

KOMATSU®

PC290LC-8

HORSEPOWER

Gross: 149 kW 200 HP / 2050 min⁻¹

Net: 140 kW 187 HP / 2050 min⁻¹

OPERATING WEIGHT

28820 – 29800 kg

PC
290
LC

HYDRAULIC EXCAVATOR



Photo may include optional equipment.

WALK-AROUND

Ecology and Economy Features

- ***Low fuel consumption by total control of the engine, hydraulic and electronic system***

- ***Low emission engine***

A powerful, turbocharged and air-to-air aftercooled Komatsu SAA6D107E-1 provides 140 kW 187 HP. This engine is U.S. EPA Tier 3 and EU Stage 3A emissions certified, without sacrificing power or machine productivity.

- Economy mode improves fuel consumption
- ECO gauge for energy-saving operations
- Extended idling caution for fuel conservation

- ***Low operation noise***

The dynamic noise is lowered by 1 dB compared with the PC270-7, realizing a low noise operation.

- ***Large drawbar pull***

Provides superb steering and slope climbing performance.

See pages 4 and 5.

Safety Design

- Cab dedicated to hydraulic excavator for protecting the operator in the event of a roll over accident
- Slip-resistant plates for safe work on machine
- Safety enhancement with large side-view, sidewise, and rear mirrors added
- Rear view monitoring system for easy checking behind the machine (Optional)
- ROPS cab (ISO 12117-2)

See page 7.



Large Liquid Crystal Display (LCD) Monitor

- Easy-to-see and use 7" large multi-function color monitor
- Can be displayed in 12 languages for global support

See page 8.

HORSEPOWERGross: 149 kW 200 HP / 2050 min⁻¹Net: 140 kW 187 HP / 2050 min⁻¹**OPERATING WEIGHT**

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BUCKET CAPACITY1.4m³***Large Comfortable Cab***

- Low-noise cab, similar to passenger car
- Low vibration with cab damper mounting
- Highly pressurized cab with optional air conditioner
- Operator seat and console with armrest that enables operations in the appropriate operational posture

See page 6.

Easy Maintenance

- Long replacement interval of engine oil, engine oil filter, and hydraulic filter
- Remote mounted engine oil filter and fuel drain valve for easy access
- Equipped with the fuel pre-filter as standard (With water separator)
- Side-by-side cooling concept enables individual cooling modules to be serviced.
- Equipped with the equipment management monitoring system

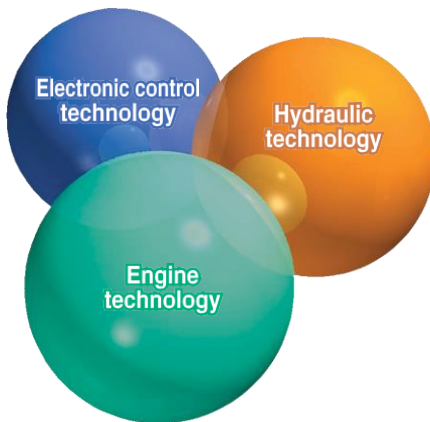
See page 9.



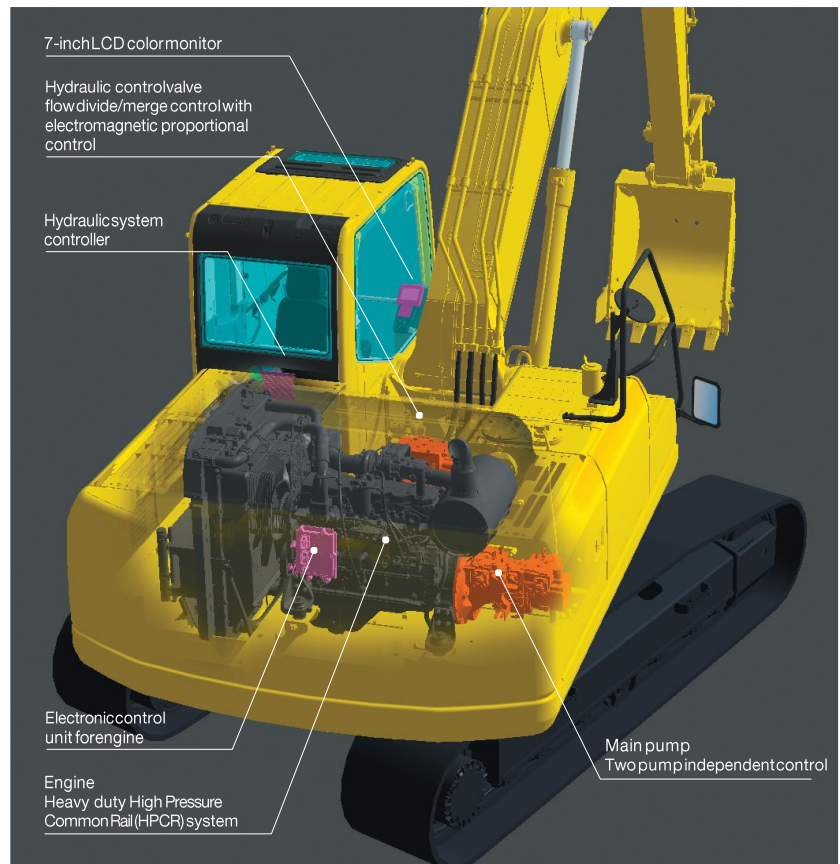
Photo may include optional equipment.

