

KOMATSU®

WA900-8R

WHEEL LOADER

WA900



Photos may include optional equipment.

HORSEPOWER

Gross: 672 kW 900 HP/2050 min⁻¹
Net: 671 kW 899 HP/2050 min⁻¹

OPERATING WEIGHT

116400 kg

BUCKET CAPACITY

11.5 - 13.0 m³

WALK-AROUND

WA900-8R



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116400 kg

BUCKET CAPACITY

11.5 - 13.0 m³



Productivity & Economy Features

- Komatsu SmartLoader Logic for low fuel consumption **NEW**
- Increase boom power & speed
- New shape bucket **NEW**
- Tire slip control **NEW**
- Large-capacity torque converter **NEW**

Operator Environment

- Automatic digging system **NEW**
- Semi-auto approach & dump system **NEW**
- New operator seat with control levers **NEW**
- Electronically controlled suspension system (Optional) **NEW**
- Power ladder (Optional) **NEW**

Safety

- KomVision camera (Optional) **NEW**
- KomVision radar (Optional) **NEW**
- Rear view monitoring system **NEW**
- LED lamp standard

Durability & Reliability Features

- High-rigidity frames and loader linkage **NEW**
- Reliable Komatsu designed and manufactured components

Information and Communication Technology (ICT)

- High resolution 7-inch color Liquid Crystal Display (LCD) monitor **NEW**
- Operator identification function **NEW**
- Energy saving operation **NEW**

Easy Maintenance

- Swing-out type cooling fan and wide core radiator **NEW**
- Modular radiator core **NEW**
- Service center (Optional) **NEW**
- Machine lock-out system (Optional) **NEW**
- Maintenance monitor **NEW**

KOMTRAX Plus

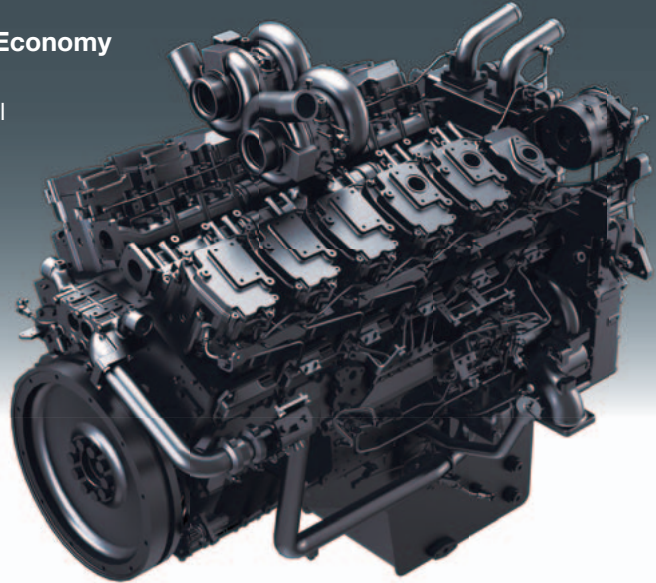
- KOMTRAX Plus **NEW**

PRODUCTIVITY & ECONOMY FEATURES

NEW ENGINE TECHNOLOGY AND CONTROL SYSTEM

High Production Technology and Improved Economy

Overwhelming workability added to environmental performance for the next generation. Komatsu wheel loader WA900 series move to a new stage. Optimum power and loss reduction eliminate useless fuel consumption and improve fuel consumption efficiency.



SAA12V140E-7

Engine rated output

Gross power
(SAE J1995)

672 kW

Net torque
(ISO 9249/SAE J1349)

3124 Nm

Increase in lift capacity

Increase in lift capacity provides high productivity.

Lift capacity 39 kN (14%) increase

* Compared with the WA900-3E0.

New Shape Bucket

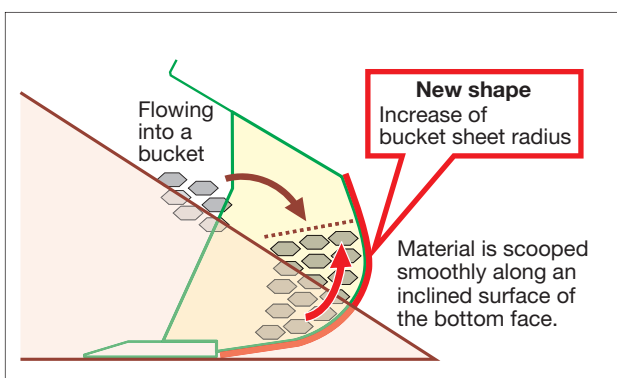
The bucket with new shape, the digging work will be efficient and soil will be easily slipped off the bucket. It accomplishes easier and more efficient operation, and contributes to the improvement of productivity in combination with auto digging system.



