

# KOMATSU

## PW168-11

PRELIMINARY



Hydraulic wheeled excavator

**Engine power**  
110 kW / 148 HP @ 2000 rpm

**Operating weight**  
15775 - 18115 kg

**Bucket capacity**  
max. 1.13 m<sup>3</sup>

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# High versatility, low transportation height and safe performance in tight spaces

## Powerful and environmentally friendly

- NEW** • 110 kW EU Stage V engine
- NEW** • Long-life Komatsu Diesel Particulate Filter
- NEW** • 8000 hrs KDPF cleaning interval
- NEW** • High lifting force
- NEW** • HVO Diesel fuel ready
- Speedometer for road homologation

## Total versatility

- NEW** • Axles & gear box
- NEW** • Plastic fenders (option)
- NEW** • Mounting seats for 3D aftermarket systems
- NEW** • Preparation for tilt rotator implementation
- 2.75 m wide axle (option)
- Joystick steering system (option)

## First-class operator comfort

- NEW** • Tiltable steering column
- NEW** • Document holder storage
- NEW** • Mounting bracket for 3rd party monitor
- NEW** • Wider entrance space
- NEW** • Low noise level inside and outside
- Automatic digging brake (option)
- High comfort operator seat (option)

## A safe investment

- NEW** • Low transportation height
- NEW** • Compact dimensions
- NEW** • Colored steps and handrails
- NEW** • AdBlue® tank hood
- KomVision surround view system

## Easy maintenance

- NEW** • Easy access sheet metal door for AdBlue® tank and refill pump
- NEW** • Clamshell grip bar (option)
- Large access doors for maintenance
- Ground level access for filters and maintenance

## Komtrax

- Komtrax Step 5 for ultimate machinery management
- NEW** • 4G mobile communications including KCSI controller
- Current fuel consumption displayed
- Komtrax energy saving report
- Easy maintenance planning
- Locating



A maintenance program  
for Komatsu customers

# Specifications

## Engine

Model	Komatsu SAA4D107E-5
Type	Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel
Engine power	
at rated engine speed	2000 rpm
ISO 14396	110 kW / 148 HP
ISO 9249 (net engine power)	106 kW / 142 HP
No. of cylinders	4
Bore × stroke	107 × 124 mm
Displacement	4.5 l
Air filter type	Double element type with monitor panel dust indicator and auto dust evacuator
Cooling	Suction type cooling fan with radiator fly screen
Fuel	Diesel fuel, conforming to EN590 Class 2/ Grade D. Paraffinic fuel capability (HVO, GTL, BTL), conforming to EN 15940:2016

## Hydraulic system

Type	HydraMind. Closed-centre load sensing system with pressure compensation valves
Additional circuits	Depending on the specification up to 2 additional proportional control & quick-coupler circuits can be installed
Main pump	Variable displacement piston pump supplying boom, arm, bucket, swing and travel circuits
Maximum pump flow	295 l/min
Relief valve settings	
Implement	380 kg/cm <sup>2</sup>
Travel	420 kg/cm <sup>2</sup>
Swing	290 kg/cm <sup>2</sup>
Pilot circuit	36 kg/cm <sup>2</sup>

## Swing system

Type	Axial piston motor driving through planetary double reduction gearbox
Swing lock	Electrically actuated wet multi-disc brake integrated into swing motor
Swing speed	0 - 11.5 rpm
Swing torque	43 kNm

## Steering system

Steering control	Hydraulic steering system supplied from a separate gear pump and controlled through LS orbitrol & priority valves
Minimum turning radius	6800 mm

## Brake system

Type	Dual circuit hydraulic braking system supplied from a separate gear pump
Service brakes	Pedal actuated wet multi-disc brakes integrated into the axle hubs
Parking brake	Electrically actuated wet multi-disc "spring actuation hydraulic release" brake integrated into the transmission

## Transmission

Type	Fully automatic power shift transmission with permanent 4 wheel drive
Travel motors	One variable displacement axial piston motor
Maximum pressure	380 bar
Travel modes	Automatic + 3 travel modes
Max. travel speeds	
Hi / Lo / Creep	35.0 / 10.0 / 2.5 km/h
	A max. speed restriction of 20 km/h is available as an option
Maximum drawbar pull	10900 kg
Axle oscillation	8° Lockable in any position from the operator cab

## Service refill capacities

Fuel tank	267 l
Radiator	22 l
Engine oil	18 l
Swing drive	5.5 l
Hydraulic tank	90 l
Transmission	3.0 l
Front differential	9.5 l
Rear differential	12.4 l
Front axle hub	2.5 l
Rear axle hub	2.5 l
Swing pinion grease bath amount	9.0 l
AdBlue® tank	57.7 l

