# KOMATSU

**WA250PZ-5** 

NET HORSEPOWER 101 kW 135 HP @ 2.000 rpm OPERATING WEIGHT 12.500 kg

BUCKET CAPACITY 2,0 - 4,0 m<sup>3</sup>

WA 250pz

Wheel Loader



**WA250PZ-5** 

## WALK-AROUND

The new WA250PZ-5 wheel loader: The perfect combination of performance, comfort and economy. Never-before experienced comfort in the SpaceCab™ cabin, enormous tractive force and lowest fuel consumption due to an innovative and efficient hydrostatic drive-line concept. Whisper-quiet in use, almost maintenance-free and incredibly productive.

### **Overwhelming Efficiency**

- High-torque low-emission engine with intercooler
- Extremely low fuel consumption
- Highest tractive effort
- Large breakout force
- Excellent stability
- Electronically controlled HST-drive (hydrostatic) with 2-motor system
- ECSS load stabiliser (option)

for a wide variety of uses

Maximum dumping height and reach

### **Excellent Driving** Convenience

- SpaceCab™ cabin
- Optimum all-around view
- Low interior sound level
- Series production electric controlled air conditioning as standard
- Electronically controlled HST with variable shift control system
- Traction Control System (TCS)
- Adjustable steering column
- Air-cushioned driver seat
- PPC short levers with F/R switch

• PPC-Multifunction lever with integrated F/R switch (option)



NET HORSEPOWER 101 kW 135 HP

OPERATING WEIGHT 12.500 kg

BUCKET CAPACITY 2,0 - 4,0 m<sup>3</sup>

## **Long Service Life and Reliable**

- Reliable original Komatsu components
- Robust torsionally resistant frame
- Maintenance-free fully hydraulic, wet disc service and parking brakes
- Heavy-duty Torque Proportional Axles
- Sealed DT wiring harness connector
- Electronically controlled HST with overrun protection system

### **Unique PZ-Kinematics**

- Combines two linkage systems in one
- High tilt-back force
- Parallel movement during fork application
- Superb visibility to front attachments

### **Ecological**

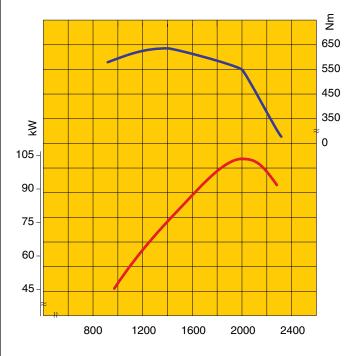
- Meets Step II emission regulations in Europe and USA
- Low exterior sound level
- More than 95% of all materials can be recycled



### Easy Maintenance

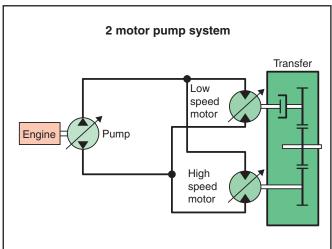
- EMMS monitoring system
- · Swing-out fan drive
- Side-by-side type radiators for easy access and cleaning
- Gull-wing doors for easy ground level access
- Extended engine oil change interval
- Factory fitted automatic lubrication system (option)

### HIGH PRODUCTIVITY



#### High torque at low engine speeds

The net output of the Komatsu SAA6D102E low-emission engine is 101 kW (135 HP) at only 2.000 rpm. This means a constant, high power output. The high engine torque and the new hydrostatic drive line (HST) contribute to a substantial improvement in fuel consumption and climbing abilities. In load & carry as well as in loading operations, faster work cycles are achieved with simultaneous savings in fuel costs.



#### **Electronically controlled HST**

The electronically controlled variable 2 pump motor system allows high-efficient and powerful operation. When the vehicle is travelling at high speed, the power transmitted between low-speed motor and axle is automatically cut off by the clutch for eliminating a drag-turning of the low-speed motor. Starting, gear-shifting and piling-up on a slope is easy because there is no torque-off in the power train. Digging and scooping is easy as well, since maximum rimpull can be demonstrated even from zero travel speed.



