

KOMATSU®

MINI-EXCAVATOR

PC45MR-5

ENGINE POWER

· 29.5 kW / 39.6 hp. @ 2,400 rpm.

OPERATING WEIGHT

· 4,950 kg.

BUCKET CAPACITY

· 0.055 - 0.16 m³



Photos of the equipment are referential, may include optional equipment.

PC45MR-5

WALK-AROUND

**ENGINE
POWER
39.6 hp.**



POWERFUL AND ENVIRONMENTALLY FRIENDLY

- Komatsu fuel-saving technology.
- 6 selectable working modes.
- Auto-deceleration and idle shutdown.
- Dial type fuel control.

FIRST-CLASS COMFORT

- Newly designed cab.
- Improved operator convenience.
- Multi-function monitor with high resolution 3.5" LCD color display.
- Multiple accessories around the operator's seat.

SAFETY FIRST

- Neutral position detection system.
- Emergency engine stop switch.
- Seat belt caution indicator.
- Large transport tie down points.

EASY MAINTENANCE

- Tilting cab.
- Wide opening engine hood.
- Maintenance information displayed on the monitor.

KOMTRAX

• Komtrax Orbcomm

INCREASED FUEL EFFICIENCY AND ENVIRONMENTAL PERFORMANCE

POWERFUL AND ENVIRONMENTALLY FRIENDLY



» Work in tight spaces

» The new short-tail PC45MR-5 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.

» 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.

» 6 working modes

» Depending on the load, operators can conveniently choose between 6 working modes designed to match engine speed, pump delivery and system pressure. Priority can be given either to speed, for more productivity, or to fuel consumption for lighter applications.

MAXIMIZED EFFICIENCY

» Customisation

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

» Electronic control system

» Fuel consumption on the PC45MR-5 is lower by up to 5%. The engine and hydraulic system are optimally controlled according to the operating conditions. The hydraulic loss reductions also help reduce both fuel consum.

» Auto deceleration and auto idle shutdown

» Both these functions are provided as standard. Auto-deceleration reduces the engine speed automatically a few seconds after the work equipment lever is moved to the neutral position. The auto idle shutdown automatically stops the engine after a preset time to reduce unnecessary fuel consumption.



FIRST-CLASS COMFORT

» An optimal work environment

» Despite its compact size, the PC45MR-5 offers unequalled comfort. The spacious cab was developed with exceptional care to details, and the work environment is quiet and comfortable. Special attention is given to the operator: ergonomic and dedicated PPC controls, and, in option, an efficient air conditioning and ventilation system to guarantee optimal thermal comfort. A much larger cab door makes cab access a lot easier.

» New multi-function monitor with more Information

» A high-definition 3.5" LCD monitor provides excellent visibility. The highdefinition LCD panel is less affected by the viewing angle and surrounding brightness, ensuring excellent visibility. Various alerts and machine information are displayed in a simple format. Useful information such as operation records, machine setting and maintenance data are also provided. The operator can easily switch screens.

» Perfect operator convenience

» Proportional controls are fitted as standard for safe and precise operation of attachments. The dial type fuel control makes operation and engine speed adjustment simple. The automatic travel speed shift function allows smooth and efficient operation. Pressing a speed selector button on the blade lever chooses auto 2-speed or fixed 1st speed travel for easy shifting during blade operation. A 12-volt power port is also included in the cab.



EASY MAINTENANCE



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



» Convenient and save fuel and oil refilling under the front bonnet.



» Large fuel filter and fuel pre-filter with water separator protect the engine.



» The multifunction monitor panel provides the operator with maintenance and service information.

» Tilting cab

» The wide opening engine bonnets provide a quick access to daily inspection points. The fuel and the hydraulic oil tanks are located under the side bonnet, in a safe and easy-to-reach position. 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. High durability bushings and a 500 hours engine oil change interval further lower operating costs.

» Please check this information with your local Distributor.

HIGHEST RELIABILITY AND SAFETY

» X-frame

» The 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.

» Smallest swing radius

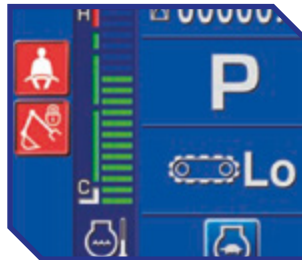
» The extra-small swing radius with minimum rear protrusion from the tracks (60 mm. for PC45MR-5) allows the operator to concentrate on work in confined areas.

