

KOMATSU®

WD600-6

NET HORSEPOWER
393 kW **527 HP** @ 1800 rpm

OPERATING WEIGHT
48100–49115 kg
106,040–108,280 lb

BLADE CAPACITY
8.0–10.6 m³ **10.5-13.8 yd³**

WD
600

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Photo may include optional equipment.

WALK-AROUND

High Productivity & Low Fuel Consumption

- High performance SAA6D170E-5 engine
- Low fuel consumption
- Dual-mode engine power select system
- Variable traction control system
- Large capacity lock-up torque converter
- Brake cooling system
- Variable displacement piston pump & Closed-center Load Sensing System (CLSS)
- Long wheelbase

Excellent Operator Environment

- Automatic transmission with Electronically Controlled Modulation Valve (ECMV)
- Low-noise designed cab
- Modulated clutch system
- Engine RPM set system with auto decel
- Advanced Joystick Steering System (AJSS)
- Electronic Pilot Control (EPC) mono lever
- Large ROPS/FOPS Level 2 integrated cab with pillar-less front glass
- Easy entry/exit, front-hinged door



Harmony with Environment

- EPA Tier 3 and EU Stage 3A emissions certified
- Low exterior noise
- Low fuel consumption

Increased Reliability

- Reliable Komatsu designed and manufactured components
- Sturdy main frame
- Adjustment-free, fully hydraulic, wet disc service and parking brakes
- Hydraulic hoses use flat face O-ring seals
- Sealed DT electrical connectors

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Easy Maintenance

- Equipment Management Monitoring System (EMMS)
- Vehicle Health Monitoring System (VHMS)
- Ease of radiator cleaning
- Modular radiator core system
- Hydraulic-driven cooling fan with reverse rotation

HIGH PRODUCTIVITY & LOW FUEL CONSUMPTION



High Performance SAA6D170E-5 Engine

Electronic Heavy Duty Common Rail fuel injection system provides optimum combustion of fuel. This system also provides fast throttle response to match the machine's powerful tractive effort and fast hydraulic response.

Net: 393 kW 527 HP

Low Fuel Consumption

The fuel consumption is greatly reduced because of the low noise, high-torque engine, the variable piston pumps for the Closed-center Load Sensing System (CLSS), and the large-capacity torque converter. This matched combination provides maximum efficiency in the low-speed range.

Dual-Mode Engine Power Select System

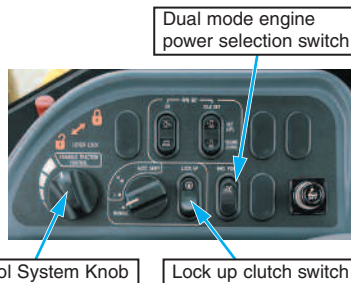
This wheel dozer offers two selectable operating modes—E and P. The operator can adjust the machine's performance with the selection switch.

- **E Mode:** Provides maximum fuel efficiency for general dozing.
- **P Mode:** Provides maximum power output for hard dozing operation or hillclimb.

Variable Traction Control System

In limited traction situations where the operator would like to avoid tire slippage (in loose material or muddy ground conditions) the operator can reduce slippage by activating the Variable Traction Control System. This feature is activated in the forward first (F1) gear range.

The optimum rim pull (F1) is controlled by adjusting the control knob counterclockwise from 100% to 20%.



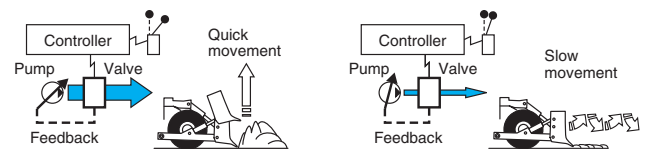
Lock-up Torque Converter

The Komatsu designed lock-up torque converter provides increased production efficiency, reduced cycle times and optimum fuel savings in long pushes and hillclimb operations. This standard feature allows the operator to activate the system with a switch located on the right-side control panel.

