

KOMATSU

PC
22MR

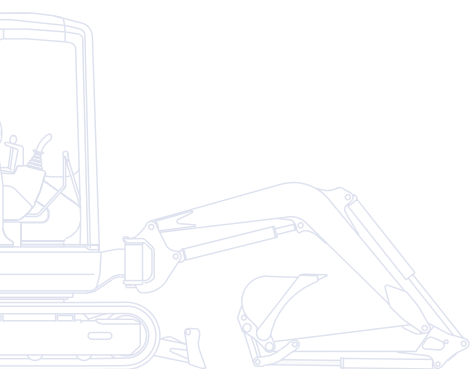


Mini-Excavator **PC22MR-3**

ENGINE POWER
15,7 kW / 21,1 HP @ 2.500 rpm

OPERATING WEIGHT
2.250 - 2.550 kg

BUCKET CAPACITY
0,035 - 0,085 m³



Walk-Around

The new PC22MR-3 compact mini-excavator is the result of the competence and technology that Komatsu has acquired over the past 80 years. It was designed and developed with constant attention to the needs of customers from all over the world. The end product is a user-friendly machine with top-class performances.

Cutting-edge hydraulic circuit

- CLSS (Closed-centre Load Sensing System)
- Perfect control even during combined operations
- Fast and precise movements



Total versatility

- Customised configurations
- Standard 1 or 2 way auxiliary line for attachments
- Ideal for a wide range of applications

PC22MR-3

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BUCKET CAPACITY
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First-class operator comfort

- Wide entrance for easy entry and exit
- Spacious working environment
- Pressure Proportional Control (PPC) servo-controls



Outstanding performances

- Optimal power and digging speed
- Superior stability and safety in any conditions
- Automatic down-shift

Easy maintenance

- Quick access to all daily inspection points
- Tilting cab for maintenance jobs
- Extended 500-hour service interval

KOMTRAX

Komatsu Satellite
Monitoring System

Outstanding Performances



Work in tight spaces

The new short-tail PC22MR-3 delivers optimal power and digging speed, even in confined spaces where traditional machines can't work: yards, road works, demolition sites, sewers, etc. Sturdy and very stable, it guarantees maximum safety and offers complete operator confidence in any working conditions.

Automatic down-shift

Once turned on, this feature automatically adjusts the hydraulic travel motor for the job at hand: maximum displacement for faster movement, or minimum displacement for high drawbar pull. This process requires no attention from the operator. The two-speed tracking is operated via a switch on the blade lever.

X-frame

The new X-frame ensures maximum stress resistance and optimal stress distribution. Its shape makes the machine a lot more rigid and reliable. In addition, it facilitates the regular undercarriage cleaning operations and the spoils removal process.



Cutting-Edge Hydraulic Circuit

Komatsu CLSS

The CLSS (Closed-centre Load Sensing System) hydraulic circuit guarantees power, speed and perfect control to all movements, including simultaneous ones. The combination of the variable displacement pump and of CLSS allows operators to perform all

required movements with maximum efficiency, regardless of the load or rpm. The unique CLSS characteristics are perfectly complemented by the hydraulic servo-controls, which are, by far, the easiest to use and that allow extremely precise manoeuvres with minimal effort.



First-Class Operator Comfort



An optimal work environment

Designed with the utmost attention to detail, the operator's environment offers outstanding comfort, accessibility and visibility. The wide entrance and well placed handholds allow easy entry and exit to and from the cab. Once seated, even the tallest operators have room to move their legs freely around the spacious, obstacle-free floor. For even greater comfort, an adjustable seat and PPC controls are fitted as standard.





Customisation

Many configurations are available, so you can choose the perfect machine for the job: long or short arm, cab or canopy, rubber or steel shoes.

The 1 / 2 way auxiliary hydraulic circuit allows the use of a wide range of working tools such as a hammer, a clamshell bucket, an auger etc. The switch between the two options is simply done by means of a valve located under a little bonnet on the side of the machine.



Easy Maintenance

Tilting cab

The wide opening engine bonnets provide a quick access to daily inspection points. In addition, the cab easily tilts back for major maintenance tasks.

Easier repairs

ORFS hydraulic face seal connectors and DT electrical connectors enhance the machine's reliability and make repairs faster and easier. Special technical solutions allow the interval for most ordinary maintenance operations - such as pin greasing and engine oil changes - to be extended up to 500 hours.



Rear bonnets for quick engine checks, simple inspections, cleaning of the radiators and easy access to the battery



The battery main switch is standard

Komatsu Satellite Monitoring System



KOMTRAX™ is a revolutionary machine tracking system designed to save you time and money. You can now monitor your equipment anytime and anywhere. Use valuable machine data received via the KOMTRAX™ web site to optimise your maintenance planning and machine performances.

