

PC45MR-5 **PC55MR-**5

U.S. EPA Tier 4 Final Engine

Australian - NZ specifications



HORSEPOWER

PC45MR-5

Gross: 29.1 kW 39 HP/2400 min-1 Net: 28.3 kW 38 HP/2400 min-1

PC55MR-5

Gross: 29.1 kW 39 HP/2400 min-1 Net: 28.3 kW 38 HP/2400 min-1

OPERATING WEIGHT

PC45MR-5: 4860 kg (Canopy) 4980 kg (Cab) PC55MR-5: 5140 kg (Canopy)

5260 kg (Cab)

BUCKET CAPACITY

PC45MR-5: 0.055 - 0.16 m³ PC55MR-5: 0.055 - 0.18 m³

CEN00800-00

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WALK-AROUND

Introducing the environmentally-friendly next-generation compact hydraulic excavator Compliant with U.S. EPA Tier 4 Final emission regulations



The photo shows Japanese specification

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BUCKET CAPACITY

PC45MR-5: 0.055 - 0.16 m3 PC55MR-5: 0.055 - 0.18 m3

__Ecology & Economy Features

- U.S. EPA Tier 4 Final emission regulations-compliant engine
- 5% reduction in fuel consumption per hour (Compared with Komatsu's current models)
- Auto-decelerator and auto idle shutdown

_Information & Communication Technology (ICI)

- Multi-function monitor for displaying much information NEW
- High resolution 3.5" Liquid Crystal Display (LCD) color monitor

Safety Features

- Two-post canopy compliant with ROPS (ISO 3471) and OPG top guard (ISO 10262) standards
- Lock lever and lock lever auto lock function NEW
- Engine shutdown secondary switch
 - Seat belt caution indicator NEW

Workability & Durability Features

- Automatic travel speed change increases work efficiency and makes gear changes smoother
- Strengthened boom cylinder guard and relocated working light for reduced damage

- Spacious and comfortable operator's compartment
- Multiple accessories around the operator's seat
- Newly designed cab

Matnienance Features

- Tilt-up floor mechanism and wide cover for easy maintenance
- Various maintenance information is displayed on the monitor NEW

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ECOLOGY & ECONOMY FEATURES

ICT

NEW ENGINE TECHNOLOGIES **Integrating the Latest Engine Technologies** - U.S. EPA Tier 4 Final Emission **Regulations-compliant Engine** PC45/55MR-5 is equipped with a clean engine that complies with the U.S. EPA Tier 4 Final emission regulations. The engine uses proven environmentally-friendly technologies such as an exhaust gas aftertreatment system, electronically controlled cooled Exhaust Gas Recirculation (EGR) system, and optimum fuel injection system using a common rail. These technologies combined with Komatsu's own electronic control system minimize environmental impact and improve fuel economy.

Clean and Economical

Komatsu Diesel Particulate Filter (KDPF)

Special catalyst and fuel injection are used to burn and remove particulate matter (PM) deposited in the filter.

Heavy-duty cooled Exhaust Gas Recirculation (EGR) system

Part of the exhaust gas is reused for combustion to reduce NOx emissions.

Heavy-duty High-Pressure Common Rail (HPCR) fuel injection system

Injection of pressurized fuel is optimally controlled by the computer for near-complete combustion to reduce particulate matter (PM) and fuel consumption.

Electronic control system

The engine and hydraulic system are optimally controlled according to the operating conditions. The hydraulic loss reduction mechanism also helps reduce both fuel consumption and environmental impact.

Fuel consumption

Comparison with Komatsu's current models

5% reduction/hour

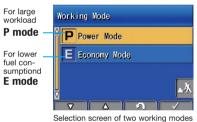
The above data may differ from actual fuel consumption depending on the type of work.

The fuel consumption data is based on in-house comparison test

Selectable Two Working Modes

Powerful P mode for production and economical E mode

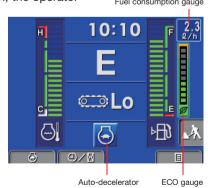
for lower fuel consumption can be easily selected on the monitor panel depending on application.



ECO Gauge and Fuel Consumption Gauge

The monitor screen is provided with an ECO gauge and also a fuel consumption gauge which is displayed con-

tinuously. In addition, the operator can set a desired fuel consumption target value (Within the range of the green display), enabling the machine to be operated with better fuel economy.



