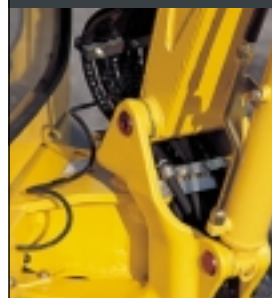




**PC**  
**27R-8**



PC27R-8

**PC27R-8**

MINI-EXCAVATOR

**NET POWER**  
SAE J1349  
19,4 kW - 26 HP

**OPERATING WEIGHT**  
From 2.970 kg  
to 3.065 kg



# SHAPING TECHNOLOGY

Fruit of KOMATSU technology and experience, the PC27R-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 design of the frame and the undercarriage enhance the machine's high resistance to stress. 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 PC27R-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 (STAGE 2).

## Hydraulic System

The PC27R-8 uses the famous **CLSS** (*Closed Load Sensing System*) hydraulic circuit, that is, a closed-centre circuit with load sensing, fed by a main, variable delivery pump that ensures smooth and perfectly synchronized combined movements. All this guarantees maximum productivity and minimum consumption.



## 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. The cab offers excellent comfort and visibility on the work area. The innovative design of the sliding door permits operation in all conditions, minimizing the risks of accidental contact.







### “PPC” Proportional Servocontrols

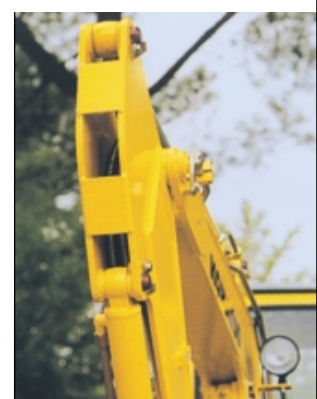
The ease of use that characterizes the PC27R-8 allows even less expert operators to get the most out of their work. The dedicated controls for every movement are easy to understand and ergonomic. A smooth and constant response of the hydraulic system and perfect visibility on the work area are the features that ensure maximum output even in the most difficult situations.

### Versatility

The PC27R-8 features two forward gears for faster transfers, to be selected using a special pedal in the cab. At the same time, the considerable traction force ensures that the machine can move easily even in the most demanding conditions. The wide boom swing angle allows the PC27R-8 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.

### Maintenance

Routine maintenance takes just a few minutes and is extremely simple to perform, without requiring any special tool. The use of special seals in the swing assembly and lubrication with hydraulic oil reduce maintenance and the risks of contamination. The design of the engine allows all the maintenance operations to be performed from one side only. The counterweight can be easily opened to clean the radiators. The use of special bushings on the arms has made it possible to extend the greasing intervals.



# SPECIFICATIONS



## ENGINE

New generation engine developed to comply with the strictest emission controls (STAGE 2).

Model .....	Komatsu 3D82AE-3FA
Type .....	low emissions 4-cycle diesel engine
Displacement .....	1.330 cm <sup>3</sup>
Cyl. bore x stroke .....	82 x 84 mm
Number of cylinders .....	3
Combustion .....	direct injection
Aspiration .....	natural aspiration
Max power .....	21,9 kW – 29,4 HP
Rated power:	
(SAE J 1349) .....	19,4 kW – 26,0 HP – 2.600 rpm
(80/1269/EC) .....	19,0 kW – 25,5 HP – 2.600 rpm
Max torque .....	81,5 Nm – 1.600 rpm
Cooling system .....	water
Dry system .....	dry
Starting .....	electric 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 .....	2.970 kg
Operating weight with steel shoes .....	3.065 kg
Canopy .....	-135 kg (optional)



## HYDRAULIC SYSTEM

Type .....	Komatsu CLSS
Main pumps .....	Variable displacement pump + gear pump
Max delivery .....	68 + 8,3 l/min
Operating pressure:	
working equipment .....	21,0 MPa (210 bar)
Hydraulic motors	
travel .....	21,0 MPa (210 bar)
swing .....	18,0 MPa (180 bar)

Hydraulic cylinders	bore x stroke
boom .....	75 x 519 mm
arm .....	70 x 526 mm
bucket .....	60 x 460 mm
boom rotation .....	80 x 495 mm
blade .....	70 x 175 mm

