

# KOMATSU

*Utility*

PW  
95R-2



PW95R-2

PW95R-2

MIDI EXCAVATOR

**NET HORSEPOWER  
SAE J1349**

61,5 kW - 82,5 HP

**OPERATING WEIGHT**

From 8.800 kg  
to 10.100 kg

# THE ALTERNATIVE DIMENSION

Especially designed for applications that require compact machines with high digging force and excellent stability, highlighted by independent axle locking, the PW95R-2 delivers performances of a traditional excavators with compact dimensions. The PW95R-2 has been designed to satisfy all requirements: from heavy duty tasks to more precise finishing operations, always ensuring maximum operator safety. The possibility to choose between 3 different steering modes guarantees exceptional manoeuvrability and controllability in any working situation. The electronic system controls the travelling speed according to the steering mode selected and prevents the operator from making mistakes when selecting. The hydrostatic, four-speed transmission allows a top speed of 30 km/h.

## Engine

The KOMATSU engine delivers net power of 61.5 kW / 82.5 HP, providing high reserve torque and above all reliability. The innovative combustion system guarantees emissions in accordance with the strictest standards.

## “PPC” Proportional Servocontrols

The PPC servocontrols require very little effort and ensure extremely precise control. Each movement has its own dedicated control, and can be used at the same time as the others, thus simplifying and speeding up all working cycles.

## Hydraulic System

The **CLSS (Closed Load Sensing System)** hydraulic system fitted on the PW95R-2 ensures excellent control and unbeatable productivity, even with less experienced operators. Two different hydraulic power modes can be selected, “Power” and “Economy”, for operation at maximum power when required, or alternatively at reduced power to save on fuel for more general work or finishing operations.





### Total Comfort

The cab, mounted on special elastic supports, is spacious and designed with care to the minimum details, so as to ensure a silent and comfortable working environment. Special attention has been paid to the internal layout: easy-to-read instruments, a large console located in front of the operator, and an efficient heating and ventilation system, with partial fresh air intake. The new air-conditioning system, available upon request, ensures the ideal temperature in all climatic conditions, so as to guarantee maximum comfort for the operator. The large glazed surface, the sun roof and the special design of the panels offer maximum 360° visibility.

### Versatility

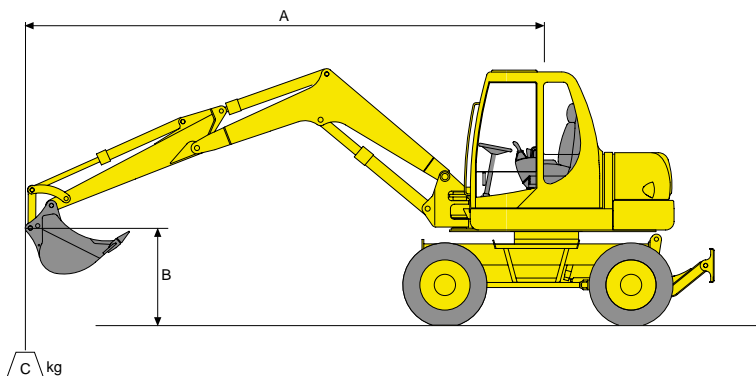
The PW95R-2 can be customised to satisfy all requirements: monoboom or two-piece boom, short or long digging arm; single or twin tyres, blade or stabilisers. In addition, the possibility to adjust the flow-rate and the pressure of the auxiliary lines allows numerous attachments with different specifications to be used.

### Maintenance

All the service points on the PW95R-2 have been grouped under the two fully-opening panels, making them easy to reach from the ground; in addition, all the hydraulic hoses are fitted with ORFS couplings, which ensure better seal and easy replacement if required.



# LIFTING CAPACITY



MONOBOOM

DATAS AND SPECIFICATIONS ARE REFERRING TO THE MACHINE ACCORDING TO 89/392/EC AND EN 474-5 DIRECTIVES

When the bucket, the levers or the bucket cylinder are disassembled, the lifting capacity can be increased of their respective weights.