## Environment

Engine emissions	Fully complies with EU Stage V exhaust emission regulations
Noise levels	
LwA external	99 dB(A) (2000/14/EC Stage II)
LpA operator ear	69 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096:1997)	
Hand/arm	≤ 2.5 m/s <sup>2</sup> (uncertainty K = 0.34 m/s <sup>2</sup> )
Body	≤ 0.5 m/s <sup>2</sup> (uncertainty K = 0.16 m/s <sup>2</sup> )
Contains fluorinated greenhouse gas HFC-134a (GWP 1430). Quantity of gas 0.9 kg; CO <sub>2</sub> equivalent 1.29 t	

### Operating weight (appr.)

Undercarriage attachment type	Mono boom	Two-piece boom
Without	15775 kg	16030 kg
Rear blade	16520 kg	16780 kg
Rear outrigger	16815 kg	17075 kg
2 outriggers + blade	17560 kg	17820 kg
4 outriggers	17855 kg	18115 kg

Operating weight, including specified work equipment, 2500 mm arm, operator, lubricant, coolant, full fuel tank, bucket (475 kg) and the standard equipment.

### Max. bucket capacity and weight

Arm length	Mono boom		
	2100 mm	2500 mm	3000 mm
Material weight up to 1.2 t/m <sup>3</sup>	1.13 m <sup>3</sup> 770 kg	1.04 m <sup>3</sup> 743 kg	0.75 m <sup>3</sup> 600 kg
Material weight up to 1.5 t/m <sup>3</sup>	1.04 m <sup>3</sup> 743 kg	0.85 m <sup>3</sup> 640 kg	0.66 m <sup>3</sup> 535 kg
Material weight up to 1.8 t/m <sup>3</sup>	0.85 m <sup>3</sup> 640 kg	0.75 m <sup>3</sup> 600 kg	0.56 m <sup>3</sup> 520 kg

Arm length	Two-piece boom		
	2100 mm	2500 mm	3000 mm
Material weight up to 1.2 t/m <sup>3</sup>	1.13 m <sup>3</sup> 770 kg	1.04 m <sup>3</sup> 743 kg	0.85 m <sup>3</sup> 640 kg
Material weight up to 1.5 t/m <sup>3</sup>	1.13 m <sup>3</sup> 770 kg	0.94 m <sup>3</sup> 680 kg	0.75 m <sup>3</sup> 600 kg
Material weight up to 1.8 t/m <sup>3</sup>	0.94 m <sup>3</sup> 680 kg	0.75 m <sup>3</sup> 600 kg	0.66 m <sup>3</sup> 535 kg

Max. capacity and weight have been calculated according to ISO 10567:2007.

Please consult with your distributor for the correct selection of buckets and attachments to suit the application.

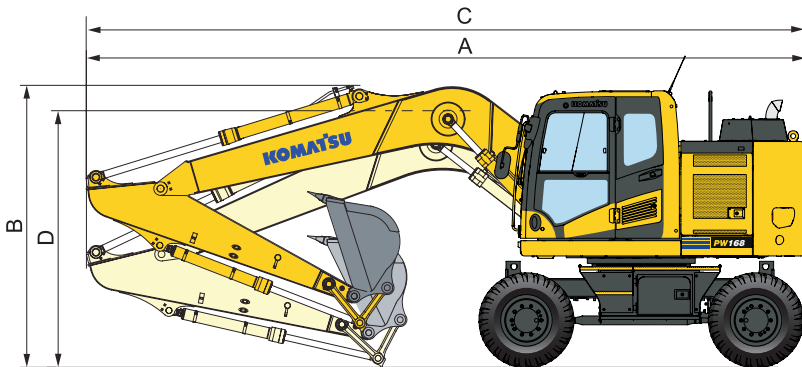
### Bucket and arm force

Arm length	2100 mm	2500 mm	3000 mm
Bucket digging force	94 kN	94 kN	94 kN
Bucket digging force at PowerMax	102 kN	102 kN	102 kN
Arm crowd force	71 kN	63 kN	56 kN
Arm crowd force at PowerMax	77 kN	68 kN	61 kN