#### **Unique PZ-Kinematics**

The benefits of two different linkage systems are unified in one. The traditional Z-bar linkage provides high inital breakout forces and quick dumping speeds. With the new PZ-kinematics parallel lifting becomes available while offering superb visibility to the front attachments.

## VERSATILITY



#### 2 modes for return-to-dig

The selection button for return-to-dig allows easier handling of heavy or complex front attachment via the choice of the attchement (bucket or fork).

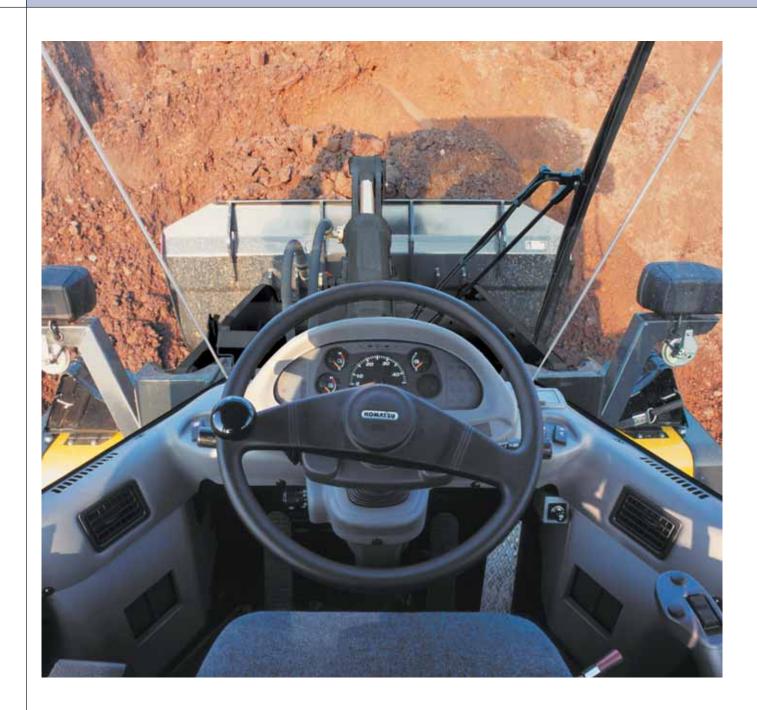


#### **Traction Control System (TCS)**

If the operator activates the tracion control system, the maximum tractive effort is limited to 80%. This prevents tyre slip at light duty operations like stockpiling or on sandy ground and reduces tire abrasion.



### THE SPACE CABTM



#### Perfect driving convenience and the best all-round visibility

The cabin is one of the largest in its class and offers unparalleled driving convenience comparable to that of a passenger car. The large frameless windscreen ensures an optimum view of the bucket and tyres. The slanted rear end gives an excellent view towards the rear. The cabin is mounted on viscose shock absorbers guaranteeing a low interior sound level. That together with air conditioning as standard ensures the operator's well-being just as much as the air-cushioned multi-adjustable drivers seat with optional seat heater. The easy-to-work hydraulic operating controls (finger tip control levers or multifunction lever) allow to operate the wheel loader conveniently and ergonomically. The operator's well-being is ensured over long and productive hours.

## SIMPLE & CONVENIENT OPERATION

#### Compact monitoring system

Arranged directly in front of the driver, an anti-dazzle, illuminated display makes it possible under all lighting conditions to read all instruments and information clearly. The driver's seat and steering column are infinitelyadjustable, allowing an ergonomic and comfortable seating position for any driver. All switches are logically arranged, and are outstanding on account of their functionality and ease of familiarisation.



