

Gross: 270 kW 362 HP / 1900 min-1 Net: 257 kW 345 HP / 1900 min-1

OPERATING WEIGHT

PC450-8: 43400 - 43820 kg PC450LC-8: 44400 - 44850 kg

KOMATSU®

PC450-8 **PC450LC-8**

ecot3



WALK-AROUND

Productivity Features

 High Production and Low Fuel Consumption

High power, working performance and fuel efficiency improve production and fuel costs.

Excellent Machine Stability
 Large counterweight offers superior

Large counterweight offers superior machine stability and balance.

• Large Digging Force

Pressing the Power Max. function button temporarily increases the digging force 7%.

Two-mode Settings for Boom
 Switch selection allows either powerful digging or smooth boom operation.

 See page 5.

Large Liquid Crystal Display (LCD) Monitor

- Easy-to-see and use 7" large multifunction color monitor
- Can be displayed in 12 languages for global support.
- Equipped with the Equipment Management Monitoring System.

See page 8.

Safety Design

- ROPS cab (ISO 12117-2)
- · Slip-resistant plates for safe work on machine
- Rear view monitor system for easy checking behind the machine (Optional)

See page 7.



Ecology and Economy Features

- Low emission engine
 - A powerful turbocharged and air to air aftercooled Komatsu SAA6D125E-5 engine provides 257 kW 345 HP. This engine is U.S. EPA Tier 3 and EU Stage 3A emissions certified, without sacrificing power or machine productivity.
- Economy mode saves fuel consumption.
- Low operation noise

See pages 4 and 5.

HORSEPOWER

Gross: 270 kW 362 HP / 1900 min-1 Net: 257 kW 345 HP / 1900 min-1

OPERATING WEIGHT

PC450-8: 43400 – 43820 kg PC450LC-8: 44400 – 44850 kg

BUCKET CAPACITY

1.90 - 2.10 m³



Variable Track Gauge (Optional)

- Greatly increases lateral stability
- Compliant with transportation regulations

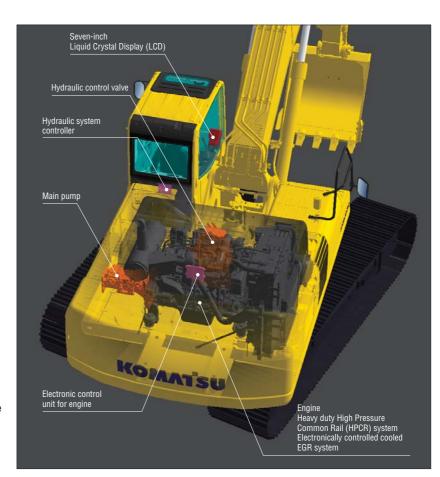
See page 5.

PRODUCTIVITY & ECOLOGY FEATURES

Komatsu Technology



Komatsu develops and produces all major components, such as engines, electronics and hydraulic components, in house. With this "Komatsu Technology" and adding customer feedback, Komatsu is achieving great advancements in technology. To achieve both high levels of productivity and economical performance, Komatsu has developed the main components with a total control system. The result is a new generation of high performance and environment friendly excavators.



Environment-friendly Clean Engine

The PC450-8 gets its exceptional power and work capacity from a Komatsu SAA6D125E-5 engine. Output is 257 kW 345 HP, providing increased hydraulic power and improved fuel efficiency. Komatsu SAA6D125E-5 engine is U.S. EPA Tier 3 and EU Stage 3A emissions certified with NOx emission reduced by 40%. The SAA6D125E-5 engine adopts the electronically controlled heavy duty High Pressure Common Rail (HPCR) fuel injection system and cooled EGR system with electronically controlled bypass-assist type venturi.

Low Operation Noise

Enables a low noise operation using the low-noise engine and methods to cut noise at source. Ambient noise meets the EU Stage 2 noise regulation.

Excellent Machine Stability

Large counterweight offers superior machine stability and balance.



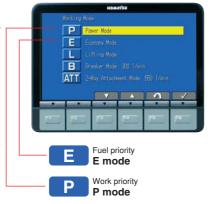


Working Modes Selectable

Two established work modes are further improved.

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

E mode – Economy or fuel priority mode further reduces fuel consumption, but



maintains the P-mode-like working equipment speed for light duty work.

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

ECO Gauge that Assists Energy-saving Operations

Equipped with the ECO gauge that can be recognized at a glance on the right of the multi-function color monitor for

environment-friendly energy-saving operations. Allows focus on operation in the green range with reduced CO₂ emissions and efficient fuel consumption.