With KOMTRAX™, you can:

- Check when & where your machines are at work
- Be informed of unauthorized machine use or movement
- Set and receive e-mail notification for security alarms

For further details on KOMTRAX™, please ask your Komatsu dealer for the latest KOMTRAX™ brochure.



Machine working time - With the "daily working record" chart, get precise engine running time data: when your machine was started and when it was shut down, as well as total engine running time.



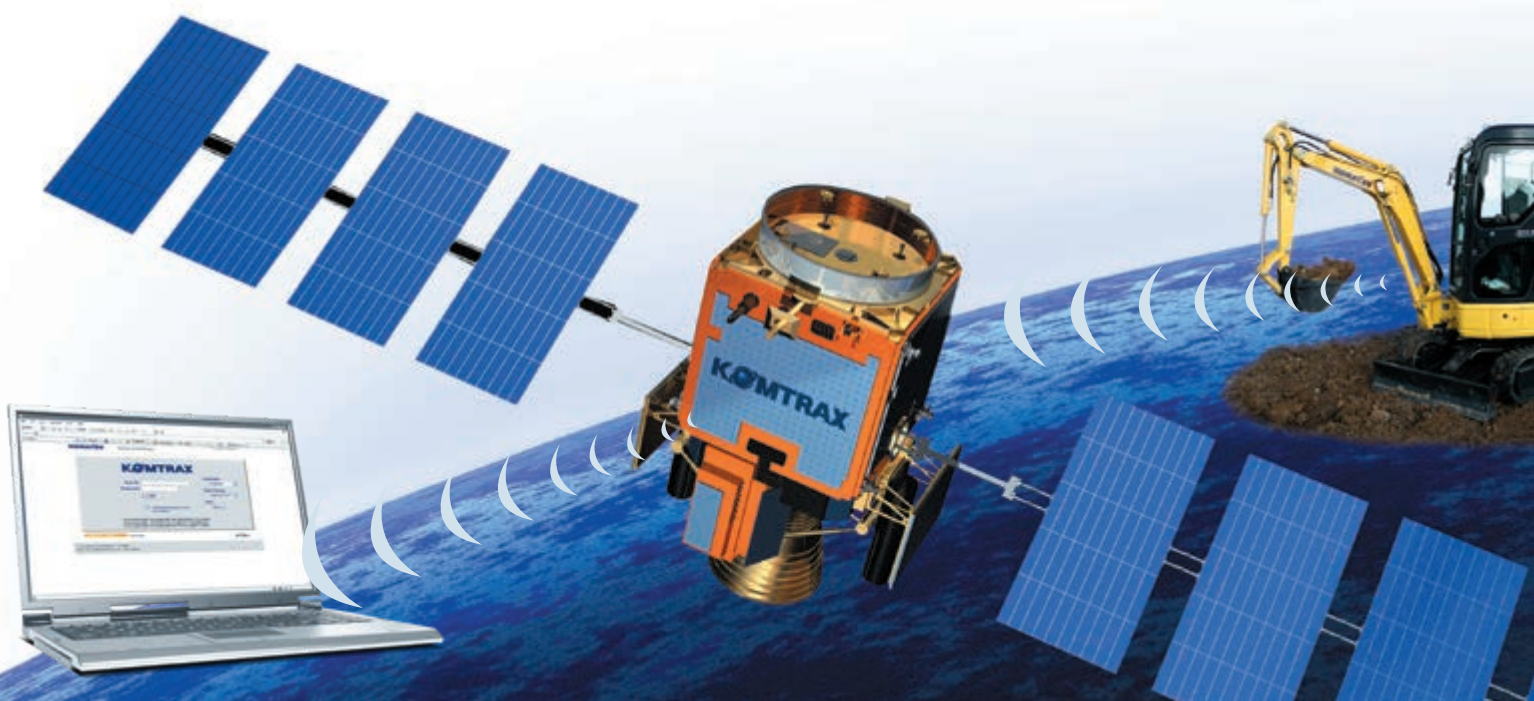
Fleet location - The machine list instantly locates all your machines, even those in other countries.



Alarm notifications - You can receive notification of alarms both via the KOMTRAX™ website and by e-mail.



Added security - The "engine lock" feature allows to program when a machine's engine can be started. And with "geo-fence", KOMTRAX™ sends notification every time your machine moves in or out of a predetermined operating area.



Specifications

ENGINE

The new generation engine has been developed to comply with the strictest emission controls.

Model	Komatsu 3D76E
Type	emissionised 4-cycle diesel engine
Displacement	1.115 cm ³
Bore × stroke	76 × 82 mm
No. of cylinders	3
Engine power	
at rated engine speed	2.500 rpm
ISO 14396	15,7 kW / 21,1 HP
ISO 9249 (net engine power)	15,5 kW / 20,8 HP
Max. torque/engine speed	66,7 Nm/1.600 rpm
Cooling system	water
Air filter type	dry
Starter motor	electric motor with pre-heating air system for cold climate

OPERATING WEIGHT

Operating weight with standard bucket, fully serviced, +75 kg operator (ISO 6016).

