

# KOMATSU®

## PC290LC-7

## PC290NLC-7

NET HORSEPOWER  
134 kW 179 HP @ 2.050 rpm

OPERATING WEIGHT  
PC290LC-7: 28.130 - 29.885 kg  
PC290NLC-7: 28.080 - 29.835 kg

BUCKET CAPACITY  
0,85 - 2,02 m<sup>3</sup>

**PC**  
**290**

HYDRAULIC EXCAVATOR



**PC290LC/NLC-7**

# WALK-AROUND

The PC290-7 is a rugged, productive, all-European machine. Designed and expressly built for European markets, it delivers productivity, reliability and operator comforts in a robust, environmentally-friendly package. Komatsu's exclusive, on-board, HydraulMind system assists in all operations, providing enhanced machine performance that's always perfectly matched to the task.

## What's new on Dash 7:

- Higher production
- Low fuel consumption
- Easier maintenance and serviceability
- Improved operator comfort
- Lower noise
- Meets EC Stage II emission regulations
- Advanced Attachment Control
- Multi-function colour monitor

### Advanced Attachment Control

The PC290-7 can be optionally equipped to handle a wide variety of attachments. The advanced attachment control system features:

- Operator selectable hydraulic flow control
- Adjustable presets for rapid attachment changeover
- Additional filters and accumulators for attachment and machine protection
- Hydraulic relief pressure control
- Automatic changeover valves
- Attachment piping options

### Heavy-duty digging performance

Large bore cylinders have been installed to the super short and short arms to greatly increase digging force and productivity in tough conditions. The boom and arms have larger cross sections to provide superb durability.

### High productivity and low fuel consumption

The powerful turbocharged and air-to-air aftercooled Komatsu SAA6D102E-2 provides 134 kW/179 HP. Productivity has increased with greater output in the 'Active' mode, while fuel efficiency has been further improved.



### Excellent reliability and durability

- Heavy-duty work equipment
- Reliable major components designed and built by Komatsu
- Exceptionally-reliable electronic devices

### Greater lifting capacity

Lateral stability has been improved and the lifting capacity has increased.

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0,85 - 2,02 m<sup>3</sup>

### Easy maintenance

- Extended hydraulic filter replacement interval
- Remote-mounted engine oil filter and fuel drain valve, for easy access
- Standard-equipped water separator
- Easier radiator cleaning
- Increased fuel tank capacity
- SCSH bushings on the work equipment extend the lubricating interval significantly

### SpaceCab™

The new PC290-7's cabin space has been increased by 14%, offering an exceptionally-roomy operating environment.

- Sealed and pressurised cab with standard air conditioning
- Low-noise design
- Low-vibration design with cabin damper mounting
- OPG Level I (ISO) compliant cabin

### In harmony with the environment

- The low emission engine meets EC Stage II emissions standards with increased power and machine productivity
- The economy mode reduces fuel consumption
- Low operating noise
- Designed for easy end-of-life recycling



# EMMS

## 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.

### Four working modes

The PC290-7 is equipped with three working modes: (A, E, B), plus a lifting mode (L). Each mode is designed to match the engine speed, pump speed, and system pressure with the current operating requirement. This provides the flexibility to match equipment performance to the job at hand.

The diagram illustrates the EMMS interface, which consists of a central display screen and a set of push-button control switches below it. The screen displays various gauges, warnings, and mode indicators, while the buttons provide physical control for these functions.

**On-screen symbols**

- 1 Operating mode
- 2 Service hours meter
- 3 Travel speed
- 4 Engine water gauge
- 5 Engine water temperature warning
- 6 Hydraulic oil gauge
- 7 Hydraulic oil temperature warning
- 8 Fuel level gauge
- 9 Fuel low level warning
- 10 Swing lock
- 11 Pre-heat
- 12 Continuous/intermittent window wiper
- 13 Auto deceleration
- 14 PowerMax

**Push-button control switches**

- 1 'Active' mode
- 2 'Economy' mode
- 3 'Lifting' mode
- 4 'Breaker' mode
- 5 Travel speed selector switch
- 6 Auto deceleration
- 7 Window washer
- 8 Window wiper
- 9 Select (For attachment oil flow adjustment)
- 10 Maintenance mode
- 11 Screen brightness adjustment
- 12 Input (return)
- 13 Input (up)
- 14 Input (down)
- 15 Input (confirm)

## Active mode

For maximum power and fast cycle times. Normally used for heavy operations such as hard digging and loading. This mode allows access to the 'PowerMax' function to temporarily increase the digging force by 7% for added power in tough situations.

## Economy mode

The environmentally-friendly mode. For running more quietly during operations at night and/or in urban areas. Fuel consumption and exhaust emissions are reduced.

## Breaker mode

Delivers optimal hydraulic pressure, flow and engine RPMs for powerful breaker operations.

## Lifting mode

Increases the lifting capacity 7% by raising the hydraulic pressure. This mode supports safe lifting operations.

Working mode	Application	Advantage
A	Active mode	<ul style="list-style-type: none"> <li>• Maximum production/power</li> <li>• Fast cycle times</li> </ul>
E	Economy mode	<ul style="list-style-type: none"> <li>• Excellent fuel economy</li> </ul>
B	Breaker mode	<ul style="list-style-type: none"> <li>• Optimum engine RPMs and hydraulic flow</li> </ul>
L	Lifting mode	<ul style="list-style-type: none"> <li>• Hydraulic pressure has been increased by 7%</li> </ul>



Hydraulic flow general adjustment screen in B (breaker) mode



Fine tune hydraulic flow adjustment screen in B (breaker) mode



Fine tune hydraulic flow adjustment screen in A (active) or E (economy) mode



Password screen

## Easy to see and easy to use

Superb recognition colour LCD screens for each mode. Letters and numbers are combined with colour images for exceptionally clear and easy-to-read information. The high-resolution screen is easy to read in bright sunlight and in all lighting conditions.

## Automatic three-speed travel

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

	High	Mid	Low
Travel speed	5,5 km/h	4,1 km/h	3,0 km/h

## 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.

## Password protection

Prevents unauthorised machine use or transport. The engine cannot be started without your four-digit use or password.

For total security, the battery is connected directly to the starter motor. Both the starter and the engine need the password.

The password can be activated and deactivated upon request.

# WORKING ENVIRONMENT

**PC290-7's cab interior is spacious and provides a comfortable working environment...**

## SpaceCab™

### Comfortable cab

The new PC290-7 inner cab volume is 14% greater than the Dash 6, offering an exceptionally comfortable operating environment. The large cab enables the seat, with headrest, to be reclined to horizontal.

### Pressurised cab

The standard-equipped air conditioner, air filter and a higher internal air pressure resist dust entry into the cab.