ECO gauge

Idling Caution

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



Large Digging Force

With the one-touch Power Max. function digging force has been further increased. (8.5 seconds of operation)

Maximum arm crowd force (ISO 6015):

218 kN (22.2t) **233 kN (23.8t)** (With Power Max.)

7% UP

Maximum bucket digging force (ISO 6015):

259 kN (26.4t) **278 kN (28.3t)** (With Power Max.)

7% UP

Measured with Power Max function, 3380 mm arm and ISO 6015 rating

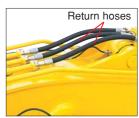
Variable Track Gauge (Optional)

- Lateral stability is significantly improved when operating with the gauge extended.
- Lateral stability is increased by 30% (Compared with the fixed gauge version).
- With trackframes retracted, overall width complies with many local transportation regulations.



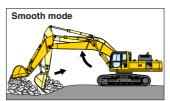
Smooth Loading Operation

Two return hoses improve hydraulic performance. In the arm out function, a portion of the oil is returned directly to the tank providing smooth operation.

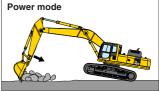


Two-mode Settings for Boom

Smooth mode provides easy operation for gathering blasted rock or scraping down operation. When maximum digging force is needed, switch to Power mode for more effective excavating.



Boom floats upward, reducing lifting of machine front. This facilitates gathering blasted rock and scraping down operations.



Boom pushing force is increased, ditch digging and box digging operation on hard ground are improved.

WORKING ENVIRONMENT

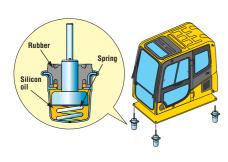


Low Cab Noise

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

Low Vibration with Cab Damper Mounting

PC450-8 uses viscous damper mounting for cab that incorporates longer stroke and the addition of a spring. The new cab damper mounting combined with high rigidity deck aids vibration reduction at operator seat.



Wide Newly-designed Cab

Newly-designed wide spacious cab includes seat with reclining backrest. The seat height and longitudinal inclination are easily adjusted using a pullup lever. You can set the appropriate operational posture of armrest together with the console. Reclining the seat further enables you to place it into the fully flat state with the headrest attached.



Pressurized Cab

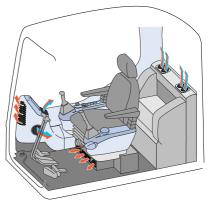
Optional air conditioner, air filter and a higher internal air pressure (+9.0 mm Aq) prevent external dust from entering the cab.

Automatic A/C (Optional)

Enables you to easily and precisely set cab atmosphere with the instru-



ments on the large LCD. The bi-level control function keeps the operator's head and feet cool and warm respectively. This improved air flow function keeps the inside of the cab comfortable throughout the year. Defroster function keeps front glass clear.



Safety Features

ROPS Cab

The machine is equipped with a ROPS cab that conforms to ISO 12117-2 for excavators as standard equipment. The ROPS cab has high shock-absorption performance, featuring excellent durability and impact strength. It also satisfies the requirements of OPG top guard level 1 (ISO 10262) for falling objects. Combined with the retractable seat belt, The ROPS cab protects the operator in case of tipping over and against falling objects.











Slip-resistant Plates

Highly durable slipresistant plates maintain superior traction performance for the long term.



Lock Lever

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



Pump/Engine Room Partition

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



Thermal and Fan Guards

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



Large Serrated Steps



Large Handrail

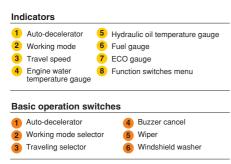


Large LCD Color Monitor

Large Multi-lingual LCD Monitor

A large user-friendly color monitor enables safe, accurate and smooth work. Improved screen visibility is achieved by the use of LCD that can easily be read at various angles and lighting conditions. Simple and easy to operate switches. Function keys facilitate multi-function operations. Displays data in 12 languages to globally support operators around the world.





Mode Selection

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

Working Mode Application		Advantage	
Р	Power mode	Maximum production/powerFast cycle time	
E	Economy mode	Excellent fuel economy	
L	Lifting mode	Hydraulic pressure is increased by 7%	
В	Breaker operation	 Optimum engine rpm, hydraulic flow 	
ATT	Attachment mode	 Optimum engine rpm, hydraulic flow, 2 way 	

Lifting Mode

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

Equipment Management Monitoring System

Monitor function

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



Maintenance function

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

Trouble data memory function

Monitor stores abnormalities for effective troubleshooting.