Operating weight with cab and rubber shoes	2.425 kg
Operating weight with cab and steel shoes	2.550 kg
Canopy	-175 kg (optional)

HYDRAULIC SYSTEM

Type	Komatsu CLSS
Main pump	variable displacement pump + gear pump
Max. pump flow	55,0 + 16,0 ltr/min
Max. operating pressure	24,5 MPa (245 bar)
Hydraulic motors:	
Travel	2 × variable displacement
Swing	1 × fixed displacement
Hydraulic cylinders (bore × stroke):	
Boom	70 × 453,5 mm
Arm	65 × 451 mm
Bucket	50 × 469,5 mm
Boom swing	70 × 429,5 mm
Blade	65 × 135 mm
Bucket digging force (ISO 6015)	1.880 daN (1.920 kg)
Arm crowd force (ISO 6015):	
970 mm arm	1.363 daN (1.390 kg)
1.320 mm arm	1.127 daN (1.150 kg)
The digging equipment is fully controlled by PPC servo-controls. All movements are stopped by lifting the safety levers on the tilting case.	

ENVIRONMENT

Vibration levels (EN 12096:1997)*	
Hand/arm	≤ 2,5 m/s ² (uncertainty K = 1,2 m/s ²)
Body	≤ 0,5 m/s ² (uncertainty K = 0,2 m/s ²)
* for the purpose of risk assessment under directive 2002/44/EC, please refer to ISO/TR 25398:2006.	

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	8,9 rpm
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BLADE

Type	electro-welded, single unit structure
Width × height	1.450 × 300 mm
Max. lifting above ground level	340 mm
Max. depth below ground level	240 mm

UNDERCARRIAGE

Central lower X-frame and carriage frame with boxed section.

Track rollers (each side)	3
Shoe width	250 mm
Ground pressure (standard)	0,25 kg/cm ²

ELECTRIC SYSTEM

Voltage	12 V
Battery	45 Ah
Alternator	40 A
Starter motor	1,4 kW

SERVICE CAPACITIES

Fuel tank	28 ltr
Radiator and system	3,0 ltr
Engine oil (refill)	3,4 ltr
Hydraulic system	29 ltr

