

KOMATSU

PC18MR-5



Mini-excavator

Engine power
11.8 kW / 15.8 HP @ 2600 rpm

Operating weight
1900 - 1990 kg

Bucket capacity
0.03 - 0.06 m³

PC18MR-5

High versatility, low fuel consumption and
safe performance in tight spaces



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1900 - 1990 kg

Bucket capacity
0.03 - 0.06 m³



Powerful and environmentally friendly

- Low-consumption EU Stage V engine
- Completely renewed for EU market
- Increased working capacity due to top-mounted boom cylinder

First-class comfort

- Improved operator convenience
- Excellent accessibility to and from the machine
- Short pitch rubber shoes for low vibration levels

Total versatility

- Variable undercarriage
- Hydraulic quick-coupler line (option)
- Proportional control for attachments (option)
- Adjustable attachment oil flow (option)

Safety first

- Dual lock system for PPC controls
- Secondary engine shutdown switch
- Seat belt caution indicator

Easy maintenance

- Improved filtration
- Easy maintenance access direct from ground level
- Fully opening engine door and side cover
- Two-part floor mat for easier cleaning

Komtrax

- Komatsu Wireless Monitoring System
- 4G mobile communications
- Integrated communication antenna
- Increased operational data for better fleet management

Powerful and environmentally friendly



Komatsu EU Stage V

The Komatsu EU Stage V engine is productive, dependable and efficient. With ultra-low emissions, it provides a lower environmental impact and a superior performance to help reduce operating costs and lets the operator work in complete peace of mind.

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.

Increased working capacity

The top-mounted boom cylinder leads to an increased digging force and longer reach. Work amount and productivity are increased as well compared to current model. In addition, the top-mounted cylinder's location provides better protection against hitting a truck during loading operations.



Total versatility

For any specific job, you can choose among many available configurations: short or long arm, a 1/2 way auxiliary hydraulic circuit allows the usage of multiple working tools, such as a hammer, a clamshell bucket, an auger, etc. Proportional control is available, as option, for the safe and precise operation of attachments. The automatic travel speed shift function allows smooth and efficient operation. You can choose auto 2-speed or fixed 1st speed travel for easy shifting during blade operation by pressing the speed selector button on the blade lever.

Variable undercarriage

For applications requiring maximum versatility in terms of size and stability, the PC18MR-5 is equipped with hydraulic undercarriage extension, which is operated from the operator's seat via a push button and the blade control lever. This feature allows the operator to quickly switch from maximum stability for working to a reduced width of less than one metre for driving through narrow passages or doors.

Easy maintenance



Excellent serviceability

Newly designed fully opening engine door and side cover provide a quick access to daily inspection points. For major maintenance and tasks, the front side cover is easily removable with access direct from ground

level. The fuel filler is located low for refueling in a safe and easy-to-reach position. A large fuel filter and fuel pre-filter with water separator protect the engine. High durability bushings and a 500 hours engine oil

change interval further lower operating costs. Hydraulic face seal connectors and electrical connectors enhance the machine's reliability and make repairs faster and easier.

Highest reliability and safety

Work in tight spaces

The new short-tail PC18MR-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.

Optimal jobsite safety

For increased jobsite safety, the PC18MR-5 includes a dual lock lever neutral detection system for travel and work equipment levers, along with a seat belt caution indicator and a secondary engine shutdown switch.

Extremely robust

A number of particular technical solutions contribute to the PC18MR-5's increased sturdiness and operability. These include a cast swing support that makes the structure extremely rigid, and a boom that houses the hydraulic hoses, protecting them from possible damage and guaranteeing the best visibility of the digging area.



Secondary engine shutdown switch



Seat belt caution indicator on the dashboard



Perfect accessibility and easy-to-use PPC controls further enhance safety

Information & communication technology



The way to higher productivity

Komtrax uses the latest wireless monitoring technology. Compatible on PC, smartphone or tablet, it delivers insightful and cost saving information about your fleet and equipment, and offers a wealth of information to facilitate peak machine performance. By creating a tightly integrated web of support it allows proactive and preventive maintenance and helps to efficiently run a business.

Knowledge

You get quick answers to basic and critical questions about your machines – what they're doing, when they did it, where they're located, how they can be used more efficiently and when they need to be serviced. Performance data is relayed by wireless communication technology (satellite, GPRS or 4G depending on model) from the machine to a computer and to the local Komatsu distributor – who's readily available for expert analysis and feedback.

Convenience

Komtrax enables convenient fleet management on the web, wherever you are. Data is analysed and packaged specifically for effortless and intuitive viewing in maps, lists, graphs and charts. You can foresee eventual maintenance issues and required spare parts, and troubleshoot a problem before Komatsu technicians arrive on site.

