KOMATSU

PC
80MR

Midi-Excavator

PC80MR-3

ENGINE POWER
47,4 kW / 63,6 HP @ 2.200 rpm

OPERATING WEIGHT
7.350 - 8.000 kg

BUCKET CAPACITY
0,09 - 0,27 m^3

Walk-Around

The new PC80MR-3 compact midi-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. It has a tight tail swing that protrudes over the tracks by just 145 mm. The operator can concentrate on his work, without having to worry about rear-swing impacts.

Cutting-edge hydraulic circuit

- CLSS ensures unbeatable productivity
- Two working modes to reduce fuel consumption
- Excellent controllability
- Extreme precision

Outstanding performances

- Excellent stability
- Optimal combination of power and digging speed
- Ideal for work in confined areas
- Engine controller for fuel injection and emission management

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7.350 - 8.000 kg

BUCKET CAPACITY
0,09 - 0,27 m³

First-class operator comfort

- Spacious and comfortable cab
- Low noise level
- Wide entrance for easy entry and exit
- Sliding door reduces the risk of damage

Total versatility

- Ideal for a wide range of applications
- Standard 1 or 2 way auxiliary line for attachments
- Second auxiliary circuit and hydraulic quick-coupler line (optional)
- Roadliner (optional)

Easy maintenance

- Two wide opening bonnets
- Easy access to all maintenance points
- Longer maintenance intervals

KOMTRAX
Komatsu Satellite Monitoring System

First-Class Operator Comfort

Operator's environment

The PC80MR-3 is a compact machine, with a spacious and comfortable cab designed with care down to the smallest detail. Particular attention was given to the internal layout, an adjustable seat, a large digital panel in perfect view of the operator, ergonomic and dedicated PPC controls, and an efficient heating and ventilation system with partial fresh air intake. A new air-conditioning system, in option, will maintain a perfect temperature inside the cab, no matter the weather.

More comfort

Extensive proofing reduces noise levels and creates a more pleasant and comfortable work environment inside the strong cab, designed to guarantee maximum safety in case of roll-over. Comfort - and safety - is further enhanced by the 360° all-round visibility, by an opening side window and by an upper-rail sliding door that can be opened even in the tightest spaces.

Cutting-Edge Hydraulic Circuit

CLSS Hydraulic system

The PC80MR-3 is equipped with CLSS (Closed-centre Load Sensing System). This exclusive system delivers hydraulic power on demand, when and where the operator needs it. Combined with a powerful engine, CLSS ensures high performances and perfect control, independently from the load, in even the roughest working conditions.

Outstanding Performances

Absolute control

The PPC servo controls allow extremely precise movements with very little effort. To simplify and speed up working cycles, all movements can be done simultaneously, and each has its own dedicated control. Smooth manoeuvring combined with a perfect view of the working area, guarantees maximum productivity for even the toughest jobs.

A speed sensor - and two power modes

To optimize power usage, the PC80MR-3 is fitted with an engine speed sensor .The main pump's power is automatically adjusted to the engine speed and the computerised system keeps this speed constant during high load conditions. Two distinct hydraulic power modes - 'Power' or 'Economy' - let the operator conveniently choose between maximum power or minimum fuel consumption.

Total Versatility

Versatility

The PC80MR-3 was specially designed for applications that require a high digging force and excellent stability - and for work in confined areas such as house building sites, road works, and urban jobsites, or for digging trenches near walls. It offers all the features of a traditional excavator, but in an extremely compact and easily transportable machine. The many available options allow any operator to customize the machine to his needs: short or long digging arm; 450 or 600 mm steel tracks, 450 mm rubber tracks or 450 mm roadliner. An additional counterweight can be installed to easily increase the lifting capacity.

Attachment lines

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. An optional auxiliary line is available for attachments that require multiple hydraulic actuation. Upon request, final valves are available for the equipment circuits.

Easy Maintenance

Excellent serviceability

With two big bonnets that can be easily opened even in tight spaces, the PC80MR-3 is also a top level machine when it comes to maintenance. The main valve, the plastic fuel tank, and the oil tank are under the side bonnet, easily accessible from ground level. The engine is under the rear cover, with all regular check points within easy reach. The track frame is sloped to prevent dirt from accumulating. ORFS hydraulic face seal connectors and DT electrical connectors enhance the machine's reliability and make repairs faster and easier.

