

KOMATSU

Utility

PC
12R-8



PC12R-8

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MINI-EXCAVATOR

NET POWER
SAE J1349
10,7 kW - 14,3 HP

OPERATING WEIGHT
From 1.475 kg
to 1.675 kg

SHAPING TECHNOLOGY

Fruit of KOMATSU technology and experience, the PC12R-8 miniexcavator responds perfectly to all requirements for compactness, easy handling and high performance. Ruggedness and excellent stability guarantee safety and confidence in all conditions. The characteristic tubular structure and the geometry of the boom ensure excellent digging parameters and optimum visibility on the work area. A wide range of possible configurations and the possibility to use the machine with various different attachments make it the best and indeed often the only solution for many difficult applications.

Engine

The PC12R-8 miniexcavator is fitted with a KOMATSU engine that guarantees all the power required and low fuel consumption. The advanced technology applied means minimum levels of noise and emissions.

Hydraulic System

The PC12R-8 uses the famous **CLSS** (*Closed Load Sensing System*) hydraulic circuit, that is, a closed-centre circuit with load sensing that ensures maximum controllability and extremely precise movements.



Total Comfort

Designed with the utmost care in every minimum detail, the driving position offers the maximum operating comfort. Easy access, comfort, ergonomic controls, an efficient monitor for controlling the main functions and visibility in all directions, either in the standard version with canopy and in the version with cab.





“PPC” Proportional Servocontrols

The ease of use that characterizes the PC12R-8 allows even less expert operators to get the most out of their work. The dedicated controls for every movement are easy to understand and ergonomic. A smooth and constant response of the hydraulic system and perfect visibility on the work area are the features that ensure maximum output even in the most difficult situations.

Versatility

Owing to the considerable traction force, the machine can move easily even in the most demanding conditions. The wide boom swing angle allows the operator to work without difficulty even in the presence of obstacles or along walls. Large rear guards protect the body of the machine from accidental impacts and improve stability during work. The hydraulic hoses are protected inside the structure of the arms and are screwed onto the jacks to simplify replacement.

High Stability

For the applications requiring maximum versatility in terms of size and stability, the PC12R-8 is available in the **HS (High Stability)** version with hydraulic extension of the undercarriage, which can be easily obtained by operating a push button and the blade control lever from the driver's seat. This device makes the machine much more stable during work, with no compromise on manoeuvrability in restricted spaces.



Maintenance

Routine maintenance takes just a few minutes and is extremely simple to perform, without requiring any special tool. The diesel oil tank made of special plastic prevents rusting and simplifies periodic cleaning operations. The easy-to-reach engine, the use of self-lubricating bushings in the arms and the high reliability of the components have made it possible to drastically reduce maintenance times, thus lowering operating costs.



SPECIFICATIONS



ENGINE

Model.....Komatsu 3D68E-N3FB
 Typelow emissions 4-cycle diesel engine
 Displacement784 cm³
 Cyl. bore x stroke68 x 72 mm
 Number of cylinders3
 Combustionswirl pre-combustion chamber type
 Aspirationnatural aspiration
 Max power12,7 kW - 17 HP
 Rated power:
 (SAE J 1349)10,6 kW - 14,3 HP - 2.450 rpm
 (80/1269/EC)10,3 kW - 14,0 HP - 2.450 rpm
 Max torque49 Nm - 1.800 rpm
 Cooling system.....water
 Dry systemdry
 Startingelectric motor with pre-heating air system
 for cold climate



OPERATING WEIGHT

Operational mass with standard bucket, fully serviced + 80 kg operator (ISO 6016).

Operating weight with rubber shoes.....1.475 kg
 Operating weight with steel shoes1.550 kg (optional)
 Heated cab weight+130 kg (optional)
 Variable undercarriage weight (HS version).....+ 80 kg (optional)



HYDRAULIC SYSTEM

TypeKOMATSU CLSS
 Main pumps3 x gear pump
 Max delivery.....25+10,3+6,8 l/min

Operating pressure:
 working equipment.....18,6 MPa (186 bar)

Hydraulic motors
 travel18,6 MPa (186 bar)
 swing.....12,3 MPa (123 bar)

Hydraulic cylinders	bore x stroke
boom 55 x 354 (canopy) - 55 x 342 (cab) mm	
arm50 x 403 mm	
bucket.....50 x 385 mm	
boom rotation60 x 313 mm	
blade60 x 60 mm	

Bucket breakout force (ISO 6015):
 Arm 880 mm.....1.320 daN (1.350 kg)
 Arm 1.130 mm.....1.320 daN (1.350 kg)
 Arm breakout force (ISO 6015):
 Arm 880 mm.....825 daN (840 kg)
 Arm 1.130 mm.....706 daN (720 kg)

Digging equipment are fully controlled by PPC servo-controls.
 All movements are stopped by lifting the safety levers on the tiltable cases.