Auto-decelerator and Auto Idle Shutdown

Auto-decelerator and auto idle shutdown functions are provided as standard. The auto-decelerator function automatically reduces the engine speed a few seconds after the work equipment levers are moved to the neutral position. The auto idle shutdown function* automatically stops the engine after a preset time to reduce unnecessary fuel consumption.

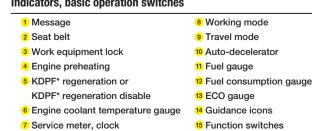
* Default setting is OFF.

MULTI-FUNCTION MONITOR New Multi-function Monitor with More Information Various alerts and machine information are displayed in a simple format. Useful information such as Operation Records operation record, machine setting, Ave Fuel Consumon Record and maintenance data is also provided. Screens can be easily switched from the user menu screen to reduce the workload on the operator. **High Resolution 3.5" Liquid Crystal Display Operation and Fuel Economy Records** (LCD) Color Monitor

The high resolution Liquid Crystal Display (LCD) color monitor is less affected by the viewing angle and surrounding brightness, ensuring excellent visibility.

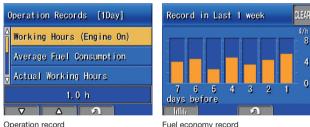


Indicators, basic operation switches



^{*} Komatsu Diesel Particulate Filter

Operation and fuel economy records can be checked on the monitor, helping improve overall fuel economy.



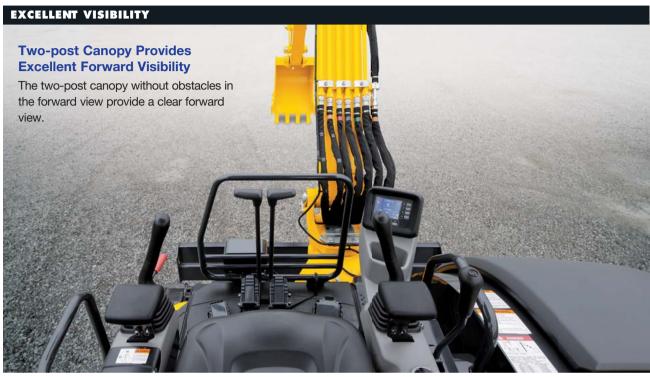
Fuel economy record



The photo shows North American specification.

SAFETY FEATURES



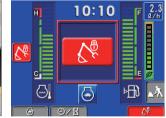


The photo shows North American specificatio

Lock Lever and Lock Lever Auto Lock Function

The engine can be started only in the lock position. The function to detect the neutral position of the work equipment lever prevents accidental operation due to touching the work equipment lever when the lock lever is released. If the lock lever is released with the work equipment lever not in the neutral position, the work equipment automatically stops to prevent accidents.





Engine Shutdown Secondary Switch

Engine shutdown secondary switch at base of seat is added to shutdown engine.



Short Tail Swing for Operation in Confined Areas

The short tail swing radius with minimum rear overhang from the track (60mm for PC45MR-5 and 140mm for PC55MR-5) allows the operator to concentrate on work in confined areas without worrying about the counterweight clearance.

Seat Belt Indicator

A warning indicator on the monitor appears when the seat belt is not engaged.



Hose covers

Retractable Seat Belt

Other Equipment

with protective covers.

Pressure hoses are provided

Reflector



Thermal guard Fan guard Accumulator Travel alarm

WORKABILITY & DURABILITY FEATURES



Automatic Travel Speed Change and Travel Switch

The travel speed selector switch installed on the blade control lever allows the operator to engage high speed travel. Once engaged, the travel speed automatically shift up or down within the selected speed range.

Dial Type Fuel Control

The dial type fuel control makes operation and engine speed adjustment much easier.



Easy Scraping Toward the Machine

The distance between the blade and bucket teeth has been optimized for easy scraping toward the machine.

Large Vertical Pin and Steel Bushing

A large vertical pin and steel bushing are used at the boom foot for improved durability. An abrasion-resistant steel bushing further improves service life.