MAINTENANCE FEATURES

Easy Maintenance

Easy Access to Engine Oil Filter and Fuel Drain Valve

Engine oil dipstick and fill, and fuel filter are mounted on same side to improve accessibility. Fuel drain valve are remotely mounted to improve accessibility.





Fuel drain valve

High Pressure In-line Filter

In-line filters are provided at outlet port (Pressure side) of each pump to protect hydraulic system contamination.

In-line filters



Easy Radiator Cleaning

Since radiator and oil cooler are arranged side-by-side, it is easy to clean, remove and install them.

Equipped with Fuel Pre-filter (With Water Separator)

Removes water and contaminants in the fuel to prevent fuel problems.



Large Capacity Air Cleaner

Large capacity air cleaner is comparable to that of larger machines. The larger air cleaner can extend air cleaner life during long-term operation and prevents early clogging and resulting

power decrease. Reliability is improved by a new seal design.



Long-life Oil, Filter

Uses high-performance filtering materials and long-life oil. Extends the oil and filter replacement interval.



Hydraulic oil filter (ECO white element)

Engine oil &
Engine oil filter

every 500 hours every 5000 hours

Hydraulic oil every 5000 hours
Hydraulic oil filter every 1000 hours

Long Work Equipment Greasing Interval

High quality bushings and resin shims are optionally available for work equipment pins excluding bucket, extending greasing interval to 500 hours.

Large Fuel Tank Capacity

Large fuel tank capacity extends operating hours before refueling. Fuel tank is treated for rust prevention and improved corrosion resistance.



QUARRY HYDRAULIC EXCAVATOR

The PC450-8 is a specially designed for heavy-duty applications. The PC450-8 has strengthened work equipment and reinforced body parts for use in severe job sites such as quarry and gravel gathering, etc.

Cab with Two-piece Pull-up Window (Optional)



Fixed One-piece Laminated Front Window Glass

The front window is fixed and uses laminated safety glass to prevent scattering of glass fragments when broken.



Photo may include optional equipment.

Fixed Skylight and Sunshade





Dent Preventing Plates



Photo may include optional equipment.

Deck Guard



Strengthened Revolving Frame Underguard



Quarry Bucket

PC450-8 bucket is designed exclusively for quarry use and is higher strength for impact and wear. Various parts of work equipment are also strengthened.

Full Roller Guard



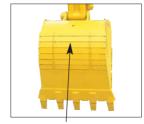
Side Reinforcement Plate 16 mm thickness high-tensile strength steel used.



Side Shrouds

O-ring Added

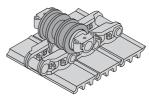
O-ring is added between bucket and linkage to prevent entrance of dirt.



Bottom Wear Plate
19 mm thickness high-tensile strength steel used.

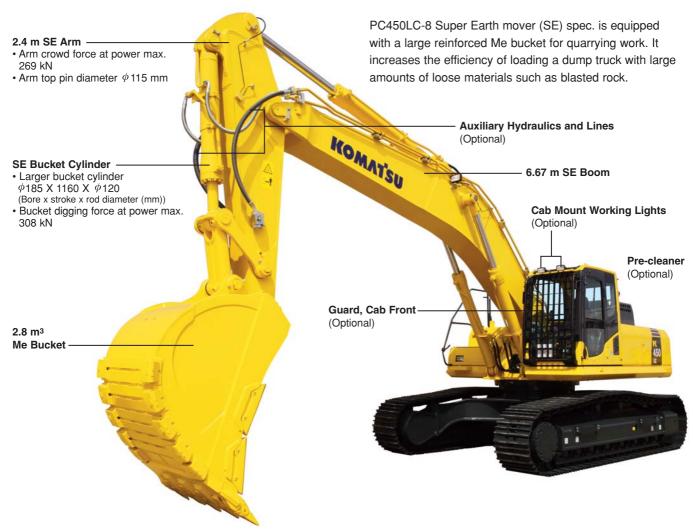


Double-flange Track Roller



PC450LC-8 4 each side

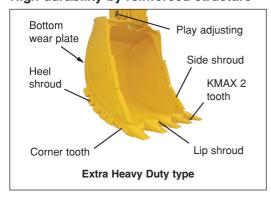
SUPER EARTH MOVER SPEC.



Me Bucket

(Me: More suitable shape and Effectiveness)

High durability by reinforced structure



Hammer-less locking system

To lock and unlock, use the correct size socket to rotate the pin locking shaft 90°.

