

# KOMATSU

## WA500-8 yard loader



Photo may include optional equipment

### **Net horsepower**

353 HP (263 kW) @ 1,900 rpm

### **Operating weight**

82,349-83,090 lbs. (37,353-37,689 kg)

### **Bucket capacity**

8.2-9.8 yd<sup>3</sup> (6.3-7.5 m<sup>3</sup>)

## Make every pass count

### Built to increase production

A newly designed, bigger bucket and an auto-digging system maximize bucket fill while minimizing operator fatigue.

### High performance powertrain

Large-capacity torque converter, combined with Komatsu Smart Loader Logic engine control system, automatically creates enough torque for each work phase, reducing fuel consumption with no decrease in production.

### Brake cooling system

Efficient performance and added confidence in load and carry situations with front and rear brake cooling system.

### Low fuel consumption

Reduce idle time and save fuel with auto idle shutdown. Smart Loader Logic acquires data from various sensors in the loader and controls engine torque based on job requirements.

### Comfortable operator environment

A more comfortable ride with a new standard, heated, air-suspension seat that provides enhanced support on rough roads. A large, quiet, pressurized cab provides excellent visibility.



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# Performance, durability and fuel economy

## Large capacity torque converter with lock-up provides:

- Quick acceleration
- Lock-up in 2nd, 3rd and 4th gear

A powerful **Komatsu SAA6D140E-7 engine** provides a net output of 353 HP (263 kW) with up to 5% improved fuel consumption. This engine is EPA Tier 4 Final emissions certified.

**Variable Geometry Turbocharger (VGT)** uses a hydraulic actuator to provide optimum air flow under all speed and load conditions.

**Komatsu Diesel Particulate Filter (KDPF) and Selective Catalytic Reduction (SCR) systems** reduce particulate matter and NOx, while providing automatic regeneration that does not interfere with daily operation.

### Fluid neutral or better

Consumption of fuel and diesel exhaust fluid (DEF) is designed to be less than or equivalent to the amount of fuel consumed by the prior model.

### Cooling

- Auto-reversing fan is standard
- Hydraulically driven, variable-speed fan
- Wider core coolers resist clogging
- Swing-out fan for easy cleaning

**Remote boom and bucket positioners** allow kickouts to be set from inside the cab.

**Variable displacement piston pumps with Closed-Center Load Sensing System (CLSS)** provide quick response and smooth operation to maximize productivity.

### Rearview monitoring system (standard)

**Advanced diagnostic system** continuously monitors machine operation and vital systems to identify machine issues and assist with troubleshooting.

**Transmission mode select system (3 modes)** allows shifting mode to be matched more efficiently to varying work applications.

### Enhanced working environment

- New high-capacity, heated, air suspension seat
- Seat-mounted EPC controls with F-N-R switch
- Two 12V power outlets
- Bluetooth radio

**New front fender** is changed from steel to composite material for resistance to scratches and impact.

**Full rear fenders (standard)** swing open for easy access to maintenance points.

**Komatsu auto idle shutdown** helps reduce idle time and operating costs.

**Komatsu Smart Loader Logic** helps reduce fuel consumption with no decrease in production.



### Large LCD color monitor panel

- 7" high-resolution, multi-color screen is easy to read
- Integrated load meter system displays payload data directly on the monitor panel
- Includes an "Ecology" gauge and provides guidance for greater fuel efficiency
- Onboard diagnostics do not require use of a laptop computer
- Easy-to-navigate menus allow operators to change settings, review machine performance records and track periodic maintenance items

**External mounting of engine air filter (above rear LH fender)** provides easy access for maintenance.

**Komatsu telematics solutions:** Telematics data can drive results for business operations, but only when you can collect and analyze it efficiently. We've designed a system that makes it easy to collect, visualize and monitor telematics data from both Komatsu machines and other OEM machines.