Attachment Selector Valve

Allows the operator to switch between oneway (Breaker) and twoway auxiliary hydraulic flow (Thumb).



Strengthened Boom Cylinder Guard

A strengthened boom cylinder guard helps protect the boom cylinder from damage.

Working Light on Boom

A working light for work equipment is located at the boom base for better protection.



Working Light on Canopy or Cab

A working light provides good illumination working at







Large Transport Tie Down Points

Large transport tie down points are provided on the track frame and blade for securing the machine during trans-





COMFORTABLE FEATURES



The photo shows North American specification.

Standard Accessories Accessory case



Wrist rest

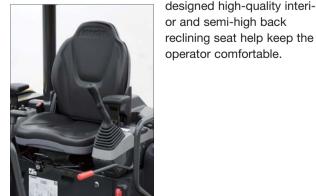


Large cup holder (For canopy)



Spacious and Comfortable Operator's Compartment

The two-post canopy provides spacious leg room and a wide forward view without blind spots. The newly designed high-quality interi-



Visibility is improved by employing large-sized flat glass. Width is also increased to

Newly Designed Cab Provides Excellent Visibility

realize wide operator space. This cab conforms to ROPS (ISO 3471) and OPG (Top guard) Level I (ISO 10262).

and Wide Operator Space.

OPTIONAL ENCLOSED CAB

Newly designed large-sized door

Cab entrance area is increased 17% (Compared with Komatsu's current models) by employing newly designed large-sized door.





Standard Accessories for Cab

Sliding window glass (Right side)



Front window with power assist



Rear view mirrors



Reinforced front glass Heater with fresh air input Escape hammer/ Room lamp/Hanger

Optional Accessories for Cab

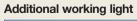
Large-capacity air conditioner with fresh air filter

The large-capacity air conditioner, high defrosting performance, and optimum air outlet design keep a comfortable environment in the cab all year round.



Ashtray







11

MAINTENANCE FEATURES



Side-by-side cooling

Since radiator and aftercooler are arranged in parallel, it is easy to clean, remove and install them.

Large fuel fill port Allows easy fuel filling.



Large fuel filter and fuel pre-filter with water separator

A large filter with enhanced filtering performance is used. The fuel pre-filter with a water separator removes water and dirt in fuel to prevent fuel system troubles.



Fuel pre-filter (With water separator)

Washable floormat

The washable floormat with flange is easy to clean.



Long-life oil, filter

Long-life oil and a high-performance filter are used. The replacement interval for the engine oil and engine oil filter is 500 hours, and those for the hydraulic oil and hydraulic oil filter are 2,000 hours and 1,000 hours, respectively. These long replacement intervals reduce costs and contribute to effective use of resources.



High strength X-track frame

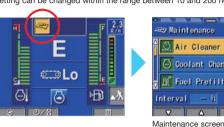


Maintenance Information Is Displayed in a **Simple Format on the Monitor**

"Maintenance time caution lamp" display

When the remaining time to maintenance becomes less than 30 hours*, the maintenance time monitor appears. Pressing the key switches the monitor to the maintenance screen.

* The setting can be changed within the range between 10 and 200 hours.





Manual stationary regeneration





Tilt-up floor mechanism and full-open cover for the cab model (PC55MR-5)

The photo shows Japanese specification

KOMTRAX

KOMTRAX

The Komatsu remote monitoring and management technology provides insightful data about your equipment and fleet in userfriendly format.

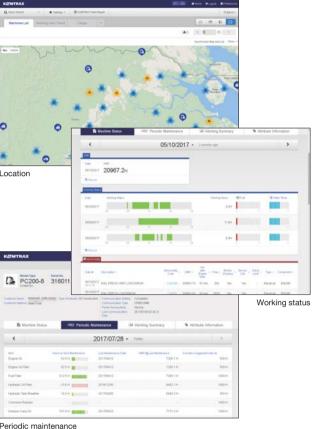
Energy Saving Operation Report

KOMTRAX delivers the energy-saving operation report based on the operating information such as fuel consumption, load summary and idling time, which helps you efficiently run a business.



Equipment Management Support

Through the web application, a variety of search parameters are available to quickly find information about specific machines based on key factors. Moreover, KOMTRAX finds out machines with problems from your fleet and shows you through an optimal interface.