Fuel efficiency (t/L)

Increased by

17%



Low Fuel Consumption

Komatsu installed new features on the WA900-8R to reduce fuel consumption by optimally controlling engine power, realizing high efficiency power train and hydraulic system.

Reduced by 10% Fuel consumption (L/h)

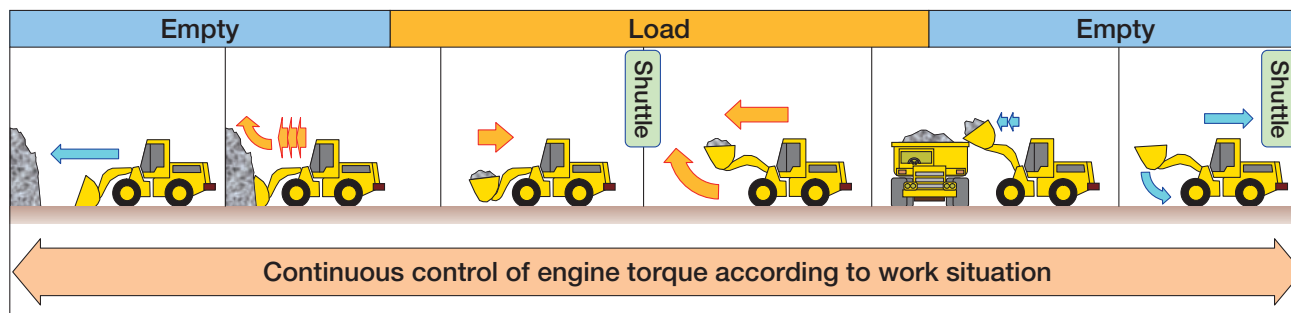
* Compared with the WA900-3, fuel consumption varies depending on working conditions.

Automatic Transmission

Automatic transmission with Electronic Controlled Modulation Valve automatically selects the proper gear speed based on travel speed, engine speed, and other travel conditions. The Electronic Controlled Modulation Valve system engages the clutch smoothly to prevent lags and shocks when shifting. This system provides efficient machine operation and a comfortable ride.

Komatsu SmartLoader Logic

The WA900-8R provides Komatsu SmartLoader Logic, an engine control system. This technology creates enough torque for each work phase. For example, engine torque needs are higher for digging in V-shape loading, but less when driving with an empty bucket. This system optimizes the engine torque for all applications to minimize fuel consumption. Komatsu SmartLoader Logic functions automatically and doesn't interfere with operation, saving fuel without decreasing production.



Tire Slip Control System

This system is effective for extending the service life of tires. It senses tire slip with a speed sensor, then controls the torque converter with the modulated clutch.



Large-capacity Torque Converter

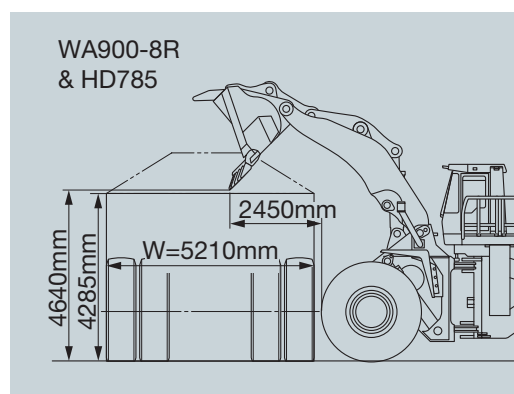
The Komatsu designed power train has a large capacity torque converter for optimum efficiency. The WA900-8R has greater productivity in V-shape loading applications because the increased tractive effort does not require full throttle. The improved hill climbing ability allows the WA900-8R to up-shift gears faster because of improved acceleration. The WA900-8R can achieve higher gear ranges and maintain higher travel speed when working in load-and-carry applications. In most applications, production is increased and fuel consumption is reduced, resulting in improved fuel efficiency.