» Maintenance monitoring

» Maintenance and service activities are tracked on the monitor. When the time before a maintenance interval dips below 30 hours, a maintenance reminder light shows on the display.



» Secondary engine shut down switch.



» Seat belt caution and neutral position detection system caution.



» Hose burst valves on boom and arm cylinders.

SPECIFICATIONS



ENGINE

MODEL	KOMATSU 4D88E-6
TYPE	Water-cooled, 4 cycle direct injection.
ENGINE POWER	
at rated engine speed	2,400 rpm.
ISO 14396	29.5 kW / 39.6 hp.
ISO 9249 (net engine power)	28.5 kW / 38.2 hp.
NO. OF CYLINDERS	4
BORE X STROKE	88 x 90 mm.
DISPLACEMENT	2,189 cm ³
MAX. TORQUE / ENGINE SPEED	137 Nm / 1,440 rpm.
AIR FILTER TYPE	DRY
Fully complies with EU Stage 3A exhaust emission regulations.	



HIDRAULIC SYSTEM

TYPE	KOMATSU CLSS
MAIN PUMP	2 x variable displacement pump
MAXIMUM PUMP FLOW	53.5 x 2 + 33.8 + 12 l/min
MAX. OPERATING PRESSURE	26.5 MPa (265 bar)
HYDRAULIC MOTORS	
Travel	2 x variable displacement motor
Swing	1 x fixed displacement motor
HYDRAULIC CYLINDERS (BORE X STROKE)	
Boom	90 x 691 mm.
ARM	80 x 649 mm.
BUCKET	70 x 580 mm.
BOOM SWING	90 x 630 mm.
BLADE	110 x 140 mm.
BUCKET DIGGING FORCE (ISO 6015)	3,390 daN (3,460 kg.)
ARM CROWD FORCE (ISO 6015)	
1,375 mm. arm	2,160 daN (2,220 kg.)
1,770 mm. arm	2,010 daN (2,050 kg.)



OPERATING WEIGHT (APPR.)

Operating weight, including cabin, specified work equipment, operator, lubricant, coolant, full fuel tank and the standard equipment.	
RUBBER SHOES	4,950 kg.
ROADLINER SHOES	5,020 kg.
STEEL SHOES	5,020 kg.



DRIVES AND BRAKES

STEERING CONTROL	2 Levels with pedals giving full independent control of each track.
DRIVE METHOD	Hydrostatic
HYDRAULIC MOTORS	2 x axial piston motor
REDUCTION SYSTEM	Planetary gear
MAX. TRAVEL SPEEDS Lo / Hi	2.6 / 4.6 km/h.
MAXIMUM DRAWBAR PULL	4,200 daN (4,280 kgf.)



UNDERCARRIAGE

CONSTRUCTION	X-frame centre section with box section track frames.
ROLLERS	
Track rollers (each side)	4
Carrier rollers (each side)	1
SHOE WIDTH	400 mm.
GROUND PRESSURE (STANDARD)	0.28 kg./cm ²



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.



BLADE

TYPE	Electro-welded, single unit structure.
WIDTH X HEIGHT	1,960 x 355 mm.
BLADE, MAX. LIFTING HEIGHT	430 mm.
BLADE, MAX. DIGGING DEPTH	330 mm.



SERVICE REFILL CAPACITIES

FUEL TANK	65 L.
RADIATOR	8.8 L.
ENGINE OIL (REFILL)	7.5 L.
HYDRAULIC SYSTEM	55 L.



