

# KOMATSU®

## PC450LC-7

**PC**  
**450**

**FLYWHEEL HORSEPOWER**  
Net: 330 HP 246 kW @ 1850 RPM

**OPERATING WEIGHT**  
45,000 kg 99,210 lb

**BUCKET CAPACITY**  
2.6 – 3.1 m<sup>3</sup> (SAE)  
2.2 m<sup>3</sup> (SAE) - Iron Ore  
1.9 m<sup>3</sup> (SAE) - Granite



Photos may include optional equipment.

## Unmatched Productivity

- Powered by heavy duty Komatsu SAA6D125 diesel engine
- Active mode for fast cycle times & higher production
- Advanced CLSS hydraulics for fine control and quick working speeds
- **Two Boom Setting:** Smooth & Power modes can be toggled to change the operation depending on the application

See page 4.

## Excellent Durability

- High rigidity work equipment with cast end boom top
- Sturdy frame structure
- Reliable Komatsu manufactured major components

See page 7.

## Easy Maintenance

- Long replacement intervals of oils & filters
- Self-Diagnostic Monitor: The advanced Komatsu diagnostic system facilitates easy service by reducing diagnostic time and indicating components due for replacement/ maintenance
- Continuous Machine Monitoring System continuously monitors and checks all working parameters right from the engine ignition. The operator is alerted only in case of abnormalities, so that full concentration is ensured on the job

See page 9.

## Durable Components

- Reliable Komatsu major components
- Heavy duty Boom & Arm

See page 7.





**Total Versatility**

Range of buckets for different applications

**Comfortable Working Environment**

Low vibration with cab damper mounting  
Operator seat and console with armrest that enables operations in the appropriate posture

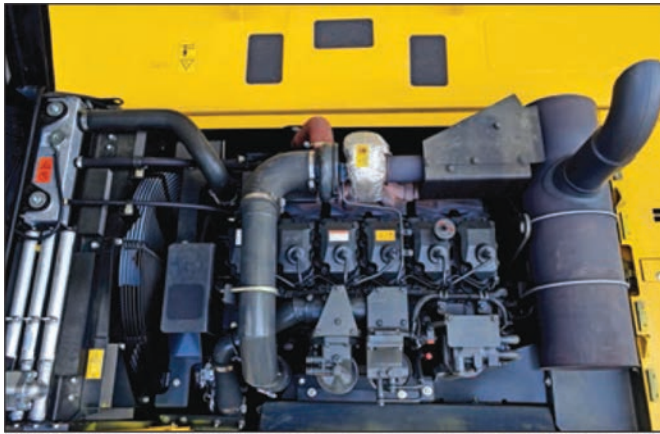
See page 6.



|                         |   |
|-------------------------|---|
| <b>HORSEPOWER</b>       | Net: 330 HP 246 kW @ 1850 RPM   |
| <b>OPERATING WEIGHT</b> | 45,000 kg   |
| <b>BUCKET CAPACITY</b>  | 2.6 – 3.1 m <sup>3</sup> (SAE)<br>2.2 m <sup>3</sup> (SAE) - Iron Ore<br>1.9 m <sup>3</sup> (SAE) - Granite |

## Electronically - Controlled High Power Engine

The 246 kW (330 HP) Komatsu SAA6D125E-3 engine is provided in Komatsu PC450LC-7 is the largest in its class. High power and low fuel consumption are achieved by optimizing fuel injection via electronic control. It is an environment friendly engine which complies with EPA, EU and Japan Tier-2 emission regulations.

