KOMATSU®

PC450LC-7

PC 450



WALK-AROUND



See page 7.



Electronically - Controlled High Power Engine

The 246 kW (330 HP) Komatsu SAA6D125E-3 engine is providing 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.

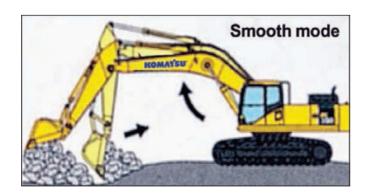


Hydraulic System equipped with engine speed sensor

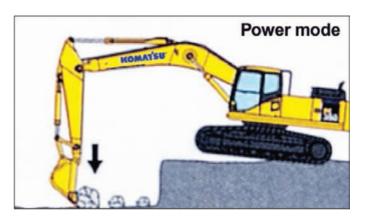
The pump is controlled by the engine speed sensor, so maximum horsepower is used at all times. This contributes to higher production and shorter cycle times.

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'

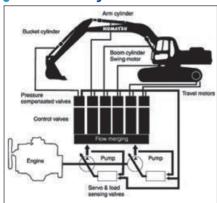
Flow can be adjusted from the cab to match special attachment requirements.

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 mech anically 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 lability – 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.

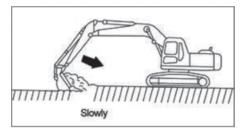
When you move the boom, arm and bucket at the same time...

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.

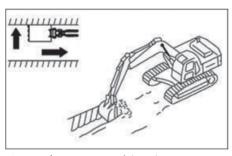
The HydrauMind System Makes Everything Easier

It is easier to fully load the buckets.



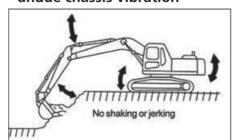
During simultaneous operations, the work equipment moves slowly at maximum power, without being influenced by the other actuators, so it is easy to fully load the bucket.

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



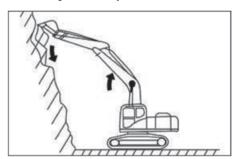
Lateral power pushing is powerful, allowing digging operation to be carried out efficiently.

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



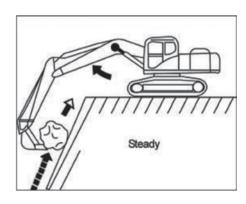
During simultaneous operations, there is no change in the work equipment speed caused by change in load. Thus, there is minimal chassis vibration.

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

COMFORT

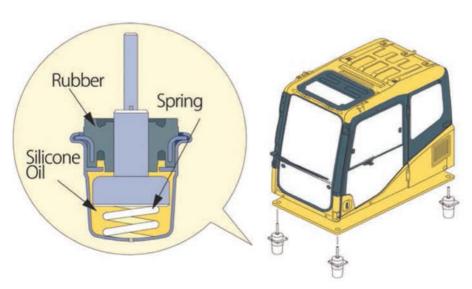
Spacious cabin

The cabin is spacious and air-cooled. An ergonomically-designed operator's seat and easy access to all control levers ensure maximum operator comfort and better concentration on the job.



Low Vibration with Cab Damper Mounting

Komatsu PC450LC-7 uses a new, improved cab damper mount system that incorporates longer stroke and the addition of a spring. The new cab damper mounting combined with a strengthened left and right side deck aids vibration reduction at the operator's seat.



Comparison of Riding Comfort

Cab Damper Mounting





Conditions: – Floor vibration while travelling forward at high speed over obstacles. Pitch vertical direction on graph shows size of vibration



Adjustable seat and control levers

The suspension seat slides forward and backward together with the work equipment control levers to ensure the best operating position at all times.

Lock Lever

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

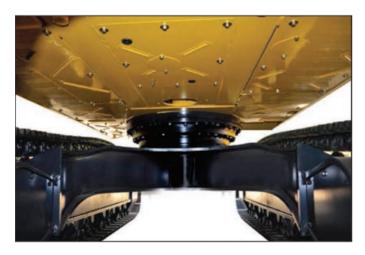


PRODUCTIVITY



Sturdy Frame Structure

The revolving frame, center frame, under carriage and attachment structure are designed by using advanced three-dimensional CAD and FEM analysis technology.



Reliable Components

All the major machine components, such as engine, hydraulic pumps, hydraulic motors and control valves are exclusively designed and manufactured by Komatsu.

Highly Reliable Electronic Devices

Exclusively designed electronic devices have passed severe testing.