Bucket breakout force (ISO 6015):

Arm 1.200 mm .....	2.254 daN (2.300 kg)
Arm 1.500 mm .....	2.254 daN (2.300 kg)
Arm breakout force (ISO 6015):	
Arm 1.200 mm .....	1.421 daN (1.450 kg)
Arm 1.500 mm .....	1.235 daN (1.260 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 speed .....	9,0 rpm
-------------------	---------



## TRANSMISSION

Type .....

hydrostatic transmission, with 2 speeds controlled and steered by means of two levers and two pedals

Hydraulic motors .....	2 x axial pistons
Reduction system .....	epicyclic reduction gear
Max traction force .....	2.136 daN (2.180 kg)
Travel speed .....	2,2 - 4,4 km/h



## BLADE

Type .....

electrowelded, single unit structure

Width x height .....	1.500 x 315 mm
Max. lifting above ground level .....	400 mm
Max depth below ground level .....	330 mm



## UNDERCARRIAGE

Central lower frame and carriage frame with boxed section.

Shoes .....	n. 40 each side
Track rollers .....	n. 4 each side
Shoes width .....	300 mm
Ground pressure (standard) .....	0,31 kg/cm <sup>2</sup>



## ELECTRIC SYSTEM

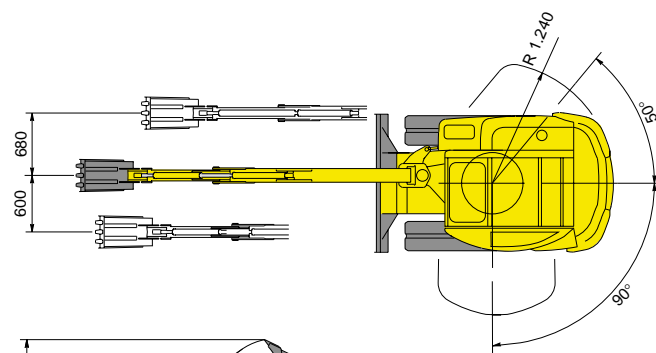
Operating voltage .....	12 V
Battery .....	80 Ah
Alternator .....	40 A
Starter .....	1,2 kW



## REFILLS

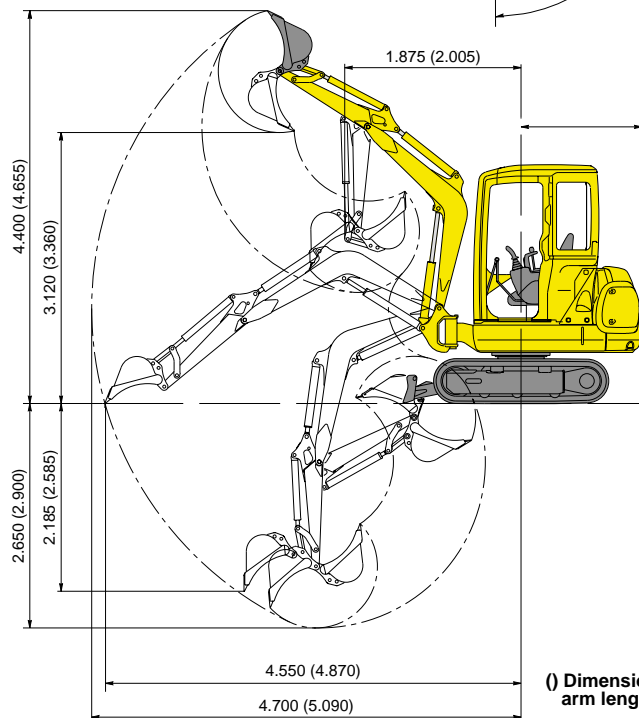
Fuel tank .....	35 l
Radiator and system .....	4,0 l
Engine oil .....	5,2 l
Final reduction gears (for each side) .....	0,7 l
Hydraulic oil tank .....	29 l

