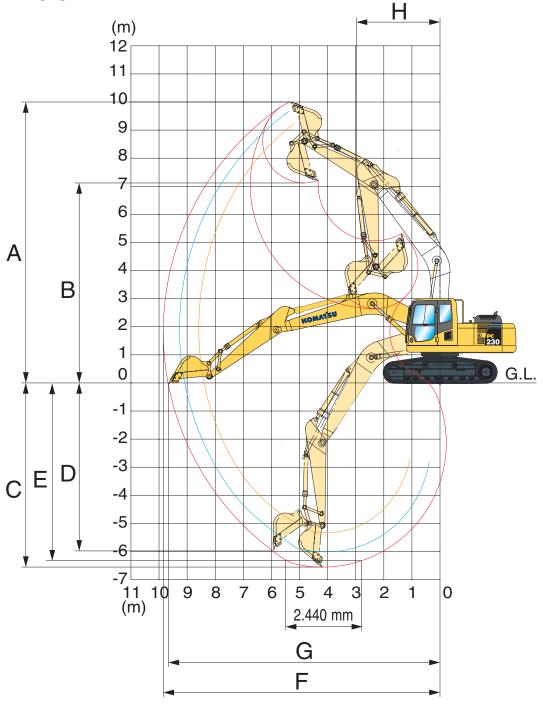
A wide range of attachments is available. Please consult your distributor for details of the full range.



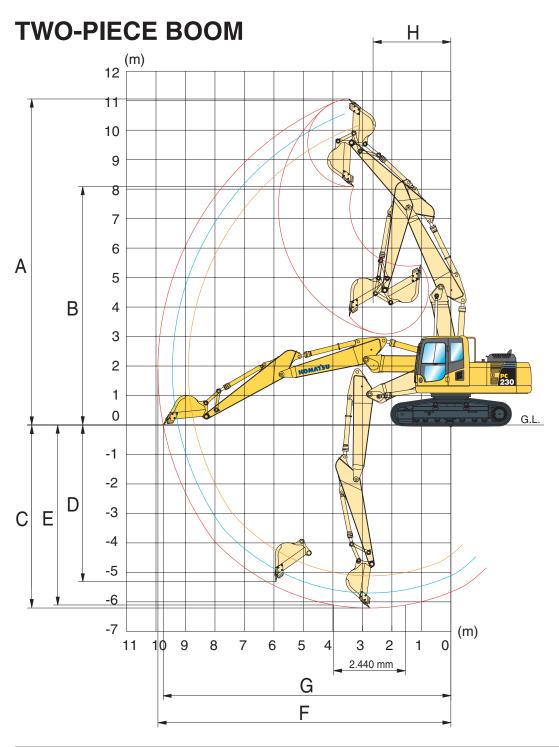
BUCKET AND ARM FORCE			
Arm length	1,8 m	2,4 m	2,9 m
Bucket digging force	16.500 kg	16.500 kg	14.100 kg
Bucket digging force at PowerMax	17.500 kg	17.500 kg	15.200 kg
Arm crowd force	13.800 kg	12.200 kg	10.300 kg
Arm crowd force at PowerMax	14.800 kg	13.000 kg	11.000 kg

WORKING RANGE

MONO BOOM



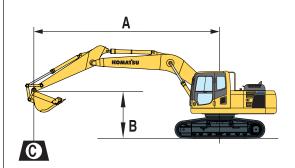
AR	M LENGTH	1,8 m	2,4 m	2,9 m
Α	Max. digging height	9.525 mm	9.825 mm	10.025 mm
В	Max. dumping height	6.655 mm	6.915 mm	7.135 mm
С	Max. digging depth	5.355 mm	6.070 mm	6.595 mm
D	Max. vertical wall digging depth	4.605 mm	5.405 mm	5.955 mm
Ε	Max. digging depth of cut for 2,44 m level	5.105 mm	5.755 mm	6.345 mm
F	Max. digging reach	8.850 mm	9.380 mm	9.875 mm
G	Max. digging reach at ground level	8.660 mm	9.190 mm	9.700 mm
Н	Min. swing radius	3.010 mm	3.090 mm	3.040 mm