### Low-noise design

Noise levels are substantially reduced; engine noise as well as swing and hydraulics operations noise.

### Cab damper mounting for low vibration levels

PC290-7 uses a new and improved viscous damping cab mount system that incorporates a longer stroke plus an added spring. The new cab damper mounting, combined with strengthened left and right-side decks, aids the reduction of vibrations to the operator's seat. Vibrations at the floor level have been reduced from 120 dB (VL) to 115 dB (VL).

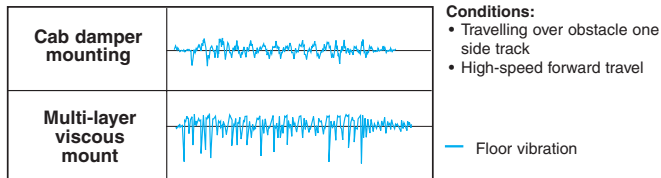
dB (VL) is an index of vibration level. As it increases, vibration increases and operator comfort is reduced.



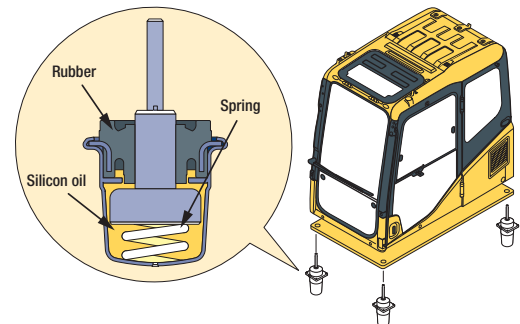
Outer air filter

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

### Riding comfort comparison



Vertical pitch oscillation on the graph shows the intensity of vibration



Roof hatch



12-Volt power supply and (optional) radio cassette



Climate control



Bottle holder and magazine rack

## Safety features

### Multi-position controls

The multi-position, proportional pressure control levers allow the operator to work in comfort whilst maintaining precise control. A double-slide mechanism allows the seat and controllers to move together, or independently, allowing the operator to position the controllers for maximum productivity and comfort.



Hot and cool box



3 button lever



Seat sliding range: 340 mm – increased by 120 mm over the Dash 6



Defroster/demister

### Improved, wide visibility

The right side window pillar has been removed and the rear pillar reshaped to provide greater visibility. Blind spots have been decreased by 34%.

### Pump/engine room partition

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

### Thermal and fan guards

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

### Steps with non-skid surface and large handrail

Steps with non-slip surfacing ensure safer maintenance.

Thermal guard



Non-slip sheet



Large handrail for safe access



# PRODUCTIVITY FEATURES

## High production levels and low fuel consumption

The increased output and fuel savings of the Komatsu SAA6D102E-2 engine result in increased productivity (tonnes per litre of fuel).

## Engine

The PC290-7 gets its exceptional power and work capacity from a Komatsu SAA6D102E-2 engine. Its output is 134 kW/179 HP, providing increased hydraulic power and improved fuel efficiency.

## Hydraulics

The unique two-pump system ensures smooth, simultaneous movement of the work equipment. Komatsu's exclusive HydraulMind system controls both of the pumps for most-efficient use of engine power. The system also reduces hydraulic loss during operations. Optional, additional hydraulic circuits may be ordered.

## Larger drawbar pull

PC290-7's maximum drawbar pull has been increased by 10% over Dash 6, providing superb slope climbing capability. Maximum drawbar pull: 25.400 kg

## Larger arm crowd force and digging force provide increased production

Large bore cylinders are installed on the short arm to greatly increase digging forces and productivity in tough conditions. The arm crowd force has increased 7% and the bucket digging force has increased 9% when the PowerMax function is applied (compared to the PC290-6).

**Bucket digging force\*:** 23.100 kg

**Arm crowd force\*:** 18.800 kg

\* Measured with PowerMax function, 2,0 m arm and ISO rating



The cross sections of boom and arm have been enlarged to provide superb durability.



Heavy-duty arm



## Excellent reliability and durability

### 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'.

### Highly-rigid, robust work equipment

The strengthened boom and arm have large cross-sectional dimensions as well as continuous two-sided groove welding, improving the digging and side-contact strengths.

### Sturdy frame structure

The revolving frame, centre frame and undercarriage have been designed using the most advanced three-dimensional Computer Aided Design (CAD) and Finite Elements Modelling (FEM) analysis technology.

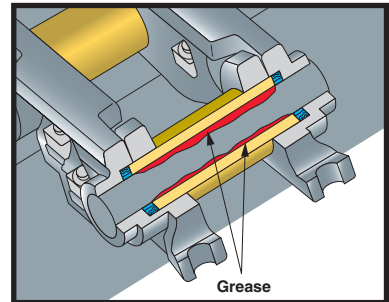
### Highly-reliable electronic devices

Exclusively-designed electronic devices are certified by severe testing.

- Controller
- Sensors
- Connectors
- Heat-resistant wiring

### Metal guard rings

These protect all hydraulic cylinders and improve reliability.



Grease-sealed track provides excellent undercarriage durability



Track link with strut  
The PC290-7 uses track links with struts, providing superb durability

## Harmony with the environment

### Low-emission engine

Komatsu SAA6D102E-2 is EC Stage II compliant, with reduced NOx emissions, compared to the PC290-6.

### Economy (environment) mode

'Economy' mode meets the needs of the 21st century. This mode offers the user fuel savings, quiet operation, and less CO<sub>2</sub> emissions.

### Low noise

Noise has been reduced from the engine as well as from swing and hydraulic operations. The dynamic noise level is just 73 dB(A) at operator ear level (ISO 6369).

### Easy end-of-life recycling

The PC290-7 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.

# VHMS

## VHMS (Vehicle Health Monitoring System)

The VHMS's precise health-check system indicates all of 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.

### New features: VHMS machine health monitoring

- Up to four different mechanical system measurements can be monitored at the same time.
- A "Maintenance Indicator" function has been added. (Filter and oil replacement time display function).
- Mechanical system failures are now monitored, in addition to electrical system failures.
- Failures are indicated with a 6-digit failure code.

### Displays running conditions and abnormality indications

At the operator's fingertips: the VHMS controller 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.

### Maintenance alert assistance

The VHMS monitor alerts when oil and filters need to be replaced.

### Operation data memory

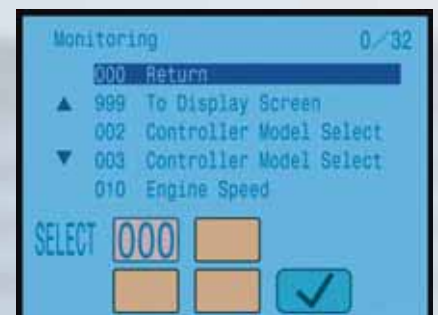
The system memorises machine operating data such as engine output, hydraulic pressure, and more.