Power

The detailed information that Komtrax puts at your fingertips 24 hours a day, 7 days a week gives the power to make better daily and long-term strategic decisions – at no extra cost. Problems can be anticipated, maintenance schedules customised, downtime minimised and machines kept where they belong: working on the jobsite.



Specifications

Engine

Model	Komatsu 3D67E-2
Type	Swirl chamber
Engine power	
at rated engine speed	2600 rpm
ISO 14396	11.8 kW / 15.8 HP
ISO 9249 (net engine power)	11.4 kW / 15.3 HP
No. of cylinders	3
Bore × stroke	67 × 74 mm
Displacement	778 cm ³
Max. torque / engine speed	44.1 Nm / 1800 rpm
Cooling system	Water
Air filter type	Dry
Starter motor	Electric motor with pre-heating air system for cold climate

Drives and brakes

Type	2 levers with pedals giving full independent control of each track
Drive method	Hydrostatic
Hydraulic motors	2 × axial piston motor
Reduction system	Planetary gear
Maximum drawbar pull	17.7 kN (1805 kgf)
Max. travel speeds (Lo / Hi)	2.2 - 4.1 km/h

Undercarriage

Construction	X-frame centre section with box section track frames
Track rollers (each side)	3
Shoe width	230 mm
Ground pressure (standard)	0.28 kg/cm ²

Blade

Type	Electro-welded, single unit structure
Width × height	1280 (990) × 250 mm
Blade, max. lifting height	280 mm
Blade, max. digging depth	240 mm

Service refill capacities

Fuel tank	19 l
Cooling system	3.1 l
Engine oil	3.3 l
Hydraulic oil system	23.8 l

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	9.5 rpm
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Hydraulic system

Type	Komatsu CLSS
Main pumps	1 × variable displacement pump 1 × gear pump
Max. pump flow	41.2 + 12.7 l/min
Max. operating pressure	22.9 MPa (234 bar)
Hydraulic motors	
Travel	2 × variable displacement motor
Swing	1 × fixed displacement motor
Hydraulic cylinders (bore × stroke)	
Boom	65 × 475 mm
Arm	55 × 447 mm
Bucket	50 × 378 mm
Boom swing	60 × 292 mm
Blade	65 × 100 mm
Bucket digging force (ISO 6015)	15.9 kN (1620 kgf)
Arm crowd force (ISO 6015)	
1010 mm arm	9.9 kN (1010 kgf)
1215 mm arm	7.85 kN (865 kgf)

Operating weight (appr.)

Rubber shoes	1900 kg
Steel shoes	1990 kg

Operating weight, including canopy, standard bucket, operator, liquids, filled tank and standard equipment (ISO 6016).

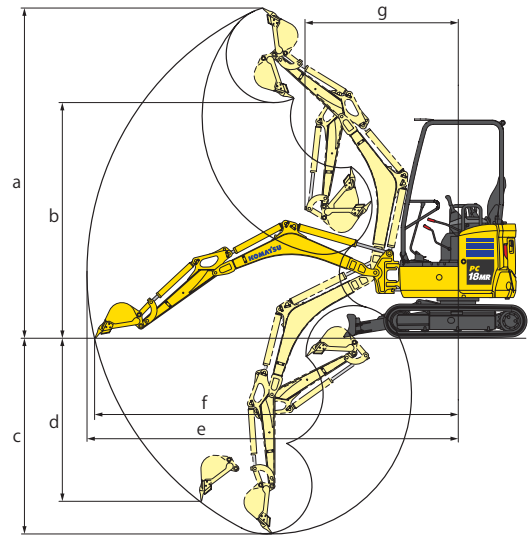
Environment

Engine emissions	Fully complies with EU Stage V exhaust emission regulations
Noise levels	
LwA external	93 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 = 1.2 m/s ²)
Body	≤ 0.5 m/s ² (uncertainty K = 0.2 m/s ²)

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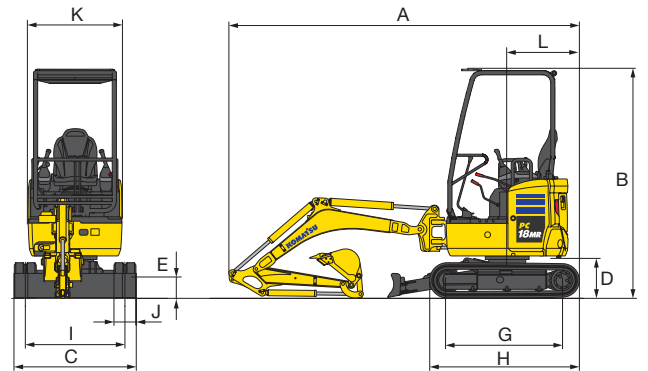
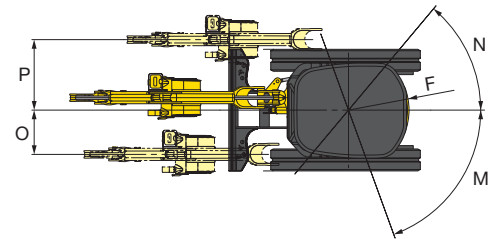
Working range