The battery main switch is standard

Rear bonnet for quick engine check and access to maintenance points from ground level

Right bonnet for easy access to main control valve, fuel tank, oil tank and tool box

Komatsu Satellite Monitoring System

KOMTRAX

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

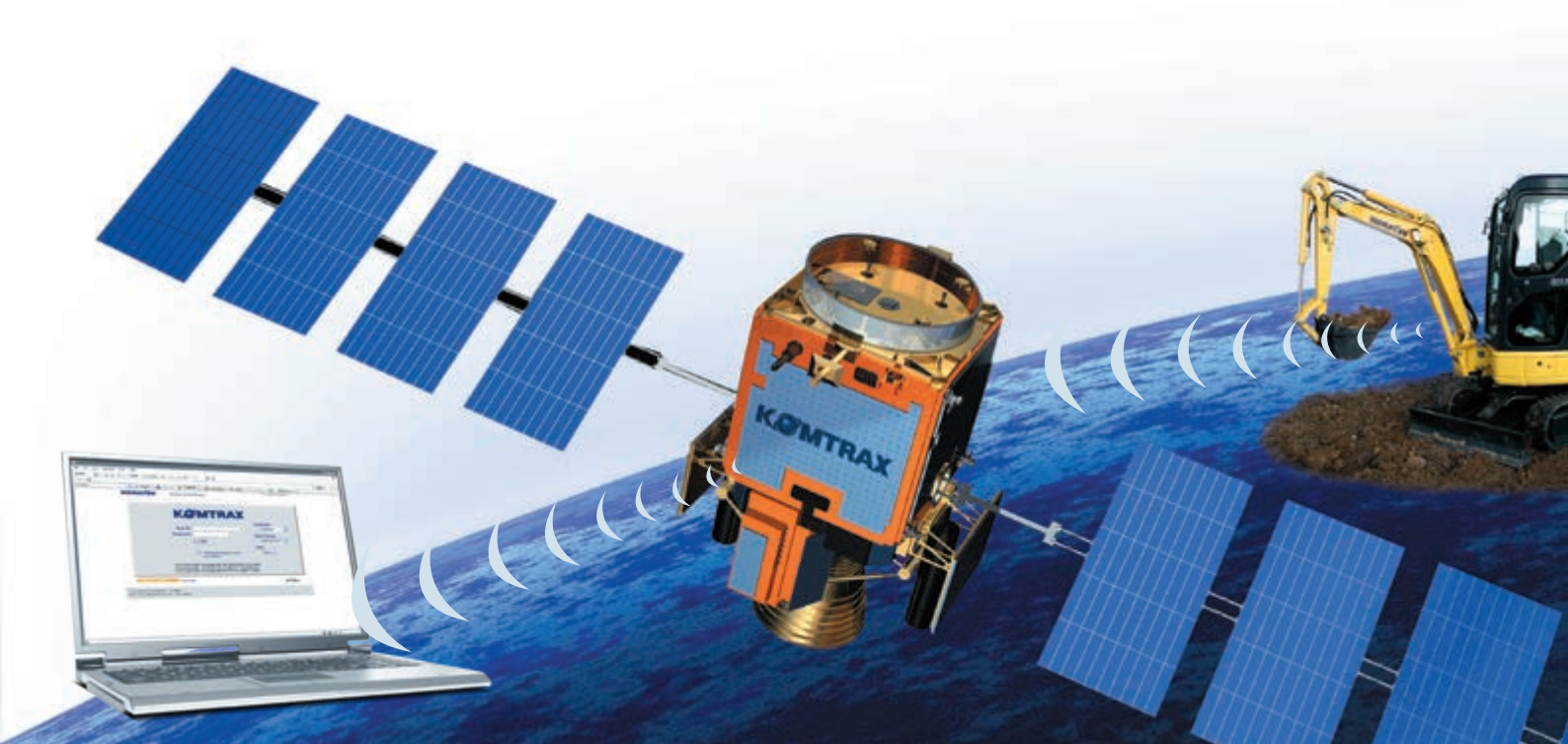
For further details on KOMTRAX™, please ask your Komatsu dealer for the latest KOMTRAX™ brochure.