### Trouble data memory

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

### VHMS 'real time monitoring system'

The 'real time monitoring system' displays up to four different operating parameters simultaneously, giving the mechanic 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.



Real time monitoring

## Reducing maintenance costs

### Extended replacement intervals for engine oil and filters

New, high-performance filters are used in the hydraulic circuit and engine. Replacement intervals for the hydraulic oil filter have been significantly extended, reducing maintenance costs.

Replacement intervals	PC290-7
Engine oil	500 h
Engine oil filter	500 h
Hydraulic oil	5.000 h
Hydraulic oil filter	1.000 h

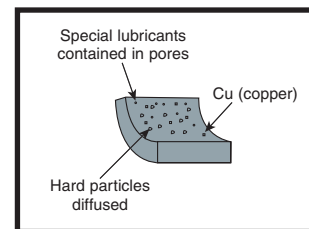
### Fuel tank capacity increased

The fuel tank capacity has increased from 340 litres to 400 litres to extend the operating hours before refuelling. The fuel tank is treated for rust prevention for improved corrosion resistance.

### With SCSH bushings, all work equipment lubrication intervals have been extended

Newly-developed SCSH (Steel Copper Sinter Hard Material) bushings are used on all work equipment joints\*. As a result, all work equipment bushing lubrication intervals have been significantly extended, with some joints only needing lubrication every 500 hours, thus reducing maintenance costs.

\* Available for bucket pin, depending on bucket design



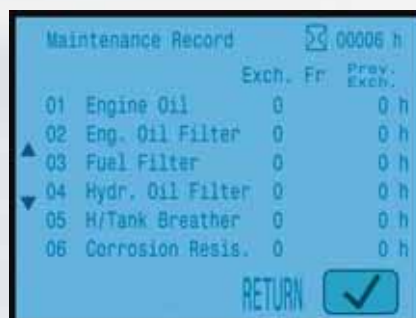
SCSH bushing

### Tungsten carbide-injected bushing

Tungsten carbide is injected into the end faces of the arm-top bushing to form a hard film. This reduces the wear of the surface contact areas and fluttering of the bucket.



Trouble data memory



Maintenance record



Maintenance mode change

# MAINTENANCE FEATURES

## Easy maintenance

Komatsu designed the PC290-7 to have easy service access. By doing this, routine maintenance and servicing are less likely to be skipped. This can mean a reduction in costly downtime later on. Here are some of the many service features found on the PC290-7:

### Easy radiator cleaning

The clearance between the radiator and oil cooler has been increased to facilitate radiator core cleaning with an air nozzle.



### Water separator

This is standard equipment which removes any water that has become mixed with the fuel, preventing fuel system damage.



### 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.



### Auto greasing (optional)

A factory-installed Automatic Greasings System (AGS) ensures proper lubrication and saves driver maintenance downtime. Factory installation includes welding protective, heavy-duty line shielding onto the dipper arm during the manufacturing process, before painting. The central lubrication system uses reinforced hoses to carry the lubricant to all of the lubrication points, and is governed by several distribution blocks. Lubrication cycles may be adjusted to the operator's preference.



# SPECIFICATIONS



## ENGINE

Model..... Komatsu SAA6D102E-2  
 Type..... Direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel  
 Rated capacity..... 134 kW/179 HP (ISO 9249 Net) at engine speed .....2.050 rpm  
 No. of cylinders ..... 6  
 Bore x stroke ..... 102 x 120 mm  
 Displacement..... 5,88 ltr  
 Battery ..... 2 x 12 V/95 Ah  
 Alternator..... 24 V/60 A  
 Starter motor ..... 24 V/5,5 kW  
 Air filter type..... Double element type with monitor panel dust indicator and auto dust evacuator  
 Cooling ..... Suction type cooling fan with radiator fly screen



## HYDRAULIC SYSTEM

Type..... HydrauMind. Closed-centre system with load sensing and pressure compensation valves  
 Additional circuits..... Depending on the specification up to 2 additional circuits can be installed  
 Main pump..... 2 variable displacement piston pumps supplying boom, arm, bucket, swing and travel circuits  
 Maximum pump flow..... 2 x 225 ltr/min  
 Relief valve settings  
 Implement ..... 380 kg/cm<sup>2</sup>  
 Travel..... 380 kg/cm<sup>2</sup>  
 Swing ..... 290 kg/cm<sup>2</sup>  
 Pilot circuit..... 33 kg/cm<sup>2</sup>



## ENVIRONMENT

Engine emissions ..... Fully complies with EC Stage II exhaust emission regulations  
 Noise levels  
 LwA external ..... 105 dB(A) (2000/14/EC)  
 LpA operator ear ..... 73 dB(A) (ISO 6369 dynamic test)



## OPERATING WEIGHT (APPR.)

Operating weight, including 5.850 mm mono boom, two-piece boom, 3,0 m arm, 1,16 m<sup>3</sup> bucket, operator, lubricant, coolant, full fuel tank and the standard equipment.



## SWING SYSTEM

Type..... Axial piston motor driving through planetary double reduction gearbox  
 Swing lock ..... Electrically actuated wet multi-disc brake integrated into swing motor  
 Swing speed ..... 0 - 10,5 rpm



## 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 ..... 3,0 / 4,1 / 5,5 km/h  
 Maximum drawbar pull ..... 25.400 kg  
 Brake system..... Hydraulically operated discs in each travel motor



## UNDERCARRIAGE

Construction ..... X-frame centre section with box section track-frames  
 Track assembly  
 Type..... Fully sealed  
 Shoes (each side) ..... 45 (PC290LC / PC290NLC)  
 Tension..... Combined spring and hydraulic unit  
 Rollers  
 Track rollers (each side) ..... 7 (PC290LC / PC290NLC)  
 Carrier rollers (each side) ..... 2



## COOLANT AND LUBRICANT CAPACITY (REFILLING)

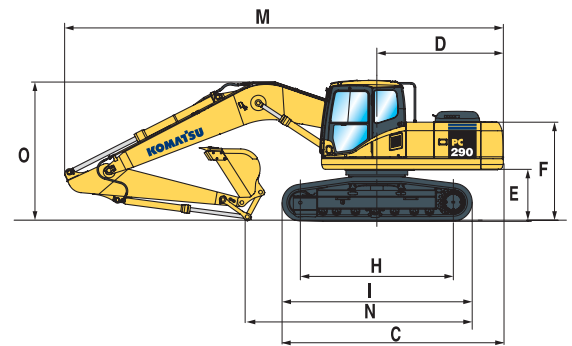
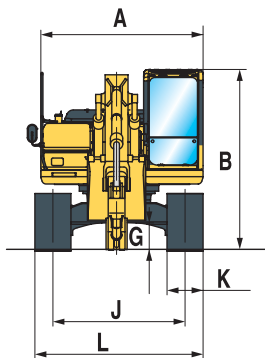
Fuel tank..... 400,0 ltr  
 Radiator..... 30,9 ltr  
 Engine oil..... 24,0 ltr  
 Swing drive ..... 6,6 ltr  
 Hydraulic tank..... 143,0 ltr  
 Final drive (each side) ..... 7,8 ltr