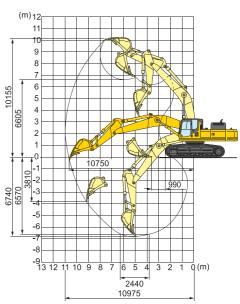


Bucket Specifications

Bucket opecifications						
Capacity (SAE J 296)	Width (mm)	Weight	Number	6670 mm SE Boom		
(m³)	With Side Shroud & Tooth	(kg)	of Tooth	2400 mm SE Arm		
2.8	1580	2360	5	0		
3.2	1730	2620	5			

[○] General purpose use, material density up to 1.8 ton/m³

Working Range



[☐] Light duty work, material density up to 1.5 ton/m³

SPECIFICATIONS



Model Komatsu SAA6D125E-5 Type Water-cooled, 4-cycle, direct injection Aspiration Turbocharged, aftercooled, cooled EGR Number of cylinders
Bore
Stroke
Piston displacement
Horsepower:
SAE J1995 Gross 270 kW 362 HP
ISO 9249 / SAE J1349 Net 257 kW 345 HP
Rated rpm
Fan drive type Mechanical
Governor

U.S. EPA Tier 3 and EU Stage 3A emissions certified.



HYDRAULICS

Type . . HydrauMind (Hydraulic Mechanical Intelligence New Design) system, closed-center system with load sensing valves and

pressure compensated valves
Number of selectable working modes
Main pump:
Type Variable displacement piston type
Pumps for Boom, arm, bucket, swing, and travel circuits
Maximum flow
Supply for control circuit Self-reducing valve
Hydraulic motors:
Travel 2 x axial piston motors with parking brake
Swing 1 x axial piston motor with swing holding brake
Relief valve setting:
Implement circuits

Travel circuit
Swing circuit
Pilot circuit 3.2 MPa 33 kg/cm ²
lydraulic cylinders:
Number of evlinders here y stroke y red diameter)

(N

V	umber of (cylinders – bore x stroke x rod diameter)		
	Boom	2-160 mm x 1570	mm x 110	mm
	Arm	1-185 mm x 1985	mm x 130	mm
	Bucket	1-160 mm x 1270	mm x 110	mm



Steering control Drive method		Hydrostatic
Maximum drawbar pull		330 kN 33700 kg
Gradeability		70%, 35°
Maximum travel speed:	High	5.5 km/h
(Auto-Shift)	$Mid\ldots\ldots\ldots$	4.0 km/h
(Auto-Shift)	Low	3.0 km/h
Service brake		Hydraulic lock
Parking brake		Mechanical disc brake



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	9 1 min-1



JNDERCARRIAGE

Center frame	
Seal of track	
Track adjuster	
Number of shoes (Each side):	·
PC450-8	46
PC450LC-8	49
Number of carrier rollers	2 each side
Number of track rollers (Each side):	
PC450-8	
PC450LC-8	8



COOLANT AND LUBRICANT CAPACITY (REFILLING)

Fuel tank	650 L
Coolant	36.0 L
Engine	37.0 L
Final drive (Each side)	10.5 L
Swing drive	20.0 L
Hydraulic tank	248 L



OPERATING WEIGHT (APPROXIMATE)

PC450/450LC-8: Operating weight including 7060 mm one-piece boom, 3380 mm arm, SAE J 296 heaped 1.90 m^3 bucket, rated capacity of lubricants, coolant, full fuel tank, operator, and standard equipment.

	PC450-8		PC450LC-8	
Shoes	Operating Weight	Ground Pressure	Operating Weight	Ground Pressure
600 mm	43400 kg	80.7 kPa 0.82 kg/cm ²	44400 kg	76.8 kPa 0.78 kg/cm ²
700 mm	43820 kg	69.9 kPa 0.71 kg/cm ²	44850 kg	66.5 kPa 0.68 kg/cm ²

DIMENSIONS

Model		PC450-8	PC450LC-8
Arm Length		3380 mm	
Α	Overall length	12040 mm	12040 mm
В	Length on ground	6560 mm	6725 mm
С	Overall height (To top of boom)*	3660 mm	3660 mm
D	Overall width	3430 mm	3430 mm
Е	Overall height (To top of cab)*	3285 mm	3285 mm
F	Ground clearance, counterweight	1320 mm	1320 mm
G	Ground clearance (Minimum)	555 mm	550 mm
Н	Tail swing radius	3645 mm	3645 mm
ı	Track length on ground	4020 mm	4350 mm
J	Track length	5055 mm	5385 mm
Κ	Track gauge	2740 mm	2740 mm
L	Width of crawler	3340 mm	3340 mm
М	Shoe width	600 mm	600 mm
N	Grouser height	37 mm	37 mm
0	Machine cab height	2920 mm	2920 mm
Р	Machine cab width	3165 mm	3165 mm
Q	Distance, swing center to rear end	3605 mm	3605 mm