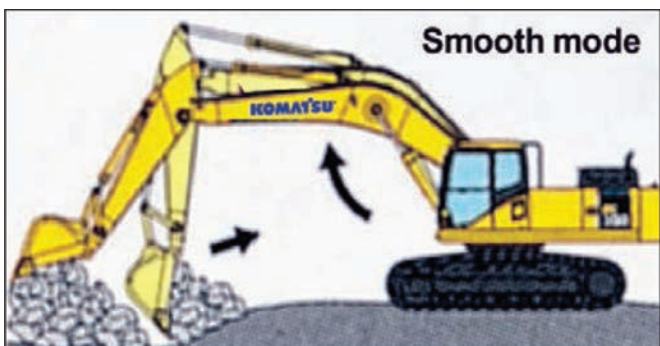


## Hydraulic System equipped with engine speed sensor

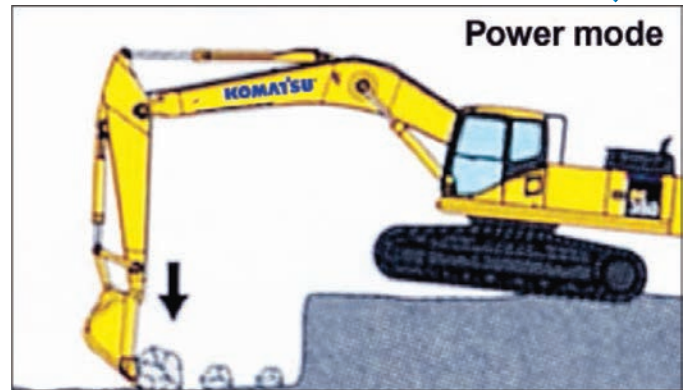
The pump is controlled by the engine speed sensor, so maximum horsepower is used at all times. This contributes to higher production and shorter cycle times.

## Two Boom Settings

**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, reduced 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.*

## High Production and Low Fuel Consumption

High production and low fuel consumption are achieved through the following operation modes:

### Active Mode 'A'

This mode handles large production by providing powerful and speedy operation, and achieves economic efficiency by substantial reduction in fuel consumption.

### Economy Mode 'E'

Operation speed equal to that of the Active mode can be achieved when handling light duty operation while also keeping low fuel consumption.

### Breaker Mode 'B'

Flow can be adjusted from the cab to match special attachment requirements.

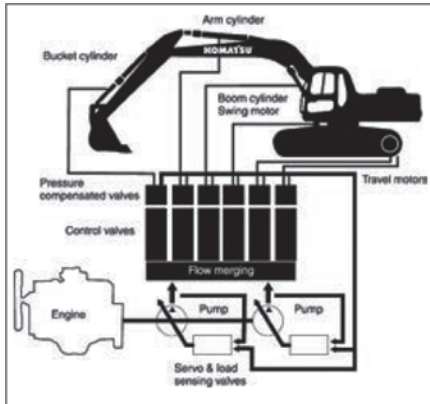
### Lifting Mode 'L'

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



# ADVANCED HYDRAULICS

## What is HydrauMind?



It's a technologically complex yet mechanically simple system which supervises the work operations of the excavator. Its strength lies in its simplicity.

The system incorporates many major breakthroughs and has earned Komatsu almost 200 patents.

## What are the benefits of the HydrauMind?

Power, versatility, manoeuvrability, control stability – you name it. Never has an excavator been so easy to operate, so natural, so intuitive. In a sense, you don't really operate it at all, you wear it.

*For example, when the ground condition changes in digging...*

You don't have to think about changing your lever strokes because the HydrauMind instantly, silently, automatically sends just the right amount of oil to the actuators at just the right pressure to accommodate the change.

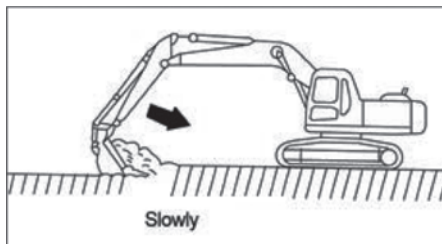
When you move the boom, arm and bucket at the same time...

All the equipment works organically with the optimum combination of speed and power as if it were a human hand.

The HydrauMind also makes it easy to change or add valves and work equipment. Moreover, because the system is hydraulic and not electronic, it ensures the best service availability in the industry.