**My Komatsu**, our comprehensive digital hub, analyzes telemetric data from your on-machine technology — Komtrax and Komtrax Plus, or ISO API 15143-3 (AEMP 2.0) data from other OEMs — and displays it on easy-to-read dashboards. Now you can finally get the powerful analytics you need to manage your costs and enhance your fleet's efficiency without a complicated process or expensive third-party solutions.

**Battery disconnect switch** allows a technician to disconnect the power supply before servicing the machine.

**Operator identification system** can track machine operation for up to 100 operators.

## Features and benefits

If you're looking to load, transport or move material, Komatsu large wheel loaders offer a great combination of productivity, fuel efficiency, operator comfort and ease of maintenance. They're engineered to help move more material faster, move more trucks out of the yard, and move your business forward.

**Large capacity bucket cylinder** provides increased power and control to help handle big loads.

**Large capacity bucket** is optimized based on material density, with up to 9.8 yd<sup>3</sup> (7.5 m<sup>3</sup>) capacity. This helps increase productivity in applications such as truck loading, carrying, stock piling and charging hoppers.



### Additional counterweight

helps improve stability, and allows for increased bucket capacity while the contoured shape maximizes ground clearance for stock piling applications.



**875/65 tires** increase ground contact area for improved stability. The low profile also reduces sidewall flex for more stability while dumping into trucks or hoppers.

### Brake cooling system (front and rear)

helps control brake temperatures in higher speed applications to ensure optimum performance in load and carry situations.

Tailor-made for loading on-highway trucks or your quarry needs that require a powerful engine and excellent stability, the WA500-8 has durable frames, axles and driveline components for efficient loading.

# Specifications

## Engine\*

Model	Komatsu SAA6D140E-7*		
Type	Water-cooled, 4-cycle		
Aspiration	Variable geometry turbocharged, aftercooled, cooled EGR		
Number of cylinders	6		
Bore x stroke	140 mm x 165 mm 5.51" x 6.50"		
Piston displacement	15.24 L 930 in <sup>3</sup>		
Horsepower			
SAE J1995	Gross	266 kW	357 HP
ISO 9249 / SAE J1349	Net	263 kW	353 HP
	Rated rpm	1,900	
Fan drive method for radiator cooling	Hydraulic		
Governor	All-speed, electronic		
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 4 Final emissions certified.

## Hydraulic system

<b>Steering system</b>			
Hydraulic pump		Piston type	
Capacity	120 L/min	31.7 gal/min at rated rpm	
Relief valve setting	24.5 MPa	250 kg/cm <sup>2</sup> 3,555 psi	
<b>Hydraulic cylinders</b>			
Type	Double-acting, piston type		
Number of cylinders	2		
Bore x stroke	100 mm x 486 mm 3.9" x 19.1"		
<b>Loader control</b>			
Hydraulic pump		Piston pump	
Capacity	320 L/min	84.8 gal/min at rated rpm	
Relief valve settings	34.3 MPa	350 kg/cm <sup>2</sup> 4,980 psi	
<b>Hydraulic cylinders</b>			
Type	Double-acting, piston type		
Number of cylinders (bore x stroke)			
Boom cylinder	2-160 mm x 898 mm 6.3" x 35.4"		
Bucket cylinder	1-200 mm x 645 mm 7.9" x 25.4"		
Control valve	2-spool type		
<b>Control positions</b>			
	Boom	Raise, hold, lower, and float	
	Bucket	Tilt-back, hold, and dump	

## Hydraulic cycle time (rated load in bucket)

Raise	7.2 s
Dump	1.7 s
Lower (empty)	4.2 s

## 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, fully hydraulic power steering
Steering angle	36° (40° to max end stop)
Minimum turning radius at the center of outside tire	7,050 mm 23' 2"