# Dimensions and performance figures

## Mono boom



### Driving position

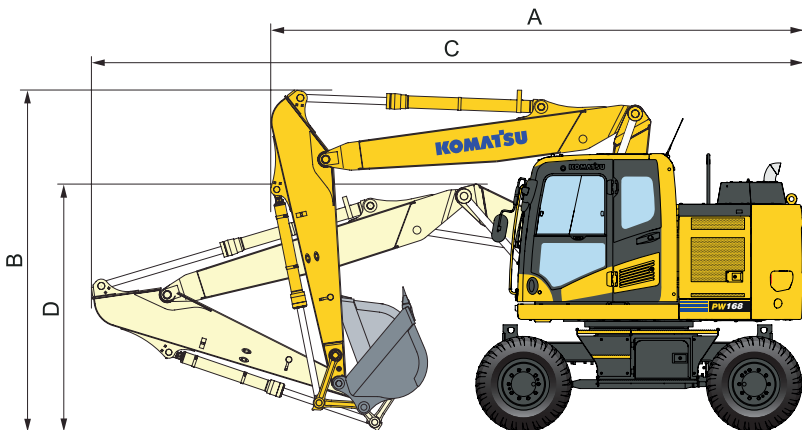
Arm length	A	B
2100 mm	7675 mm	3905 mm
2500 mm	7675 mm	3905 mm
3000 mm *	7780 mm	3850 mm

### Transport position

Arm length	C	D
2100 mm	8035 mm	3080 mm
2500 mm	8035 mm	3080 mm
3000 mm	8035 mm	3080 mm

\* Driving position without bucket

## Two-piece boom



### Driving position

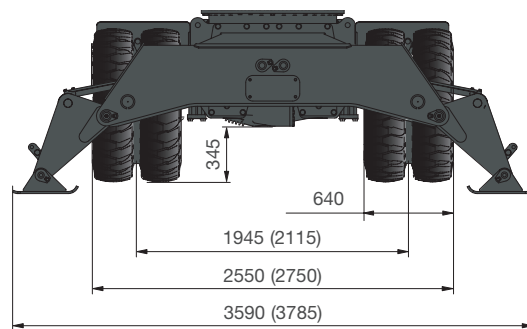
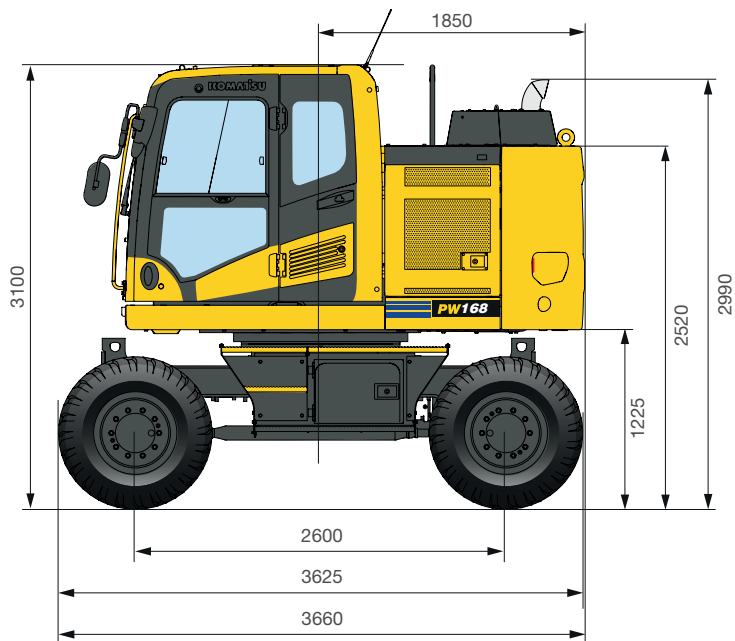
Arm length	A	B
2100 mm	5890 mm	3950 mm
2500 mm	6030 mm	4000 mm
3000 mm *	6115 mm	3950 mm

### Transport position

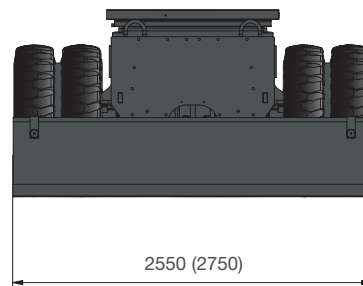
Arm length	C	D**
2100 mm	7880 mm	2710 mm
2500 mm	7900 mm	2790 mm
3000 mm	7890 mm	3005 mm