Closed-center Load Sensing System (CLSS)

The variable displacement piston pump combined with the closed-center load sensing system delivers hydraulic flow just as the job requires preventing wasted hydraulic flow. Minimized loss contributes to better fuel economy.

Large Dumping Clearance

The WA900-8R was designed with ample dumping clearance for dump truck matching.



OPERATOR ENVIRONMENT



New Operator Seat with Control Levers

A new air suspension seat provides enhanced support on rough roads and dampens machine vibrations, providing a more comfortable ride for the operator. An Electronic Pilot Control lever console and an advanced joystick steering lever is integrated in the seat and moves with the seat. The angle of the armrest is fully adjustable for optimum operator comfort. A heated seat is standard.



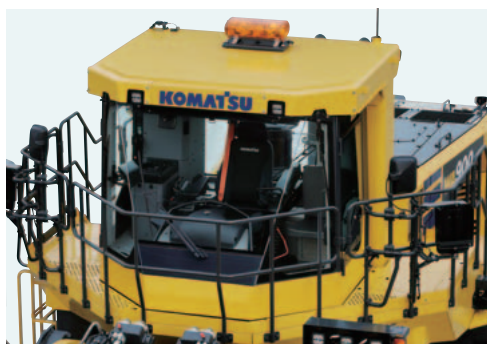
Advanced Joystick Steering System

Advanced Joystick Steering System is a feedback steering system which allows steering and directional selection to be controlled by wrist and finger control. The operability of the lever is improved compared with the WA900-3 series machine.



Pillar-less Large Cab with ROPS/FOPS

The new design cab with the spacious space is ROPS/ FOPS standard for operator's safety. The interior of the cab is improved to provide a quiet, low-vibration, dustproof, and comfortable operating environment.
ROPS (ISO 3471) : Roll-over Protective Structure
FOPS (ISO 3449) : Falling Objects Protective Structure



Non-glare Treatment Bucket (Optional)

Prevent the dazzling light of the working lamps reflected on the bucket. It is useful when working in a dark environment.



Power Ladder (Optional)

The new hydraulically operated 45° stairway enables the operator to access the machine safely.



Trainer Seat

Trainer seat is standard equipment. That can be folded up when not in use.



LED Room Lamp and Spot Lamp

The LED lamps provides vivid light to the operator.



High Performance Radio

The WA900-8R standard AM/FM radio includes connectionally via AUX, USB and Bluetooth.



Standard Equipment

Storage area



Hot or cool box



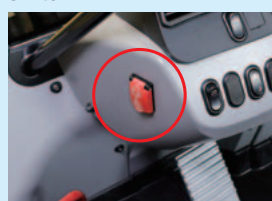
Automatic air conditioner



Side windshield wiper



Engine shutdown secondary switch



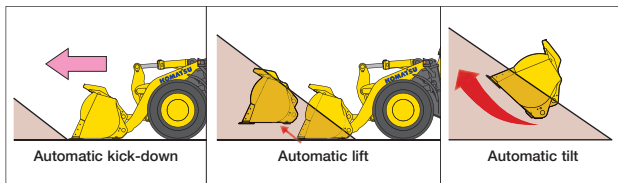
Parking brake switch



OPERATOR ENVIRONMENT

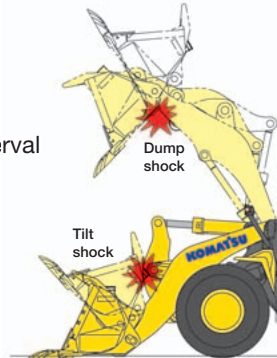
Automatic Digging System

New automatic digging system actuates the bucket tilt and lifting operations by detecting the sensing pressure applied to the work equipment. This system can alleviate operator's fatigue and realize the ideal load capacity. This system can easily be activated or deactivated on the R.H. switch panel. Useable in rock and loose materials.



Work Equipment Shock Reduction Control

Stroke end shock of the work equipment can be customized to reduce the fatigue of the operator. The reduction level can be selected from the four interval (Low, Medium, High and Off), operator can set through the monitor screen.



Engine RPM Set System with Auto Deceleration

Engine low idle RPM can be easily preset using a push button switch. The system provides auto deceleration for better fuel consumption.