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

Model ..... Komatsu 4D98E-3ZSFB
Type ..... low emisison, direct injection
Displacement ..... 3.318 cm³
Bore × stroke ..... 98 mm × 110 mm
No. of cylinders 4
Engine power
at rated engine speed ..... 2.200 rpm
ISO 14396 ..... 47,4 kW / 63,6 HP
SAE J1349 ..... 45,6 kW / 61,2 HP
Max. torque/engine speed ..... 237 Nm/1.400 rpm

OPERATING WEIGHT

Operating weight, including 1.650 mm arm, 0,20 m³ bucket (ISO 7451), blade, operator, liquids, filled tank and standard equipment (ISO 6016).

Shoes	Width	Operating weight Mono boom
Steel (450 mm)	2.250 mm	7.730 kg
Steel (600 mm)	2.400 mm	7.910 kg
Rubber (450 mm)	2.250 mm	7.670 kg
Roadliner (450 mm)	2.250 mm	7.870 kg

TRANSMISSION

Steering control ..... 2 levers with pedals
Transmission ..... hydrostatic
Hydraulic motors ..... variable displacement, axial piston
Max. drawbar pull ..... 6.471 daN (6.600 kg)
Max. travel speeds Lo / Hi ..... 2,9 km/h - 4,9 km/h
Parking brake ..... mechanical discs

UNDERCARRIAGE

Track tensioning ..... grease
Shoes (each side) 39
Carrier rollers (each side) 1
Track rollers (each side) 5
Ground pressure ..... 0,34 kg/cm²

BLADE

Width × height ..... 2.250 × 400 mm
Max. lifting above ground level ..... 525 mm
Max. depth below ground level ..... 460 mm

HYDRAULIC SYSTEM

Type ..... Komatsu „CLSS“
Power modes ..... 2 (Power/Economy)
Main pumps:
Pump for ..... boom, arm, bucket and travelling
Type ..... variable displacement, axial piston
Max. flow ..... 178 ltr/min
Pump for ..... swing and blade
Type ..... fixed displacement gear pump
Max. flow ..... 72 ltr/min
Auxiliary hydraulic flow (optional) ..... 145 ltr/min
Relief valve setting:
Swing and blade ..... 20,0 MPa (204 kg/cm²)
Travel and work equipment ..... 26,5 MPa (270 kg/cm²)
Bucket breakout force (ISO 6015) ..... 5.855 daN (5.970 kgf)
Arm breakout force, 1.650 mm arm
(ISO 6015) ..... 3.913 daN (3.990 kgf)

SWING SYSTEM

Driven by ..... hydraulic motor
Swing reduction gear ..... with double epicyclical reduction
Swing circle lubrication ..... grease-bathed
Swing brakes ..... automatic, with oil immersed discs
Swing speed ..... 10,2 rpm

ELECTRIC SYSTEM

Voltage ..... 12 V
Battery ..... 120 Ah
Alternator ..... 80 A
Starter motor ..... 3 kW

SERVICE CAPACITIES

Fuel tank ..... 110 ltr
Cooling system ..... 18 ltr
Engine oil ..... 12,5 ltr
Hydraulic oil tank ..... 65 ltr