## Transmission

Torque converter	Three-elements, one-stage, two-phase	
Transmission	Full-powershift, planetary type	
	Travel speed	
	1st	Forward* 7.5 km/h 4.7 mph Reverse* 8.5 km/h 5.3 mph
	2nd	12.9 km/h 8.0 mph (13.1 km/h 8.1 mph) 12.9 km/h 8.0 mph (13.0 km/h 8.1 mph)
	3rd	22.2 km/h 13.8 mph (23.7 km/h 14.7 mph) 24.7 km/h 15.3 mph (26.6 km/h 16.5 mph)
	4th	35.5 km/h 22.1 mph (37.3 km/h 23.2 mph) 38.0 km/h 23.6 mph (38.0 km/h 23.6 mph)

\*P-mode Measured with 29.5-25 tires (:): Lock-up clutch ON

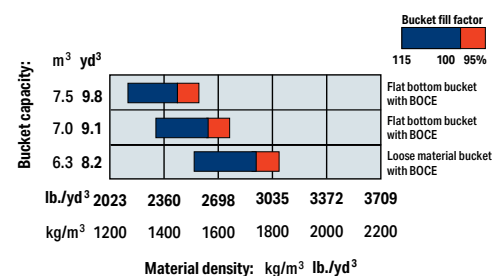
## Axes and final drives

Drive system	Four-wheel drive
Front	Fixed, full-floating
Rear	Center-pin support, full-floating, 20° total oscillation
Reduction gear	Spiral bevel gear
Differential gear	Conventional type
Final reduction gear	Planetary gear, single reduction

## Service refill capacities

Cooling system	110 L	29.1 US gal
Fuel tank	473 L	124.9 US gal
Engine	37 L	9.8 US gal
Hydraulic system	337 L	89.0 US gal
Axle (each front and rear)	95 L	25.1 US gal
Torque converter and transmission	71 L	18.8 US gal
DEF tank	36 L	9.5 US gal

## Bucket selection guide

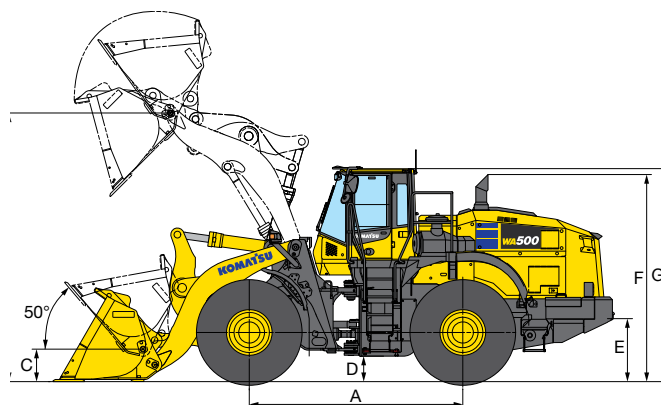


# Dimensions

## Machine dimensions

Tread width (center of tread to center of tread)	2,420 mm	7'11"
Width over tires	3,302 mm	10'10"
<b>A</b> Wheelbase	3,780 mm	12'5"
<b>B</b> Hinge pin height, max. height	4,755 mm	15'7"
<b>C</b> Hinge pin height, carry position	575 mm	1'11"
<b>D</b> Ground clearance	450 mm	1'6"
<b>E</b> Hitch height	1,115 mm	3'8"
<b>F</b> Overall height, top of the stack	3,665 mm	12'0"
<b>G</b> Overall height, ROPS cab	3,785 mm	12'5"