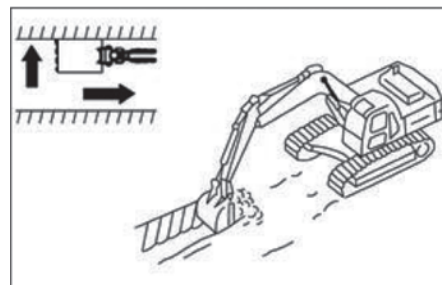
## The HydrauMind System Makes Everything Easier

**It is easier to fully load the buckets.**



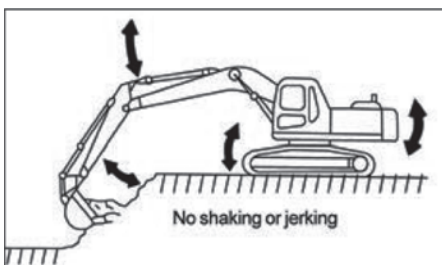
During simultaneous operations, the work equipment moves slowly at maximum power, without being influenced by the other actuators, so it is easy to fully load the bucket.

**It is easy to carry out digging work along the face of walls**



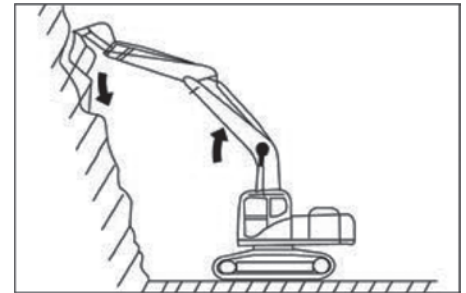
Lateral power pushing is powerful, allowing digging operation to be carried out efficiently.

**The machine can carry out operations easily without any undue chassis vibration**



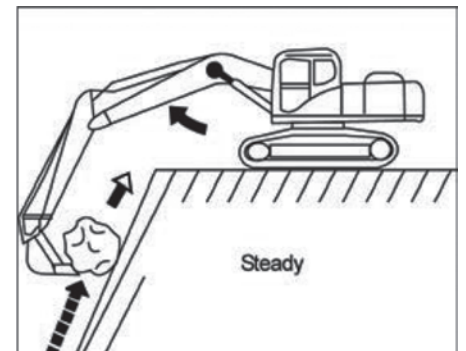
During simultaneous operations, there is no change in the work equipment speed caused by change in load. Thus, there is minimal chassis vibration.

**It is easy to scrape down**



Even without operating the lever to the maximum position, maximum digging power can be obtained, making it possible to carry out slow control.

**It is easy to dig soft rock or dig up boulders**



It is easy to control the boom RAISE, so the cutting edge does not deviate from the boulders



# SPECIFICATIONS



## ENGINE

Model .....Komatsu SAA6D125E-3  
 Type.....Water-cooled, 4 cycle, direct injection  
 Aspiration.....Turbocharged, after-cooled  
 Number of cylinders.....6  
 Bore.....125 mm 4.92"  
 Stroke.....150 mm 5.91"  
 Piston displacement.....11.04 ltr 674 cu.in  
 Flywheel Horse Power:  
 ISO9249/SAE J1349.....Gross **347 HP** 259 kW  
 .....Net **330 HP** 246 kW  
 Reted rpm.....1850 rpm  
 Governor.....All-speed control, electronic  
 Meets 2001 EPA, EU, and Japan Tier-2 emission regulations.