	MONO BOOM				TWO-PIECE BOOM			
	PC290LC-7		PC290NLC-7		PC290LC-7		PC290NLC-7	
Triple grouser shoes	Operating weight	Ground pressure	Operating weight	Ground pressure	Operating weight	Ground pressure	Operating weight	Ground pressure
600 mm	28.130 kg	0,58 kg/cm <sup>2</sup>	28.080 kg	0,58 kg/cm <sup>2</sup>	29.010 kg	0,65 kg/cm <sup>2</sup>	28.960 kg	0,65 kg/cm <sup>2</sup>
700 mm	28.480 kg	0,51 kg/cm <sup>2</sup>	28.430 kg	0,51 kg/cm <sup>2</sup>	29.360 kg	0,57 kg/cm <sup>2</sup>	29.310 kg	0,57 kg/cm <sup>2</sup>
800 mm	28.830 kg	0,45 kg/cm <sup>2</sup>	28.780 kg	0,45 kg/cm <sup>2</sup>	29.710 kg	0,50 kg/cm <sup>2</sup>	29.660 kg	0,50 kg/cm <sup>2</sup>
850 mm	29.005 kg	0,43 kg/cm <sup>2</sup>	28.995 kg	0,43 kg/cm <sup>2</sup>	29.885 kg	0,48 kg/cm <sup>2</sup>	29.835 kg	0,48 kg/cm <sup>2</sup>

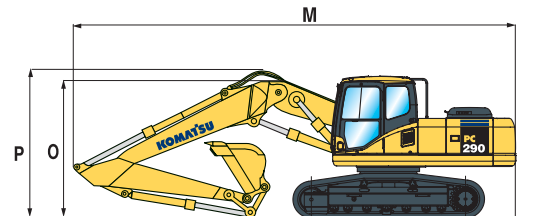
# MACHINE DIMENSIONS

MACHINE DIMENSIONS		PC290LC-7	PC290NLC-7
A	Overall width of upper structure	2.710 mm	2.710 mm
B	Overall height of cab	3.100 mm	3.100 mm
C	Overall length of basic machine	5.220 mm	5.220 mm
D	Tail length	2.905 mm	2.905 mm
	Tail swing radius	2.940 mm	2.940 mm
E	Clearance under counterweight	1.185 mm	1.185 mm
F	Machine tail height	2.560 mm	2.560 mm
G	Ground clearance	500 mm	500 mm
H	Track length on ground	3.700 mm	3.700 mm
I	Track length	4.625 mm	4.625 mm
J	Track gauge	2.590 mm	2.390 mm
K	Track shoe width	600, 700, 800, 850 mm	600, 700, 800, 850 mm
L	Overall track width with 600 mm shoe	3.190 mm	2.990 mm
	Overall track width with 700 mm shoe	3.290 mm	3.090 mm
	Overall track width with 800 mm shoe	3.390 mm	3.190 mm
	Overall track width with 850 mm shoe	3.440 mm	3.240 mm

## MONO BOOM



## TWO-PIECE BOOM



ARM LENGTH		MONO BOOM				TWO-PIECE BOOM		
		2,0 m	2,5 m	3,0 m	3,5 m	2,5 m	3,0 m	3,5 m
M	Transport length	9.820 mm	9.940 mm	9.790 mm	9.890 mm	10.050 mm	10.015 mm	9.970 mm
N	Length on ground (transport)	6.420 mm	5.960 mm	5.180 mm	4.790 mm	6.770 mm	6.060 mm	5.765 mm
O	Overall height (to top of boom)	3.200 mm	3.320 mm	3.210 mm	3.280 mm	3.130 mm	3.130 mm	3.230 mm
P	To top of hose	-	-	-	-	3.515 mm	3.550 mm	3.730 mm



**BUCKET OPTIONS & DIGGING FORCES**

Specifications and equipment may vary according to regional availability

**PC290LC-7 / PC290NLC-7**

BUCKET AND ARM COMBINATION			PC290LC-7				PC290NLC-7			
Width	Capacity SAE	Weight	2,0 m	2,5 m	3,0 m	3,5 m	2,0 m	2,5 m	3,0 m	3,5 m
800 mm	0,85 m <sup>3</sup>	890 kg	○	○	○	○	○	○	○	○
1.000 mm	1,13 m <sup>3</sup>	1.010 kg	○	○	○	○	○	○	○	○
1.200 mm	1,42 m <sup>3</sup>	1.160 kg	○	○	○	○	○	○	○	○
1.400 mm	1,75 m <sup>3</sup>	1.290 kg	○	○	○	□	○	○	○	□
1.500 mm	1,87 m <sup>3</sup>	1.350 kg	○	○	□	△	○	○	□	△
1.600 mm	2,02 m <sup>3</sup>	1.400 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.

- Material weight up to 1,8 t/m<sup>3</sup>
- Material weight up to 1,5 t/m<sup>3</sup>
- △ Material weight up to 1,2 t/m<sup>3</sup>
- Not usable