\* Driving position without bucket

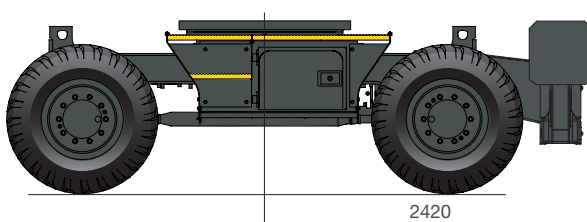
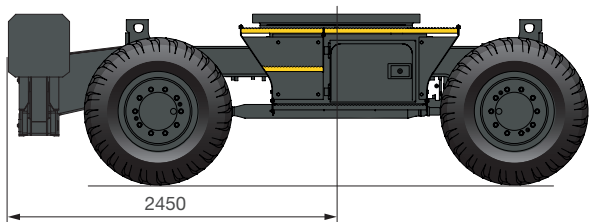
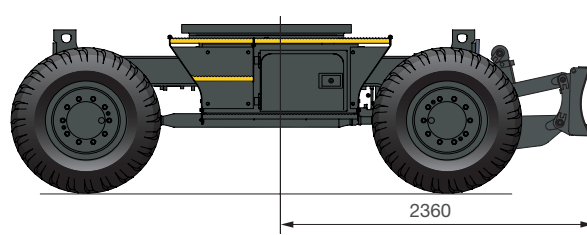
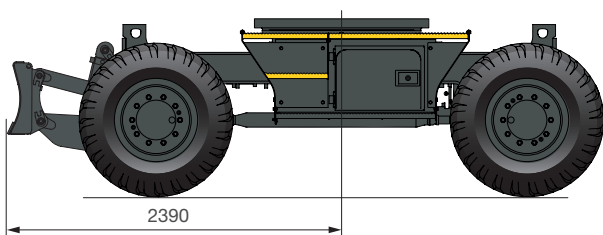
\*\* Height to top of hose