Optimal Strategy for Efficient Work

The detailed information that KOMTRAX puts at your fingertips helps you manage your fleet conveniently on the web anytime, anywhere. It gives you the power to make better daily and long-term strategic decisions.





SPECIFICATIONS

ENGINE

Nodel Komatsu 4D88E-
Type
Aspiration Cooled EGI
Number of cylinders
Bore
Stroke
Piston displacement
Horsepower:
SAE J1995
ISO 9249 / SAE J1349 Net 28.3 kW 38 HI
Rated rpm2400 min
an drive method for radiator cooling Mechanica
Governor

U.S. EPA Tier 4 Final and EU Stage 3A emissions certified.



ું જી ^પ	HYDRAULICS
Туре	Hydraulic Mechanical Intelligence New Design (HydrauMind)
Number	r of selectable working modes 2
Main pu	ımp:
Pump	s for Boom, arm, bucket and travel circuits
Туре	e Variable displacement, axial piston
	imum flow
	s forSwing and blade
	e Fixed displacement gear
Max	imum flow
,	ic motors:
	2 x axial piston motors with parking brake
_	1 x axial piston motor with swing holding brake
	alve setting:
	ment circuits
	circuit
	ı circuit21.6 MPa 220 kg/cm²
	circuit
	circuits (Raise, Lower)
,	ic cylinders:
•	er of cylinders – bore x stroke x rod diameter)
	1.00 mm x 691 mm x 50 mm
	PC45MR-5)
`	PC55MR-5)
Виске	et (PC45MR-5)
Poom	(PC55MR-5)
БООП	swing (PC45MR-5) 1–90 mm x 630 mm x 50 mm (PC55MR-5) 1–95 mm x 630 mm x 50 mm
Blado	(PC55MR-5) 1–95 MM x 630 MM x 50 MM
Diade	



DRIVES AND BRAKES

Steering controlTwo levers with pedals
Drive method
Maximum drawbar pull 42 kN 4280 kg
Gradeability
Maximum travel speed: High4.6 km/h
(Auto-shift) Low
Service brake
Parking brake Mechanical disc brake



SWING SYSTEM

Drive method	
Swing reductionPlanetary gear	
Swing circle lubrication Grease-bathed	
Service brake	
Swing lock Mechanical disc brake	
Swing speed	



UNDERCARRIAGE

enter frame	frame
rack frameBox-se	ection
eal of track Sealed	track
rack adjuster	draulic
lumber of shoes (Each side)	39
umber of carrier rollers (Each side)	1
lumber of track rollers (Each side)	4



COOLANT AND LUBRICANT

Fuel tank	65
Coolant	8.9
Engine	. 8.1(7.5)
Final drive (Each side)	0.7
Hydraulic tank	55(20)



OPERATING WEIGHT (APPROXIMATE)

Operating weight including 2640 mm (PC45MR-5), 2900 mm (PC55MR-5) one-piece boom, 1375 mm (PC45MR-5), 1640 mm (PC55MR-5) arm, ISO 7451 heaped 0.14 m³ (PC45MR-5), 0.16 m³ (PC55MR-5) bucket, blade, rated capacity of lubricants, coolant, full fuel tank, operator, and standard equipment.

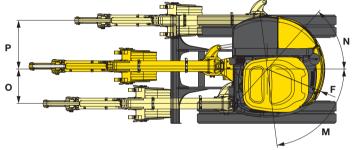
		PC45	MR-5	
	ROPS Canopy, Rubber Shoe			Cab, r Shoe
Shoes	Operating Weight	Ground Pressure	Operating Weight	Ground Pressure
400 mm	4860 kg	26.4 kPa 0.27 kg/cm ²	4980 kg	27.3 kPa 0.28 kg/cm ²

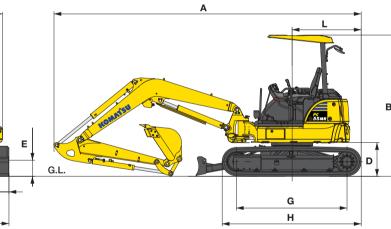
	PC55MR-5				
	ROPS Canopy, Rubber Shoe				
Shoes	Operating Weight	Ground Pressure	Operating Weight	Ground Pressure	
400 mm	5140 kg	28.9 kPa 0.29 kg/cm ²	5260 kg	29.5 kPa 0.30 kg/cm ²	