**A full range of Komatsu wear parts is available.**

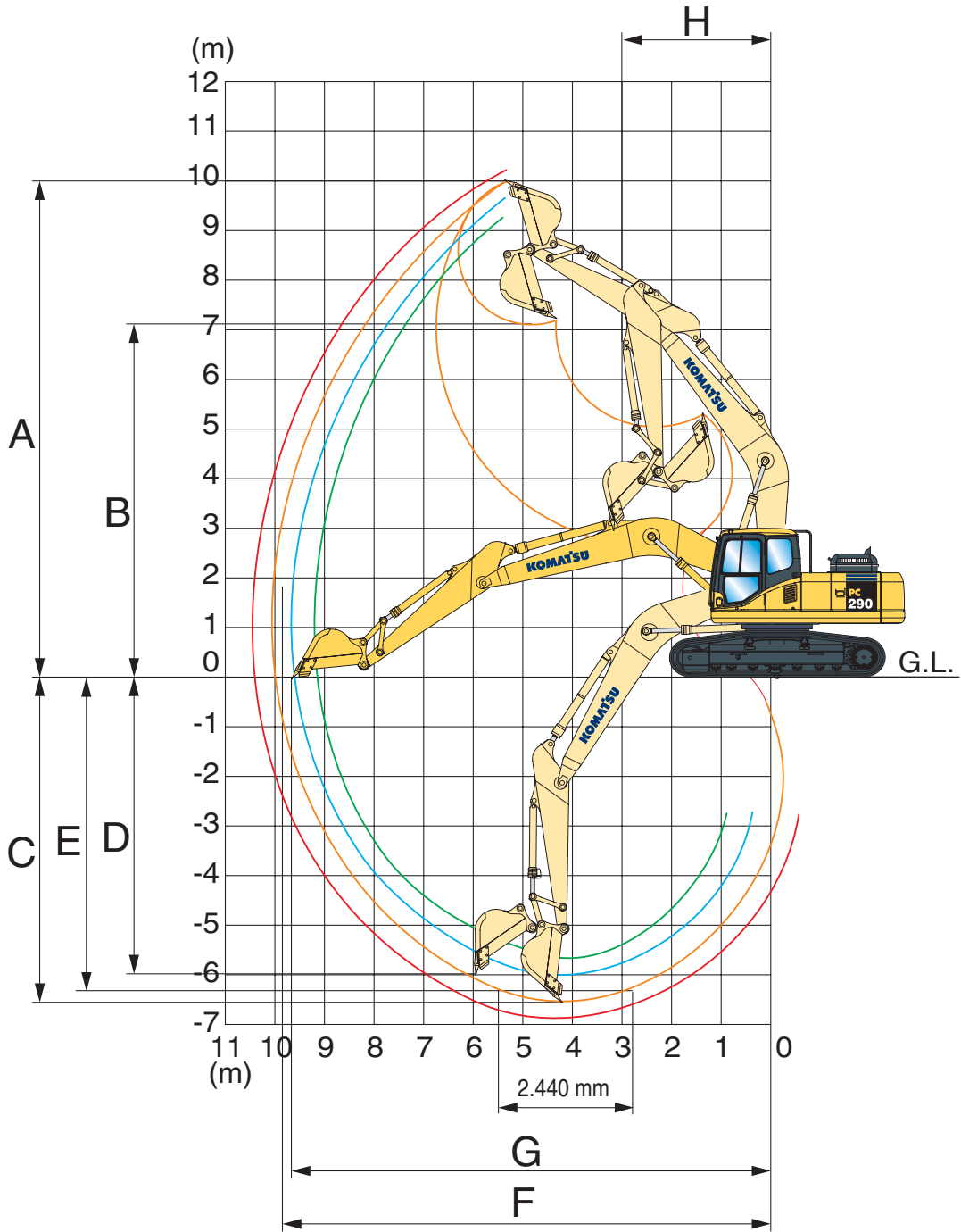
A wide range of attachments is available. Please consult your distributor for details of the full range.



BUCKET AND ARM FORCE				
Arm length	2,0 m	2,5 m	3,0 m	3,5 m
Bucket digging force	21.600 kg	21.600 kg	18.800 kg	18.800 kg
Bucket digging force at Powermax.	23.100 kg	23.100 kg	20.200 kg	20.200 kg
Arm crowd force	17.600 kg	16.200 kg	14.100 kg	12.000 kg
Arm crowd force at Powermax.	18.800 kg	17.300 kg	15.100 kg	12.800 kg