All dimensions with tyres Bandenmarkt Excavator 315/70 R22.5

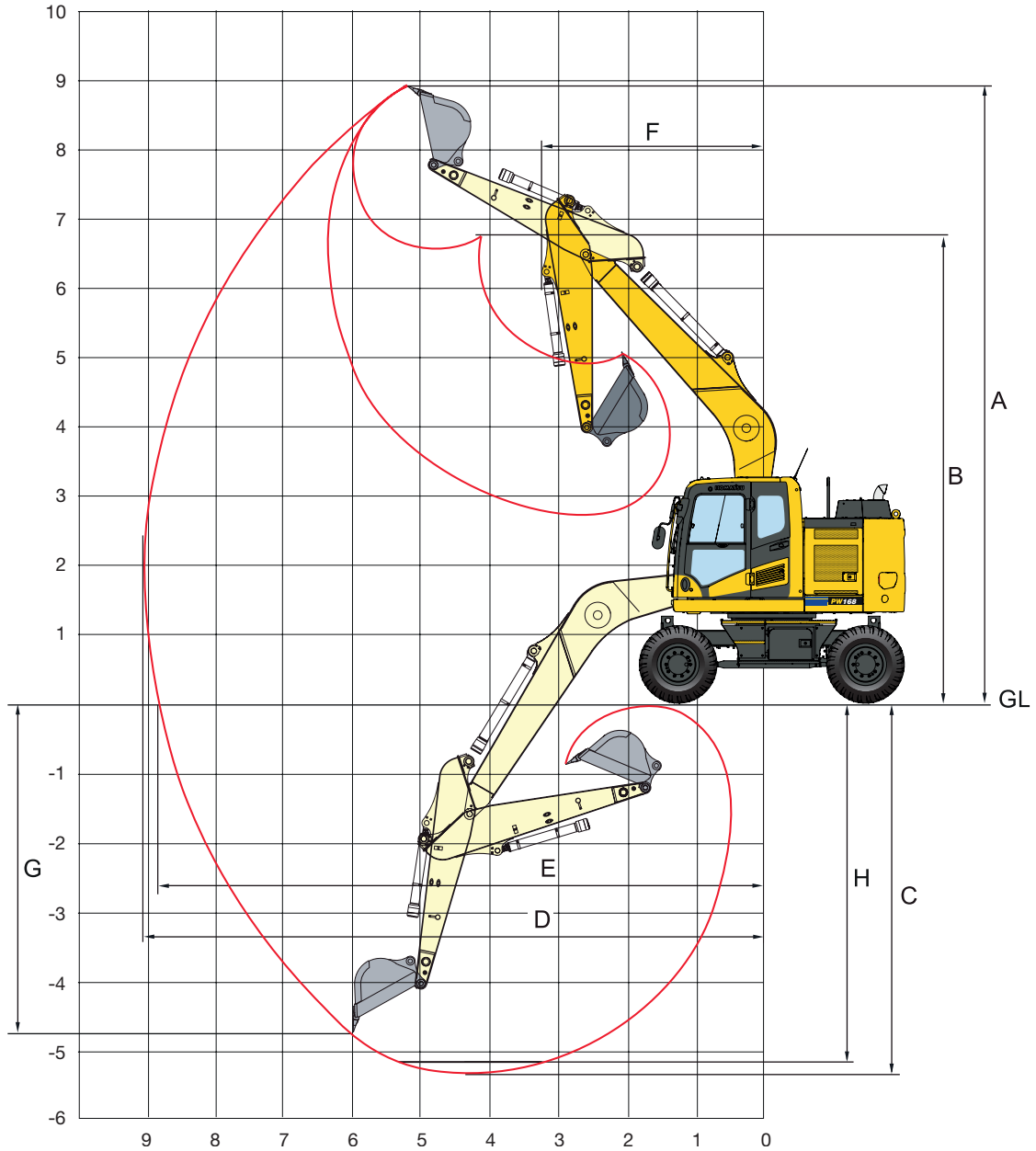


( ): Figures for 2.75 m undercarriage



# Working range

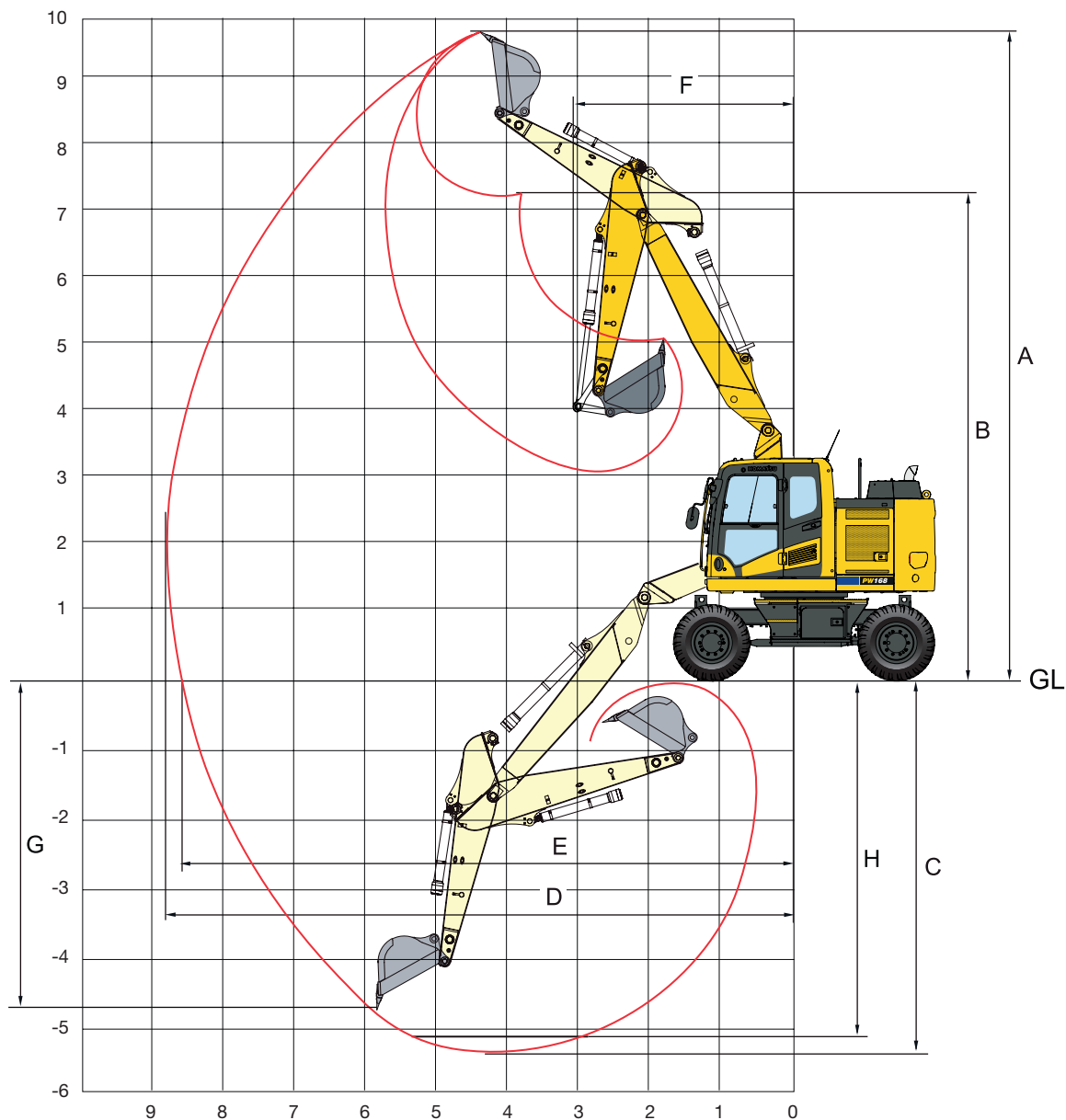
## Mono boom



Arm length	2100 mm	2500 mm	3000 mm
A Max. digging height	8765 mm	8970 mm	9320 mm
B Max. dumping height	6440 mm	6655 mm	6970 mm
C Max. digging depth	4885 mm	5270 mm	5720 mm
D Max. digging reach	8700 mm	9065 mm	9555 mm
E Max. digging reach at ground level	8515 mm	8895 mm	9385 mm
F Min. swing radius	3095 mm	3060 mm	3110 mm
G Max. vertical wall digging depth	3560 mm	3930 mm	4490 mm
H Max. digging depth of cut for 2440 mm level	4715 mm	5155 mm	5690 mm