#### Easy and comfortable operation due to hydrostatic drive

The hydrostatic drive ensures maximum operating comfort. Speed and direction can be altered directly and without sudden jerks. The electronically controlled variable hydraulic motor enables full-auto shifting and eliminates gearshift and kick-down operations.



#### Variable shift control

With the variable shift control, independent of the position of the accelerator pedal, and without loss of driving force, the travelling speed can be adjusted infinitely. This "creep function" has distinct advantages when working with attachments like a rotary cutter or a sweeper and provides improved operability at confined sites plus easier dozing operations.



#### Smooth ergonomic hydraulic control

The new pilot control levers are designed as finger tip control levers for precise and fatigue-free control of the loading process. The position of the wristrest can be adjusted for all operators preferred height. A forward/reverse switch is located next to the levers so that the travel direction can be selected by touch.



#### Multi-function lever (option)

A multi-function lever with integrated forward/reverse switch is also available as optional equipment. The servo-assisted multi-function lever ensures the simplest and most comfortable operation of the equipment. Simultaneously, the driver can change between forward and reverse direction with the rocker switch. The multifunction lever is the right choice for earth moving jobs.



### SIMPLE AND FAST MAINTENANCE



#### Simple and convenient access to service

The service doors are designed as gull-wing doors. They allow you convenient and safe access to the daily service points from the ground.



#### Easy maintenance due to swing-out fan

The swing-out cooling fan allows quick and easy cleaning of the radiator. The fan is hydraulically driven and separated from the engine compartment.

This innovative system features:

- Swing-out cooling fan for excellent access
- High-efficiency fan and shroud
- Very low-noise operation





#### **EMMS (Equipment Management Monitoring System)**

This completely new type of monitoring system is clearly structured and easy to read because it is directly in the operators field of view. If there is a malfunction, it immediately displays the details in the chosen national language and in plain text in the display field. This system not only has an error memory and a self-diagnosis function, but also a service interval display. This significantly simplifies service work and the operator is notified on time of the regular oil and filter changes. The operator and customer-service engineer are constantly informed about the optimum machine state so that problems don't even occur in the first place.

#### Centralised lubrication system (option)

The centralised lubrication system reduces the daily service work to the absolute minimum. Its robust piping with protective equipment in all areas ensures consistent lubrication amounts, operating reliability and electronic monitoring with a malfunction signal in the cabin. This increases the machine's service readiness and service life while lowering repair and service costs.



#### Customer service and spare parts supply

When you buy a Komatsu construction machine, you buy a lot more than just the product alone. Our service support accompanies you throughout the entire life of your wheel loader. Programs for preventative maintenance are just as much a part of what we offer as the

complete range of dealer service and repair programmes. And, if there is a malfunction, Komatsu's close-knit network of dealers and excellent parts service ensures you minimum downtime.

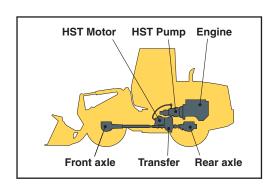




### LONGEVITY AND RELIABILITY

#### Quality you can rely on!

The engine, hydraulics, power train, front and rear axles are original Komatsu components. All of these component parts are subject to the highest quality requirements and strict quality assurance right down to the smallest screw. They are fully co-ordinated with one another, thus offering maximum efficiency and reliability.



#### **Torsionally resistant frame**

The frame design with hinge points far apart guarantees the high stability for the overall construction and reduces bearing stress in the torsional ranges. Steering angles of 40° give the WA250PZ-5 a high degree of manoeuvrability.



#### Robust HD-axles with TPD or LSD differential

The heavy-duty axles allow above-average service life even under the hardest working conditions. The WA250PZ-5 can be equipped with torque proportional or multiple-disc limited slip differentials to further increase tractive force.