# WORKING RANGES

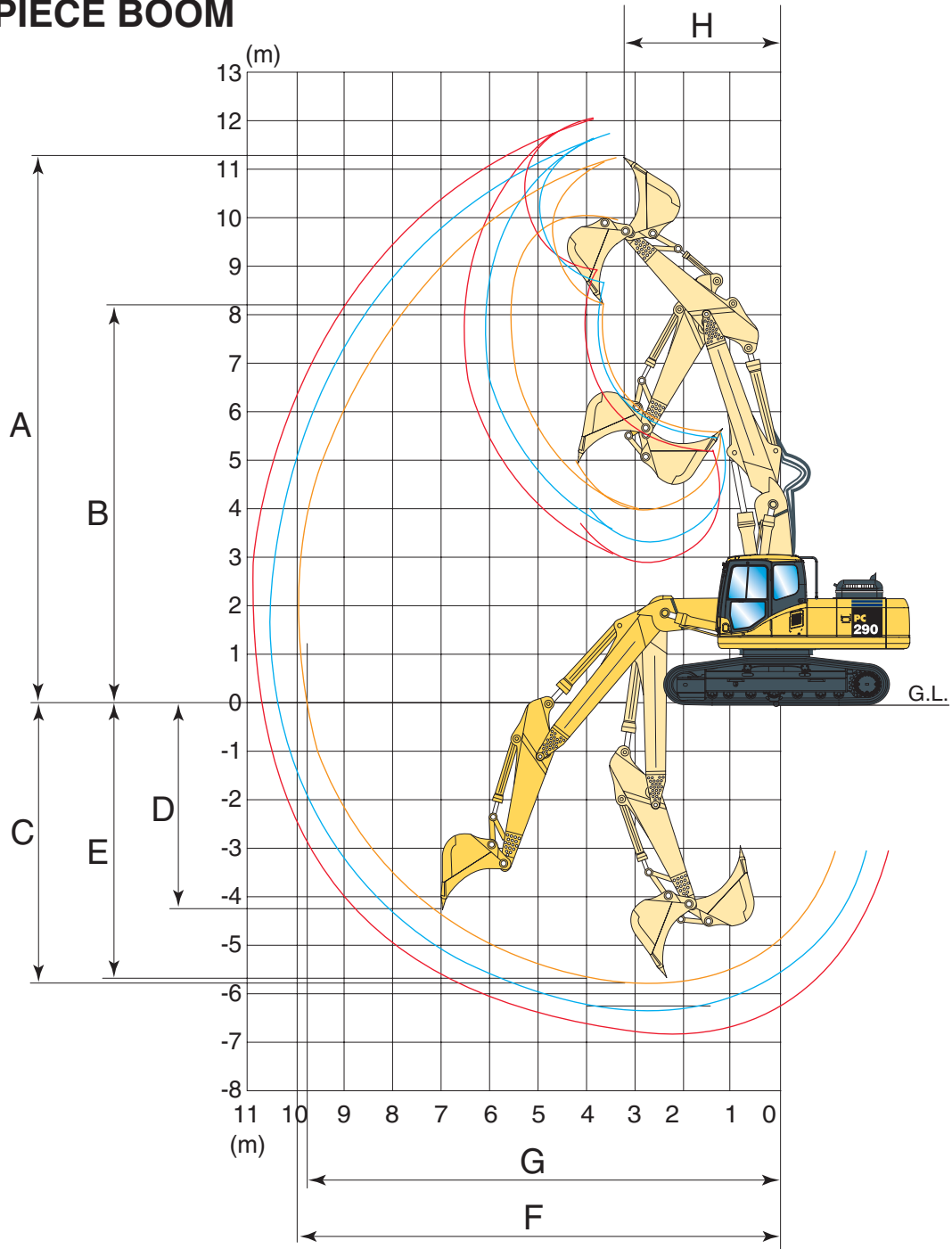
## MONO BOOM



ARM LENGTH		2,0 m	2,5 m	3,0 m	3,5 m
A	Max. digging height	9.540 mm	9.620 mm	10.000 mm	10.130 mm
B	Max. dumping height	6.600 mm	6.720 mm	7.035 mm	7.200 mm
C	Max. digging depth	5.440 mm	5.940 mm	6.460 mm	6.940 mm
D	Max. vertical wall digging depth	4.580 mm	4.800 mm	5.650 mm	5.930 mm
E	Max. digging depth of cut for 2,44 m level	5.320 mm	5.750 mm	6.320 mm	6.790 mm
F	Max. digging reach	9.260 mm	9.650 mm	10.100 mm	10.570 mm
G	Max. digging reach at ground level	9.050 mm	9.450 mm	9.990 mm	10.390 mm
H	Min. swing radius	3.550 mm	3.500 mm	3.430 mm	3.490 mm



TWO-PIECE BOOM



ARM LENGTH		2,5 m	3,0 m	3,5 m
A	Max. digging height	11.300 mm	11.800 mm	12.100 mm
B	Max. dumping height	8.264 mm	8.689 mm	8.981 mm
C	Max. digging depth	5.742 mm	6.294 mm	6.735 mm
D	Max. vertical wall digging depth	4.226 mm	4.732 mm	5.104 mm
E	Max. digging depth of cut for 2,44 m level	5.642 mm	6.202mm	6.648 mm
F	Max. digging reach	10.000 mm	10.550 mm	10.970 mm
G	Max. digging reach at ground level	9.800 mm	10.370 mm	10.800 mm
H	Min. swing radius	3.184 mm	3.010 mm	3.089 mm

# LIFTING CAPACITY

Arm length	A	7,5 m		6,0 m		4,5 m		3,0 m		1,5 m	

## PC290LC-7 MONO BOOM

With 700 mm shoe  3,5 m  848 kg 0,95 m³	6.0 m	kg	*2.400	*2.400	*4.300	*4.300								
	4.5 m	kg	*2.450	*2.450	*5.650	4.900	*6.600	*6.600						
	3.0 m	kg	*2.650	*2.650	*6.850	4.700	*7.950	6.900	*10.050	*10.050	*14.800	*14.800		
	1.5 m	kg	*2.950	*2.950	6.700	4.500	*9.350	6.500	*12.800	10.250	*12.500	*12.500		
	0.0 m	kg	*3.450	3.150	6.500	4.350	9.300	6.200	*14.600	9.650	*11.050	*11.050	*5.000	*5.000
	-1.5 m	kg	*4.300	3.400	6.400	4.250	9.000	5.900	14.750	9.400	*13.750	*13.750	*8.500	*8.500
	-3.0 m	kg	*5.900	4.000	6.350	4.250	8.950	5.900	14.700	9.350	*18.200	*18.200	*12.250	*12.250
	-4.5 m	kg	7.950	5.300			9.150	6.050	*13.100	9.550	*18.850	*18.850		

With 700 mm shoe  3,0 m  848 kg 0,95 m³	6.0 m	kg	*3.100	*3.100	*4.750	*4.750								
	4.5 m	kg	*3.150	*3.150	*6.500	4.850	*7.200	7.200						
	3.0 m	kg	*3.350	*3.350	6.900	4.700	*8.550	6.850	*11.000	10.900	*17.550	*17.550		
	1.5 m	kg	*3.700	3.350	6.700	4.550	9.600	6.500	*13.550	*10.150	*8.050	*8.050		
	0.0 m	kg	*4.300	3.400	6.550	4.400	9.300	6.200	15.050	9.850	*9.500	*9.500		
	-1.5 m	kg	*5.250	3.700	6.450	4.300	9.050	5.950	14.850	9.450	*13.600	*13.600	*8.550	*8.550
	-3.0 m	kg	6.550	4.400			9.150	6.050	*14.550	9.500	*19.500	19.500	*13.200	*13.200
	-4.5 m	kg	*8.350	6.000			*8.750	6.250	*12.300	9.700	*17.400	*17.400		

With 700 mm shoe  2,5 m  848 kg 0,95 m³	6.0 m	kg	*5.000	*5.000			*7.050	*7.050				
	4.5 m	kg	*5.150	4.250	7.000	4.800	*7.900	7.050	*9.450	*9.450		
	3.0 m	kg	*5.500	3.900	6.850	6.450	*9.150	6.750	*12.100	10.650		
	1.5 m	kg	5.550	3.750	6.650	4.500	9.550	6.400	*14.300	9.950		
	0.0 m	kg	5.750	3.650	6.550	4.400	9.300	6.200	14.950	9.550	*8.900	*8.900
	-1.5 m	kg	6.300	4.250	6.500	4.350	9.200	6.100	14.850	9.500	*15.200	*15.200
	-3.0 m	kg	*7.700	5.150			9.250	6.150	*13.950	9.600	*19.550	*19.550
	-4.5 m	kg	*8.950	7.650					*10.950	9.900		

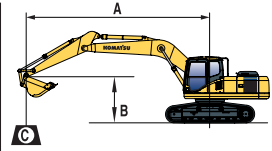
With 700 mm shoe  2,0 m  848 kg 0,95 m³	6.0 m	kg	*5.100	*5.100			*7.850	7.150				
	4.5 m	kg	*5.200	4.600	*5.950	4.700	*8.500	6.950	*10.400	*10.400	*14.950	*14.950
	3.0 m	kg	*5.550	4.150	6.750	4.800	*9.650	6.650	*12.950	10.400		
	1.5 m	kg	5.950	4.050	6.600	4.450	9.450	6.350	*14.850	9.750		
	0.0 m	kg	6.200	4.150	6.550	4.400	9.150	6.050	14.850	9.500		
	-1.5 m	kg	6.950	4.650			9.200	6.100	14.850	9.500	*15.900	*15.900
	-3.0 m	kg	8.700	5.850			9.300	6.200	*13.150	9.650	*17.800	*17.800
	-4.5 m	kg										