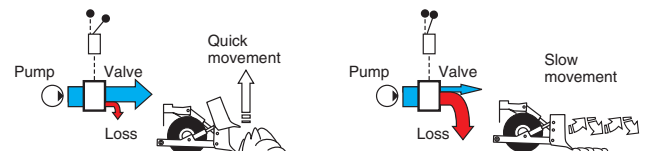
Variable Displacement Piston Pump & Closed-center Load Sensing System (CLSS)

New design variable displacement piston pump combined with the Closed-center Load Sensing System (CLSS) delivers the hydraulic flow the job requires preventing wasted flow. Minimized waste loss contributes to better fuel economy.

- **New Variable Displacement Piston Pump:** The pump delivers only necessary amounts minimizing waste loss.



- **Fixed Displacement Pump:** The pump delivers the maximum amount at any time and the unused flow is returned to tank.



Durable Blade

Komatsu blades are manufactured using high-tensile strength steel providing excellent rigidity and increased dozing capacity.

Blade capacities: 8.0-10.6 m³ 10.5-13.8 yd³

Built-in Blade Tilt Piping

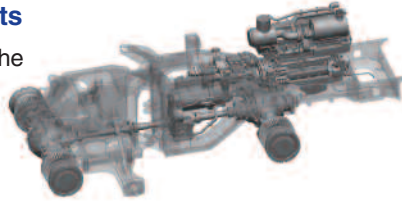
Blade tilt piping is built into the straight frame to protect it from damage.



RELIABILITY

Komatsu Components

Komatsu manufactures the engine, torque converter, transmission, hydraulic units, and electric parts on this wheel dozer. Komatsu dozers are manufactured with an integrated production system under a strict quality control system.



Wet multi-disc brakes and fully hydraulic braking system mean lower maintenance costs and high reliability. Wet disc brakes are fully sealed. Contaminants are kept out, reducing wear and maintenance. Brakes require no adjustments for wear. The new parking brake is also adjustment-free, wet multi-disc for high reliability and long life.

Added reliability is designed into the braking system by the use of two independent hydraulic circuits, providing hydraulic backup. Fully hydraulic brakes mean no air systems to bleed, or the condensation of water in the system that can lead to contamination, corrosion, and freezing.

High-Rigidity Frames

Front and rear frames are designed to work in the toughest applications and provide high rigidity for the power train and dozer equipment. The high-rigidity frames, together with the reinforced dozer linkage, reduce dozing stress and shock.

Limited Slip Differential (F & R) (Optional)

The limited slip differential reduces tire slippage on slippery terrain such as soft or sandy ground, so travel is more stable and tire wear is reduced to a minimum for maximum tire life.

Flat Face-to-Face O-Ring Seals

Flat face-to-face O-ring seals are used to securely seal hydraulic hose connections.

Cylinder Buffer Rings

Buffer rings are installed to the head side of the all-hydraulic cylinders to lower the load on the rod seals and maximize the reliability.

Sealed DT Electrical Connectors

Main harnesses and controller connectors are equipped with sealed DT connectors providing high reliability, dust and corrosion resistance.

EASY MAINTENANCE

Equipment Management Monitoring System (EMMS)

Monitor is mounted in front of the operator for easy viewing, allowing the operator to easily check gauges and warning lights.



Maintenance Control and Troubleshooting Functions

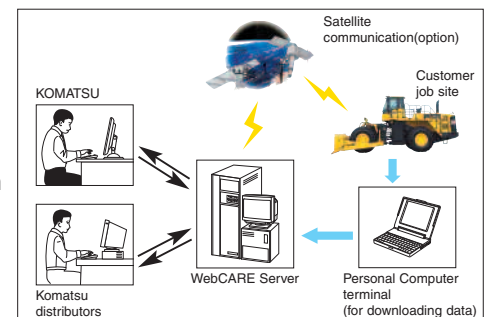
- **Action code display function:** If an abnormality occurs, the monitor displays action details on the character display at the bottom center of the monitor.
- **Monitor function:** The controller monitors engine oil level and pressure, coolant temperature, air cleaner clogging, etc. If the controller finds abnormalities, the error is displayed on the LCD.
- **Replacement time notice function:** The monitor informs replacement time of oil and filters on the LCD when replacement intervals are reached.
- **Trouble data memory function:** The monitor stores abnormality data for effective troubleshooting.