- Controller
- Sensors
- Connectors

Heat-resistant wiring Metal Guard Rings protect all the hydraulic cylinders and improve reliability.

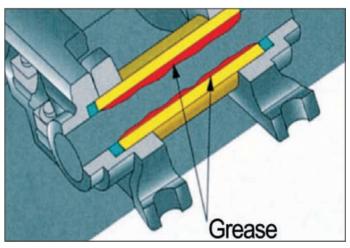
■ Track Link with Strut

Komatsu PC450LC-7 uses track links with strut providing superb durability.



Grease Sealed Track

PC450LC-7 uses grease sealed tracks for extended undercarriage life.



EMMS (Equipment Management and Monitoring System)

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

Automatic three-speed travel

The travel speed is automatically shifted from high to low speed, according to the ground conditions.

Travel Speed							
High	Low						
5.5 km/h	4.4 km/h	3.0km/h					

Easy to see and easy to use

Superb recognition on the colour LCD screens ensures that letters and numbers combined with



On-screen symbols

- Operating mode
- Service hours meter
- Travel speed
- Engine water gauge
- 5 Engine water temperature warning
- 6 Hydraulic oil gauge
- Hydraulic oil temperature warning
- Fuel level gauge
- 9 Fuel low level warning
 10 Auto deceleration

Push-button control switches

- 1 'Power' mode
- (2) 'Economy' mode
- 4 'Lifting' mode
- 4 'Breaker' mode
- Travel speed selector switch
- 6 Auto deceleration
- Window washer
- 8 Window wiper
- Select (For attachment oil flow adjustment)
- Maintenance mode
- Screen brightness adjustment
- Input (return)
- 13 Input (up)
- Input (down)
- Input (confirm)

colour images are exceptionally clear and easy-to-read. The high resolution screen is easy to read in bright sunlight and in all lighting conditions.

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, A or E modes. Also, when simultaneously operating with attachments and work equipment, the flow to the attachment is reduced automatically, thus delivering a smooth movement of the work equipment. The EMMS's precise health-check system indicates the machine's running conditions. At the beginning of, and during, each work shift, abnormality information and machine functions can be checked from the operator's seat.

Displays running conditions and abnormality indications

At the operator's fingertips: the EMMS monitors engine oil level, cooling water level, fuel level, engine water temperature, engine oil pressure, battery charging level, air filter clogging, and more. The monitor also indicates whenever abnormalities are detected.

Trouble data memory

The monitor stores and recalls electrical system and mechanical system failures and abnormalities for effective troubleshooting. Mechanical system failures cannot be erased, ensuring accurate documentation of vital service management information.

Maintenance Record

This feature acts as an active log book and keeps a record of the total maintenance carried out during its life cycle.

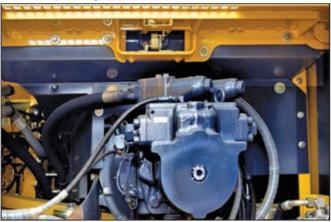
Real time monitoring system

The 'real time monitoring system' displays up to four different operating parameters simultaneously, giving a total overview for faster troubleshooting. Parameters include operating conditions such as hydraulic oil pressure, engine RPMs, various voltages and currents, and even temperature measurement, operation of switches and solenoids, engine and engine injector cutoff mode.

Maintenance alert assistance

The information alerts when oils and filters need to be replaced

Pump/Engine Room Partition



Prevents oil from spraying on the engine if a hydraulic hose bursts.



Protective Guards

Thermal guard placed around high temperature parts of the engine provides adequate protection against accidental contacts, while the fan guard wards off impending hazards.



Non-skid sheet and large handrail

Steps with non-skid sheet provide safe grip when on the machine for maintenance work, while the large handrail with a provision to mount rear view mirror, supports easy climbing.



Easy Maintenance Radiator & Oil Cooler

Removal and installation of the radiator and oil cooler are made easier by locating side-by-side.



Reduced Maintenance Costs

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

High-capacity Air Cleaner

High-capacity air cleaner is comparable to that of larger machine. The pre-cleaner can extend air cleaner life during long-term operation and prevents early clogging resulting in power decrease. Reliability is improved by a new seal design. Additional pre-air cleaner is provided to enhance the life of air filter.

Large Size Fuel Tank

Fuel tank capacity is 650 ltr (172 U.S gal) for extending operating hours before refueling. The fuel tank is treated for rust prevention and improved corrosion resistance.