## PC290LC-7 TWO-PIECE BOOM

With 700 mm shoe  3,5 m  848 kg 0,95 m³	6.0 m	kg	*2.850	*2.850	*5.550	4.900	*6.550	*6.350	*6.350			
	4.5 m	kg	*2.850	*2.850	*6.950	4.800	*8.250	*7.100	*9.000	*9.000	*9.700	*9.700
	3.0 m	kg	*2.950	*2.950	6.850	4.650	*9.500	6.750	*12.600	10.700		
	1.5 m	kg	*3.200	3.100	6.650	4.500	9.500	6.400	*14.550	9.950		
	0.0 m	kg	*3.600	3.200	6.500	4.350	9.150	6.050	14.900	9.500	*7.050	*7.050
	-1.5 m	kg	*4.250	3.500	6.450	4.300	9.150	6.050	14.800	9.400	*11.250	*11.250
	-3.0 m	kg					9.050	5.950				
	-4.5 m	kg										

With 700 mm shoe  3,0 m  848 kg 0,95 m³	6.0 m	kg	*3.200	*3.200	*6.050	5.050	*6.550	*6.550	*6.000	*6.000		
	4.5 m	kg	*3.150	*3.150	7.150	4.950	*7.900	7.250	*8.100	*8.100	*7.800	*7.800
	3.0 m	kg	*3.200	3.200	7.000	4.800	*9.600	6.900	*12.600	10.850		
	1.5 m	kg	*3.400	3.105	6.800	4.600	9.650	6.500	*14.550	10.050		
	0.0 m	kg	*3.700	3.200	6.650	4.450	9.250	6.150	14.950	9.600		
	-1.5 m	kg	*4.250	3.500	6.550	4.400	9.200	6.100	14.800	9.450	*10.150	*10.150
	-3.0 m	kg					9.100	6.050				
	-4.5 m	kg										

With 700 mm shoe  2,5 m  848 kg 0,95 m³	6.0 m	kg	*5.100	4.450	*7.100	4.950	*8.250	7.400	*8.050	*8.050		
	4.5 m	kg	*5.000	3.850	7.100	4.900	*9.050	7.100	*11.200	*11.200		
	3.0 m	kg	*5.150	3.550	6.900	4.750	9.900	6.750	*13.300	10.350		
	1.5 m	kg	5.150	3.500	6.750	4.600	9.550	6.400	*15.050	9.800		
	0.0 m	kg	5.300	3.600	6.600	4.450	9.200	6.100	14.850	9.500		
	-1.5 m	kg	5.800	3.950	6.600	4.450	9.250	6.150	14.550	9.450		
	-3.0 m	kg										
	-4.5 m	kg										



A – Reach from swing center

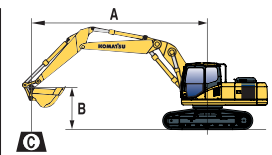
B – Bucket hook height

C – Lifting capacities, including bucket linkage (200 kg) and bucket cylinder (140 kg)

- Rating over front
- Rating over side
- Rating at maximum reach

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

With 700 mm shoe



A – Reach from swing center

B – Bucket hook height

C – Lifting capacities, including bucket linkage (200 kg) and bucket cylinder (140 kg)

- Rating over front
- Rating over side
- Rating at maximum reach

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

With 700 mm shoe

\* 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.

Arm length	A	7,5 m		6,0 m		4,5 m		3,0 m		1,5 m	
	B										

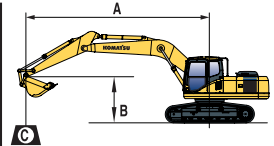
## PC290NLC-7 MONO BOOM

With 600 mm shoe  3,5 m  848 kg 0,95 m³	6.0 m	kg	*2.400	*2.400	*4.300	*4.300								
	4.5 m	kg	*2.450	*2.450	*5.650	4.400	*6.600	6.550						
	3.0 m	kg	*2.650	*2.650	6.800	4.250	*7.950	6.200	*10.050	9.950	*14.800	*14.800		
	1.5 m	kg	*2.950	2.750	6.550	4.050	*9.350	5.800	*12.800	9.100	*12.500	*12.500		
	0.0 m	kg	*3.450	2.800	6.400	3.850	9.150	5.500	*14.600	8.550	*11.050	*11.050	*5.000	*5.000
	-1.5 m	kg	*4.300	3.000	6.250	3.750	8.850	5.250	14.500	8.300	*13.750	*13.750	*8.500	*8.500
	-3.0 m	kg	*5.900	3.550	6.250	3.750	8.800	5.200	14.500	8.250	*18.200	16.550	*12.250	*12.250
	-4.5 m	kg	7.800	4.700			9.000	5.400	*13.100	8.450	*18.850	17.000		

With 600 mm shoe  3,0 m  848 kg 0,95 m³	6.0 m	kg	*3.100	*3.100	*4.750	4.450								
	4.5 m	kg	*3.150	*3.150	*6.500	4.350	*7.200	6.500						
	3.0 m	kg	*3.350	3.050	6.750	4.200	*8.550	6.150	*11.000	9.750	*17.550	*17.550		
	1.5 m	kg	*3.700	2.950	6.550	4.050	9.450	5.800	*13.550	9.000	*8.050	*8.050		
	0.0 m	kg	*4.300	3.000	6.400	3.900	9.150	5.550	14.800	8.550	*9.500	*9.500		
	-1.5 m	kg	*5.250	3.300	6.350	3.800	8.900	5.300	14.600	8.350	*13.600	*13.600	*8.550	*8.550
	-3.0 m	kg	6.450	3.900			9.000	5.400	*14.550	8.400	*19.500	16.850	*13.200	*13.200
	-4.5 m	kg	*8.350	5.350			*8.750	5.550	*12.300	8.600	*17.400	17.300		

With 600 mm shoe  2,5 m  848 kg 0,95 m³	6.0 m	kg	*5.000	4.550			*7.050	6.600				
	4.5 m	kg	*5.150	3.850	6.850	4.300	*7.900	6.400	*9.450	*9.450		
	3.0 m	kg	*5.500	3.450	6.700	4.150	*9.150	6.050	*12.100	9.500		
	1.5 m	kg	5.450	3.350	6.550	4.000	9.400	5.750	*14.300	8.850		
	0.0 m	kg	5.650	3.400	6.400	3.900	9.150	5.500	14.700	8.500	*8.900	*8.900
	-1.5 m	kg	6.200	3.750	6.400	3.850	9.000	5.400	14.600	8.400	*15.200	*15.200
	-3.0 m	kg	7.600	4.500			9.100	5.450	*13.950	8.500	*19.550	17.050
	-4.5 m	kg	*8.950	6.850					*10.950	8.800		