ECOLOGY & ECONOMY 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.



Low Fuel Consumption

The newly-developed Komatsu SAA6D107E-1 engine enables NOx emissions to be significantly reduced with the accurate multi-staged fuel injection by the engine controller. It improves total engine durability using the high-pressure fuel injection system developed specifically for construction machinery. This excavator significantly reduces hourly fuel consumption using the highly-efficient matching techniques of the engine and hydraulic unit and also provides features that promote energy-saving operations such as the E mode and ECO gauge.

Fuel consumption 10% reduced

Compared with the PC270-7 at P mode and 100% working efficiency. Fuel consumption varies depending on job conditions.

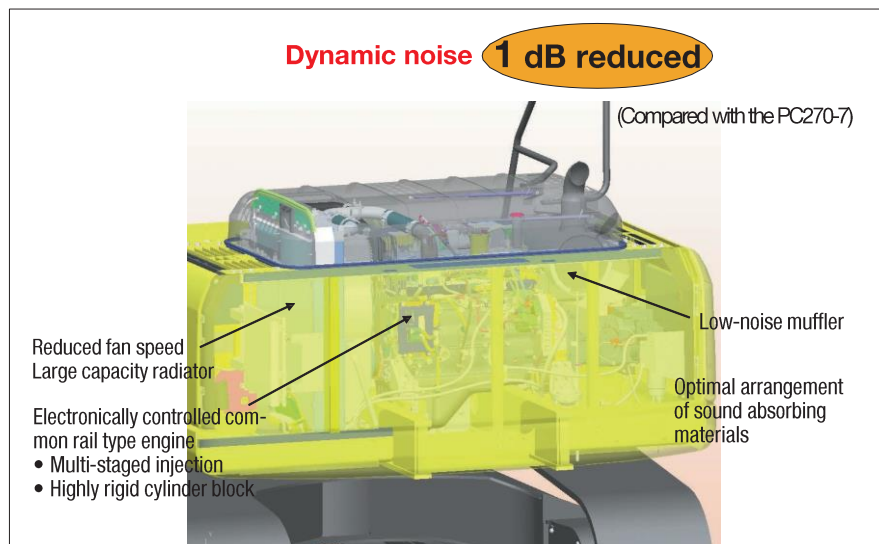
Low Emission Engine

Komatsu SAA6D107E-1 meets U.S. EPA Tier 3 and EU Stage 3A emissions certified and reduced NOx emission by 29% compared with the PC270-7.



Low Operation Noise

Enables a low noise operation using the low-noise engine and methods to cut noise at source.



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 Maximum Drawbar Pull

PC290LC-8's maximum drawbar pull provides superb slope climbing performance.

The optional heavy duty travel motor gives an extra 6% increase.

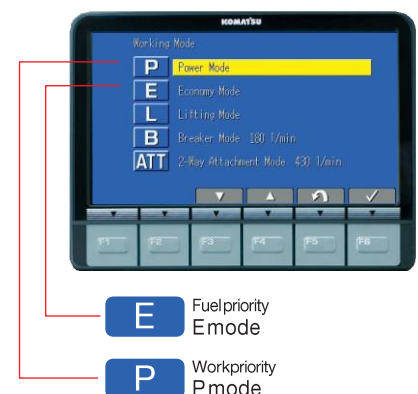
Working Modes Selectable

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

WORKING ENVIRONMENT

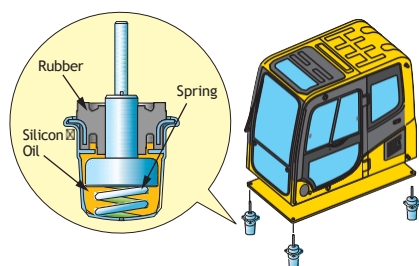


Low Cab Noise

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 similar to that of a passenger car.