A - Outreach starting from the rotation centre

B - Height at bucket pin

C - Lifting capacity - with bucket 800 mm (236 kg), levers and cylinder

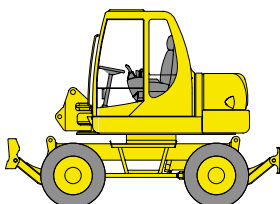


Capacity over front



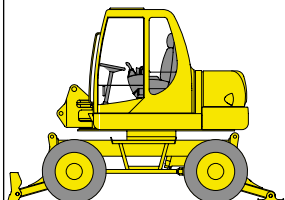
Lateral capacity or capacity over 360°

## WITH BLADE UP



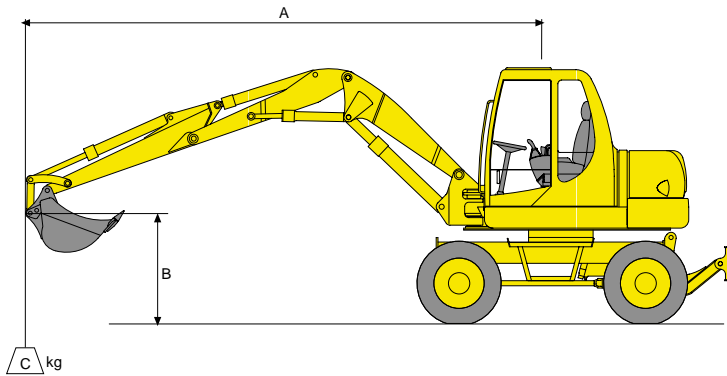
A \ B		3,0 m		4,5 m		6,0 m		Max outreach		
1.600 mm	4,5 m	kg	-	-	-	-	-	-	1.750	1.300
	3,0 m	kg	-	-	1.800*	1.600	-	-	1.150	850
	1,5 m	kg	3.000	2.400	1.500	1.350	-	-	1.000	750
	0,0 m	kg	2.750	2.300	1.400	1.250	-	-	900	700
	-1,5 m	kg	2.800	2.250	1.500	1.400	-	-	1.150	800
1.850 mm	-3,0 m	kg	2.700	2.400	-	-	-	-	1.800	1.300
	4,5 m	kg	-	-	-	-	-	-	1.700	1.250
	3,0 m	kg	-	-	1.700*	1.500	-	-	1.100	800
	1,5 m	kg	2.800	2.300	1.400	1.250	1.000	900	900	700
	0,0 m	kg	2.600	2.200	1.300	1.200	-	-	850	700
	-1,5 m	kg	2.700	2.100	1.400	1.300	-	-	1.100	750
	-3,0 m	kg	2.600	2.100	-	-	-	-	1.750	1.300

## WITH BLADE AT GROUND LEVEL



A \ B		3,0 m		4,5 m		6,0 m		Max outreach		
1.600 mm	4,5 m	kg	-	-	-	-	-	-	2.100*	1.250
	3,0 m	kg	-	-	1.800*	1.700	-	-	1.750*	900
	1,5 m	kg	3.500*	2.500	2.100*	1.400	-	-	1.900*	800
	0,0 m	kg	5.500*	2.350	2.800*	1.300	-	-	2.100*	750
	-1,5 m	kg	5.550*	2.350	3.100*	1.500	-	-	2.250*	800
1.850 mm	-3,0 m	kg	3.900*	2.500	-	-	-	-	2.600*	1.300
	4,5 m	kg	-	-	-	-	-	-	1.950*	1.100
	3,0 m	kg	-	-	1.700*	1.550	-	-	1.600*	850
	1,5 m	kg	3.400*	2.400	2.000*	1.300	1.750*	900	1.700*	750
	0,0 m	kg	5.400*	2.250	2.600*	1.250	-	-	1.900*	750
	-1,5 m	kg	5.500*	2.200	2.900*	1.400	-	-	2.000*	750
	-3,0 m	kg	3.800*	2.250	-	-	-	-	2.250*	1.150

NOTES: data are based on ISO 10567 standard - the above indicated lifting capacities include a 25% safety margin and don't exceed the 87% of the actual capacity - the values marked with asterisk (\*) are limited by the hydraulic capacities - for these lifting capacities it is taken for granted that the machine rests on a uniform and firm surface - the lifting point is a hypothetical hook placed behind the bucket.