DIMENSIONS

Mod	el	PC45MR-5	PC55MR-5	
Boor	n Length		2640 mm	2900 mm
Arm	Length		1375 mm	1640 mm
Α	Overall length		5220 mm	5550 mm
_	Overall beinkt	Canopy	2550 mm	2550 mm
В	Overall height	Cab	2590 mm	2590 mn
C	C Overall width		1960 mm	1960 mn
D	Ground clearance, counterweight		610 mm	610 mn
E	Ground clearance (minimum)		290 mm	290 mn
F	Tail swing radius		1040 mm	1120 mn
G	Track length on gro	Track length on ground		2000 mn
Н	Track length		2520 mm	2520 mn
I	Track gauge		1560 mm	1560 mn
J	Shoe width		400 mm	400 mn
K	Machine upper wid	th	1835 mm	1835 mn
L	Distance, swing cer	nter to rear end	1265 mm	1265 mn
M/N	Boom swing angle deg.		LH85/RH50	LH85/RH50
0	Bucket offset LH		630 mm	630 mn
Р	Bucket offset RH	880 mm	880 mn	





BACKHOE BUCKET

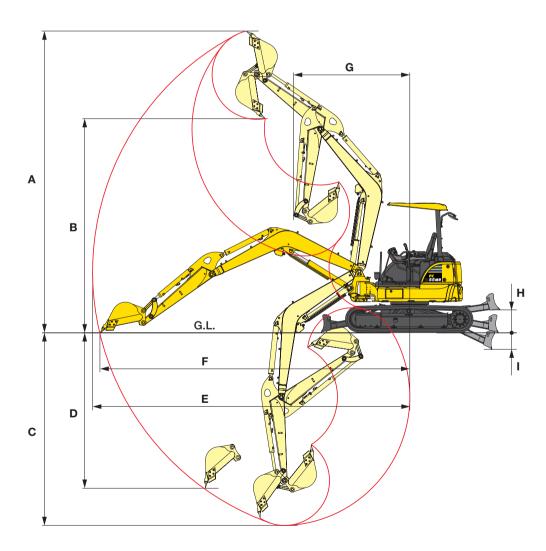
Bucket Capacity (Heaped)		Width		Weight	Number		
ISO 7451, PCSA	CECE	Without Side Cutters	With Side Cutters	With Side Cutters	of Teeth	PC45MR-5	PC55MR-5
0.055 m ³	0.05 m ³	300 mm	370 mm	89 kg	3	0	0
0.11 m³	0.10 m ³	425 mm	500 mm	94 kg	3	0	0
0.14 m ³	0.13 m ³	525 mm	600 mm	109 kg	4	•	Х
0.16 m ³	0.14 m ³	580 mm	650 mm	110 kg	4	0	•
0.18 m ³	0.16 m ³	625 mm	700 mm	121 kg	5	Х	0



WORKING RANGE

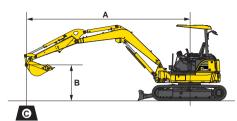
Mod	el	PC45MR-5	PC55MR-5	
Boor	n Length	2640 mm	2900 mm	
Arm	Length	1375 mm	1640 mm	
Α	Maximum digging height	5500 mm	5915 mm	
В	Maximum dumping height	3775 mm	4200 mm	
C	Maximum digging depth	3300 mm	3770 mm	
D	Maximum vertical wall digging depth	2730 mm	3030 mm	
E	Maximum digging reach	5735 mm	6220 mm	
F	Maximum digging reach at ground	5575 mm	6075 mm	
G	Minimum swing radius (When boom swing)	2290 (1760) mm	2285 (1760) mm	
Н	Maximum blade lift	430 mm	430 mm	
1	Maximum blade depth	330 mm	330 mm	
ISO 6015 Rating	Bucket digging force	33.9 kN 3460 kg	39.0 kN 3980 kg	
ISO (Arm crowd force	20.3 kN 2070 kg	23.9 kN 2440 kg	

With rubber shoe





LIFTING CAPACITY WITH LIFTING MODE



- A: Reach from swing center
- B: Bucket hook height
- C: Lifting capacity
- Cf: Rating over front
- Cs: Rating over side
- : Rating at maximum reach