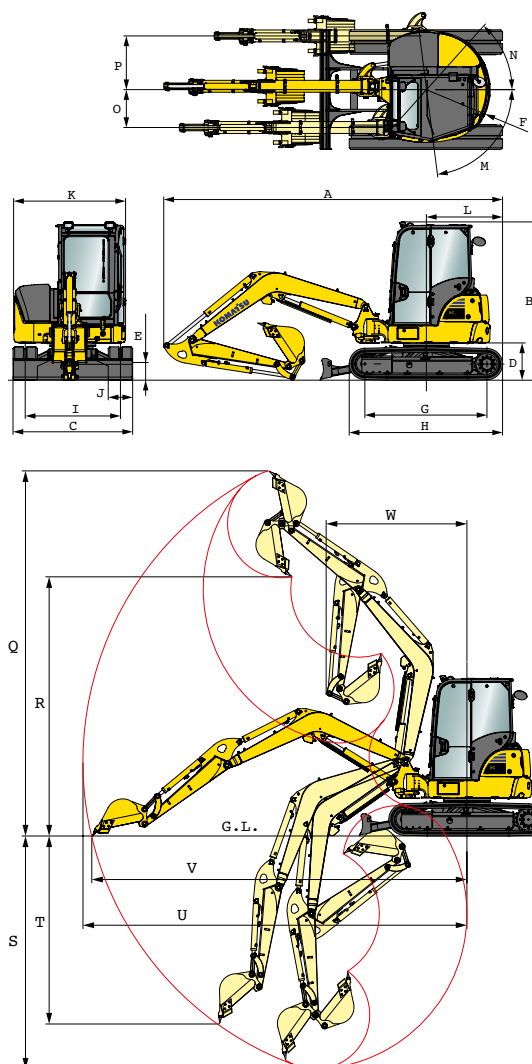
ENVIRONMENT

NOISE LEVELS	
LwA external	96 dB(A) (2000/14/EC Stage II).
LpA operator ear	77 dB(A) (ISO 6396 dynamic test).
VIBRATION LEVELS (EN 12096:1997)	
Hand/arm	≤ 2.5 m/s ² (uncertainty K = 0.58 m/s ²)
Body	≤ 0.5 m/s ² (uncertainty K = 0.22 m/s ²)
Contains fluorinated greenhouse gas HFC-134a (GWP 1430). Quantity of gas 0.6 kg, CO2 equivalent 0.86 t.	



DIMENSIONS & WORKING RANGE

	Boom length	2,640 mm.
	Arm length	1,375 - 1,770 mm.
A	Overall length	5,220 - 5,300 mm.
B	Overall height	2,590 mm.
C	Overall width	1,960 mm.
D	Clearance under counterweight	610 mm.
E	Ground clearance	290 mm.
F	Tail swing radius	1,040 mm.
G	Track length on ground	2,000 mm.
H	Track length	2,520 mm.
I	Track gauge	1,560 mm.
J	Shoe width	400 mm.
K	Overall width of upper structure	1,835 mm.
L	Distance, swing center to rear end	1,265 mm.
M/N	Boom swing angle	85 / 50 °
O	Boom offset LH	630 mm.
P	Boom offset RH	880 mm.
Q	Max. digging height	5,500 - 5,780 mm.
R	Max. dumping height	3,775 - 4,060 mm.
S	Max. digging depth	3,300 - 3,705 mm.
T	Max. vertical wall digging depth	2,730 - 3,145 mm.
U	Max. digging reach	5,735 - 6,130 mm.
V	Max. digging reach at ground level	5,575 - 5,980 mm.
W	Min. swing radius	2,290 - 2,410 mm.
	Min. swing radius at boom swing	1,760 - 1,860 mm.



LIFTING CAPACITIES

PC45MR-5, rubber shoes, over side, blade up, 109 kg. bucket.

Arm length		A	MAX.	4.0 m.	3.0 m.	2.0 m.
	B					
1.375 mm.	4.0 m. kg.		890			
	3.0 m. kg.		610	740	990	
	2.0 m. kg.		510	720	990	
	1.0 m. kg.		480	680	990	
	0.0 m. kg.		480	650	990	
	-1.0 m. kg.		550	640	980	990

Arm length		A	MAX.	4.0 m.	3.0 m.	2.0 m.
	B					
1.770 mm.	4.0 m. kg.		690	750		
	3.0 m. kg.		520	730		
	2.0 m. kg.		440	730	990	
	1.0 m. kg.		410	680	990	
	0.0 m. kg.		410	640	990	990
	-1.0 m. kg.		460	620	960	990

A Reach from swing centre

B Bucket hook height

Lifting capacities, including bucket, bucket linkage and bucket cylinder.

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.



STANDARD EQUIPMENT

ENGINE

- Komatsu 4D88E-6 water-cooled, 4-cycle direct injection diesel engine.
- EU Stage 3A compliant.
- Fuel control dial.
- Auto-deceleration function.
- Auto idle shutdown.
- Alternator 12 V / 40 A.
- Starter motor 12 V / 2.3 kW.
- Battery 12 V / 72 Ah.

HYDRAULIC SYSTEM

- 6-working mode selection system; power mode, economy mode, breaker mode, attachment power and attachment economy mode, and lifting mode.
- Adjustable PPC wrist control levers for arm, boom, bucket and swing, with proportional control for attachments.
- PPC control lever and pedals for steering and travel
- Hydraulic line for hammer and for 2-way equipment up to boom and arm (HCU-A).
- Automatic two-speed travel control.