## TWO PIECE BOOM

DATAS AND SPECIFICATIONS ARE REFERRING TO THE MACHINE ACCORDING TO 89/392/EC AND EN 474-5 DIRECTIVES

When the bucket, the levers or the bucket cylinder are disassembled, the lifting capacity can be increased of their respective weights.

A - Outreach starting from the rotation centre

B - Height at bucket pin

C - Lifting capacity - with bucket 800 mm (236 kg), levers and cylinder

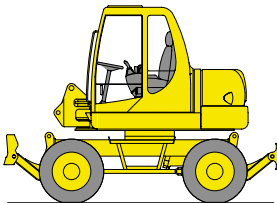


Capacity over front



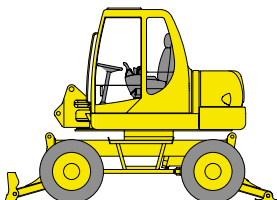
Lateral capacity or capacity over 360°

## WITH BLADE UP



A \ B		3,0 m		4,5 m		6,0 m		Max outreach		
1.600 mm	4,5 m	kg	-	-	1.600	1.350	1.250	-	-	850
	3,0 m	kg	2.650*	2.400	1.500	1.250	900	800	850	750
	1,5 m	kg	2.750	2.200	1.300	1.200	850	800	800	700
	0,0 m	kg	2.600	2.100	1.250	1.100	800	750	750	650
	-1,5 m	kg	2.300	2.000	1.200	1.000	900	800	850	650
1.850 mm	-3,0 m	kg	-	-	1.250	1.000	-	-	1.200	850
	4,5 m	kg	-	-	1.500	1.300	1.200	-	-	750
	3,0 m	kg	2.500*	2.200	1.350	1.200	850	750	750	650
	1,5 m	kg	2.600	2.100	1.250	1.100	800	700	700	600
	0,0 m	kg	2.500	2.000	1.100	1.000	750	700	650	550
	-1,5 m	kg	2.200	1.850	1.100	950	850	750	800	600
	-3,0 m	kg	2.000	1.750	-	-	-	-	1.100	800

## WITH BLADE AT GROUND LEVEL



A \ B		3,0 m		4,5 m		6,0 m		Max outreach		
1.600 mm	4,5 m	kg	-	-	2.200*	1.350	1.700*	-	-	850
	3,0 m	kg	2.600*	2.500	2.400*	1.250	1.750*	800	1.700*	750
	1,5 m	kg	3.850*	2.400	2.750*	1.200	1.800*	800	1.750*	700
	0,0 m	kg	4.400*	2.300	3.100*	1.100	1.750*	750	1.600*	650
	-1,5 m	kg	5.100*	2.200	2.250*	1.000	1.550*	800	1.500*	650
1.850 mm	-3,0 m	kg	-	-	2.000*	1.000	-	-	1.850*	850
	4,5 m	kg	-	-	2.100*	1.300	1.600*	-	-	750
	3,0 m	kg	2.500*	2.400	2.250*	1.200	1.700*	750	1.600*	650
	1,5 m	kg	3.750*	2.250	2.500*	1.100	1.700*	700	1.600*	600
	0,0 m	kg	4.200*	2.100	3.000*	1.000	1.650*	700	1.500*	550
	-1,5 m	kg	4.900*	2.000	3.100*	950	1.500*	750	1.400*	600
	-3,0 m	kg	-	-	1.850*	-	-	-	1.500*	800

**NOTES:** data are based on ISO 10567 standard - the above indicated lifting capacities include a 25% safety margin and don't exceed the 87% of the actual capacity - the values marked with asterisk (\*) are limited by the hydraulic capacities - for these lifting capacities it is taken for granted that the machine rests on a uniform and firm surface - the lifting point is a hypothetical hook placed behind the bucket.

