KOMATSU

WA500-8

Yard loader



Net horsepower
353 HP (263 kW) @ 1,900 rpm

Operating weight
80,647–81,020 lbs. (36,581-36,750 kg)

Bucket capacity
8.2-9.8 yd^3 (6.3-7.5 m^3)

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.



Photos may include optional equipment.

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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

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

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.



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.

Yard loader features

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^3 (7.5 m^3) capacity. This helps increase productivity in applications such as truck loading, carrying, stock piling and charging hoppers.



Photo may include optional equipment.

Advanced Joystick Steering System (optional)
helps to reduce operator fatigue in repetitive V-cycle loading.

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.

General 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^3
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

Steering system		
Hydraulic pump		Piston type
Capacity		120 L/min 31.7 gal/min at rated rpm
Relief valve setting		24.5 MPa 250 kg/cm^2 3,555 psi
Hydraulic cylinders		
Type		Double-acting, piston type
Number of cylinders		2
Bore x stroke		100 mm x 486 mm 3.9" x 19.1"
Loader control		
Hydraulic pump		Piston pump
Capacity		320 L/min 84.8 gal/min at rated rpm
Relief valve settings		34.3 MPa 350 kg/cm^2 4,980 psi
Hydraulic cylinders		
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
Control positions		
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	Forward*	Reverse*
1st	7.5 km/h 4.7 mph	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

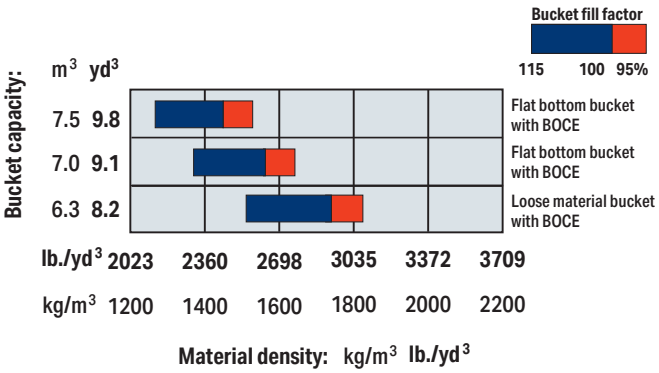
Axles and final drives

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

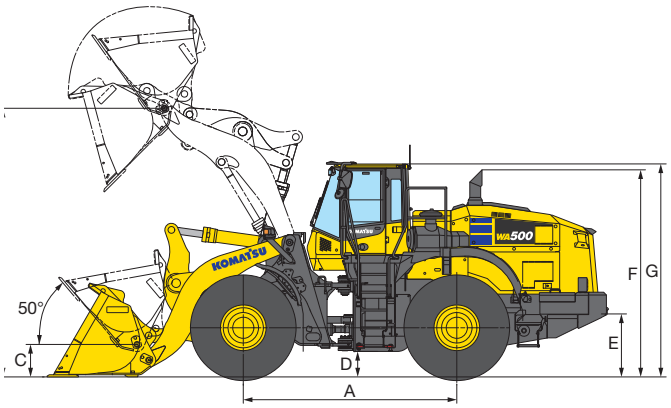
Bucket selection guide



Dimensions

	Tread width (center of tread to center of tread)	2,420 mm	7'11"
	Width over tires	3,302 mm	10'10"
A	Wheelbase	3,780 mm	12'5"
B	Hinge pin height, max. height	4,755 mm	15'7"
C	Hinge pin height, carry position	575 mm	1'11"
D	Ground clearance	450 mm	1'6"
E	Hitch height	1,115 mm	3'8"
F	Overall height, top of the stack	3,665 mm	12'0"
G	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
Bucket capacity: heaped	6.3 m^3 8.2 yd^3	7.0 m^3 9.1 yd^3	7.5 m^3 9.8 yd^3	7.0 m^3 9.2 yd^3	7.5 m^3 9.8 yd^3
struck	5.3 m^3 6.9 yd^3	6.0 m^3 7.8 yd^3	6.3 m^3 8.2 yd^3	6.0 m^3 7.8 yd^3	6.3 m^3 8.2 yd^3
Bucket width	3400 mm 11'2"	3581 mm 11'9"	3581 mm 11'9"	3581 mm 11'9"	3581 mm 11'9"
Bucket weight	3485 kg 7,683 lbs.	3581 kg 7,895 lbs.	3716 kg 8,193 lbs.	3582 kg 7,897 lbs.	3714 kg 8,187 lbs.
Dumping clearance, max. height and 45˚ dump angle* (H)	3210 mm 10'6"	3162 mm 10'4"	3123 mm 10'3"	3171 mm 10'5"	3123 mm 10'3"
Reach at max. height and 45˚ dump angle*	1585 mm 5'2"	1634 mm 5'4"	1673 mm 5'6"	1625 mm 5'4"	1673 mm 5'6"
Reach at 2130 mm 7' clearance and 45˚ dump angle	2350 mm 7'8"	2356 mm 7'9"	2395 mm 7'10"	2371 mm 7'9"	2397 mm 7'10"
Reach with arm horizontal and bucket level	3385mm 11'1"	3450 mm 11'4"	3505 mm 11'6"	3437 mm 11'3"	3505 mm 11'6"
Operating height (fully raised)	6540 mm 21'5"	6923 mm 22'9"	7045 mm 23'1"	6677 mm 21'11"	6805 mm 22'4"
Overall length (bucket on ground)	10035 mm 32'11"	10102 mm 33'2"	10157 mm 33'4"	10083 mm 33'1"	10151 mm 33'4"
Loader clearance circle (bucket at carry, outside corner of bucket)	16550 mm 54'4"	16693 mm 54'9"	16722 mm 54'10"	16688 mm 54'9"	16723 mm 54'10"
Digging depth: 0˚	135 mm 5"	135 mm 5"	135 mm 5"	135 mm 5"	135 mm 5"
10˚	455 mm 1'6"	470 mm 1'6"	480 mm 1'7"	467 mm 1'6"	478 mm 1'7"
Static tipping load: straight	27828 kg 61,350 lbs.	27572 kg 60,786 lbs.	27488 kg 60,601 lbs.	27714 kg 61,099 lbs.	27571 kg 60,784 lbs.
40˚ full turn	25117 kg 55,373 lbs.	24861 kg 54,809 lbs.	24776 kg 54,622 lbs.	25002 kg 55,120 lbs.	24859 kg 54,805 lbs.
Breakout force	266 kN 27124 kg 59,799 lbs.	257 kN 26207 kg 57,776 lbs.	249 kN 25391 kg 55,977 lbs.	259 kN 26411 kg 58,226 lbs.	249 kN 25391 kg 55,977 lbs.
Operating weight	36581 kg 80,647 lbs.	36677 kg 80,859 lbs.	36813 kg 81,158 lbs.	36678 kg 80,861 lbs.	36810 kg 81,152 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	●
Advanced joystick steering system	○
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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