Arm length	mm	1010	1215
a Max. digging height	mm	3640	3810
b Max. dumping height	mm	2600	2770
c Max. digging depth	mm	2160	2360
d Max. vertical wall digging depth	mm	1800	2040
e Max. digging reach	mm	4090	4300
f Max. digging reach at ground level	mm	4010	4220
g Min. swing radius	mm	1690	1700
Min. swing radius at boom swing	mm	1300	1400



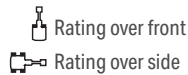
Machine dimensions

Arm length	mm	1010 (1245)
A Overall length	mm	3670
B Overall height	mm	2320
C Overall width (expanded)	mm	990 (1280)
D Clearance under counterweight	mm	440
E Ground clearance	mm	175
F Tail swing radius	mm	715
G Track length on ground	mm	1210
H Track length	mm	1570
I Track gauge (expanded)	mm	760 (1045)
J Shoe width	mm	230
K Overall width of upper structure	mm	980
L Distance, swing center to rear end	mm	755
M/N Boom swing angle	°	70 / 50
O Boom offset LH	mm	465
P Boom offset RH	mm	740



Lifting capacity

- A** Reach from swing centre
B Bucket hook height



Lifting capacities, including bucket, bucket linkage and bucket cylinder. With undercarriage extended.

Over side

Arm length	Rating over side			
	A	Max.	3.0 m	2.0 m
1010 mm	2.0 m	kg 190	215	-
	1.0 m	kg 160	210	385
	0.0 m	kg 160	195	355
	-1.0 m	kg 205	-	355
1215 mm	2.0 m	kg 165	210	-
	1.0 m	kg 135	200	390
	0.0 m	kg 140	185	340
	-1.0 m	kg 175	185	340

Over front, blade up

Arm length	Rating over front, blade up			
	A	Max.	3.0 m	2.0 m
1010 mm	2.0 m	kg 255	-	-
	1.0 m	kg 250	470	385
	0.0 m	kg 235	435	355
	-1.0 m	kg -	435	355
1215 mm	2.0 m	kg 255	-	-
	1.0 m	kg 240	470	390
	0.0 m	kg 225	420	340
	-1.0 m	kg 220	420	340

Over front, blade down

Arm length	Rating over front, blade down			
	A	Max.	3.0 m	2.0 m
1010 mm	2.0 m	kg 380	-	-
	1.0 m	kg 440	825	385
	0.0 m	kg 430	835	355
	-1.0 m	kg -	595	355
1215 mm	2.0 m	kg 330	335	-
	1.0 m	kg 410	705	390
	0.0 m	kg 435	865	340
	-1.0 m	kg 320	645	340

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 and optional equipment

Engine

Komatsu 3D67E-2 diesel engine	●
EU Stage V compliant	●
Automatic two-speed travel control	●
Alternator 12 V / 40 A	●
Starter motor 12 V / 1.2 kW	●
Batteries 12 V / 41 Ah	●

Hydraulic system

Komatsu closed-centre load sensing (CLSS) hydraulic system	●
PPC control lever and pedals for steering and travel	●
Adjustable PPC wrist control levers for arm, boom, bucket and swing	●
Hydraulic line for hammer and for 2-way equipment up to boom and arm (HCU-A)	●
Proportional control for attachment on joystick	○
Hydraulic quick-coupler line	○
Lehnhoff quick-couplers	○

Undercarriage

Variable undercarriage (HS version)	●
230 mm rubber shoes	●

Lighting system

Working light on boom and on lower part of canopy	●
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Safety equipment

Electric horn	●
Audible travel alarm	●
Battery main switch	●
Secondary engine shutdown switch	●
Seat belt caution indicator	●
Dual lock system for PPC controls	●
Rear-view mirrors	○
Rotating beacon	○

Canopy

ROPS (ISO 3471) / OPG (ISO 10262) level 1 canopy with 2-piece floor mat	●
Adjustable suspension seat with retractable seat belt	●
12 Volt power supply	●

Service and maintenance

Automatic fuel line de-aeration	●
Double element type air cleaner with dust indicator and auto dust evacuator	●
Komtrax – Komatsu wireless monitoring system (4G)	●
Toolkit	●

Work equipment

Blade	●
1010 mm arm	●
1215 mm arm	○
Bucket range (250 - 450 mm)	○
1000 mm ditch cleaning bucket	○

Other equipment

Standard counterweight	●
Biodegradable oil for hydraulic system	○
Customised paint	○

Further equipment on request

- standard equipment
- optional equipment

This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require.

Materials and specifications are subject to change without notice.

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