## 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 .....4  
 Main Pump:  
 Type .....Variable displacement piston type  
 Pumps for..... Boom, arm, bucket, swing, and travel circuits  
 Maximum flow .....**690 ltr/min** 182 US gal/min  
 Supply for control circuit .....Self-reducing valve  
 Hydraulic motors:  
 Travel .....2 x axial piston motor with parking brake  
 Swing .....1 x axial piston motor with swing holding brake  
 Relief valve setting:  
 Implement circuits .....**37.3 MPa** 380 kgf/cm<sup>2</sup> 5,400 psi  
 Travel circuit .....**37.3 MPa** 380 kgf/cm<sup>2</sup> 5,400 psi  
 Swing circuit .....**27.9 MPa** 285 kgf/cm<sup>2</sup> 4,050 psi  
 Pilot circuit .....**3.2 MPa** 33 kgf/cm<sup>2</sup> 470 psi  
 Hydraulic cylinders:  
 (Number of cylinders – bore x stroke x rod diameter)  
 Boom .....2 – 160 mm x 1570 mm x 110 mm  
 Arm .....1 – 185 mm x 1820 mm x 120 mm  
 Bucket .....1 – 185 mm x 1160 mm x 120 mm  
 1.9 m<sup>3</sup> Buck.....1 – 160 mm x 1270 mm x 110 mm



## DRIVES AND BRAKES

Steering control .....Two levers with pedals  
 Drive method .....Hydrostatic  
 Maximum drawbar pull .....**329 kN** 33510 kgf 73,880 lb  
 Gradeability .....70%, 35°  
 Maximum travel speed: High .....**5.5 km/h** 3.4 mph  
 (Auto-Shift) Low.....**3.0 km/h** 1.9 mph  
 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 .....9.0 rpm



## UNDERCARRIAGE

Center frame .....X-frame  
 Track frame .....Box-section  
 Seal of track .....Sealed track  
 Track adjuster .....Hydraulic  
 Number of shoes (each side) .....49  
 Number of carrier rollers .....2 each side  
 Number of track rollers (each side) .....8



## COOLANT AND LUBRICANT

Fuel tank .....**650 ltr** 172 U.S. gal  
 Coolant .....**34.2 ltr** 9.0 U.S. gal  
 Engine .....**38.0 ltr** 10.0 U.S. gal  
 Final drive, each side .....**12.0 ltr** 3.2 U.S. gal  
 Swing drive .....**16.2 ltr** 4.3 U.S. gal  
 Hydraulic tank .....**248 ltr** 65.5 U.S. gal



## OPERATING WEIGHT

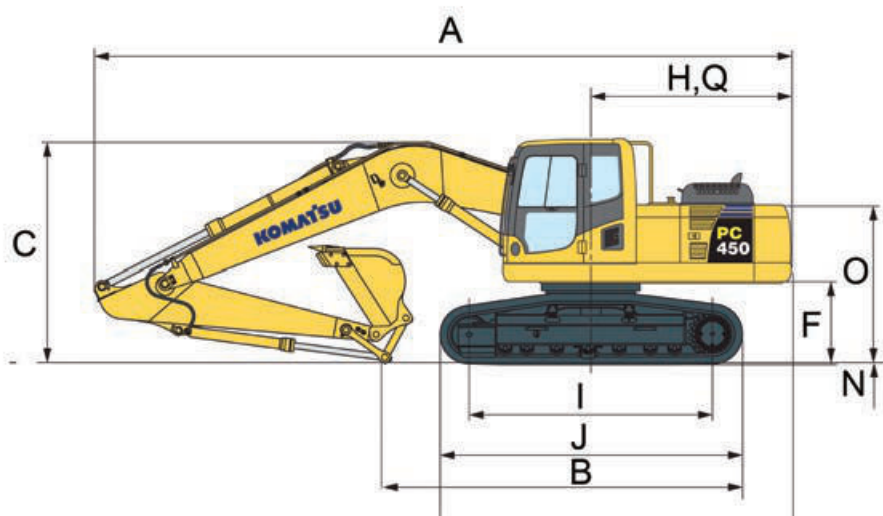
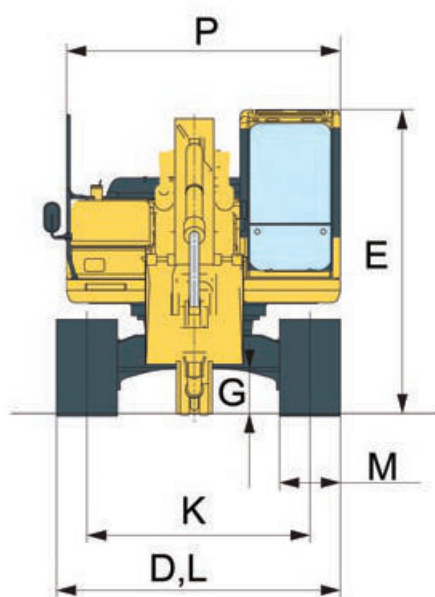
Operating weight including 7060 mm 23'2" one-piece boom, 2400 mm 7'10" arm, SAE heaped 2.6 m<sup>3</sup> (3.4 yd<sup>3</sup> bucket) capacity of lubricants, coolant, full fuel tank, operator, and standard equipment.