AR	M LENGTH	1,8 m	2,4 m	2,9 m	
Α	Max. digging height	10.285 mm	10.685 mm	11.085 mm	
В	Max. dumping height	7.320 mm	7.720 mm	8.115 mm	
С	Max. digging depth	5.095 mm	5.675 mm	6.185 mm	
D	Max. vertical wall digging depth	4.015 mm	4.720 mm	5.225 mm	
E	Max. digging depth of cut for 2,44 m level	4.975 mm	5.565 mm	6.080 mm	
F	Max. digging reach	8.900 mm	9.440 mm	9.935 mm	
G	Max. digging reach at ground level	8.695 mm	9.250 mm	9.750 mm	
Н	Min. swing radius	3.105 mm	2.890 mm	2.640 mm	

LIFTING CAPACITY

MONO BOOM



- A Reach from swing centre
- B Bucket hook height
- C Lifting capacities, including bucket (760 kg), bucket linkage (200 kg) and bucket cylinder (140 kg)

- Rating over front

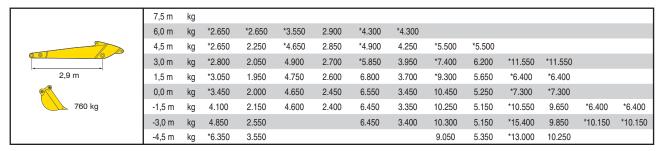
- Rating over side

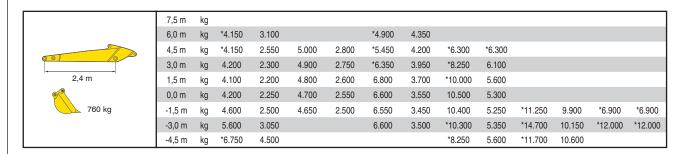
A - Rating at maximum reach

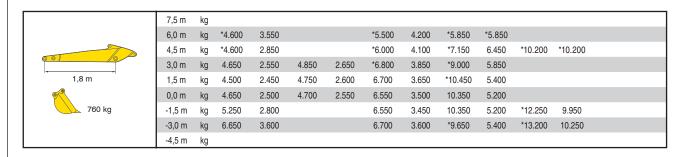
When removing bucket, linkage or cylinder, lifting capacities can be increased by their respective weights

With 550 mm shoes

	A		3	7,	5 m	6,0) m	4,	5 m	3,0) m	1,	5 m
Arm length	В	7	Ç≫	7	₽	7	₽	Ä	□ >=	Ä	<u></u>	Ä	□ >==

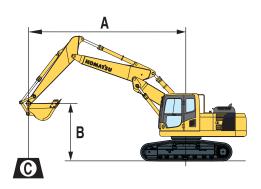






^{*} Load is limited by hydraulic capacity rather than tipping.
Ratings are based on SAE Standard No. J1097.
Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

TWO-PIECE BOOM



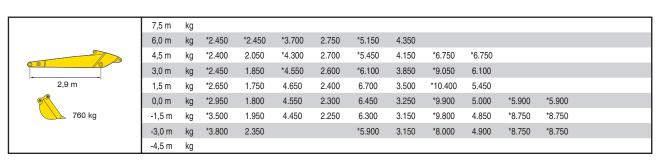
- A Reach from swing centre
- B Bucket hook height
- C Lifting capacities, including bucket (760 kg), bucket linkage (200 kg) and bucket cylinder (140 kg)
- $\frac{1}{4}$ Rating over front

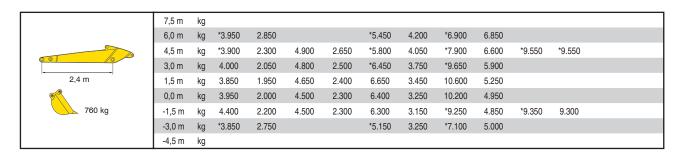
- Rating at maximum reach

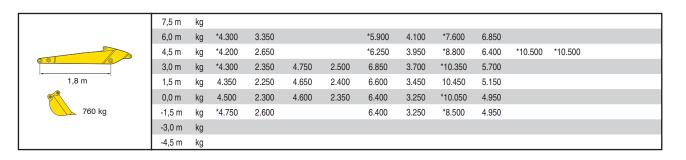
When removing bucket, linkage or cylinder, lifting capacities can be increased by their respective weights