Easy Access for Engine Inspection

Engine oil check pipe and oil filter are located on the left side of the engine to facilitate easy access for engine inspection.



KOMATSU TOTAL SUPPORT





Komatsu Total Support

To keep your machine available and minimize operation cost when you need it, Komatsu Distributor is ready to provide variety of support before and after procuring the machine.

Fleet recommendation

Komatsu Distributor can study customer job site and provide the most optimum fleet recommendation with detailed information to meet all of your application needs when you are considering to buy new machines or to replace the existing ones from Komatsu.



Product support

Komatsu Distributor secure the certain quality of machine will be delivered.

Parts availability

Komatsu Distributor is available for emergency inquiry by the customers for genuine, quality guaranteed Komatsu parts.

Technical support

Komatsu product support service (Technical support) are designed to help customer. Komatsu Distributor offers a variety of effective services how much Komatsu is dedicated to the maintenance and support of Komatsu machine.

- Preventive Maintenance (PM) clinic
- Oil & Wear analysis program

Repair & maintenance service

Komatsu Distributor offers quality repair service, periodical maintenance, and maintenance service to the customer, utilizing and promoting Komatsu developed programs.

Komatsu Reman (Remanufactured) components

Komatsu Reman products are the result of the implementation of the Komatsu global Reman policy which establishes and agrees to reduce the owning, operating and total Life Cycle Costs (LCC) to Komatsu's customer through prompt delivery, high quality and competitively priced in own remanufactured products (QDC).

SPECIFICATIONS



ENGINE

Model	Komatsu SAA6D125E-3
Туре	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 3 30 HP 246 kW
	1850 rpm
-	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 modes4
Main Pump:
TypeVariable displacement piston type
Pumps for Boom, arm, bucket, swing, and travel circuits
Maximum flow
Supply for control circuitSelf-reducing valve
Hydraulic motors:
Travel2 x axial piston motor with parking brake
Swing1 x axial piston motor with swing holding brake
Relief valve setting:
Implement circuits
Travel circuit 37.3 MPa 380 kgf/cm² 5,400 psi
Swing circuit27.9 MPa 285 kgf/cm ² 4,050 psi
Pilot circuit
Hydraulic cylinders:
(Number of cylinders – bore x stroke x rod diameter)
Boom2 – 160 mm x 1570 mm x 110 mm
Arm 1 – 185 mm x 1820 mm x 120 mm
Bucket1 – 185 mm x 1160 mm x 120 mm



DRIVES AND BRAKES

1.9 m3 Buck.....1 – 160 mm x 1270 mm x 110 mm

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) Lo	ow 3.0 km/h 1.9 mph
Service brake	Hydraulic lock
Parking brake	Mechanical disc brake



SWING SYSTEM

ve metho	t	Hydrostatic
ing reduc	ion	Planetary gear
ing circle	ubrication	Grease-bathed
		Mechanical disc brake
3	3	
ing circle vice brake Iding brak	ubrication .e/Swing lock	Grease-batho



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	_
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

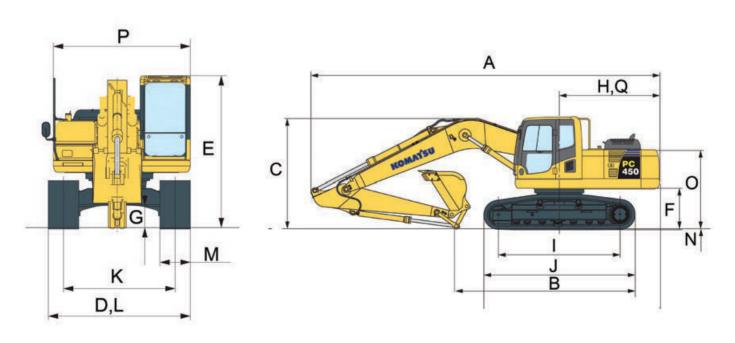
Operating weight including 7060 mm 23'2" one-piece boom, 2400 mm 7'10" arm, SAE heaped 2.6 m3 (3.4 yd3 bucket) capacity of lubricants, coolant, full fuel tank, operator, and standard equipment.