Measured with 875/65-R29 tires



	Loose material bucket	Asbury flat bottom bucket	Asbury flat bottom bucket	Hensley flat bottom bucket	Hensley flat bottom bucket
	Bolt-on cutting edge	Bolt-on cutting edge	Bolt-on cutting edge	Bolt-on cutting edge	Bolt-on cutting edge
<b>Bucket capacity: heaped</b>	6.3 m <sup>3</sup>	7.0 m <sup>3</sup>	7.5 m <sup>3</sup>	7.0 m <sup>3</sup>	7.5 m <sup>3</sup>
	8.2 yd <sup>3</sup>	9.1 yd <sup>3</sup>	9.8 yd <sup>3</sup>	9.2 yd <sup>3</sup>	9.8 yd <sup>3</sup>
<b>struck</b>	5.3 m <sup>3</sup>	6.0 m <sup>3</sup>	6.3 m <sup>3</sup>	6.0 m <sup>3</sup>	6.3 m <sup>3</sup>
	6.9 yd <sup>3</sup>	7.8 yd <sup>3</sup>	8.2 yd <sup>3</sup>	7.8 yd <sup>3</sup>	8.2 yd <sup>3</sup>
<b>Bucket width</b>	3,400 mm	3,581 mm	3,581 mm	3,581 mm	3,581 mm
	11' 2"	11' 9"	11' 9"	11' 9"	11' 9"
<b>Bucket weight</b>	3,492 kg	3,828 kg	3,716 kg	3,582 kg	3,714 kg
	7,698 lbs.	8,439 lbs.	8,193 lbs.	7,897 lbs.	8,187 lbs.
<b>Dumping clearance, max. height and 45° dump angle* (H)</b>	3,210 mm	3,162 mm	3,123 mm	3,171 mm	3,123 mm
	10' 6"	10' 4"	10' 3"	10' 5"	10' 3"
<b>Reach at max. height and 45° dump angle*</b>	1,585 mm	1,634 mm	1,673 mm	1,625 mm	1,673 mm
	5' 2"	5' 4"	5' 6"	5' 4"	5' 6"
<b>Reach at 2130 mm 7' clearance and 45° dump angle</b>	2,350 mm	2,356 mm	2,395 mm	2,371 mm	2,397 mm
	7' 8"	7' 9"	7' 10"	7' 9"	7' 10"
<b>Reach with arm horizontal and bucket level</b>	3,385 mm	3,450 mm	3,505 mm	3,437 mm	3,505 mm
	11' 1"	11' 4"	11' 6"	11' 3"	11' 6"
<b>Operating height (fully raised)</b>	6,540 mm	6,923 mm	7,045 mm	6,677 mm	6,805 mm
	21' 5"	22' 9"	23' 1"	21' 11"	22' 4"
<b>Overall length (bucket on ground)</b>	10,035 mm	10,102 mm	10,157 mm	10,083 mm	10,151 mm
	32' 11"	33' 2"	33' 4"	33' 1"	33' 4"
<b>Loader clearance circle (bucket at carry, outside corner of bucket)</b>	16,550 mm	16,693 mm	16,722 mm	16,688 mm	16,723 mm
	54' 4"	54' 9"	54' 10"	54' 9"	54' 10"
<b>Digging depth:</b>	<b>0°</b>	135 mm	135 mm	135 mm	135 mm
		5"	5"	5"	5"
	<b>10°</b>	455 mm	470 mm	480 mm	467 mm
	1'6"	1'6"	1'7"	1'6"	1'7"
<b>Static tipping load: straight</b>	27,840 kg	27,856 kg	27,719 kg	28,406 kg	28,116 kg
	61,376 lbs.	61,412 lbs.	61,109 lbs.	62,624 lbs.	61,985 lbs.
	<b>40° full turn</b>	23,791 kg	23,773 kg	23,652 kg	24,272 kg
	52,450 lbs.	52,410 lbs.	52,143 lbs.	53,510 lbs.	52,906 lbs.
<b>Breakout force</b>	266 kN	257 kN	249 kN	259 kN	249 kN
	27,124 kg	26,207 kg	25,391 kg	26,411 kg	25,391 kg
	59,799 lbs.	57,776 lbs.	55,977 lbs.	58,226 lbs.	55,977 lbs.
<b>Operating weight</b>	37,353 kg	37,689 kg	37,577 kg	37,443 kg	37,575 kg
	82,349 lbs.	83,090 lbs.	82,843 lbs.	82,548 lbs.	82,838 lbs.