SWING SYSTEM

The rotation is operated by means of an orbital hydraulic motor. Single ball - bearing ring with internal, induction hardened toothring. Centralised lubrication of the unit.

Swing speed9 rpm



TRANSMISSION

Typehydrostatic transmission, controlled
 and steered by means of two levers and two pedals

Hydraulic motors2 x axial pistons
 Reduction systemepicyclic reduction gear
 Max traction force1.130 daN - (1.155 kg)
 Travel speed.....2 km/h



BLADE

Type.....electrowelded, single unit structure

Width x height1.000 x 250 mm
 Max. lifting above ground level.....175 mm
 Max depth below ground level155 mm



UNDERCARRIAGE

Central lower frame and carriage frame with boxed section.

Shoes.....n. 31
 Track rollsn. 3 each side
 Shoes width (steel/rubber)230 mm
 Ground pressure (std. version).....0,3 kg/cm

Hydraulically operated track extension (HS version - optional).



ELECTRIC SYSTEM

Operating voltage12 V
 Battery45 Ah
 Alternator20 A
 Starter0,9 kW

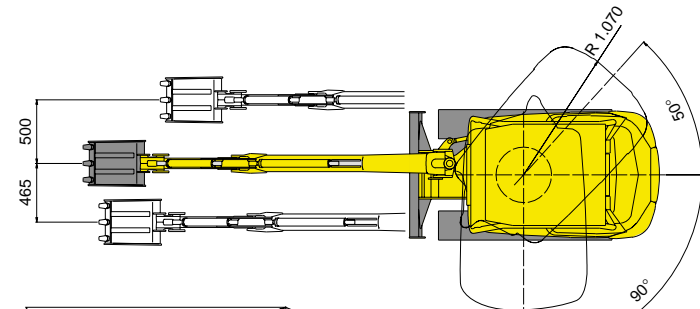


REFILLS

Fuel tank20 ℓ
 Radiator and system3,2 ℓ
 Engine oil2,8 ℓ
 Final reduction gears (for each side)0,6 ℓ
 Hydraulic oil tank.....23 ℓ

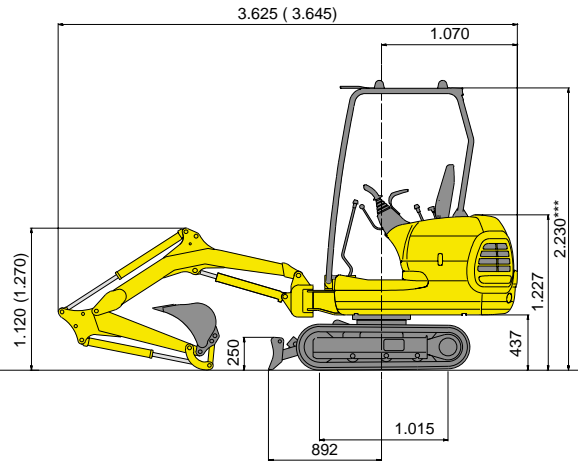
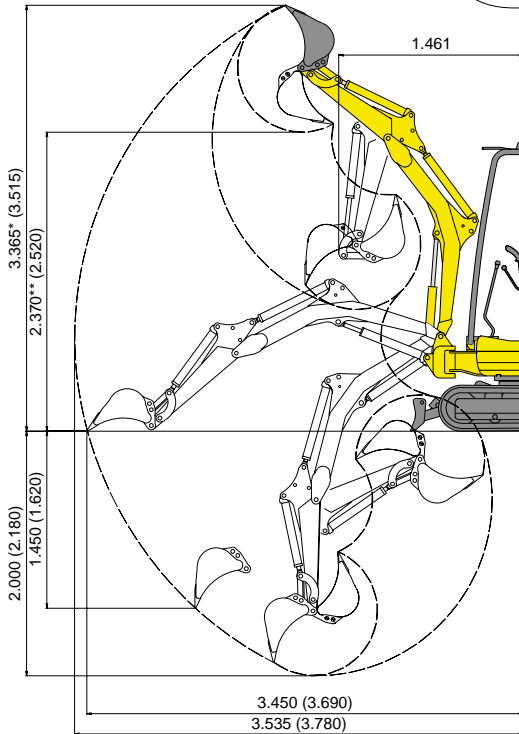
PC12R-8 MINI-EXCAVATOR