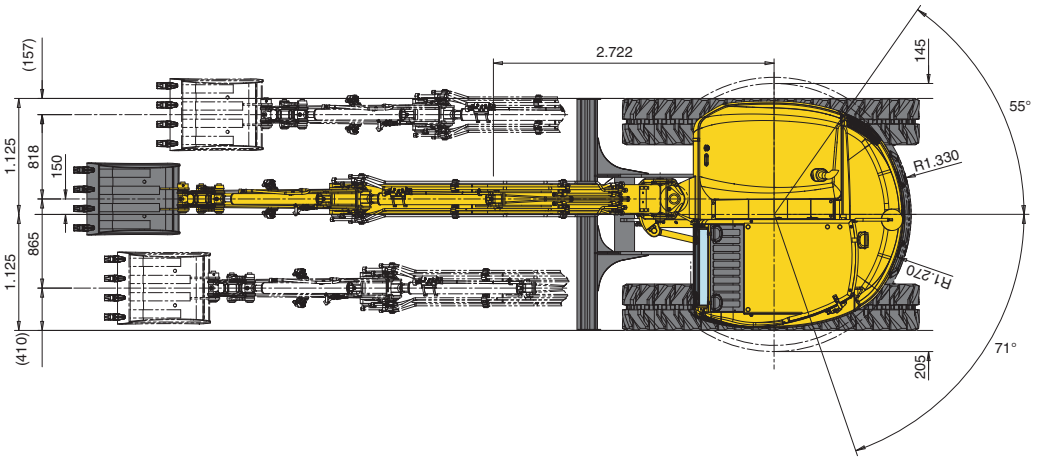
CAB

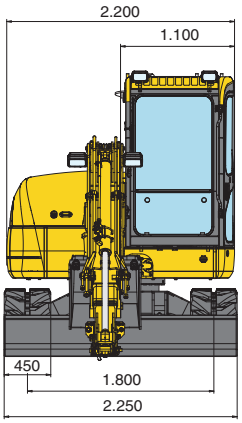
Sound-proof cab, provided with safety glasses, liftable windscreen, roof window with protection grid, sliding door with lock, windscreen-wiper, electric horn, adjustable seat with double slide, control system and instrumentation, adjustable joysticks. Outside air inlet.

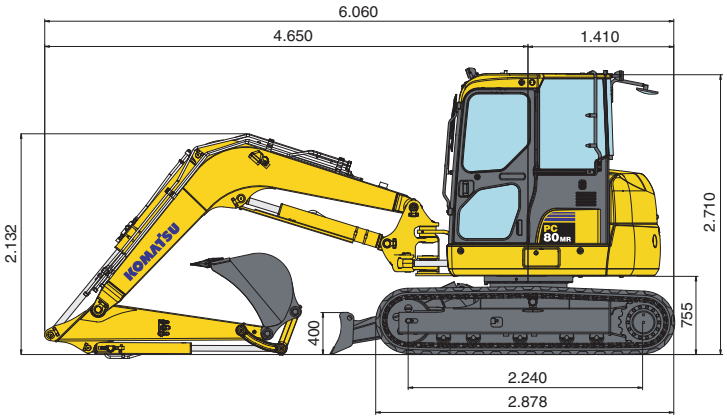
ENVIRONMENT

Vibration levels (EN 12096:1997)
Hand/arm ..... ≤ 2,5 m/s² (uncertainty K = 1,2 m/s²)
Body ..... ≤ 0,5 m/s² (uncertainty K = 0,2 m/s²)
Contains fluorinated greenhouse gas HFC-134a (GWP 1430).
Quantity of gas 1,1 kg, CO_2 equivalent 1,57 t.