\* At the end of tooth or BOCE  
All dimensions, weights, and performance values based on SAE J732c and J742b standards.  
Static tipping load and operating weight shown include lubricant, coolant, full fuel tank, ROPS cab, and operator.

Machine stability and operating weight affected by counterweight, tire size, and other attachments.  
Apply the following weight changes to operating weight and static tipping load.

# Equipment

Alternator, 90 A	•
Auto shift transmission with mode select system	•
Automatic digging system	•
Automatic hydraulic-driven fan with automatic reverse rotation	•
Back-up alarm	•
Batteries, 160 Ah/12 V (2)	•
Battery disconnect	•
Brake cooling system	•
Boom kick-out, in-cab adjustable	•
Bucket positioner, upper/lower in-cab adjustable, 3 positions	•
Color rearview camera and monitor	•
Counterweight, standard and additional for yard loader (logging counterweight)	•
Electronically controlled suspension system (ECSS)	•
Engine, Komatsu SAA6D140E-7 diesel	•
Engine shut-off system, electric	•
Engine shutdown secondary switch	•
EPC fingertip controls with F-N-R switch, two levers	•
Equipment Management Monitoring System (EMMS)	•
- Lights (central warning, brake oil pressure, engine oil pressure, parking brake, cooling fan reverse, KDPF restriction, seat belt caution, Komtrax message)	
- Gauges (engine water temperature, ecology, fuel level, DEF levels, hydraulic oil temperature, speedometer/tachometer)	
Front fenders	•
Front frame steps with grab handles	•
Fuel pre-filter with water separator	•
Horn, electric	•
Komatsu Smart Loader Logic	•
Komatsu Auto Idle Shutdown	•
Komtrax Level 5	•
Lift cylinders and large capacity bucket cylinder	•
Lights	•
- Back-up light, LED	
- Stop and tail light, LED	
- Turn signal, two front and two rear with hazard switch	
- Working lights, halogen, two front cab mount	
- Working lights, halogen, two front fender mount	
- Working lights, halogen, two rear	
Load meter*	•
Loader linkage with standard lift arm	•
Lock-up torque converter	•
Parking brake, electric	•
Radiator, wider core	•
Radiator mask, swing out	•
Rear full fenders	•
Rearview mirrors, outside (2) inside (2)	•

ROPS/FOPS Cab Level 2	•
- 2 x 12VDC electrical outlets	
- Ashtray	
- Auto air conditioner	
- Cigarette lighter, 24 V	
- Color LCD/TFT multi-monitor	
- Cup holder	
- Floor mat	
- Operator seat, reclining, air suspension type, heated	
- Radio, Bluetooth, AM/FM with AUX input jack	
- Rear defroster, electric	
- Seatbelt, two-point retractable, 76 mm 3" width	
- Space for lunchbox	
- Steering wheel, tilt and telescopic	
- Sun visor, front window	
- Windshield washer and wiper, front with intermittent	
- Windshield washer and wiper, rear	
Service brakes, wet disc type	•
Starting motor, 11 kW	•
Transmission, four forward and four reverse	•
Two-spool valve for boom and bucket control	•
Vandalism protection kit	•
Auxiliary steering (SAE)	○
Engine pre-cleaner with extension	○
Graco autolube system	○
Limited slip differential (F and R)	○
Mono-lever loader control with transmission F-N-R switch	○
Powertrain guard	○
Rims and tires, 875/65-R29 XHAZ L2	○
Various Asbury bucket options	○
Various Hensley bucket options	○
Wheel chocks	○

\* Restrictions apply based on machine configuration. Load meter is not available for machines with MF monolever, 3rd spool hydraulic arrangement or coupler. Consult your local Komatsu distributor for details.

Standard equipment	•
Optional equipment	○

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