With 600 mm shoe  2,0 m  848 kg 0,95 m³	6.0 m	kg	*5.100	5.000			*7.850	6.450				
	4.5 m	kg	*5.200	4.150	*5.950	4.200	*8.500	6.250	*10.400	10.050	*14.950	*14.950
	3.0 m	kg	*5.550	3.700	6.650	4.100	9.650	5.950	*12.950	9.250		
	1.5 m	kg	5.850	3.600	6.500	4.000	9.300	5.650	*14.850	8.650		
	0.0 m	kg	6.100	3.700	6.400	3.900	9.000	5.400	14.600	8.400		
	-1.5 m	kg	6.800	4.150			9.050	5.450	14.600	8.400	*15.900	*15.900
	-3.0 m	kg	8.600	5.200			9.150	5.550	*13.150	8.550	*17.800	17.200
	-4.5 m	kg										



A – Reach from swing center

B – Bucket hook height

C – Lifting capacities, including bucket linkage (200 kg) and bucket cylinder (140 kg)



– Rating over front



– Rating over side



– Rating at maximum reach

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

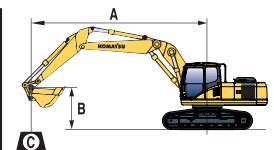
With 600 mm shoe

## PC290NLC-7 TWO-PIECE BOOM

With 600 mm shoe  3,5 m  848 kg 0,95 m³	6.0 m	kg	*2.500	*2.500	*5.250	4.650	*5.650	*5.650	*5.200	*5.200		
	4.5 m	kg	*2.500	*2.500	*6.250	4.500	*6.800	6.650	*6.750	*6.750	*5.950	*5.950
	3.0 m	kg	*2.550	*2.550	6.900	4.300	*9.100	6.250	*11.750	9.900	*17.950	*17.950
	1.5 m	kg	*2.750	2.600	6.650	4.100	9.500	5.850	*13.950	9.000		
	0.0 m	kg	*3.050	2.650	6.500	3.950	9.150	5.500	14.750	8.450	*8.000	*8.000
	-1.5 m	kg	*3.550	2.850	6.400	3.850	9.000	5.350	14.500	8.250	*11.000	*11.000
	-3.0 m	kg			6.400	3.850	9.000	5.350	*14.000	8.300		
	-4.5 m	kg										

With 600 mm shoe  3,0 m  848 kg 0,95 m³	6.0 m	kg	*3.200	*3.200	*6.050	4.600	*6.550	*6.550	*6.000	*6.000		
	4.5 m	kg	*3.150	3.050	7.050	4.500	*7.900	6.550	*8.100	*8.100	*7.800	*7.800
	3.0 m	kg	*3.200	2.850	6.850	4.300	*9.600	6.200	*12.600	9.700		
	1.5 m	kg	*3.400	2.800	6.650	4.150	9.500	5.800	*14.550	8.900		
	0.0 m	kg	*3.700	2.850	6.500	4.000	9.100	5.450	14.700	8.500	*10.150	*10.150
	-1.5 m	kg	*4.250	3.100	6.450	3.950	9.050	5.450	14.550	8.350		
	-3.0 m	kg					8.950	5.350				
	-4.5 m	kg										

With 600 mm shoe  2,5 m  848 kg 0,95 m³	6.0 m	kg	*5.100	4.000	7.050	4.500	*8.250	6.700	*8.050	*8.050		
	4.5 m	kg	*5.000	3.450	6.950	4.400	*9.050	6.400	*11.200	10.250		
	3.0 m	kg	*5.150	3.200	6.800	4.250	9.750	6.050	*13.300	9.250		
	1.5 m	kg	5.050	3.100	6.650	4.100	9.400	5.750	14.950	8.700		
	0.0 m	kg	5.200	3.200	6.500	4.000	9.000	5.400	14.600	8.400		
	-1.5 m	kg	5.700	3.500	6.500	3.950	9.050	5.450	*14.550	8.350		
	-3.0 m	kg										
	-4.5 m	kg										



A – Reach from swing center

B – Bucket hook height

C – Lifting capacities, including bucket linkage (200 kg) and bucket cylinder (140 kg)



– Rating over front



– Rating over side



– Rating at maximum reach

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

With 600 mm shoe

\* 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.

# HYDRAULIC EXCAVATOR



## STANDARD EQUIPMENT

- Komatsu SAA6D102E-2 134 kW direct injection emissionised Stage II intercooled turbocharged engine
- 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
- Engine key stop
- Alternator 24 V/60 A
- Batteries 2 × 12 V/95 Ah
- Starter motor 24 V/5,5 kW
- Electronic closed-centre load sensing (E-CLSS) hydraulic system (HydraMind)
- Pump and engine mutual control (PEMC) system
- Multi-function colour monitor with equipment management monitoring system (EMMS)
- 4-working mode selection system; Active mode, economy mode, breaker mode and lifting mode
- Standard counterweight
- PowerMax function
- Auto-deceleration function
- Automatic engine warm-up system
- Engine overheat prevention system
- Fuel control dial
- Adjustable PPC wrist control levers with 3 button controls for arm, boom, bucket and swing
- PPC control levers and pedals for steering and travel
- 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
- SpaceCab™; Highly pressurised and tightly sealed viscous mounted cab with tinted safety glass windows, opening roof hatch with window pull-up type front window with locking device, removable lower window, front window wiper with intermittent feature, ashtray, luggage box, floor mat
- Track roller guards
- Parts book and operator manual
- Lockable fuel cap and covers
- Remote greasing for swing circle and pins
- Fuel supply pump
- Track frame under-guards
- 12 Volt power supply
- Overload warning device
- Boom safety valves
- Climate control/Air conditioning
- Large handrails and rear-view mirrors
- Cigarette lighter
- Radio cassette preparation
- Beverage holder and magazine rack
- Electric horn
- Hot and cool box
- Toolkit and spare parts for first service
- Lights; 2 revolving frame lights and 1 boom light
- Suspension seat with adjustable arm rests and retractable seat belt
- Engine ignition can be password secured on request
- Standard colour scheme and decals

## OPTIONAL EQUIPMENT

- LC and NLC undercarriages
- 600, 700, 800, 850 mm triple grouser track-shoes
- Mono boom / Two-piece boom
- 2,0 m, 2,5 m, 3,0 m, 3,5 m arms
- Automatic greasing system
- Additional hydraulic circuits
- OPG Level II top guard (FOPS)
- OPG Level II front guard (FOPS)
- Heated air suspension seat
- Full length track roller guards
- Radio cassette
- Service points
- Bio oil
- Additional cab roof lights + Beacon preparation
- Rain visor
- Komatsu buckets
- Arm safety valve

**KOMATSU®**

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