DIMENSIONS



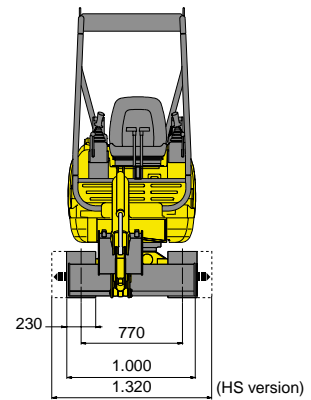
FRONT SWING RADIUS WITH 90° OFF-SET BOOM

Arm length	mm	880	1.130
Canopy	mm	985	1.050
Cab	mm	1.080	1.140



With cab: * mm 3,250 (3,326)
** mm 2,250 (2,351)
*** mm 2,370

() Dimensions with 1.130 mm arm length.



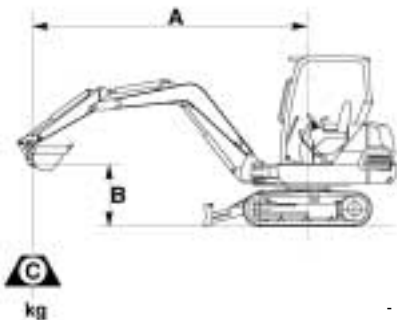
WORKING EQUIPMENT					
Bucket ISO 7451 m ³	Width mm	Weight kg	Number of teeth	Arm	
				880 mm	1.130 mm
0,03	250	19	2	O	O
0,035	300	20	3	O	O
0,04	350	22	3	O	O
0,05	400	23	3	O	X
0,06	450	25	4	O	X

This table is based on the lateral stability at the maximum outreach with full bucket.
- O with material density up to 1,8 t/m³; - X non usable.

LIFTING CAPACITY

Machine with canopy, rubber shoes and 22 kg bucket
A- Distance from machine's center B- Height at bucket pin

Capacity over front Lateral or 360° capacity



LOWERED BLADE

Arm length	B	A	2 m		Full extended	
			360°	Front	360°	Front
L=880 mm	2 m	*240	*245	145	*195	
	1 m	260	*345	130	*205	
	0 m	250	*335	130	*210	
	-1 m	260	*355	170	*260	
L=1.130 mm	0 m	250	*345	115	*185	

- Data are based on ISO 10567 standard. Above lifting capacities include a 25% safety margin and don't exceed 87% of the actual capacity. Values with asterisk (*) are referred to hydraulic capacities.

PC12R-8 MINI-EXCAVATOR

STANDARD EQUIPMENT

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> • Rubber shoes • Blade • Swing boom • Boom cylinder protection • 880 mm digging arm • Hydraulic hammer circuit with piping up to the boom • PPC servocontrols | <ul style="list-style-type: none"> • TOPS-FOPS canopy • Indicators: hour meter, fuel level, engine oil level, engine oil pressure, cooling system temperature light, engine pre-heating • Independent boom-swing control • Swing lock pin • Internal storage compartment | <ul style="list-style-type: none"> • Working light on boom • External electric plug |
|---|---|---|

OPTIONAL EQUIPMENT

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> • Steel shoes • Variable undercarriage (HS version) • 1.130 mm digging arm • Completion of attachment's hydraulic circuit up to the arm with quick coupler • 2-way equipment circuit | <ul style="list-style-type: none"> • Clamshell bucket • Canopy front guard • Heated TOPS cab with windshield wipers • Cab FOPS protection • Deluxe seat • Rotating beacon | <ul style="list-style-type: none"> • Biodegradable oil • Digging buckets range (250 ÷ 450 mm) • Ditch cleaning bucket (1.000 mm) • Hydraulic hammer |
|--|---|---|

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