Low Vibration with Cab Damper Mounting

PC290LC-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 pull-up 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.

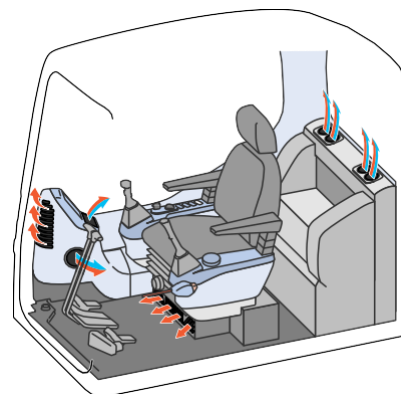


Pressurized Cab

Optional air conditioner, air filter and a higher internal air pressure (+6.0 mm Aq) prevent external dust from entering the cab.

Automatic Air Conditioner (Optional)

Enables you to easily and precisely set cab atmosphere with the instruments 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 ISO 10262 OPG top guard level 1 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 Slip-resistant plates maintain superior traction performance for the long term.



Pump/engine Room Partition

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

Lock Lever

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



Large Side-view, Rear, and Sidewise Mirrors

Enlarged left-side mirror and addition of rear and side mirror allow the PC290LC-8 to meet the visibility requirements (ISO 5006).



Rear View Monitor System (Optional)

The operator can view the rear of the machine with a color monitor screen.



Monitor for rear view camera

Thermal and Fan Guards

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



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. Industry first function keys facilitate multi-function operations. Displays data in 12 languages to globally support operators around the world.

Indicators

- | | |
|----------------------------------|-----------------------------------|
| 1 Auto-decelerator | 5 Hydraulic oil temperature gauge |
| 2 Working mode | 6 Fuel gauge |
| 3 Travel speed | 7 ECO gauge |
| 4 Engine water temperature gauge | 8 Function switches menu |

Basic operations switches

- | | |
|-------------------------|---------------------|
| 1 Auto-decelerator | 4 Buzzercancel |
| 2 Working mode selector | 5 Wiper |
| 3 Traveling selector | 6 Windshield washer |



Mode Selection

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

Working Mode	Application	Advantage
P	Power mode	- Maximum production/power - Fast cycle time
E	Economy mode	Excellent fuel economy
L	Lifting mode	Hydraulic pressure is increased by 7%
B	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.



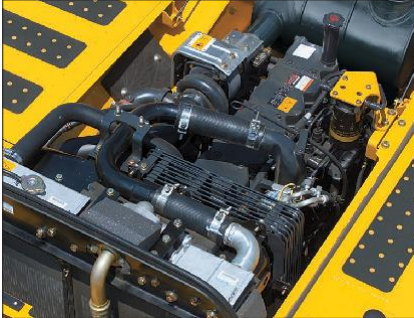
Trouble data memory function

Monitor stores abnormalities for effective troubleshooting.

MAINTENANCE FEATURES

Side-by-side Cooling

Since radiator, aftercooler and oil cooler are arranged in parallel, it is easy to clean, remove and install them. Radiator, aftercooler, and oil cooler made of aluminum have high cooling efficiency and are easily recycled.



Equipped with the Fuel Pre-filter (With Water Separator)

Removes water and contaminants in the fuel to prevent fuel problems. (With built-in priming pump)



Washable Cab Floor Mat

The PC290LC-8's cab floor mat is easy to keep clean. The gently inclined surface has a flanged floor mat and drainage holes to facilitate runoff.



Easy Access to Engine Oil Filter and Fuel Drain Valve

Engine oil filter and fuel drain valve are remote mounted to improve accessibility.



Equipped with the Eco-drain Valve as Standard.

Prevents clothes and the ground from becoming contaminated due to oil leakage when replacing the engine oil.



Large-capacity Fuel Tank and Rustproof Treatment

400L high-capacity fuel tank. Effective corrosion resistance using rustproof treatment.

Sloping Track Frame

Prevents dirt and sand from accumulating and allows easy mud removal.

Gas Assisted Engine Hood Damper Cylinders

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



Long-life Oil, Filter

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



Hydraulic oil filter

Engine oil & Engine oil filter	every 500 hours
Hydraulic oil	every 5000 hours
Hydraulic oil filter	every 1000 hours

Air Conditioner Filter (Optional)

The air conditioner filter is removed and installed without the use of tools facilitating filter maintenance.