# SPECIFICATIONS



## ENGINE

Make..... Komatsu 4D106-1FB  
 Type..... low emissions, direct injection  
 Nb. of cylinders ..... 4  
 Rated power:  
 (SAE J 1349) ..... 61,5 kW / 82,5 HP - 2.200 rpm  
 (DIN 6270) ..... 61,9 kW / 84 PS - 2.200 rpm  
 (80/1269/EC) ..... 61 kW / 82 HP - 2.200 rpm  
 Max. torque (80/1269/EC) ..... 310 Nm - 1.500 rpm  
 Displacement ..... 4.412 cm<sup>3</sup>



## WEIGHT

Operating weight including, 1.600 mm arm, bucket with 0,298 m<sup>3</sup> ISO 7451 capacity, operator, lubricants, liquids, filled tank and standard equipment (ISO 6016):

	Tread width (mm)	Operating weight with monoboom (kg)	Operating weight with two-piece boom (kg)
Basic version	2.320	8.800	9.150
With rear blade	2.350	9.450	9.800
With rear stabilizers	2.320	9.500	9.850
With blade and stabilizers	2.350	9.750	10.100



## HYDRAULIC SYSTEM

Type..... KOMATSU "CLSS"  
 Power modes..... 2 (Power/Economy)

Main pumps:

Pump for ..... boom, arm, bucket and travelling  
 Type ..... variable displacement, axial piston  
 Maximum flow ..... 175 /min  
 Pump for ..... steering, swing, equipment, undercarriage  
 Type ..... fixed displacement gear pump  
 Maximum flow ..... 67 /min

Valve rating:

Swing ..... 21,5 MPa (215 bar)  
 Digging equipment ..... 27,5 MPa (275 bar)  
 Bucket breakout force (ISO 6015)..... 7.060 daN (7.200 kg)  
 Digging arm breakout force (1.600 mm) (ISO 6015)..... 4.220 daN (4.300 kg)



## TRANSMISSION AND AXLES

Hydrostatic transmission with four driving wheels. The hydraulic motor acts by means of a synchromesh gear that makes for two speed ranges.

Maximum traction force ..... 6.230 daN (6.350 kg)  
 Working speed ..... 1<sup>st</sup> 4,1 km/h - 2<sup>nd</sup> 9,4 km/h  
 Travelling speed ..... 3<sup>rd</sup> 13,5 km/h - 4<sup>th</sup> 31 km/h

Axles:

Driving and steering axles with epicyclic reduction gears in the hubs. The oscillation of the front axle can be locked by means of two hydraulic pistons.

Tyres:

Coupled (std) ..... 8,25 - 20  
 Single (opt) ..... 18 - 19,5



## SWING SYSTEM

Driven by ..... hydraulic motor  
 Swing reduction gear..... with double epicyclic reduction  
 Swing circle lubrication ..... permanent grease bath  
 Swing brakes ..... automatic, with oil immersed discs  
 Swing speed ..... 9 rpm



## BRAKES

- Service and emergency brakes: hydraulically controlled, with pedal, by means of two double circuit pumps, acting on oil immersed multiple discs on the four wheels.
- Working brakes: hydraulically controlled by means of a pedal, acting on the four wheels
- Parking brakes: negative type brakes, hydraulically controlled by means of an electric push button positioned inside the cab, acting on the rear axle. The parking brake is automatically operated every time the engine cuts off with a consequent decrease of the oil pressure.



## STEERING

Hydraulically operated steering system that acts on the front and rear wheels by means of double rod hydraulic cylinders in the axles. The operator can select three kinds of steering by means of an electric switch:

- two steering wheels
- four steering wheels
- crab steering

Steering radius:

two steering wheels ..... 6.000 mm  
 four steering wheels ..... 4.050 mm



## ELECTRIC SYSTEM

Operating voltage ..... 12 V  
 Battery ..... 1 x 155 Ah  
 Alternator ..... 60 A  
 Starter ..... 3,0 kW



## CAB

Sound-proof cab, provided with safety glasses, liftable wind- screen, "manhole" roof, door with safety lock, windscreen-wiper, electric horn, adjustable seat, control system and instrumentation. Outside air inlet.