	Komatsu PC450LC-7									
Shoes	Operating Weight	Ground Pressure								
600 mm 23.6"	45,000 kg 99,210lb	79.5 kPa 0.81 kgf/cm² 11.5 psi								



PC450LC-7 DIMENSIONS

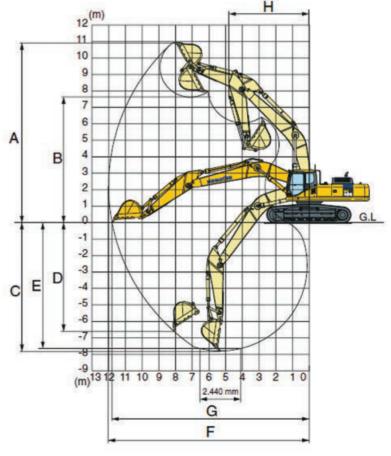
	Configuration	7.06 m Boom,	2.4 m Arm	6.67 m Boom,	2.4 m Arm	7.06 m Boom,	2.9 m Arm
Α	Overall Length	11905 mm	39'7"	11520 mm	37'10"	11995 mm	39'4"
В	Length on ground (transport)	8375 mm	27'6"	5920 mm	19'5"	7475 mm	24'6"
С	Overall height (to top of boom)	3850 mm	12'8"	3825 mm	12'7"	3745 mm	12'3"
D	Overall width	3340 mm	11'0"	3340 mm	11'0"	3340 mm	11'0"
Е	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"
Н	Tall swing radius	3645 mm	12'0"	3645 mm	12'0"	3645 mm	12'0"
ı	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"
М	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"
0	Machine cab height	2715 mm	8'11"	2715 mm	8'11"	2715 mm	8'11"
Р	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"





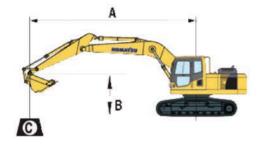
WORKING RANGE

	CONFIGURATION	7.06 m Boom, 6.67 m l 2.4 m Arm 2.4 m				Boom, Arm	
Α	Max. digging height	10135 mm	33'3"	10175 mm	33'5"	10315 mm	33'10"
В	Max. dumping height	6845 mm	22'5"	6745 mm	22'2"	7030 mm	23'1"
С	Max. digging depth	7040 mm	23'1"	6700 mm	22'0"	7375 mm	24'2"
D	Max. vertical wall digging depth	3660 mm	12'0"	3090 mm	10'2"	5350 mm	17'7"
Е	Max, digging depth of cut for 8'level	6850 mm	22'6"	6530 mm	21'5"	23'8"	
F	Max. digging reach	11235 mm	36'10"	11055 mm	36'3"	11500 mm	37'9"
G	Max. digging reach at ground level	11015 mm	36'2"	10825 mm	35'6"	11280 mm	37'0"
Н	Min. swing radius	4890 mm	16'1"	4605 mm	15'1"	4810 mm	15'9"
Rating	Bucket digging force at power max	287 kN	29,300 kgf	/64,500 lb	240 kN 24,500 kgf/ 54010 lb		
SAE R	Arm crowd force at power max	273 kN	27,900 kgf	/61,400 lb	245 kN 25,000 kgf/ 55120 lb		
Rating	Bucket digging force at power max	327 kN 33,400 kgf/73,600 lb 28,100 kgf/ 61950 lb					lb
ISO R	Arm crowd force at power max	311 kN 31,700 kgf/70,000 lb 257 kN 26,200 kgf/ 57760 lb					





LIFTING CAPACITY



A : Reach for swing centre

B : Bucket height
C : Lifting Capacity
Cf : Rating over front
Cs : Rating over side

: Rating at maximum reach

PC450LC-7 - 6.67 m Boom x 2.4 m Arm x 3.1 m³ Bucket SAE Heaped

А		•	Max	7.5 m		6.0 m		4.5 m		3.0 m	
В		C _f	C _s								
6.0 m	kg	9,150	6,350	*10,700	8,600						
4.5 m	kg	8,100	5,550	*11,650	8,300	*14,500	12,150	*19,600	19,400		
3.0 m	kg	7,600	5,150	11,550	7,900	*15,750	10,900				
1.5 m	kg	7,450	5,000	11,150	7,600	16,050	10,750				
0.0 m	kg	7,700	5,150	10,950	7,350	15,700	10,450	*15,800	*15,800		
-1.5 m	kg	8,400	5,650	10,850	7,300	15,600	10,350	*21,400	16,600		
-3.0 m	kg	9,950	6,700	10,950	7,400	*14,850	10,500	*18,750	16,900	*22,150	*22,150
-4.5 m	kg	*9,700	9,050			*11,100	10,400	*14,600	*14,600		