Internal air conditioner filter



External air conditioner filter

Long Work Equipment Greasing Interval (Optional)

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

SPECIFICATIONS



ENGINE

Model Komatsu SAA6D107E-1
 Type Water-cooled, 4-cycle, direct injection
 Aspiration Turbocharged, aftercooled
 Number of cylinder 6
 Bore 107 mm
 Stroke 124 mm
 Piston displacement 6.69 L
 Horsepower:
 SAE J1995 Gross 149 kW 200 HP
 ISO 9249 / SAE J1349 Net 140 kW 187 HP
 Rated r p m 2050 min⁻¹
 Fan drive method for radiator cooling Mechanical Governor All-speed control, electronic
 U.S. EPA Tier3 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 4
 Main pump:
 Type Variable displacement piston type
 Pumps for Boom, arm, bucket, swing, and travel circuits
 Maximum flow 450 L/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/cm²
 Travel circuit 37.3 MPa 380 kgf/cm²
 Swing circuit 28.9 MPa 295 kgf/cm²
 Pilot circuit 3.2 MPa 33 kgf/cm²
 Hydraulic cylinders:
 (Number of cylinders – bore x stroke x rod diameter)
 Boom 2 – 140 mm x 1300 mm x 100 mm
 Arm 1 – 150 mm x 1635 mm x 110 mm
 Bucket 1 – 140 mm x 1009 mm x 100 mm



DRIVES AND BRAKES

Steering control Two levers with pedals
 Drive method Hydrostatic
 Maximum drawbar pull 249 kN 25400 kgf
 Gradeability 70%, 35°
 Maximum travel speed High 5.5 km/h
 (Auto-Shift) Mid 4.1 km/h
 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 10.5 min⁻¹



UNDERCARRIAGE

Center frame X-frame
 Track frame Box-section
 Seal of track Sealed track
 Track adjuster Hydraulic
 Number of shoes (Each side) 48
 Number of carrier rollers 2 each side
 Number of track rollers (Each side) 8



COOLANT AND LUBRICANT CAPACITY (REFILLING)

Fuel tank 400 L
 Coolant 20.6 L
 Engine 23.1 L
 Final drive (Each side) 8.5 L
 Swing drive 8.2 L
 Hydraulic tank 132 L



OPERATING WEIGHT (APPROXIMATE)

Operating weight including 5850 mm one-piece boom, 3045 mm arm with piping, ISO 7451 heaped 1.4 m³ backhoe bucket, rated capacity of lubricants, coolant, full fuel tank, operator, and standard equipment.

	Operating Weight	Ground Pressure
600 mm	28820 kg	54 kPa
700 mm	29420 kg	48 kPa
800 mm	29800 kg	42 kPa



BACKHOE BUCKET AND ARM COMBINATION

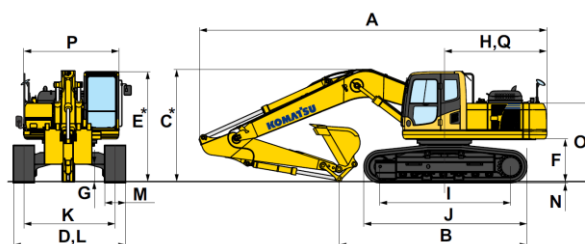
Bucket Capacity (Heaped)	Width		Weight	No. of Teeth	Arm Length		
	Without Side Cutters	With Side Cutters	With Side Cutters		2.5 m	3.0 m	3.5 m
1.4 m ³	1391 mm	1518 mm	870 kg	5	○	○	○

○ : General purpose use, density up to 1.8 ton/m³



DIMENSIONS

Arm Length		3045 mm
A	Overall length	9860 mm
B	Length on ground (transport)	5495 mm
C	Overall height (to top of boom)* 3310 mm	3205 mm
D	Overall width	3290 mm
E	Overall height (to top of cab)*	3175 mm
F	Ground clearance, counterweight	1215 mm
G	Ground clearance (minimum)	498 mm
H	Tail swing radius	2940 mm
I	Track length on ground	4030 mm
J	Track length	4955 mm
K	Track gauge	2590 mm
L	Width of crawler	3190 mm
M	Shoe width	600 mm
N	Grouser height	30 mm
O	Machine cab height	2225 mm
P	Machine cab width	2710 mm
Q	Distance, swing center to rear end	2905 mm