With 550 mm shoes

	A		•	7,5	m	6,0) m	4,5	5 m	3,0) m	1,5	m
Arm length	В	7	₽	7	₽	7		Z	□ ==	7	□ >==	7	₽







^{*} Load is limited by hydraulic capacity rather than tipping.
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Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

HYDRAULIC EXCAVATOR

STANDARD EQUIPMENT

- Komatsu SAA6D107E-1, 116 kW turbocharged common rail direct injection diesel engine, EU Stage IIIA compliant
- Double element type air cleaner with dust indicator and auto dust evacuator
- Suction type cooling fan with radiator fly screen
- Automatic fuel line de-aeration
- Automatic engine warm-up system
- Engine overheat prevention system
- Fuel control dial
- Auto-deceleration function
- Engine key stop
- Alternator 24 V/60 A
- Batteries 2 × 12 V/140 Ah
- Starter motor 24 V/5,5 kW
- Electronic closed-centre load sensing (E-CLSS) hydraulic system (HydrauMind)
- Pump and engine mutual control (PEMC) system

- Multi-function video compatible colour monitor with equipment management monitoring system (EMMS) and efficiency guidance
- 5-working mode selection system;
 Power mode, economy mode,
 breaker mode, attachment mode
 and lifting mode
- PowerMax function
- Standard counterweight
- One additional 2-way proportional service valve (full flow)
- Hydrostatic, 3-speed travel system with automatic shift and planetary gear type final drives, and hydraulic travel and parking brakes
- Adjustable PPC wrist control levers with 3 button controls for arm, boom, bucket and swing
- PPC control levers and pedals for steering and travel
- KOMTRAX™ Komatsu Tracking System

- Reinforced safety SpaceCab™;
 Highly pressurised and tightly
 sealed hyper viscous mounted cab
 with tinted safety glass windows,
 large roof window with sun shade,
 pull-up type front window with
 locking device, removable lower
 window, front window wiper with
 intermittent feature, sun roller blind,
 cigarette lighter, ashtray, luggage
 shelf, floor mat
- Heated air suspension seat with lumbar support, height adjustable arm rests and retractable seat belt
- Automatic climate control system
- Rear view camera system
- 12 Volt power supply
- Beverage holder and magazine rack
- Hot and cool box
- Radio
- · Overload warning device
- Electric horn
- Audible travel alarm

- Track roller quards
- Track frame under-guards
- · Lockable fuel cap and covers
- Remote greasing for swing circle and pins
- · Auto shut-off refuel pump
- Boom safety valves
- Large handrails, rear-view mirrors
- Toolkit and spare parts for first service
- Lights; 2 revolving frame lights and 1 boom light
- · Quick-coupler piping
- Engine ignition can be password secured on request
- Standard colour scheme and decals
- Parts book and operator manual
- NHD undercarriage
- 550 mm triple grouser track-shoes

OPTIONAL EQUIPMENT

- 1,8 m; 2,4 m; 2,9 m arms
- Mono boom / Two-piece boom
- Additional hydraulic circuits
- Full length track roller guards
- Bucket linkage with lifting eye
- Arm safety valve
- OPG Level II front guard (FOPS)
- OPG Level II top guard (FOPS)
- Service points
- Additional working lamps, including cab roof lights, r.h. boom lamp, counterweight rear lamp and beacon
- Bio oil
- Lower wiper
- Rain visor (not with OPG)
- Komatsu buckets
- Komatsu breakers
- Komatsu quick couplersCustomised paint
- Automatic greasing system
- Diesel particulate filter

• Further equipment on request



Komatsu Europe International NV

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