| Komatsu PC450LC-7 |                       |  |
|-------------------|-----------------------|--|
| Shoes             | Operating Weight      | Ground Pressure                                  |
| 600 mm<br>23.6"   | 45,000 kg<br>99,210lb | 79.5 kPa<br>0.81 kgf/cm <sup>2</sup><br>11.5 psi |



## PC450LC-7 DIMENSIONS

|   | Configuration                      | 7.06 m Boom, 2.4 m Arm |        | 6.67 m Boom, 2.4 m Arm |        | 7.06 m Boom, 2.9 m Arm |        |
|---|------------------------------------|------------------------|--------|------------------------|--------|------------------------|--------|
|   |                                    | mm                     | ft"    | mm                     | ft"    | mm                     | ft"    |
| A | Overall Length                     | 11905 mm               | 39'7"  | 11520 mm               | 37'10" | 11995 mm               | 39'4"  |
| B | Length on ground (transport)       | 8375 mm                | 27'6"  | 5920 mm                | 19'5"  | 7475 mm                | 24'6"  |
| C | Overall height (to top of boom)    | 3850 mm                | 12'8"  | 3825 mm                | 12'7"  | 3745 mm                | 12'3"  |
| D | Overall width                      | 3340 mm                | 11'0"  | 3340 mm                | 11'0"  | 3340 mm                | 11'0"  |
| E | Overall height (to top cab)        | 3265 mm                | 10'9"  | 3265 mm                | 10'9"  | 3265 mm                | 10'9"  |
| F | Ground Clearance, counter weight   | 1320 mm                | 4'4"   | 1320 mm                | 4'4"   | 1320 mm                | 4'4"   |
| G | Ground Clearance (minimum)         | 550 mm                 | 1'10"  | 550 mm                 | 1'10"  | 550 mm                 | 1'10"  |
| H | Tall swing radius                  | 3645 mm                | 12'0"  | 3645 mm                | 12'0"  | 3645 mm                | 12'0"  |
| I | Track length on ground             | 4350 mm                | 14'3"  | 4350 mm                | 14'3"  | 4350 mm                | 14'3"  |
| J | Track length                       | 5355 mm                | 17'7"  | 5355 mm                | 17'7"  | 5355 mm                | 17'7"  |
|   | Track gauge                        | 2740 mm                | 9'0"   | 2740 mm                | 9'0"   | 2740 mm                | 9'0"   |
| L | Width of Crawler                   | 3340 mm                | 10'11" | 3340 mm                | 10'11" | 3340 mm                | 10'11" |
| M | Shoe width                         | 600 mm                 | 23.6"  | 600 mm                 | 23.6"  | 600 mm                 | 23.6"  |
| N | Grouser height                     | 37 mm                  | 1.5"   | 37 mm                  | 1.5"   | 37 mm                  | 1.5"   |
| O | Machine cab height                 | 2715 mm                | 8'11"  | 2715 mm                | 8'11"  | 2715 mm                | 8'11"  |
| P | Machine cab width                  | 2995 mm                | 9'10"  | 2995 mm                | 9'10"  | 2995 mm                | 9'10"  |
| Q | Distance, swing center to rear end | 3605 mm                | 11'10" | 3605 mm                | 11'10" | 3605 mm                | 11'10" |