Two-piece boom

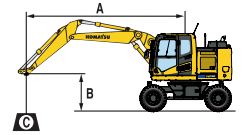


Arm length

	2100 mm	2500 mm	3000 mm
A Max. digging height	9615	9910	10360
B Max. dumping height	7035	7335	7765
C Max. digging depth	5060	5455	5965
D Max. digging reach	8595	8970	9475
E Max. digging reach at ground level	8325	8775	9260
F Min. swing radius	2330	2425	2700
G Max. vertical wall digging depth	3545	3910	4395
H Max. digging depth of cut for 2440 mm level	4935	5345	5860

Lifting capacity / two-piece boom / undercarriage width 2.55 m

Arm length	A	⊗		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m			
		B		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗		
		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗		
 <p>Without stabiliser</p>	2100 mm	7.5 m	kg	*3150	*3150			*4150	3950						
		6.0 m	kg	*2650	2300		3550	2500	*4850	4050					
		4.5 m	kg	*2550	1850		3500	2450	5500	3850	*5700	*5700			
		3.0 m	kg	2400	1650		3350	2350	5200	3550					
		1.5 m	kg	2300	1600	2350	1650	3250	2250	4850	3300				
		0.0 m	kg	2400	1650			3150	2100	4650	3100	*4150	*4150		
		-1.5 m	kg	2650	1800			3100	2100	4650	3050	*8350	5500		
		-3.0 m	kg	3700	2500					4700	3150				
		-4.5 m	kg												
	2500 mm	7.5 m	kg	*2550	*2550				*3950	*3950					
		6.0 m	kg	*2250	2100		3600	2550	*4050	4050					
		4.5 m	kg	*2100	1700		3550	2500	*4650	3900					
		3.0 m	kg	*2150	1500	2400	1650	3400	2400	5250	3600	10200	6500		
		1.5 m	kg	2100	1500	2350	1600	3250	2250	4900	3300				
		0.0 m	kg	2200	1500	2300	1550	3150	2100	4650	3100	*4700	*4700		
		-1.5 m	kg	2400	1650			3050	2100	4600	3000	*7800	5400		
		-3.0 m	kg	2950	2000			3100	2100	4650	3050				
		-4.5 m	kg												
	3000 mm	7.5 m	kg	*2100	*2100		*2400	*2400							
		6.0 m	kg	*1850	1800		*3300	2550							
		4.5 m	kg	*1750	1500	2450	1700	3550	2500	*3550	*3550				
		3.0 m	kg	*1750	1350	2400	1650	3400	2400	5300	3650	*9100	6750		
		1.5 m	kg	*1850	1300	2300	1550	3200	2200	4900	3300				
		0.0 m	kg	1950	1300	2250	1500	3050	2100	4650	3050	*4950	*4950		
		-1.5 m	kg	2100	1400	2200	1500	3000	2000	4500	2950	*7050	5250	*3800	*3800
		-3.0 m	kg	2500	1650			3000	2000	4500	2950	8750	5300		
		-4.5 m	kg												
 <p>Front or rear blade</p>	2100 mm	7.5 m	kg	*3150	*3150			*4150	*4150						
		6.0 m	kg	*2650	*2650		*3700	2900	*4850	4650					
		4.5 m	kg	*2550	2200		*5150	2900	*5750	4500	*5700	*5700			
		3.0 m	kg	*2550	1950		*5800	2750	*7400	4200					
		1.5 m	kg	*2650	1900	*3400	1950	*6300	2650	*8600	3900				
		0.0 m	kg	*2950	1950			*6450	2550	*8850	3750	*4150	*4150		
		-1.5 m	kg	*3500	2150			*6050	2500	*8350	3700	*8350	6750		
		-3.0 m	kg	*5400	3000					*6700	3750				
		-4.5 m	kg												
	2500 mm	7.5 m	kg	*2550	*2550				*3950	*3950					
		6.0 m	kg	*2250	*2250		*3700	3000	*4050	*4050					
		4.5 m	kg	*2100	2000		*4450	2900	*4650	4550					
		3.0 m	kg	*2150	1800	*3600	1950	*5600	2800	*7000	4250	*10700	7800		
		1.5 m	kg	*2250	1750	*4350	1900	*6100	2650	*8250	3900				
		0.0 m	kg	*2450	1800	*4100	1850	*6400	2550	*8850	3750	*4700	*4700		
		-1.5 m	kg	*2900	1950			*6200	2450	*8500	3650	*7800	6650		
		-3.0 m	kg	*4050	2400			*5000	2500	*7250	3650				
		-4.5 m	kg												
	3000 mm	7.5 m	kg	*2100	*2100		*2400	*2400							
		6.0 m	kg	*1850	*1850		*3300	3000							
		4.5 m	kg	*1750	*1750	*2950	2000	*3700	2950	*3550	*3550				
		3.0 m	kg	*1750	1600	*3650	1950	*4700	2800	*5700	4300	*9100	8100		
		1.5 m	kg	*1850	1550	*4350	1900	*5850	2600	*7800	3900				
		0.0 m	kg	*2000	1550	4700	1800	*6300	2450	*8600	3650	*4950	*4950		
		-1.5 m	kg	*2300	1700	*3900	1800	*6250	2400	*8600	3550	*7050	6450	*3800	*3800
		-3.0 m	kg	*2900	2000			*5500	2400	*7700	3550	*10950	6550		
		-4.5 m	kg												
 <p>Rear outrigger</p>	2100 mm	7.5 m	kg	*3150	*3150			*4150	*4150						
		6.0 m	kg	*2650	*2650		*3700	3650	*4850	*4850					
		4.5 m	kg	*2550	*2550		*5150	3600	*5750	5650	*5700	*5700			
		3.0 m	kg	*2550	2500		*5800	3450	*7400	5350					
		1.5 m	kg	*2650	2400	*3400	2400	*6300	3350	*8600	5000				
		0.0 m	kg	*2950	2450			*6450	3250	*8850	4800	*4150	*4150		
		-1.5 m	kg	*3500	2700			*6050	3200	*8350	4800	*8350	*8350		
		-3.0 m	kg	*5400	3800					*6700	4850				
		-4.5 m	kg												
	2500 mm	7.5 m	kg	*2550	*2550				*3950	*3950					
		6.0 m	kg	*2250	*2250		*3700	3700	*4050	*4050					
		4.5 m	kg	*2100	*2100		*4450	3600	*4650	*4650					
		3.0 m	kg	*2150	*2150	*3600	2500	*5600	3500	*7000	5400	*10700	10400		
		1.5 m	kg	*2250	2250	*4350	2400	*6100	3350	*8250	5050				
		0.0 m	kg	*2450	2250	*4100	2400	*6400	3250	*8850	4800	*4700	*4700		
		-1.5 m	kg	*2900	2500			*6200	3150	*8500	4750	*7800	*7800		
		-3.0 m	kg	*4050	3050			*5000	3200	*7250	4800				
		-4.5 m	kg												
	3000 mm	7.5 m	kg	*2100	*2100		*2400	*2400							
		6.0 m	kg	*1850	*1850		*3300	*3300							
		4.5 m	kg	*1750	*1750	*2950	2550	*3700	3650	*3550	*3550				
		3.0 m	kg	*1750	*1750	*3650	2450	*4700	3500	*5700	5450	*9100	*9100		
		1.5 m	kg	*1850	*1850	*4350	2400	*5850	3300	*7800	5050				
		0.0 m	kg	*2000	*2000	4500	2300	*6300	3150	*8600	4800	*4950	*4950		
		-1.5 m	kg	*2300	2200	*3900	2300	*6250	3100	*8600	4650	*7050	*7050	*3800	*3800
		-3.0 m	kg	*2900	2550			*5500	3100	*7700	4650	*10950	9000		
		-4.5 m	kg												