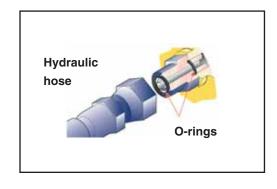
#### Reliable construction equipment engines

Komatsu's reliable engine, with thick walled crank case, was developed with low noise and robustness in mind. The integrated overrun protection system restricts the top speed when driving downhill, thus protecting the power train and drive system.



#### Reliability right down to the details

All of the hydraulic connections are reliably protected against oil loss by Komatsu's O-ring seals. The electrical system is also designed for long-lasting operation (without breakdowns) with its dust- and water-proof DT plug-and-socket connections in the wiring harnesses.

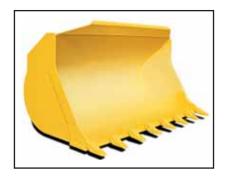


## **BUCKETS AND ATTACHMENTS**

The WA250PZ-5 is outstanding due to its versatility. Whether used industrially in structural or civil engineering, earthmoving, road construction, agriculture, forestry or the timber industry, in landscaping companies and nurseries or in community services, the right solution is always available for your requirements.

The optional 4-point quick-coupler adds increased versatility to the machine and thus allows high-intensity opera-

Examples from the comprehensive range of original attachments are:



#### **Universal bucket**

This type of bucket is impressive because of its excellent penetration and loosening properties and its good material holding properties. This universal bucket can be equipped with flush mount adapters and interchangeable teeth.



#### Earthmoving bucket

The earthmoving bucket with a one-piece bucket bottom is suited both for earthworks and loading cohesive material. The slanted sides give powerful penetration. It is equipped either with flush mount adapters and interchangeable teeth or also with a rear removable edge.



#### Stock pile bucket

The stock pile bucket is the right solution for handling loose and relativly light materials. The straight sidewalls ensure a high bucket capacity, the rear edge makes levelling and cleaning up jobsites easy. This stock pile bucket can be equipped with flush mount adapters and interchangeable teeth or a bolt-on cutting edge.



#### Hydraulic quick coupler

The WA250PZ-5 can change attachments in a matter of seconds with the HD hydraulic quick coupler, available as optional equipment.



#### Mulch grab bucket

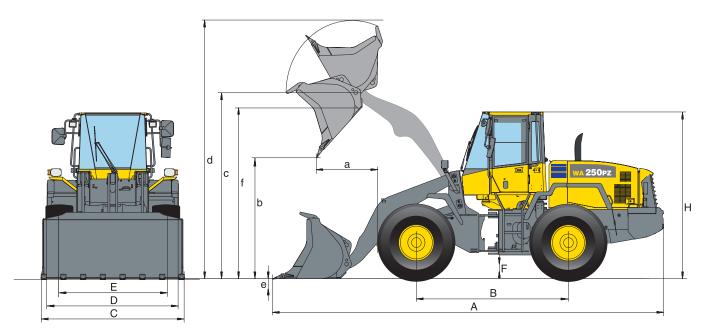
Perfectly suited for picking up bulky and compressible materials like gardening or plastic waste, etc. Without the side plates, this bucket can be used also as a grapple.



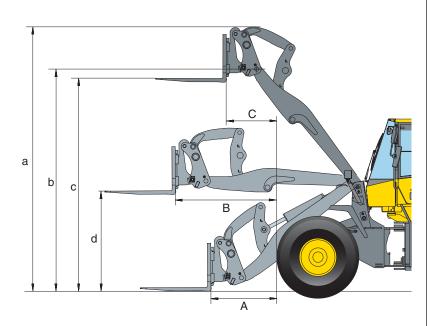
#### High dump bucket

For maximum dumping heights with light materials like coal or woodchips. The dump cylinders are located either inside or outside the bucket.