DIMENSIONS



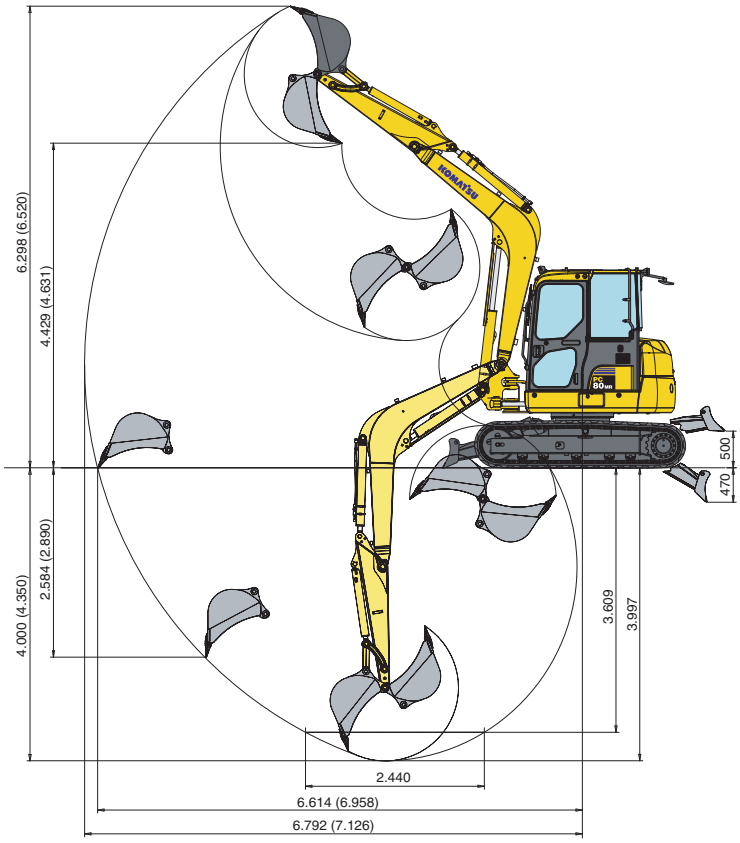




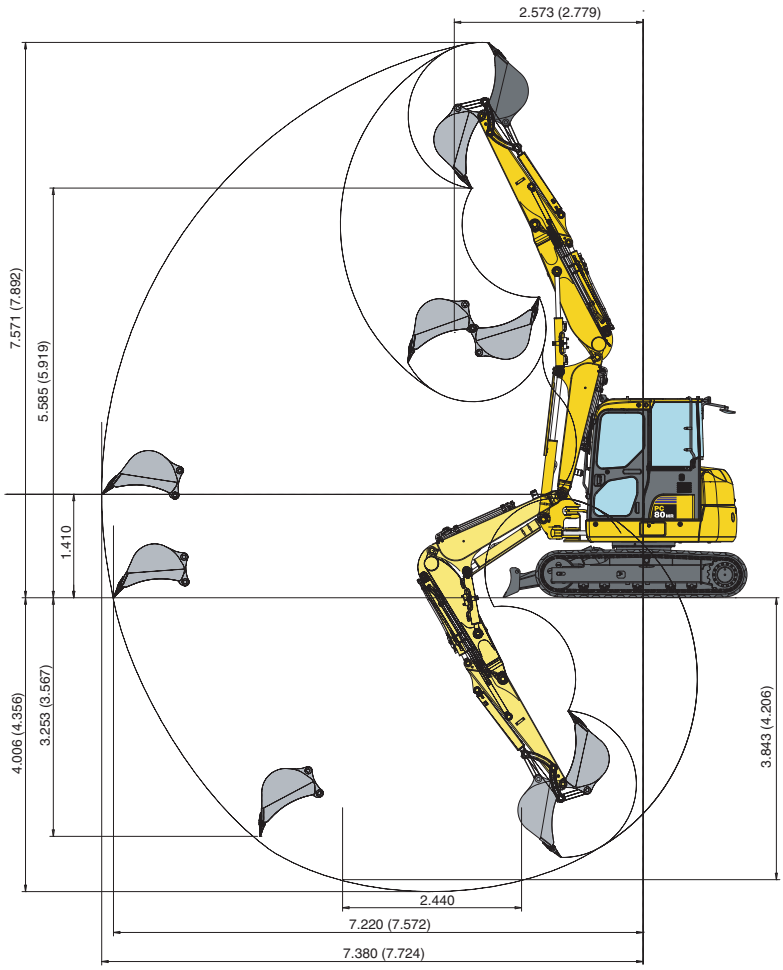
Bucket capacity (ISO 7451)	m³	0,086	0,128	0,171	0,2	0,232	0,265
Bucket width	mm	300	400	500	600	700	800
Bucket weight	kg	120	130	142	155	168	180

Working Range

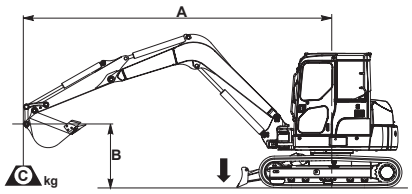
MONO BOOM



TWO-PIECE BOOM



LIFTING CAPACITY MONO BOOM / WITH BLADE AT GROUND LEVEL



A – Reach from swing centre

B – Bucket hook height

C – Lifting capacities, including bucket (175 kg), bucket linkage and bucket cylinder

– Rating over front

– Rating over side

– Rating at maximum reach

When removing bucket, linkage or cylinder, lifting capacities can be increased by their respective weights.