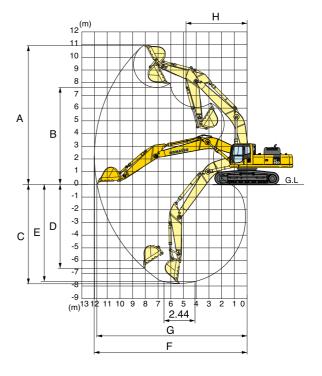
Α H,Q C, 0 F В М D,L

^{*} Including grouser height



WORKING RANGE

Model	PC450/450LC-8				
Boom Le	7060 mm				
Arm Len	Arm Length				
Α	Max. digging height	10925 mm			
В	Max. dumping height	7625 mm			
С	Max. digging depth	7790 mm			
D	Max. vertical wall digging depth	6600 mm			
E	Max. digging depth of cut for 2440 mm level	7650 mm			
F	Max. digging reach	12005 mm			
G	Max. digging reach at ground level	11800 mm			
Н	Min. swing radius	4805 mm			
SAE 1179	Bucket digging force at power max.	243 kN/24800 kg			
Rating	Arm crowed force at power max.	225 kN/22900 kg			
ISO 6015	Bucket digging force at power max.	278 kN/28300 kg			
Rating	Arm crowed force at power max.	233 kN/23800 kg			





BACKHOE BUCKET, ARM, AND BOOM COMBINATION

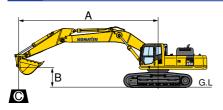
Bucket Capa	city (Heaped)	Width	Weight	Number	Arm Length m	
SAE J 296, PCSA m ³	CECE m³	With Side Shrouds mm	With Side Shrouds kg	of Teeth		
PC450/450LC-8 (Use with	3.38					
*1.90	1.70	1625	1966	5	0	
*2.10	1.90	1745	2035	5	0	

 [○] General purpose use, material density up to 1.8 ton/m³
 * Quarry bucket

PC450-8 HYDRAULIC EXCAVATOR



LIFTING CAPACITY WITH LIFTING MODE



- A: Reach from swing center
- B: Bucket hook height
- C: Lifting capacity
- Cf: Rating over front
- Cs: Rating over side

 ⊕: Rating at maximum reach

PC450-8	Arm: 3380 mm Bucket: 1.90 m³ SAE J 296 heaped Shoe: 600 mm triple grouser												
A	● MAX		9.0 m		7.5	7.5 m		6.0 m		4.5 m		3.0 m	
В	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
7.5 m	*6000 kg	5850 kg											
6.0 m	*6000 kg	4850 kg	8750 kg	5700 kg	*9600 kg	8200 kg							
4.5 m	*6200 kg	4250 kg	8550 kg	5500 kg	*10600 kg	7800 kg	*12800 kg	11500 kg					
3.0 m	6350 kg	3950 kg	8300 kg	5300 kg	11400 kg	7350 kg	*14950 kg	10650 kg	*20900 kg	16850 kg			
1.5 m	6200 kg	3800 kg	8000 kg	5050 kg	10900 kg	6900 kg	15850 kg	9950 kg	*17650 kg	15450 kg			
0 m	6350 kg	3850 kg	7800 kg	4850 kg	10550 kg	6600 kg	15300 kg	9450 kg	*17800 kg	14950 kg			
-1.5 m	6800 kg	4150 kg	7700 kg	4750 kg	10400 kg	6450 kg	15050 kg	9250 kg	*22950 kg	14950 kg			
-3.0 m	7750 kg	4800 kg	7750 kg	4750 kg	10400 kg	6450 kg	15100 kg	9300 kg	*20950 kg	15100 kg	*21700 kg	*21700 kg	
-4.5 m	*9100 kg	6050 kg			*10350 kg	6600 kg	*13750 kg	9500 kg	*17700 kg	15450 kg	*22350 kg	*22350 kg	
-6.0 m	*8050 kg	*8050 kg					*9450 kg	*9450 kg	*12600 kg	*12600 kg			