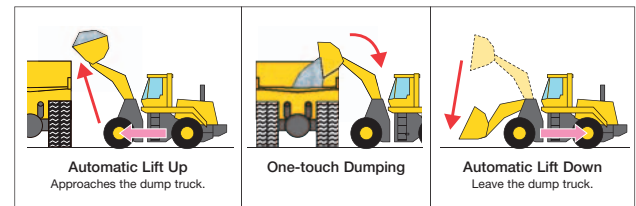
Variable Traction Control System

In limited traction situations where the operator would like to avoid tire slippage (such as sandy or muddy ground operation), the operator can reduce slippage by activating the variable traction control system. The optimum rim pull (F1) is controlled by adjusting control knob from 100% to 20%.



Semi-auto Approach & Dump System

Boom lift and bucket dumping operation can be automatic when approaching a dump truck during at V-shape loading. By using it together with the Automatic Digging System, loading operation on the dump truck is facilitated and the operator's fatigue is reduced.

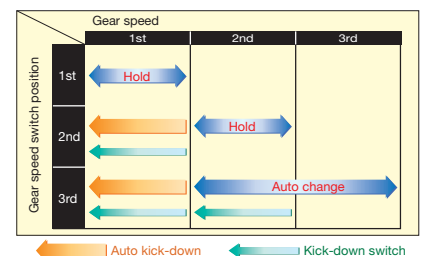


Remote Bucket & Boom Positioner with Shockless Stop Function

The operator can set the bucket angle and remote boom position from the cab. Once the positioner is set, the bucket is smoothly stopped at the desired position with less shock.

Auto Kick-down Control

Downshift and upshift between 1st and 2nd gear can be automatically done without pushing the kick-down switch. This results in easy operation, increased rim pull for better bucket penetration and reduced cycle times for higher productivity.



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 dump trucks for loading.
- Easy control of tire slippage.
- Reduction of shocks in shifting from forward to reverse.



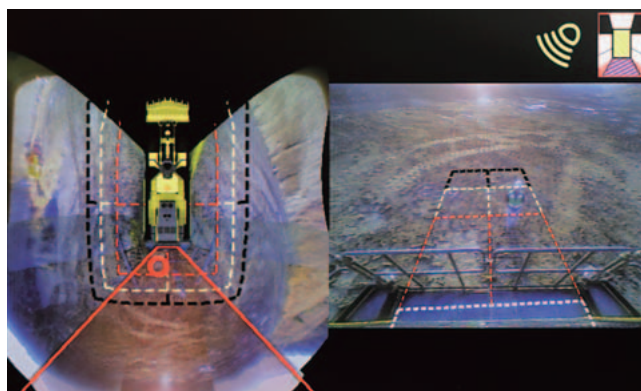
Electronically Controlled Suspension System (Optional)

The Electronically Controlled Suspension System or ride control system uses an accumulator which absorbs some of the shock in the boom arm, giving the operator a much smoother ride. This reduces operator fatigue and reduces material spillage during load-and-carry operations.

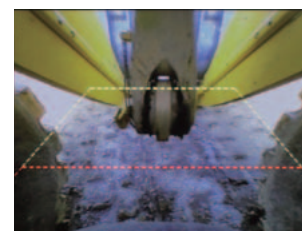
SAFETY

KomVision (Optional)

The surroundings of the machine can be displayed on the dedicated monitor by using 6 cameras installed at the sides, rear and front of the machine. Operator can select and display the camera by pressing the switch on the right side switch panel.



The front camera image is useful for checking the space between the root of the boom and the ground. It is a safety feature and also used for tire cut prevention.



Rear View Monitoring System

The operator can view the rear of the machine with a full color monitor that is located on the right side of the cab. This monitor can be always on or only on when the loader goes into reverse. Visual guidelines can also be added for more convenience.



KomVision Radar (Optional)

Detect obstacles around the machine and display on the monitor screen. At the same time, it alerts the operator by sounding a warning buzzer.



LED Lamps

LED lamps are equipped as standard on various positions of the machine. The visibility under low light environment is improved, and work at night can be done safely.