PC450LC-7 - 7.06 m Boom x 2.9 m Arm x 1.9 m³ Bucket SAE Heaped

А		•	Max	7.5 m		6.0 m		4.5 m		3.0 m	
В		C _f	C _s								
6.0 m	kg	9,150	6,350	*10,700	8,600						
4.5 m	kg	8,100	5,550	*11,650	8,300	*14,500	12,150	*19,600	19,400		
3.0 m	kg	7,600	5,150	11,550	7,900	*15,750	10,900				
1.5 m	kg	7,450	5,000	11,150	7,600	16,050	10,750				
0.0 m	kg	7,700	5,150	10,950	7,350	15,700	10,450	*15,800	*15,800		
-1.5 m	kg	8,400	5,650	10,850	7,300	15,600	10,350	*21,400	16,600		
-3.0 m	kg	9,950	6,700	10,950	7,400	*14,850	10,500	*18,750	16,900	*22,150	*22,150
-4.5 m	kg	*9,700	9,050			*11,100	10,400	*14,600	*14,600		

PC450LC-7 - 7.06 m Boom x 2.9 m Arm x 1.9 m³ Bucket SAE Heaped

А		€ Max		7.5 m		6.0 m		4.5 m		3.0 m	
В		C _f	C _s								
6,0 m	kg	8,300	5,700	*9,950	8,650						
4,5 m	kg	7,400	5,000	*10,900	8,250	*13,300	12,200	*17,700	*17,700		
3,0 m	kg	6,950	4,600	*11,400	7,850	*15,050	11,150				
1,5 m	kg	6,800	4,500	11,050	7,450	15,950	10,650				
0,0 m	kg	7,000	4,600	10,750	7,200	15,500	10,250	*21,550	16,200		
-1,5 m	kg	7,550	5,000	10,600	7,050	15,350	10,100	*22,100	16,200	*15,450	*15,450
-3,0 m	kg	8,800	5,850	10,650	7,100	*15,300	10,150	*19,800	16,450	*24,100	*24,100
-4,5 m	kg	*9,550	7,650			*12,550	10,450	16,200	16,200	*20,100	*20,100



BACKHOE BUCKET, ARM AND BOOM COMBINATION

	et capacity eaped)	W	idth	Weight	Number of	Arm length	
SAE, PCSA	CECE	W/o side cutters / shrouds	With side cutters / shrouds	with cutters / shrouds	teeth	2.4 m 7'10"	2.9 m 9'6"
1.9 m³ 2.49 y³	1.70 m³ 2.22 y³	1510 mm 59.4"	1590 mm 62.6"	2240 kg 4935 lbs	4	0	Rock
2.2 m³ 2.88 y³	1.94 m³ 2.54 y³	1630 mm 64.2"	1770 mm 69.7"	2120 kg 4670 lbs	5	Iron ore	
2.6 m³ 3.40 y³	2.29 m³ 3.00 y³	1710 mm 67.3"	1845 mm 72.6"	2200 kg 4850 lbs	5	0	
2.85 m³ 3.73 y³	2.51 m³ 3.28 y³	1710 mm 67.3"	1845 mm 72 . 6"	2195 kg 4839 lbs	5		
3.1 m³ 4.05 y³	2.8 m³ 3.66 y³	1784 mm 70.2"	1900 mm 74.8"	2375 kg 5235 lbs	5		

- O : 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.
- Hvdraulic 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 m³

Optional Equipment

- Automatic Centralized Lubrication System
- Bolt on top guad 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.

www.Komatsu.com





Marketed & Serviced by:

L&T Construction Equipment

Larsen & Toubro Limited

1st Floor Lakshminarayan Complex, 10/1 Palace Road, Bengaluru- 560 052 Tel: (080) 22256982/83/84, 40401700 Fax: (080) 22250309 E-mail: ceb@larsentoubro.com www.larsentoubro.com

Zonal Offices:

Delhi (011) 4141 9555/59 **Nagpur** (0712) 6606441/2260025 Kolkata (033) 44002433/22831442 Hyderabad (040) 23230206/67015064 Pune (020) 66033483/480 Chennai (044) 22706865/22706850

CIN: L99999MH1946PLC004768

Materials and specifications are subject to change without notice. **KOMAT'SU*** is a trademark of Komatsu Ltd. Japan.