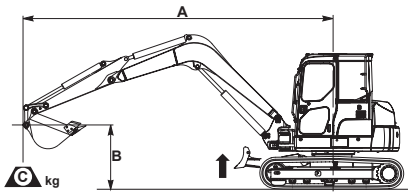
Arm length	A / B	Additional counterweight			5,0 m		4,0 m		3,0 m	
1.650 mm	4,5 m	---	*1.560	1.090	---	---	*1.470	*1.460	*1.300	*1.300
	3,0 m	---	*1.580	770	*1.600	940	*1.770	1.390	*2.180	*2.180
	1,5 m	---	*1.640	680	*1.890	880	*2.480	1.260	*3.640	1.930
	0,0 m	---	*1.730	710	*2.050	840	*2.840	1.180	*4.260	1.830
	-1,5 m	---	*1.830	910	---	---	*2.510	1.180	*3.700	1.850
1.650 mm	4,5 m	+ 230 kg	*1.560	1.140	---	---	*1.470	*1.460	*1.300	*1.300
	3,0 m	+ 230 kg	*1.580	820	*1.600	990	*1.770	1.460	*2.180	*2.180
	1,5 m	+ 230 kg	*1.640	720	*1.890	940	*2.480	1.330	*3.640	2.040
	0,0 m	+ 230 kg	*1.730	750	*2.050	890	*2.840	1.250	*4.260	1.930
	-1,5 m	+ 230 kg	*1.830	960	---	---	*2.510	1.250	*3.700	1.960
2.000 mm	4,5 m	---	*1.400	930	*1.380	950	*1.200	*1.200	*900	*900
	3,0 m	---	*1.330	680	*1.440	950	*1.540	1.410	*1.690	*1.690
	1,5 m	---	*1.410	610	*1.770	890	*2.290	1.280	*3.670	1.990
	0,0 m	---	*1.580	630	*2.020	830	*2.790	1.170	*4.300	1.820
	-1,5 m	---	*1.690	780	*1.840	820	*2.640	1.150	*3.960	1.820
2.000 mm	4,5 m	+ 230 kg	*1.400	980	*1.380	1.010	*1.200	1.200	*900	*900
	3,0 m	+ 230 kg	*1.330	730	*1.440	1.000	*1.540	1.480	*1.690	*1.690
	1,5 m	+ 230 kg	*1.410	650	*1.770	940	*2.290	1.350	*3.670	2.090
	0,0 m	+ 230 kg	*1.580	670	*2.020	880	*2.790	1.240	*4.300	1.920
	-1,5 m	+ 230 kg	*1.690	830	*1.840	870	*2.640	1.220	*3.960	1.920

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.

Lifting Capacity

LIFTING CAPACITY MONO BOOM / WITH BLADE UP



A – Reach from swing centre

B – Bucket hook height

C – Lifting capacities, including bucket (175 kg), bucket linkage and bucket cylinder

– Rating over front

– Rating over side

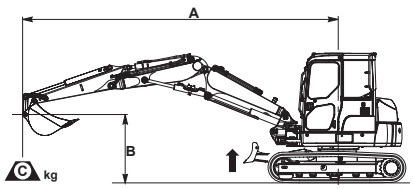
– Rating at maximum reach

When removing bucket, linkage or cylinder, lifting capacities can be increased by their respective weights.

Arm length	B \ A	Additional counterweight			5,0 m		4,0 m		3,0 m	
1.650 mm	4,5 m	---	1.330	1.090	---	---	*1.470	*1.460	*1.300	*1.300
	3,0 m	---	960	770	1.160	940	1.720	1.390	*2.180	*2.180
	1,5 m	---	850	680	1.100	880	1.580	1.260	2.480	1.930
	0,0 m	---	890	710	1.050	840	1.490	1.180	2.370	1.830
	-1,5 m	---	1.130	910	---	---	1.490	1.180	2.400	1.850
1.650 mm	4,5 m	+ 230 kg	1.400	1.140	---	---	*1.470	*1.460	*1.300	*1.300
	3,0 m	+ 230 kg	1.010	820	1.210	990	1.770	1.460	*2.180	*2.180
	1,5 m	+ 230 kg	900	720	1.160	940	1.660	1.330	2.600	2.040
	0,0 m	+ 230 kg	930	750	1.110	890	1.560	1.250	2.460	1.930
	-1,5 m	+ 230 kg	1.190	960	---	---	1.560	1.250	2.510	1.960
2.000 mm	4,5 m	---	1.140	930	1.170	950	*1.200	*1.200	*900	*900
	3,0 m	---	850	680	1.170	950	*1.540	1.410	*1.690	*1.690
	1,5 m	---	770	610	1.100	890	1.590	1.280	2.550	1.990
	0,0 m	---	790	630	1.030	830	1.480	1.170	2.350	1.820
	-1,5 m	---	980	780	1.030	820	1.460	1.150	2.350	1.820
2.000 mm	4,5 m	+ 230 kg	1.190	980	1.230	1.010	*1.200	*1.200	*900	*900
	3,0 m	+ 230 kg	900	730	1.220	1.000	*1.540	1.480	*1.690	*1.690
	1,5 m	+ 230 kg	810	650	1.160	940	1.670	1.350	2.660	2.090
	0,0 m	+ 230 kg	840	670	1.100	880	1.560	1.240	2.470	1.920
	-1,5 m	+ 230 kg	1.030	830	1.090	870	1.530	1.220	2.470	1.920

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.