Modular Radiator Core System

The modular radiator core is easy to replace without removing the entire radiator assembly.

Vehicle Health Monitoring System (VHMS)

VHMS is a management system for large equipment for use in mining, which enables detailed monitoring of a fleet via satellite communications. Komatsu and distributors can analyze “vehicle health” and other operating conditions to provide the information from the job site using the internet from a remote location on a near-real time basis.



Ease of Radiator Cleaning

If the machine is operating in adverse conditions, the operator can reverse the hydraulic cooling fan from inside the cab by pressing a switch on the control panel.

OPERATOR ENVIRONMENT

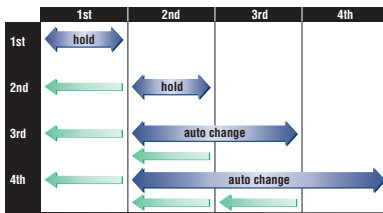
Easy Operation

Automatic Transmission with Electronically Controlled Modulation Valve (ECMV)

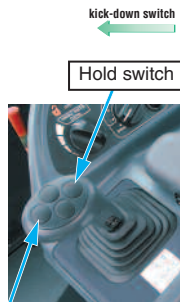
The transmission automatically selects the proper gear speed based on travel speed, engine speed, and other travel conditions. The ECMV system engages the clutch smoothly when shifting and provides efficient machine operation and a comfortable ride.

- **Kick-down switch:** Consider this valuable feature for added productivity.

With the touch of a finger, the kick-down switch downshifts the transmission from second to first when beginning



dozing. The transmission automatically upshifts from first to second when the direction control lever is placed in reverse. This results in increased rim pull for better blade penetration and reduced cycle times for higher productivity.

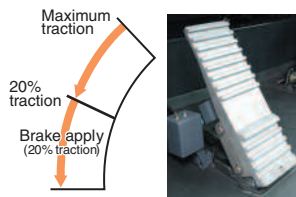


- **Hold switch:** When auto shift is selected and the operator turns on this switch when the lever is at the 3rd or 4th gear speed position, the transmission is fixed in that gear speed.

Modulated Clutch System

The Modulated Clutch System controls the tractive effort with the left brake pedal from 100% to 20% of the converter output torque.

- Useful for smooth speed reduction when approaching the end of dozing
- Easy control of tire slippage
- Reduces shocks in shifting from forward to reverse



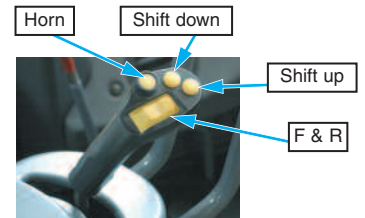
Electronic Pilot Control (EPC) Mono Lever

The EPC work equipment mono lever has light operating effort and short stroke, facilitating easy operation. The operator's comfort is further increased by the full large-size adjustable arm rests. Combined with CLSS, this system allows for easy and efficient operation.

Advanced Joystick Steering System (AJSS)

AJSS is a feedback steering system which has been incorporated to allow steering and forward and reverse selection to be controlled by wrist and finger control.

With the feedback function added, the machine steering angle is defined exactly the same as the lever tilt angle.



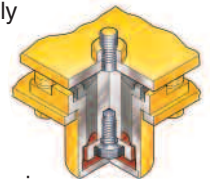
Comfortable Operation



Low-Noise Design

Noise level at operator's ear: 73 dB(A)

The large cab is mounted with Komatsu's unique ROPS/FOPS Level 2 viscous mounts. The low-noise engine, hydraulically driven fan, and hydraulic pumps are mounted with rubber cushions, and the cab sealing is improved to provide a quiet, low-vibration, and comfortable operating environment. Also, exterior noise is lowest in this class.