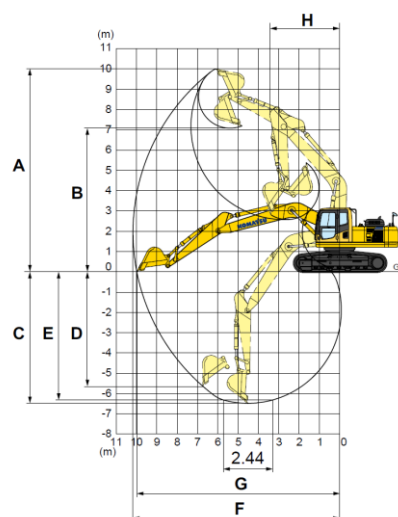


* : Including grouser height



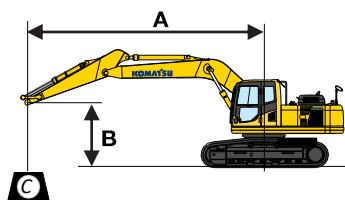
WORKING RANGE

Arm Length		3045 mm
A	Max. digging height	10010 mm
B	Max. dumping height	7080 mm
C	Max. digging depth	6485 mm
D	Max. vertical wall digging depth	5500 mm
E	Max. digging depth of cut for 2440 mm level	6320 mm
F	Max. digging reach	10165 mm
G	Max. digging reach at ground level	9995 mm
H	Min. swing radius	3430 mm
SAE 1179 Rating	Bucket digging force at power max.	176 kN 17900 kgf
	Arm crowd force at power max.	136 kN 13900 kgf
ISO 6015 Rating	Bucket digging force at power max.	198 kN 20200 kgf
	Arm crowd force at power max.	138 kN 14100 kgf





LIFTING CAPACITY



A: Reach from swing center
B: Bucket hook height
C: Lifting capacity
Cf: Rating over front
Cs: Rating over side
⊗: Rating at maximum reach

Conditions:

- 5850 mm one-piece boom
- ATT piping

PC290LC-8		Arm: 3045 mm		Without bucket		Shoe: 600 mm triple grouser							
B	A	⊗ MAX		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m	
		Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
6.0 m		*4500 kg	*4500 kg	*5050 kg	*5050 kg	*7550 kg	*7550 kg						
4.5 m		*4450 kg	*4450 kg	*7750 kg	5300 kg	*8450 kg	7550 kg	*9850 kg	*9850 kg				
3.0 m		*4650 kg	4200 kg	6150 kg	5150 kg	*9700 kg	7200 kg	*12500 kg	11050 kg				
1.5 m		*5000 kg	4100 kg	7950 kg	5000 kg	*10900 kg	6850 kg	*14850 kg	10350 kg				
0 m		*5600 kg	4150 kg	7850 kg	4850 kg	10950 kg	6650 kg	*16000 kg	10000 kg	*8650 kg	*8650 kg		
-1.5 m		*6650 kg	4500 kg	7800 kg	4850 kg	10850 kg	6550 kg	*15900 kg	9900 kg	*14350 kg	*14350 kg	*9200 kg	*9200 kg
-3.0 m		8600 kg	5300 kg			10900 kg	6550 kg	*14750 kg	10000 kg	*20550 kg	19550 kg		
-4.5 m		*8900 kg	7300 kg					*11850 kg	10250 kg	*16200 kg	*16200 kg		

* Load is limited by hydraulic capacity rather than tipping. Ratings are based on ISO 10567. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.



STANDARD EQUIPMENT

- Additional filter system for poor-quality fuel
- Air conditioner with defroster
- Alternator, 24 V/60 A
- Arm, 3045 mm with attachment piping
- Auto-decel
- Automatic engine warm-up system
- Batteries, large capacity
- Boom, 5850 mm with attachment piping
- Boom holding valve
- Counterweight
- Dry type air cleaner, double element
- Electric horn
- Engine, Komatsu SAA6D107E-1
- Engine overheat prevention system
- Equipment Management Monitoring System
- Fan guard structure
- In-line filter
- Multi-function color monitor
- Power maximizing system
- Power supply, 12 V
- Pre-cleaner
- Pressure Proportional Control (PPC) hydraulic control system
- Radiator and oil cooler dust proof net
- Rear reflector
- Rearview mirrors, RH, LH, rear, sidewise
- ROPS cab (ISO 12117-2)
- Seat belt, retractable
- Seat, suspension
- Slip-resistant plates
- Starting motor, 1 x 24 V/4.5 kW
- Track shoe, 600 mm triple grouser
- Travel alarm
- Working light, 2 (Boom and RH)
- Working mode selection system



OPTIONAL EQUIPMENT

- Arms, 2500 mm, 3500 mm
- Bolt-on top guard, OPG ISO 10262 level 2
- Cab front guard
 - Full height guard
 - Half height guard
- Deck guard
- Radio
- Shoes, triple grouser, 700 mm, 800 mm
- Sun visor
- Rear view monitor system
- Track frame undercover
- Track roller guards (Full length)

KOMATSU

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