## DIMENSIONS AND PERFORMANCE FIGURES



	Bucket type		Universal		Earthmoving		g	
			w/o teeth	with teeth	with BOC	w/o teeth	with teeth	with BOC
	Bucket capacity (heaped, ISO 7546)	m³	2,0	2,1	2,3	2,1	2,1	2,3
	Sales code	3945	C41	C02	C03	C61	C32	C33
	Bucket mount (direct/quick-coupler)		QC	direct	direct	QC	direct	direct
	Material density	t/m³	1,75	1,7	1,55	1,65	1,65	1,5
	Bucket weight	kg	840	990	995	965	1105	1120
	Static tipping load, straight	kg	8.825	9.035	8.960	8.700	8.890	8.840
	Static tipping load, articulated	kg	7.610	7.825	7.760	7.480	7.680	7.635
	Break-out force hydraulic	kN	112,4	136,8	129,5	111,9	136,2	128,9
	Lifting capability hydr. at ground level	kN	128,5	130,6	131,1	125,2	130,7	131
	Operating weight	kg	12.700	12.285	12.295	12.830	12.400	12.415
	Turning radius at corner of tyres	mm	5.240	5.240	5.240	5.240	5.240	5.240
	Turning radius at bucket edge	mm	5.830	5.845	5.800	5.835	5.845	5.800
а	Reach at 45°	mm	1.070	1.070	930	1.070	1.075	935
b	Dump height at 45°	mm	2.875	2.860	2.960	2.870	2.855	2.955
С	Hinge pin height	mm	3.965	3.965	3.965	3.965	3.965	3.965
d	Height top edge of bucket	mm	5.390	5.230	5.230	5.450	5.290	5.290
е	Digging depth	mm	110	120	145	110	120	145
f	Max. loading height at 45°	mm	3.730	3.675	3.675	3.730	3.675	3.675
Α	Overall length, bucket grounded	mm	7.400	7.370	7.220	7.405	7.375	7.225
В	Wheelbase	mm	2.900	2.900	2.900	2.900	2.900	2.900
С	Bucket width	mm	2.540	2.550	2.540	2.540	2.550	2.540
D	Width over tyres	mm	2.470	2.470	2.470	2.470	2.470	2.470
Ε	Track width	mm	1.930	1.930	1.930	1.930	1.930	1.930
F	Ground clearance	mm	460	460	460	460	460	460
Н	Overall height	mm	3.240	3.240	3.240	3.240	3.240	3.240



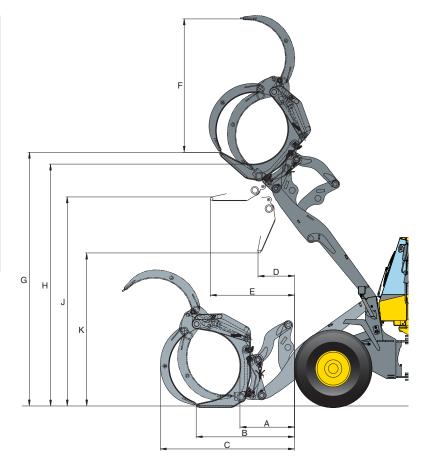
	Stockpile			
	w/o teeth	with BOC		
	2,3	2,5		
	C65	C23		
	QC	direct		
	1,5	1,4		
990		1140		
8.650 87.5		87.55		
7.435		7.560		
	108,8	124,8		
	122,7	131,7		
	12.855	12.435		
	5.240	5.240		
	5.845	5.810		
	1.095	960		
	2.845	2.935		
	3.965	3.965		
	5.450	5.290		
	110	145		
	3.730	3.675		
	7.440	7.260		
	2.900	2.900		
	2.540 2.			
	2.470 2.470			
	1.930 1.930			
	460 460			
	3.240	3.240		

Performance figures with fork tines				
	Sales code		C57	
	Fork tine length	mm	1.200	
Α	Max. reach at ground level	mm	965	
В	Max. reach	mm	1.630	
С	Max. reach at max. stacking height	mm	725	
а	Max. height fork-carrier	mm	4.765	
b	Hinge pin height	mm	3.965	
С	Max. stacking height	mm	3.820	
d	Height of forks at maximum reach	mm	1.820	
	Max. tipping load, straight	kg	6.795	
	Max. tipping load, articulated	kg	5.935	
	Max. payload as per EN 474-3, 80%	kg	4.740	
	Max. payload as per EN 474-3, 60%	kg	3.560	
	Weight in working order with fork tines	kg	12.260	