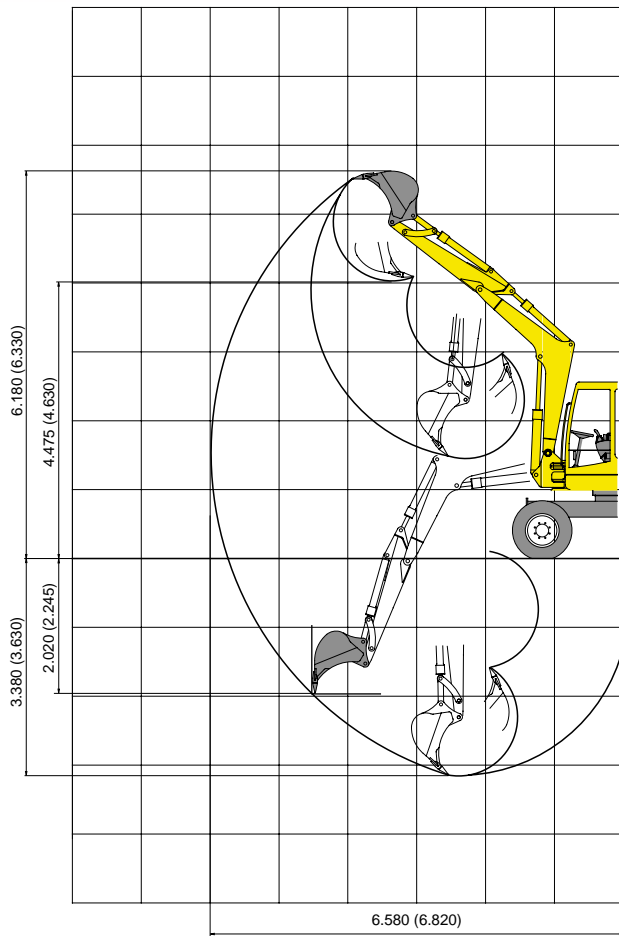
## REFILLS

Fuel tank ..... 125 /  
 Cooling system ..... 18 /  
 Engine oil ..... 12,5 /  
 Hydraulic oil tank ..... 74 /

# DIGGING DIAGRAM



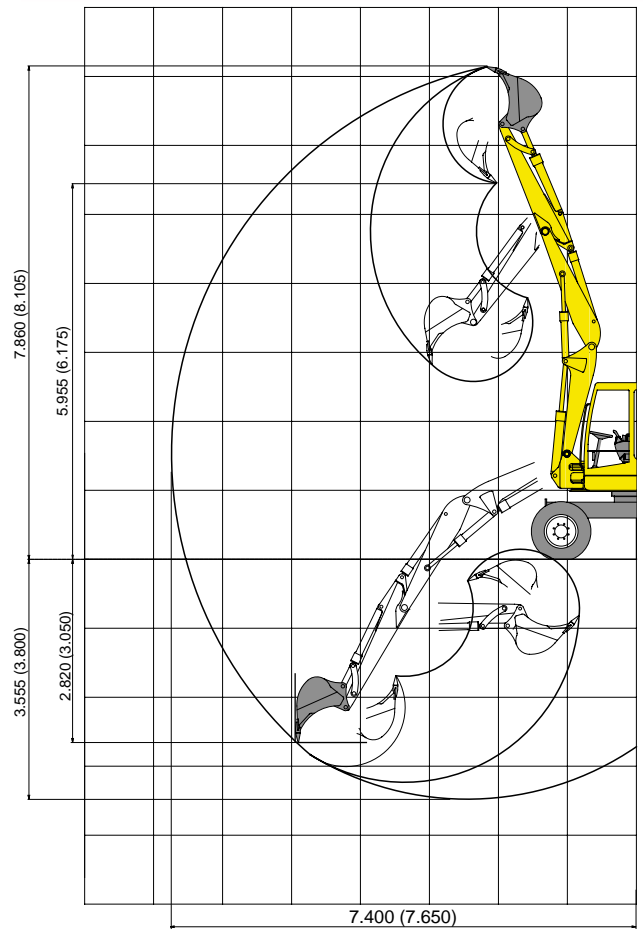
MONOBOOM



arm 1.600 (1.850)