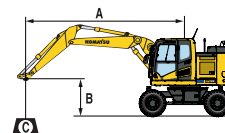
- A – Reach from swing center
- B – Bucket hook height
- C – Lifting capacities, including bucket linkage (136 kg) and bucket cylinder (96 kg)
- ⊗ – Rating over front
- ⊗ – Rating over side
- ⊗ – Rating at maximum reach

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

\* Load is limited by hydraulic capacity rather than tipping. Ratings are based on ISO standard 10567. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

Arm length	A	⊗		7.5 m		6.0 m		4.5 m		3.0 m		1.5 m	
		B	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗

 Outrigger + blade	2100 mm	7.5 m	kg	*3150	*3150					*4150	*4150		
		6.0 m	kg	*2650	*2650			*3700	*3700	*4850	*4850		
		4.5 m	kg	*2550	*2550			*5150	4500	*5750	*5750	*5700	*5700
		3.0 m	kg	*2550	*2550			*5800	4350	*7400	6750		
		1.5 m	kg	*2650	*2650	*3400	3050	*6300	4200	*8600	6450		
		0.0 m	kg	*2950	*2950			*6450	4100	*8850	6250	*4150	*4150
		- 1.5 m	kg	*3500	3450			*6050	4050	*8350	6150	*8350	*8350
		- 3.0 m	kg	*5400	4850					*6700	6250		
		- 4.5 m	kg										
	2500 mm	7.5 m	kg	*2550	*2550					*3950	*3950		
		6.0 m	kg	*2250	*2250			*3700	*3700	*4050	*4050		
		4.5 m	kg	*2100	*2100			*4450	*4450	*4650	*4650		
		3.0 m	kg	*2150	*2150	*3600	3150	*5600	4350	*7000	6850	*10700	*10700
		1.5 m	kg	*2250	*2250	*4350	3050	*6100	4200	*8250	6450		
		0.0 m	kg	*2450	*2450	*4100	3000	*6400	4100	*8850	6200	*4700	*4700
		- 1.5 m	kg	*2900	*2900			*6200	4050	*8500	6050	*7800	*7800
		- 3.0 m	kg	*4050	3850			*5000	4050	*7250	6150		
		- 4.5 m	kg										
3000 mm	7.5 m	kg	*2100	*2100			*2400	*2400					
	6.0 m	kg	*1850	*1850			*3300	*3300					
	4.5 m	kg	*1750	*1750	*2950	*2950	*3700	*3700	*3550	*3550			
	3.0 m	kg	*1750	*1750	*3650	3100	*4700	4350	*5700	*5700	*9100	*9100	
	1.5 m	kg	*1850	*1850	*4350	3000	*5850	4200	*7800	6450			
	0.0 m	kg	*2000	*2000	*4900	2950	*6300	4050	*8600	6150	*4950	*4950	
	- 1.5 m	kg	*2300	*2300	*3900	2900	*6250	3950	*8600	6050	*7050	*7050	
	- 3.0 m	kg	*2900	*2900			*5500	3950	*7700	6050	*10950	*10950	
	- 4.5 m	kg											



A - Reach from swing center


B - Bucket hook height

C - Lifting capacities, including bucket linkage (136 kg) and bucket cylinder (96 kg)

⊗ - Rating over front

⊗ - Rating over side

⊗ - Rating at maximum reach

 Outrigger front + rear	2100 mm	7.5 m	kg	*3150	*3150					*4150	*4150		
		6.0 m	kg	*2650	*2650			*3700	*3700	*4850	*4850		
		4.5 m	kg	*2550	*2550			*5150	4500	*5750	*5750	*5700	*5700
		3.0 m	kg	*2550	*2550			*5800	4350	*7400	6750		
		1.5 m	kg	*2650	*2650	*3400	3050	*6300	4200	*8600	6450		
		0.0 m	kg	*2950	*2950			*6450	4100	*8850	6250	*4150	*4150
		- 1.5 m	kg	*3500	3450			*6050	4050	*8350	6150	*8350	*8350
		- 3.0 m	kg	*5400	4850					*6700	6250		
		- 4.5 m	kg										
	2500 mm	7.5 m	kg	*2550	*2550					*3950	*3950		
		6.0 m	kg	*2250	*2250			*3700	*3700	*4050	*4050		
		4.5 m	kg	*2100	*2100			*4450	*4450	*4650	*4650		
		3.0 m	kg	*2150	*2150	*3600	3150	*5600	4350	*7000	6850	*10700	*10700
		1.5 m	kg	*2250	*2250	*4350	3050	*6100	4200	*8250	6450		
		0.0 m	kg	*2450	*2450	*4100	3000	*6400	4100	*8850	6200	*4700	*4700
		- 1.5 m	kg	*2900	*2900			*6200	4050	*8500	6050	*7800	*7800
		- 3.0 m	kg	*4050	3850			*5000	4050	*7250	6150		
		- 4.5 m	kg										
3000 mm	7.5 m	kg	*2100	*2100			*2400	*2400					
	6.0 m	kg	*1850	*1850			*3300	*3300					
	4.5 m	kg	*1750	*1750	*2950	*2950	*3700	*3700	*3550	*3550			
	3.0 m	kg	*1750	*1750	*3650	3100	*4700	4350	*5700	*5700	*9100	*9100	
	1.5 m	kg	*1850	*1850	*4350	3000	*5850	4200	*7800	6450			
	0.0 m	kg	*2000	*2000	*4900	2950	*6300	4050	*8600	6150	*4950	*4950	
	- 1.5 m	kg	*2300	*2300	*3900	2900	*6250	3950	*8600	6050	*7050	*7050	
	- 3.0 m	kg	*2900	*2900			*5500	3950	*7700	6050	*10950	*10950	
	- 4.5 m	kg											

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

\* Load is limited by hydraulic capacity rather than tipping. Ratings are based on ISO standard 10567. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