PC450LC-8	Arm: 3380 mm Bucket: 1.90 m³ SAE J 296 heaped Shoe: 600 mm triple grouser										•	
A	€ MAX		9.0 m		7.5 m		6.0 m		4.5 m		3.0 m	
В	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
7.5 m	*6000 kg	5950 kg										
6.0 m	*6000 kg	4950 kg	*8850 kg	5800 kg	*9600 kg	8350 kg						
4.5 m	*6200 kg	4350 kg	*9250 kg	5650 kg	*10600 kg	7950 kg	*12800 kg	11700 kg				
3.0 m	*6550 kg	4000 kg	9400 kg	5400 kg	*11750 kg	7500 kg	*14950 kg	10850 kg	*20900 kg	17150 kg		
1.5 m	7150 kg	3900 kg	9150 kg	5150 kg	12450 kg	7050 kg	*16650 kg	10100 kg	*17650 kg	15750 kg		
0 m	7300 kg	3950 kg	8950 kg	4950 kg	12100 kg	6750 kg	*17300 kg	9650 kg	*17800 kg	15200 kg		
-1.5 m	7800 kg	4250 kg	8850 kg	4850 kg	11900 kg	6600 kg	*17100 kg	9450 kg	*22950 kg	15200 kg		
-3.0 m	8900 kg	4900 kg	8850 kg	4900 kg	11900 kg	6550 kg	*16000 kg	9450 kg	*20950 kg	15400 kg	*21700 kg	*21700 kg
-4.5 m	*9100 kg	6200 kg		·	*10350 kg	6750 kg	*13750 kg	9650 kg	*17700 kg	15750 kg	*22350 kg	*22350 kg
-6.0 m	*8050 kg	*8050 kg					*9450 kg	*9450 kg	*12600 kg	*12600 kg		

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



STANDARD EQUIPMENT

- Alternator, 24 V/50 A
- · Auto-decelelator
- · Automatic engine warm-up system
- Batteries, 2 x 12 V/110 Ah
- · Boom holding valve
- · Corrosion resistor
- · Counterweight, 9220 kg
- · Dry type air cleaner, double element
- · Electric horn
- Engine, Komatsu SAA6D125E-5
- · Engine overheat prevention system
- · Fan guard structure
- · Fuel pre-filter (With water separator)

- · Hydraulic track adjusters (Each side)
- Long lubricating intervals for implement bushings
- · Multi-function color monitor
- · Power maximizing system
- Pressure Proportional Control (PPC) hydraulic control system
- · Radiator & oil cooler dust proof net
- Rear reflector
- · Rear view mirror (RH, LH)
- ROPS cab (ISO 12117-2)
- · Seat belt, retractable
- · Slip-resistant plates

- · Track roller
 - —PC450-8, 7 each side
 - -PC450LC-8, 8 each side
- Track roller guards (Full length)
- · Track shoe
 - --PC450-8, 600 mm triple grouser
- --PC450LC-8, 600 mm triple grouser
- · Travel alarm
- Two-mode settings for boom
- · Working light, 2 (Boom and RH)
- · Working mode selection system



OPTIONAL EQUIPMENT

- A/C with defroster, hot & cool box
- · Alternator, 24 V/60 A
- Arms (Backhoe)
- —PC450-8, PC450LC-8 3380 mm arm assembly
- —PC450LC-8 SE spec. 2400 mm SE arm assembly
- Batteries, 2 x 12 V/140 Ah
- Bolt-on top guard, OPG top guard level 2 (ISO 10262)
- · Booms (Backhoe)
 - —PC450-8, PC450LC-8 7060 mm boom assembly

- —PC450LC-8 SE spec. 6670 mm SE boom assembly
- Cab accessories
- -Rain visor
- —Sun visor
- Cab front guard
 - —Full height guard—Half height guard
- Heater with defroster
- Rear view mirror (Rear and sidewise)
- Rear view monitor system
- Seat, suspension
- · Seat, suspension with heater
- · Service valve

- · Shoes, triple grouser shoes
- —PC450-8
 - 700 mm
- —PC450LC-8 700 mm
- · Track frame undercover
- · Variable track gauge
- Working lights (2 on cab)



SPECIAL PURPOSE BUCKET

- · Ripper bucket for hard and rock ground
 - —Capacity
 - SAE J 296 heaped 1.10 m³
 - CECE heaped 1.00 m³
 - Width 1250 mm
- Single-shank ripper is recommended for rock-digging and crushing, hard soil digging, pavement removal works, etc.

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