UNDERCARRIAGE

- 400 mm. Steel shoes.

CABIN

- ROPS (ISO 3471) / FOPS (ISO 10262) tilting cab with heating, skylight, pull-up type front window with locking device, lower window, front window wiper with intermittent feature, floor mat.
- Adjustable suspension seat with retractable seat belt.
- Monitor panel 3.5" colour display.
- 12 Volt power supply .
- Beverage holder and magazine rack.
- Air conditioning.

SERVICE AND MAINTENANCE

- Multi-function video compatible colour monitor with Equipment Management and Monitoring System (EMMS) and efficiency guidance.
- Battery main switch.

WORK EQUIPMENT

- Boom.
- Blade.
- 1,375 mm. digging arm (PC45MR-5)
- Boom cylinder protection guard.
- Protection for boom safety valve.

SAFETY EQUIPMENT

- Travel acoustic alarm.
- Electric horn.
- Rear-view mirrors (left and right side, right rear).
- Hose burst valves on boom and arm cylinders.
- Overload warning device.
- Emergency engine stop switch.
- Neutral position detection system.
- Seat belt caution indicator.
- Rotating beacon.

LIGHTING SYSTEM

- Working light on boom.
- Two front working lights on cab.
- Rear working light on cab.

OTHER EQUIPMENT

- Standard colour scheme and decals.
- Parts book and operator manual.
- Special waxing.

ATTACHMENTS

- Bucket range (300 - 800 mm.).



OPTIONAL EQUIPMENT

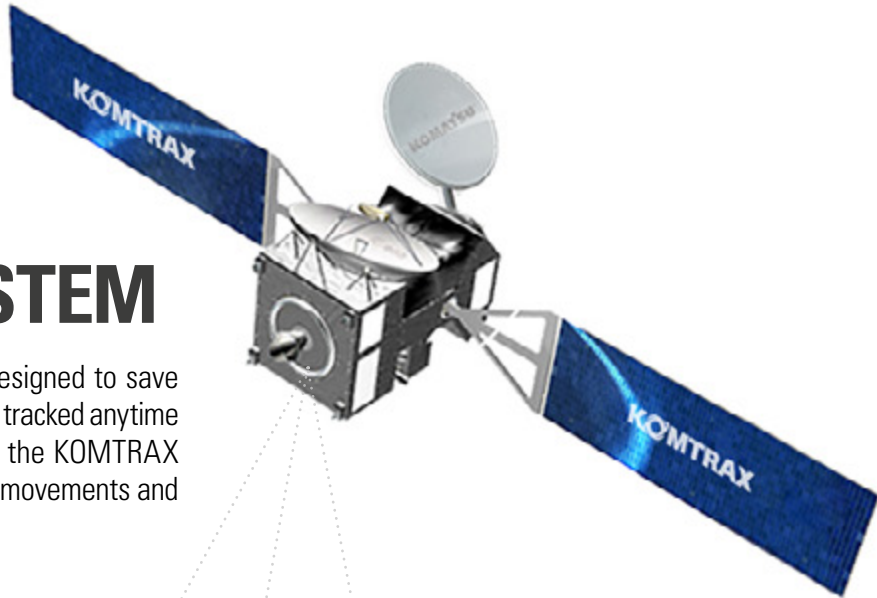
- Radio equipment + radio.
- Bucket linkage with lifting eye.
- Blade cylinder safety valve.
- Relief valves on service spool.
- Preparation for hydraulic quick-coupler.
- 2nd auxiliary hydraulic circuit (HCU-C).
- 400 mm. roadliner shoes.
- 400 mm. rubber shoes.
- 1,770 mm. digging arm.

The PC45MR-5 is equipped in accordance with the safety regulations of the machinery guidelines 89/392 EWG ff and EN474.

KOMTRAX

SATELLITE MONITORING SYSTEM

KOMTRAX is a revolutionary tracking system designed to save time and money. Nowadays, the equipment can be tracked anytime and anywhere. This valuable data, received via the KOMTRAX website, can be used to optimize planning of the movements and performance of the equipment.



CHARACTERISTICS

» 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 "Geofence", KOMTRAX sends notification every time your machine moves in or out of a predetermined operating area.

Check with your Komatsu dealer for the information available for your model and service availability in your country.



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