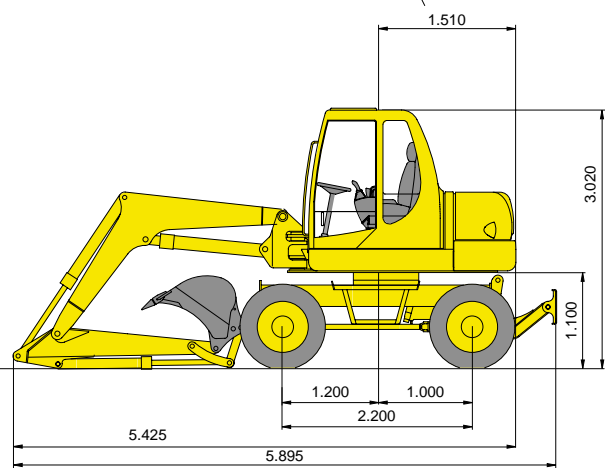
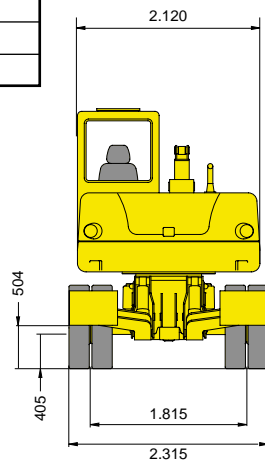
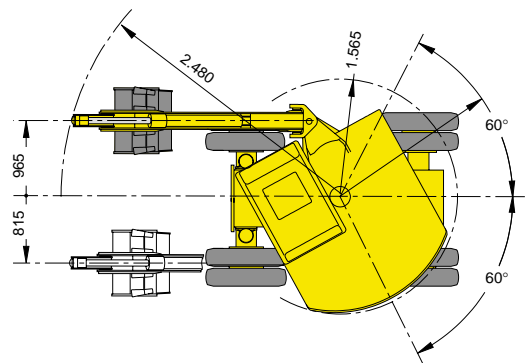
TWO PIECE BOOM



arm 1.600 (1.850)

## DIMENSIONS

BUCKET RANGE			
Width mm	Capacity m <sup>3</sup> (ISO7451)	Weight kg	Teeth N.
300	0,086	128	2
400	0,128	160	3
500	0,171	184	3
600	0,213	200	4
700	0,255	218	4
800	0,298	236	4
900	0,34	256	5



# PW95R-2 M I D I E X C A V A T O R

## STANDARD EQUIPMENT

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• 2-piece boom with cylinder protection</li> <li>• 1.600 mm digging arm</li> <li>• Coupled tyres 8.25 – 20</li> <li>• 4 steering wheels</li> <li>• Cab with heating</li> <li>• Adjustable seat with safety belt</li> <li>• Instrumentation including: hour meter                             <ul style="list-style-type: none"> <li>– fuel level LCD display</li> <li>– engine water temperature LCD display</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>– Indicators: air filter clogging, engine oil pressure, generator, hydraulic oil filter, engine pre-heating, parking brake, rear axial lock, selected speed, working light.</li> <li>• Horn</li> <li>• 12 V electric plug</li> <li>• 2 front working lights</li> <li>• Automatic parking brake</li> <li>• Swing lock</li> </ul> | <ul style="list-style-type: none"> <li>• Hose burst valve on boom cylinder</li> <li>• Adjustable element for attachment</li> <li>• Two elements air filter</li> <li>• Overload warning device</li> <li>• Rotating beacon</li> </ul> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## OPTIONAL EQUIPMENT

- |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Air conditioning</li> <li>• Monoboam</li> <li>• Stabilisers and/or blade with safety valve</li> <li>• Hose burst valves (2-piece boom, arm and bucket)</li> <li>• 1.850 mm digging arm</li> <li>• Single tyres 18 – 19.5</li> </ul> | <ul style="list-style-type: none"> <li>• Auxiliary hydraulic circuit for hammer/clamshell bucket/grasscutter</li> <li>• Hydraulic hammer</li> <li>• FOPS protection (on top and on front)</li> <li>• Bucket range (300 ÷ 900 mm)</li> <li>• Ditch cleaning bucket (1.500 mm)</li> <li>• Ditch digging bucket (1.650 mm 52°)</li> <li>• Mechanical or hydraulic quick coupler</li> </ul> | <ul style="list-style-type: none"> <li>• Working light on boom</li> <li>• Rear view mirror (right side)</li> <li>• Biodegradable oil</li> <li>• Fuel filling pump</li> <li>• Radio</li> </ul> |
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# KOMATSU

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COMPANY WITH  
 ENVIRONMENTAL MANAGEMENT  
 SYSTEM CERTIFIED BY DNV  
**ISO 14001**