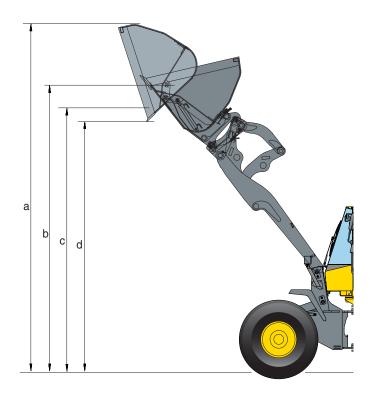
All measurements with tyres 20.5 R25.

## DIMENSIONS AND PERFORMANCE FIGURES

Log grapple				
	Area	1,4 m²		
	Max. payload	4.300 kg		
	Timber length	4,75 m		
	Grapple weight	1.000 kg		
Α		960 mm		
В		1.750 mm		
С		2.405 mm		
D		690 mm		
Ε		1.490 mm		
F		2.100 mm		
G		4.730 mm		
Н		4.440 mm		
J		3.730 mm		
K		2.830 mm		



Hig	High-dump bucket		
	Bucket capacity	4,0 m <sup>3</sup>	
	Material density	0,8 t/m <sup>3</sup>	
а	Height top edge of bucket	6.586 mm	
b	Hinge pin height	5.090 mm	
С	Max. loading height at 45°	4.938 mm	
d	Dump height at 45°	4.652 mm	



All measurements with tyres 20.5 R25.

### **S**PECIFICATIONS



#### FNGINE

TypeKomatsu SAA6D102E
water-cooled, 4-stroke, turbocharged,
with air-to-air intercooler
Rated power
at engine speed
Torque/engine speedmax. 618 Nm/1.400 rpm
No. of cylinders6
Bore $\times$ stroke
Displacement
Injection system Direct injection
Lubricating systemGear pump, pressure feed lubrication filter
Filter
Electrical system
Battery
Alternator60 A
Air-filter typeDry-air filter with automatic dust emission
and preliminary purification including a dust display



#### TRANSMISSION



#### CHASSIS AND TYRES

System	4-wheel drive
Front axle	HD axle, semi-floating, fixed type,
	TPD-differential, (LSD-differential optional)
Rear axle	HD axle, semi-floating, center-pin support,
	30° swing angle, TPD-differential,
	(LSD-differential optional)
Reduction gear	Spiral bevel gear
Differential	Straight bevel gear pair
Final drive	Planetary gear in an oil bath
Tyres	20.5 R25 (standard)



#### SERVICE REFILL CAPACITIES

Cooling system	17,5 ltr
Fuel tank	181 ltr
Motor oil	19,5 ltr
Hydraulic system	67 ltr
Axle (both front and rear axle)	18 ltr
Transfer	6.9 ltr



Operating brakesCompletely hydraulic dual-circuit system,
running in oil bath
multi-disc brakes
on all wheels,
service-free
Parking brakeOperated mechanically,
running in oil bath
multi-disc brake,
service-free
Emergency brake



#### **HYDRAULIC SYSTEM**

Hydraulic pump	Gear pump
Working pressure	210 bar
Circulating capacity of the	hydraulic pump96 + 67 ltr/min
No. of boom/bucket cylind	ers2/1
Туре	Double-action
Bore diameter × stroke	
Boom cylinder	130 × 717 mm
Bucket cylinder	160 × 491 mm
Hydraulic control lever	Servo-controlled, 2-levers
Hydraulic cycle with rated	load bucket filling
Raise time	6,3 s
Lowering time (empty)	3,3 s
Dumping time	1,7 s