## DIMENSIONS

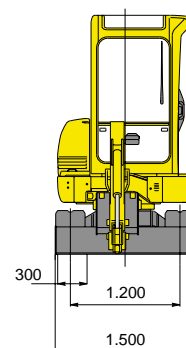
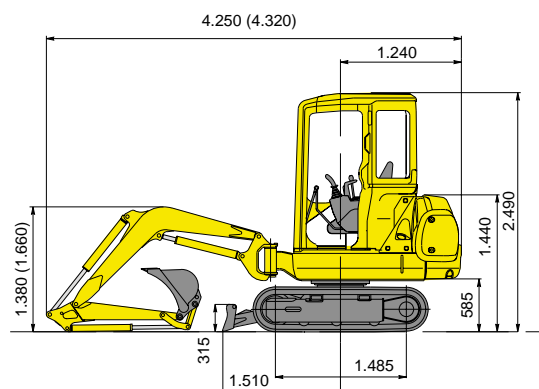


FRONT SWING RADIUS WITH OFF-SET BOOM

Arm length	mm	1.200	1.500
Canopy/Cab	mm	1.370	1.445



( ) Dimensions with 1.500 mm arm length.



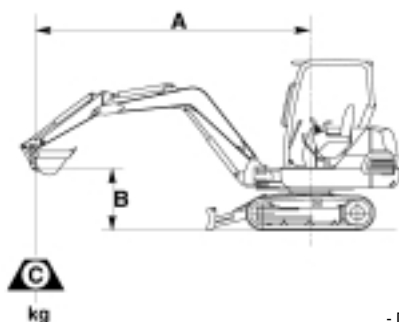
WORKING EQUIPMENT					
Bucket (ISO 7451) m³	Width mm	Weight kg	Number of teeth	Arm	
				1.200 mm	1.500 mm
0,045	250	32	2	O	O
0,06	350	40	3	O	O
0,075 (std)	450	52	4	O	O
0,095	600	60	5	O	O
0,105	650	65	5	O	X

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, steel shoes and 52 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		3 m		4 m		Full extended
			360°	Front	360°	Front	360°	Front	
L=1.200 mm	2 m		*860	*860	*550	*730	320	*460	375
	1m		850	*1.360	530	*750	310	*390	300
	0 m		850	*1.340	520	*675	300	*390	310
	-1 m		850	*910	530	*700	310	*410	325
L=1.500 mm	0 m		780	*980	500	*650	285	*330	270

- 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.  
- In accordance with European norm EN 474-5, the machine is not qualified to lift loads heavier than 1.000 kg, unless it is equipped with appropriate safety devices. Lifting operations with lowered blade are allowed only with safety valve on blade cylinder.

## STANDARD EQUIPMENT

- |   |   |   |
|---|---|---|
| <ul style="list-style-type: none"> <li>• Steel shoes</li> <li>• Two travel speeds</li> <li>• Blade</li> <li>• Swing boom</li> <li>• Boom cylinder protection</li> <li>• 1.200 mm digging arm</li> <li>• Hydraulic hammer circuit and 2-way attachments up to the boom</li> <li>• PPC servocontrols</li> </ul> | <ul style="list-style-type: none"> <li>• 2-way equipment circuit</li> <li>• TOPS cab with heat and windshield wipers</li> <li>• One single key</li> <li>• Indicators:                         <ul style="list-style-type: none"> <li>- hour meter</li> <li>- fuel level</li> <li>- engine oil level</li> <li>- engine oil pressure</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>- cooling system temperature light</li> <li>- engine pre-heating</li> <li>• Independent boom-swing control</li> <li>• Swing lock pin</li> <li>• Internal storage compartment</li> <li>• Working light on boom</li> <li>• External electric plug</li> </ul> |
|---|---|---|

## OPTIONAL EQUIPMENT

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>• Rubber shoes</li> <li>• 1.500 mm digging arm</li> <li>• Completion of attachment's hydraulic circuit up to the arm with quick coupler</li> <li>• Clamshell bucket</li> </ul> | <ul style="list-style-type: none"> <li>• TOPS-FOPS canopy</li> <li>• Cab front protection</li> <li>• Cab FOPS protection</li> <li>• Super Deluxe seat (only for cab)</li> <li>• Rotating beacon</li> </ul> | <ul style="list-style-type: none"> <li>• Biodegradable</li> <li>• Digging buckets range (250 ÷ 650 mm)</li> <li>• Ditch cleaning bucket (1.300 mm)</li> <li>• Hydraulic hammer</li> </ul> |
|---|--|---|

# KOMATSU

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