PC45MR-5 Canopy Boom : 2640 mm Arm : 1375 mm Bucket : 0.14 m³ ISO 7451 heaped Shoe width : 400 mm Rubber shoe Blade on ground							
Α	€Ma	nximum	3.0) m	2.0) m	
В	Cf	Cs	Cf	Cs	Cf	Cs	
3.0 m	925 kg	565 kg	_	_	-	_	
2.0 m	930 kg	465 kg	1240 kg	1075 kg	_	_	
1.0 m	1010 kg	430 kg	1895 kg	975 kg	_	_	
0 m	1150 kg	435 kg	2295 kg	915 kg	1205 kg	1205 kg	
-1.0 m	1245 kg	495 kg	2305 kg	900 kg	2500 kg	1755 kg	

PC55MR-5 Canopy Boom: 2900 mm Arm: 1640 mm Bucket: 0.16 m³ ISO 7451 heaped Shoe width: 400 mm Rubber shoe Blade on ground						
B A	€Maximum		3.0 m		2.0 m	
	Cf	Cs	Cf	Cs	Cf	Cs
3.0 m	830 kg	530 kg	-	-	_	-
2.0 m	865 kg	450 kg	1170 kg	1170 kg	_	-
1.0 m	915 kg	420 kg	1825 kg	1095 kg	_	
0 m	975 kg	425 kg	2225 kg	1020 kg	1265 kg	1265 kg
-1.0 m	1045 kg	465 kg	2265 kg	1000 kg	2445 kg	1945 kg





STANDARD EQUIPMENT

ENGINE

- Air cleaner, double element with auto dust evacuator
- Cooling fan, suction type

ELECTRICAL SYSTEM

- Alternator, 12 V/55 A
- Auto-decelerator
- Battery, 1 x 12 V/72 Ah
- Starting motor 12 V/1.7 kW
- Working light on boom
- Working light on canopy or cab

HYDRAULIC SYSTEM

Auxiliary hydraulics with selector valve

GUARDS AND COVERS

- Fan guard structure
- Thermal guard

UNDERCARRIAGE

- Shoes
- 400 mm rubber shoe

OPERATOR ENVIRONMENT

- 1 x 12 V power supply
- Automatic two-speed travel control
- High resolution 3.5" LCD color monitor
- Lock lever auto lock function
- Rear view mirrors (RH, LH, rear)Retractable seat belt, 50 mm
- Suspension seat
- Travel alarm
- Two-post ROPS (ISO 3471) canopy

WORK EQUIPMENT

- Arm
- 1375 mm arm assembly with piping (PC45MR-5)
- 1640 mm arm assembly with piping (PC55MR-5)
- Backfill blade
- Boom
- 2640 mm boom assembly with piping (PC45MR-5)
- 2900 mm boom assembly with piping (PC55MR-5)

OTHER EQUIPMENT

- Auto idle shutdown function
- KOMTRAX
- Swing holding brake



OPTIONAL EQUIPMENT

HYDRAULIC SYSTEM

Pattern change valve (ISO - backhoe)

UNDERCARRIAGE

- Shoes
- 400 mm road liner shoe
- 400 mm steel shoe

OPERATOR ENVIRONMENT

- Cab
- Heater with defroster (Standard)
- Air conditioner with defroster (Optional)Working light, left side (Standard)
- Additional working light, right side (Optional)
- AM/FM radio & auxiliary input
 (3.5 mm jack) ready (Optional)
- Proportional switch (For attachment line)
- Retractable seat belt, 78 mm

WORK EQUIPMENT

• Wide variety of attachments

OTHER EQUIPMENT

• Battery disconnect switch

AUSTRALIAN - NZ SPECIFICATIONS

ENGINE

Air pre-cleaner

HYDRAULIC SYSTEM

• Pattern change valve (ISO - backhoe)

OPERATOR ENVIRONMENT

- Cab
- Air conditioner with defroster
- Two front working lights
- AM/FM radio & auxiliary input (3.5 mm jack)
- Proportional switch (For attachment line)
- Retractable seat belt, 78 mm

OTHER EQUIPMENT

Quick coupler unit