#### STEERING SYSTEM

System	Articulated frame steering
Type	. Completely hydraulic power steering
Steering angle to either side	40°
Steering pump	Gear pump
Working pressure	190 bar
Pumping capacity	110 ltr/min
No. of steering cylinders	2
Type	Double-action
Bore diameter × stroke	70 × 453 mm
Smallest turn (outer edge of the	e tyre 20.5 R25)5.240 mm



#### CABIN

Two-door cabin in conformity with ISO 3471 with ROPS (roll over protective structure) in conformity with SAE J1040c and FOPS (falling object protective structure) in conformity with ISO 3449. The air-conditioned pressurised cabin is mounted upon hydrobearings and is noise dampened.

### WHEEL LOADER

### STANDARD EQUIPMENT

- Z-bar boom with parallel movement (PZ-kinematics)
- PPC fingertip control, 2-levers
- 2-spool main control valve
- Counterweight
- Additional side counterweights
- 2 modes for return-to-dig
- Swing-out radiator fan drive
- Power train guard
- Heavy-duty axles
- TPD-differential front and rear
- Electronically controlled HST
- with 2-motor systemConstant speed control in
- 1st speed range • Alternator 60 A
- Starter motor 5,5 kW/24 V
- Batteries 105 Ah/2 × 12 V
- Combined brake/inching pedal
- Spacious double door driver's

- cab to DIN/ISC
- ROPS/FOPS frame to SAE
- All-round tinted glazing
- Front laminated glass
- Electr. controlled air conditioning
- Heated rear window
- Rear window wiper
- Air-suspended seat
- Sun visor
- EMMS (Equipment Management Monitoring System) with self-diagnostic function and maintenance display
- Seat belt (EU standard)
- Traction control system (TCS)
- Adjustable steering column
- Stereo-cassette radio
- 2 halogen main headlights
- 2 spotlights at front and rear

- Reversing light
- Horn
- Emergency steering system
- Vandalism protection
- Tool-set

The WA250PZ-5 is equipped in accordance with the safety regulations of the machinery guidelines 89/392 EWG ff and EN474, and corresponds in its exhaust gas emission values with the regulations of the EC 2000/14, VIII and EC 97/68 Stage II regulations.

Further equipment on request

### **OPTIONAL EQUIPMENT**

- 3-spool main control valve
- Hydraulic quick-coupler (incl. additional side counterweights)
- Electronically controlled load stabilizer (ECSS)
- Automatic central lubrication
- Limited-slip differential (LSD) front and rear
- Tyres 20.5 R25 L2, L3, L4, L5
- Universal bucket 2,0 m<sup>3</sup>
- Universal bucket 2,1 m³
- Universal bucket 2,3 m<sup>3</sup>
- Earthmoving bucket 2,1 m³
- Earthmoving bucket 2,3 m³
  Stock pile bucket 2,3 m³
- Stock pile bucket 2,5 m<sup>3</sup>
- 4-in-1 buckets
- Light materials bucket 4,0 m³
- High-dump bucket 4,0 m³

- All buckets direct or quickcoupler mount
- Various tooth systems, BOC, segments, (Komatsu/KVX™) and other optional bucket accessories are available on request
- Log grapples
- Special buckets
- Fork carrier and tines
- PPC control, 1-lever (Multi-function lever)
- Back-up alarm
- Beacon light
- Additional lights front and rear
- Front screen protective grid
- Turbo III pre-filter
- Battery main switch
- Fire extinguisher

- Electronic anti-theft lock with master key for fleet owners
- Electronic anti-theft lock
- Biodegradable oil for hydraulic system
- Rear roof rail
- 12 V power supply
- Special custom colour
- Wastehandler specification
- Anti-corrosion specification
- Wide core radiator
- Hydrostat-driven radiator fan with reversing function

Call the experts



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