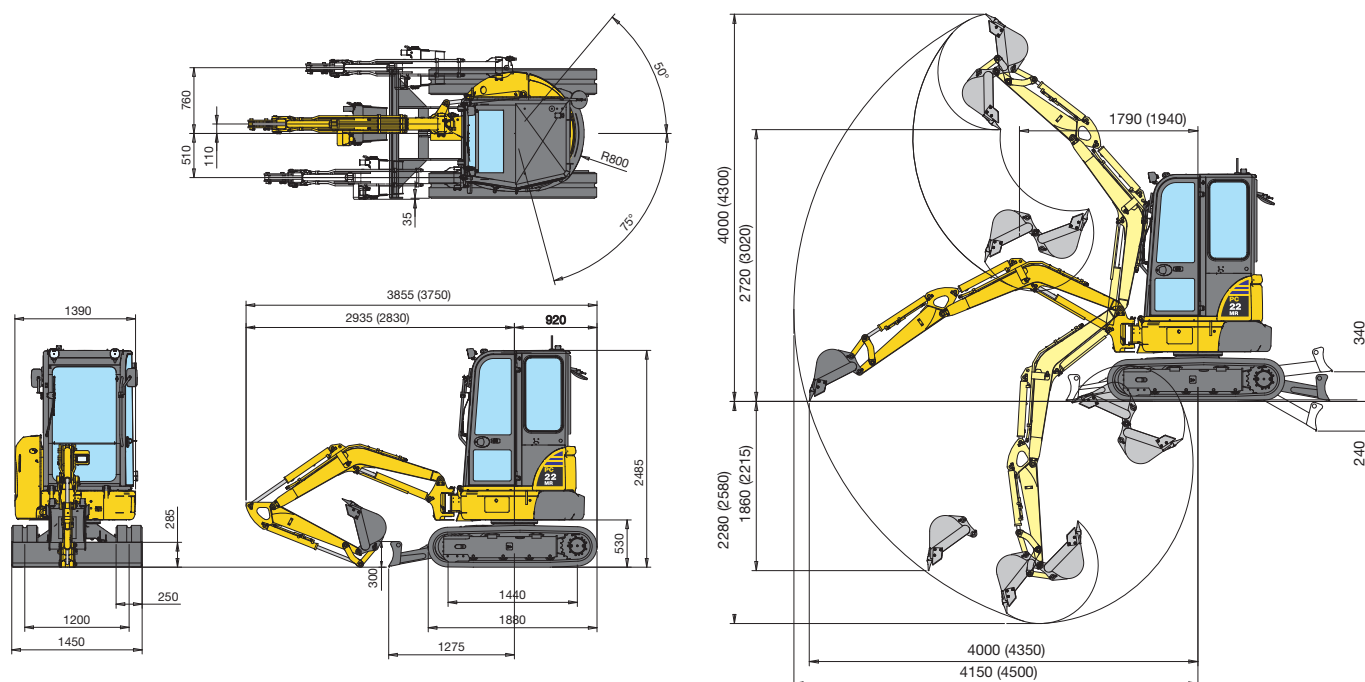
TRANSMISSION

Type	2 speed hydrostatic transmission, controlled and steered by means of two levers and two pedals
Hydraulic motors	2 × axial pistons
Reduction system	planetary gear
Max. drawbar pull	2.020 daN (2.060 kgf)
Travel speed	2,8 - 4,6 km/h

BUCKET RANGE

Width mm	Capacity m ³ (ISO 7451)	Weight kg	No. of teeth
250	0,035	30	2
350	0,055	40	3
450	0,07	50	4
550	0,085	60	5

Dimensions & Working Range



LIFTING CAPACITY

Cab, rubber shoes, counterweight, blade down

A - Distance from machine's center
B - Height at bucket pin

ARM LENGTH 970 mm

B	A	2 m		3 m		Max. outreach	
		Front	360°	Front	360°	Front	360°
3 m		—	—	—	—	(*)475	360
2 m		—	—	(*)490	340	(*)445	255
1 m		(*)1195	590	(*)665	320	(*)480	230
0 m		(*)1570	560	(*)810	310	(*)605	245
-1 m		(*)1395	570	—	—	(*)755	330

Unit: kgf

Cab, rubber shoes, counterweight, blade up

A - Distance from machine's center
B - Height at bucket pin

ARM LENGTH 970 mm

B	A	2 m		3 m		Max. outreach	
		Front	360°	Front	360°	Front	360°
3 m		—	—	—	—	470	360
2 m		—	—	435	340	335	255
1 m		795	590	420	320	300	230
0 m		760	560	405	310	320	245
-1 m		770	570	—	—	435	330

Unit: kgf

ARM LENGTH 1.320 mm

B	A	2 m		3 m		Max. outreach	
		Front	360°	Front	360°	Front	360°
3 m		—	—	(*)325	(*)325	(*)350	285
2 m		—	—	(*)365	(*)340	(*)320	215
1 m		(*)885	(*)610	(*)565	320	(*)340	195
0 m		(*)1495	(*)555	(*)765	305	(*)410	205
-1 m		(*)1510	550	(*)790	300	(*)625	260

Unit: kgf

ARM LENGTH 1.320 mm

B	A	2 m		3 m		Max. outreach	
		Front	360°	Front	360°	Front	360°
3 m		—	—	(*)325	(*)325	(*)350	285
2 m		—	—	(*)365	340	280	215
1 m		815	610	420	320	260	195
0 m		755	555	400	305	270	205
-1 m		755	550	400	300	340	260

Unit: kgf

NOTE:

Ratings are based on ISO standard 10567. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load. Excavators used in object handling operations must comply with the related local regulations and must be equipped with hose burst valves (boom & arm) and an overload warning device in compliance with EN474-5.

- The values marked with an asterisk (*) are limited by the hydraulic capacities.
- Calculations are based on the machine resting on a uniform and firm surface.
- The lifting point is a hypothetical hook placed behind the bucket.

Mini-Excavator

PC22MR-3

Standard Equipment

- ROPS (ISO 3471) - OPG (ISO 10262)
level 1 tilting cab with heating
- 250 mm rubber shoes
- Two speeds with "Automatic Shift Down"
- 970 mm digging arm
- 1 / 2 way auxiliary hydraulic circuit up to the arm
- Blade
- Adjustable suspension seat
- Lifting cylinder guard
- Working light on boom
- Travel acoustic alarm
- KOMTRAX™ - Komatsu satellite monitoring system
- Master disconnect switch
- Boom and arm safety valves, overload warning device (for EU countries only)

Optional Equipment

- ROPS (ISO 3471) - OPG (ISO 10262)
level 1 canopy
- 250 mm steel shoes
- 1.320 mm digging arm
- Bucket range (250 - 550 mm)
- 1.300 mm ditch cleaning bucket
- Bucket linkage with lifting eye
- Boom and arm safety valves, overload warning device (for non-EU countries only)
- Blade safety valve
- Rotating beacon
- Rear-view mirrors
- Cab/canopy working lights
- Additional cab rear working light
- Radio pre-setting
- Komatsu quick-coupler
- Buckets with Kmax teeth

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