Large Cab with Pillar-Less Front Glass

A wide pillar-less flat glass provides excellent front visibility. The wiper arm covers a large area to provide great visibility even on rainy days. The cab area is the largest in its class providing maximum space for the operator.

SPECIFICATIONS



ENGINE

Model Komatsu SAA6D170E-5*
 Type Water-cooled, 4-cycle
 Aspiration Turbocharged, aftercooled, cooled EGR
 Number of cylinders 6
 Bore x stroke 170 mm x 170 mm **6.69" x 6.69"**
 Piston displacement 23.15 ltr **1413 in³**
 Governor all-speed, electronic
 Horsepower
 SAE J1995 Gross 396 kW **530 HP**
 ISO 9249/SAE J1349 Net 393 kW **527 HP**
 Hydraulic fan at maximum speed Net 374 kW **502 HP**
 Rated rpm 1800 rpm
 Fan drive method for radiator cooling Hydraulic
 Fuel system Direct injection
 Lubrication system:
 Method Gear pump, force-lubrication
 Filter Full-flow type
 Air cleaner Dry type with double elements and dust evacuator, plus dust indicator

*EPA Tier 3 and EU stage 3A emissions certified.



TRANSMISSION

Torque converter:
 Type 3-element, single-stage, double-phase
 Transmission:
 Type Full-powershift, planetary type
 Travel speed: km/h **mph**
 Measured with 35/65-33 tires

() : Lock-up clutch ON

	1st		2nd		3rd		4th	
Forward	6.7	4.2	11.7	7.3	20.3	12.6	33.0	20.5
	—		(12.4	7.7)	(21.7	13.5)	(37.7	23.4)
Reverse	7.3	4.5	12.8	8.0	22.0	13.7	36.0	22.4



AXLES AND FINAL DRIVES

Drive system Four-wheel drive
 Front Fixed, semi-floating
 Rear Center-pin support, semi-floating, 26° total oscillation
 Reduction gear Spiral bevel gear
 Differential gear Conventional type
 Final reduction gear Planetary gear, single reduction



BRAKES

Service brakes Hydraulically actuated, wet disc brakes actuate on four wheels
 Parking brake Wet disc brake
 Emergency brake Parking brake is commonly used



STEERING SYSTEM

Type Articulated type, full-hydraulic power steering
 Steering angle 43° each direction
 Minimum turning radius at the center of outside tire 7075 mm **23'3"**



HYDRAULIC SYSTEM

Steering system:
 Hydraulic pump Piston type
 Capacity 163 ltr/min **43.1 U.S. gal/min** at rated rpm
 Relief valve setting 34.3 MPa 350 kgf/cm² **4,980 psi**
 Hydraulic cylinders:
 Type Double-acting, piston
 Number of cylinders 2
 Bore x stroke 130 mm x 510 mm **5.1" x 20"**
 Loader control:
 Hydraulic pump Piston type
 Capacity 180 + 180 ltr/min **47.6 + 47.6 U.S. gal/min** at rated rpm

Relief valve setting 24.5 MPa 250 kgf/cm² **3,560 psi**
 Hydraulic cylinders:
 Type Double-acting, piston
 Number of cylinders—bore x stroke:
 Blade lift 1- 160 mm x 1080 mm **6.3" x 42.5"**
 Tilt and pitch 2- 180 mm x 237 mm **7.0" x 9.3"**
 Control valve 3-spool type
 Control positions:
 Blade lift Raise, hold, lower, and float
 Tilt and pitch Tilt-left, tilt-right, hold, pitch forward and back
 Hydraulic cycle time
 Raise 2.0 sec
 Lower 1.3 sec
 Tilt (left / right) 0.8 / 1.1 sec
 Pitch (front / rear) 2.1 / 1.6 sec