LIFTING CAPACITY TWO-PIECE BOOM / WITH BLADE UP



A – Reach from swing centre

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C – Lifting capacities, including bucket (175 kg), bucket linkage and bucket cylinder

– Rating over front

– Rating over side

– Rating at maximum reach

When removing bucket, linkage or cylinder, lifting capacities can be increased by their respective weights.

Arm length	A / B	Additional counterweight			5,0 m		4,0 m		3,0 m	
1.650 mm	4,5 m		730	710	880	850	1.400	1.350	*2.370	2.310
	3,0 m		530	510	840	810	1.270	1.220	2.080	1.990
	1,5 m		460	450	750	720	1.070	1.030	-	-
	0,0 m		480	470	690	670	980	940	*1.570	1.500
	-1,5 m		610	590	700	680	1.000	960	1.640	1.560
1.650 mm	4,5 m	+ 230 kg	820	790	980	950	1.530	1.470	*2.370	*2.370
	3,0 m	+ 230 kg	600	590	940	910	1.400	1.350	2.280	2.170
	1,5 m	+ 230 kg	540	520	850	820	1.200	1.150	-	-
	0,0 m	+ 230 kg	560	540	790	760	1.110	1.070	*1.580	*1.580
	-1,5 m	+ 230 kg	700	680	800	770	1.130	1.080	1.840	1.740
2.000 mm	4,5 m		620	620	910	880	1.430	1.390	*1.790	*1.790
	3,0 m		460	450	850	830	1.300	1.260	2.190	2.090
	1,5 m		410	400	750	730	1.090	1.050	*940	*940
	0,0 m		420	410	680	650	970	930	1.530	1.460
	-1,5 m		520	500	670	650	960	930	1.580	1.500
2.000 mm	4,5 m	+ 230 kg	710	680	1.010	970	1.560	1.510	2.390	*1.790
	3,0 m	+ 230 kg	530	520	950	920	1.440	1.380	2.190	2.280
	1,5 m	+ 230 kg	480	460	850	820	1.220	1.170	*940	*940
	0,0 m	+ 230 kg	490	480	780	750	1.100	1.050	1.730	1.640
	-1,5 m	+ 230 kg	600	580	770	740	1.090	1.050	1.780	1.690

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.

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- The lifting point is a hypothetical hook placed behind the bucket.

Midi-Excavator

PC80MR-3

Standard Equipment

- ROPS (ISO 3471) / FOPS (ISO 10262) cab with heating
- Mono boom with cylinder protection
- 1.650 mm digging arm
- 450 mm steel shoes
- 2.250 mm blade
- Adjustable seat with safety belt
- KOMTRAX™ - Komatsu satellite monitoring system
- Instrumentation including:
  - hour meter
  - LCD fuel level indicator
  - LCD engine water temperature indicator
  - two travel speed
  - working mode selection
  - indicators: air filter clogging, oil pressure, generator, hydraulic oil filter, engine pre-heating, selected speed
- Horn
- 12 V internal electric plug
- Working light on boom
- Hose burst valve on boom, arm and blade cylinders
- Overload warning device
- Travel acoustic alarm
- Double element air filter
- Rear-view mirror (right side)
- 1 / 2 way auxiliary hydraulic circuit
- Battery main switch

Optional Equipment

- Two-piece boom (with positioner)
- Air conditioning
- 2.000 mm digging arm
- 600 mm steel shoes
- Rubber shoes
- Roadliner shoes
- Rear working light on cab
- 1 front working light on cab
- 2 front working lights on cab
- Additional working light on boom
- Radio
- Lateral mirror (left side)
- Auxiliary hydraulic line for a 3 movements attachment
- Auxiliary line for hydraulic quick-coupler
- Bucket range (300 - 800 mm)
- 1.500 mm ditch cleaning bucket
- 1.650 mm ditch digging bucket (52°)
- Additional counterweight (230 kg)
- Rotating beacon
- Bucket linkage with lifting hook
- Final stop valves on equipment circuit
- Relieve valve for equipment circuit
- Refuelling pump

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WESS005807 01/2017