## BACKHOE BUCKET, ARM AND BOOM COMBINATION



| Bucket capacity (heaped)                |   | Width                      |                             | Weight                 | Number of teeth | Arm length     |               |
|---|---|----------------------------|-----------------------------|------------------------|-----------------|----------------|---------------|
| SAE, PCSA                               | CECE                                    | W/o side cutters / shrouds | With side cutters / shrouds | with cutters / shrouds |                 | 2.4 m<br>7'10" | 2.9 m<br>9'6" |
| 1.9 m <sup>3</sup> 2.49 y <sup>3</sup>  | 1.70 m <sup>3</sup> 2.22 y <sup>3</sup> | 1510 mm 59.4"              | 1590 mm 62.6"               | 2240 kg 4935 lbs       | 4               | ○              | Rock          |
| 2.2 m <sup>3</sup> 2.88 y <sup>3</sup>  | 1.94 m <sup>3</sup> 2.54 y <sup>3</sup> | 1630 mm 64.2"              | 1770 mm 69.7"               | 2120 kg 4670 lbs       | 5               | Iron ore       |               |
| 2.6 m <sup>3</sup> 3.40 y <sup>3</sup>  | 2.29 m <sup>3</sup> 3.00 y <sup>3</sup> | 1710 mm 67.3"              | 1845 mm 72.6"               | 2200 kg 4850 lbs       | 5               | ○              |               |
| 2.85 m <sup>3</sup> 3.73 y <sup>3</sup> | 2.51 m <sup>3</sup> 3.28 y <sup>3</sup> | 1710 mm 67.3"              | 1845 mm 72.6"               | 2195 kg 4839 lbs       | 5               | □              |               |
| 3.1 m <sup>3</sup> 4.05 y <sup>3</sup>  | 2.8 m <sup>3</sup> 3.66 y <sup>3</sup>  | 1784 mm 70.2"              | 1900 mm 74.8"               | 2375 kg 5235 lbs       | 5               | □              |               |

○ : General purpose use with density upto 1.8 t/cu.m. (1.52 US ton/cu.yd.)

□ : General purpose use with density upto 1.6 t/cu.m. (1.35 US ton/cu.yd.)



## STANDARD EQUIPMENT

- Alternator, 50 Ampere, 24V
- Auto-Deceleration
- Air Cleaner (Pre-ilter)
- Air-conditioner(Cooler) Unit in Cabin
- All-weather steel cab (with multilayer viscous damping mounts, tinted safety-glass windows, pull-up type front window with lock device, removable lower windshield, lockable door, loor mat & adjustable seat)
- Automatic Engine Warm-up System
- Automatic de-aeration system for fuel line
- Batteries, 140 Ah/2 x 12V
- Boom holding valve
- Corrosion resistor
- Counterweight
- Dry type air cleaner, double element
- Electric horn
- Engine, Komatsu SAA6D125E-3
- Engine overheat prevention system
- Fan guard structure
- Fuel Lift Pump
- Fuel Filters (2 micron) – 2 Nos.
- Hydraulic track adjusters (each side)
- Multi function Colour Monitor panel
- Power maximizing system
- PPC hydraulic control system
- Radiator & Oil Cooler dust proof net
- Rear view mirror, R.H.
- Starter motor, 11 kW/24V x 1
- Structures reinforced
- Suction fan
- Suspension Seat
- Tool Box
- Track guiding guard, center section
- Track roller 8 each side
- Track shoe 600 mm 24" triple grouser
- Two settings for boom
- Undercarriage – LC
- Water Separator
- Working light, 2 (boom and RH)
- Working mode selection system
- One piece boom 7060 mm
- Arm 2400 mm
- Bucket 2.6 m<sup>3</sup>

### Optional Equipment

- Automatic Centralized Lubrication System
- Bolt on top guard and front guard (operator protective guard)
- Service valve

Product improvement is a continuous process. Specifications given in this publication are therefore subject to change without notice. Photographs depicted may be of optional equipment.