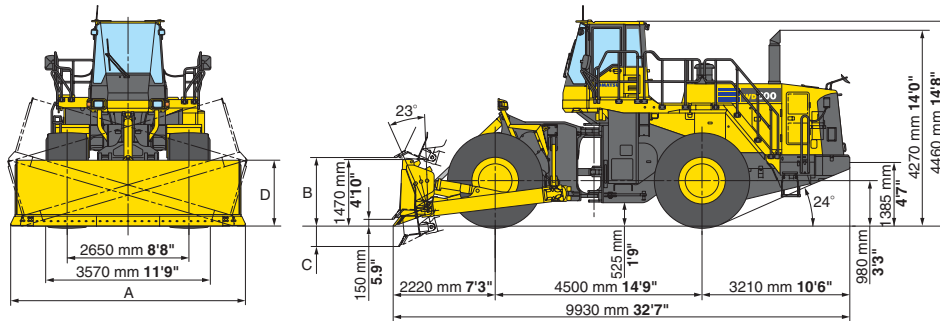
SERVICE REFILL CAPACITIES

Cooling system 147 ltr **38.8 U.S. gal**
 Fuel tank 718 ltr **189.7 U.S. gal**
 Engine 86 ltr **22.7 U.S. gal**
 Hydraulic system 443 ltr **117.0 U.S. gal**
 Axle Front 155 ltr **41.0 U.S. gal**
 Rear 155 ltr **41.0 U.S. gal**
 Torque converter and transmission 83 ltr **21.9 U.S. gal**



DIMENSIONS

Measured with 35/65-33-24PR(L4) tires



Blade type		Straight blade	U-blade
Blade capacity (SAE Rated)		8.0 m ³ 10.5 yd³	10.6 m ³ 13.8 yd³
A	Blade width	5100 mm 16'9"	4870 mm 16'0"
B	Max. lift above ground	1500 mm 4'11"	1485 mm 4'10"
C	Max. drop below ground	450 mm 1'6"	490 mm 1'7"
D	Max. tilt adjustment	1430 mm 4'8"	1340 mm 4'5"
Blade weight (excluding push assembly)		2894 kg 6,380 lb	3410 kg 7,518 lb
Operating weight		48100 kg 106,040 lb	49115 kg 108,280 lb



STANDARD EQUIPMENT

- 2-spool valve for raise, lower and pitch controls
- Advanced Joystick Steering System (AJSS)
- Alternator, 90 A/24 V
- Auto air conditioner
- Auto shift transmission with mode select system
- Auxiliary steering
- Back-up alarm
- Back-up lamp
- Batteries, 200 Ah/12 V x 2
- Brake cooling system
- Counterweight, front 468 kg **1032 lb**
- Counterweight, rear 616 kg **1358 lb**
- Dozer push frame assembly
- Directional signal
- Electric supply, 12V
- Engine, Komatsu SAA6D170E-5 diesel
- Engine RPM set
- Electronic Pilot Control (EPC) mono control lever
- Floormat
- Front fenders
- Hydraulic-driven fan with reverse rotation
- In-line filter, hydraulic
- In-line filter, steering
- Lift cylinder, tilt and pitch cylinders
- Lock-up clutch torque converter
- Main monitor panel with Equipment Management Monitoring System (EMMS)
- Radiator mask, lattice type
- Rear access stairs
- Rear defroster (electric)
- Rear under view mirror
- Rearview mirrors
- Rear window washer and wiper
- Rims for 35/65-33 L4 tires
- ROPS/FOPS Level 2 cab
- Seat belt, 76 mm **3"** wide
- Seat, air suspension type with reclining
- Service brakes, wet disc type
- Starting motor, 11.0 kW/24 V x 2
- Sun visor
- Transmission, 4 forward and 4 reverse
- Vehicle Health Monitoring System (VHMS)



OPTIONAL EQUIPMENT

- AM/FM radio with cassette
- Fuel quick coupler
- Limited slip differential (F&R)
- Power train guard
- Rear full fender, right side
- Steering wheel, tiltable
- Straight blade, 8.0 m³ **10.5 yd³** with angled end bits
- Straight blade, 8.0 m³ **10.5 yd³** with straight end bits
- Warning light, amber colored beacon

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08/09 (EV-2)

KOMATSU®