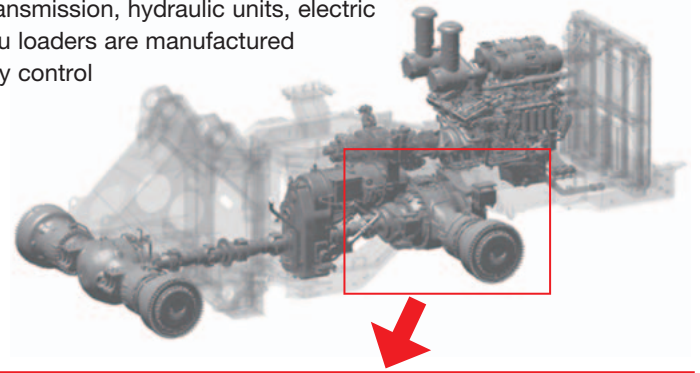
DURABILITY & RELIABILITY FEATURES

Komatsu Components

Komatsu manufactures the engine, torque converter, transmission, hydraulic units, electric parts, and even each bolt on this wheel loader. Komatsu loaders are manufactured with an integrated production system under strict quality control system.

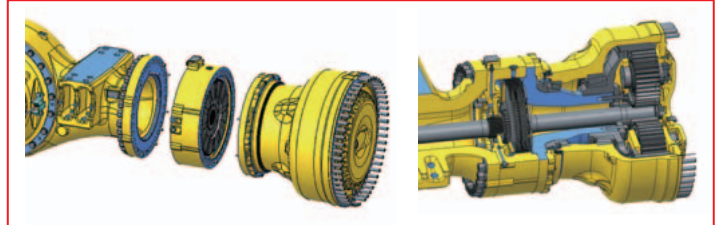
Redesigned Komatsu Power Train

The structure of the brake and axle was redesigned, so reparability and serviceability were improved.



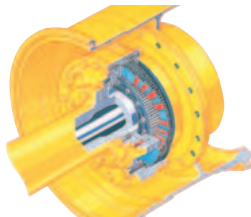
Divide Type Brake

The sun gear brake of the divided structure was adopted, and the maintainability was facilitated.



Adjustment-free Braking System

Wet multi-disc service brakes and fully hydraulic braking system mean lower maintenance costs and higher reliability. Wet multi-disc brakes are fully sealed, helping keep contaminants out, reducing wear and maintenance. Brakes are adjustment-free, meaning even lower maintenance. Reliability is designed into the braking system by the use of two independent hydraulic circuits. This provides hydraulic backup should one of the circuits fail. Fully hydraulic brakes mean no air system to bleed, or condensation water in the system that can lead to contamination, corrosion or freezing.



Brake Cooling System

Redesigned brake cooling system integrated with the radiator is standard equipment. Durability and heat dissipation has been improved.

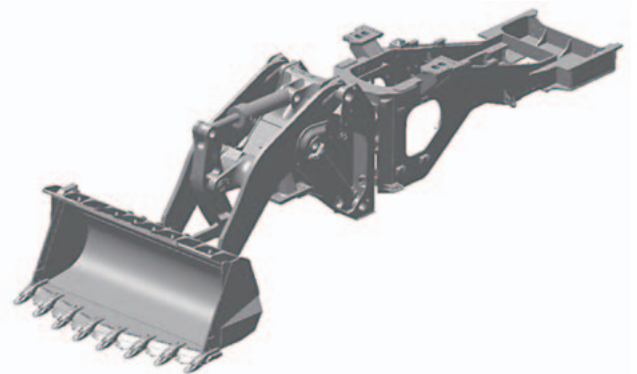
Sweeper Wing (Large Size Tire Guard)

Sweeper Wing (Large Size Tire Guard) provided on both sides of bucket prevents damage of tire cut due to rock and prolong tire life.



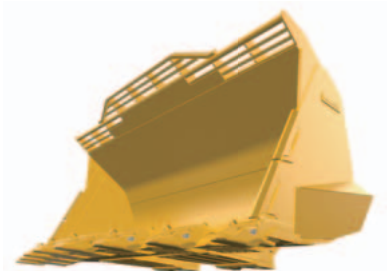
High-rigidity Frames and Loader Linkage

The front and rear frames and the loader linkage have more torsional rigidity to provide increased resistance to stresses. The frames and loader linkage are designed to accommodate actual working loads, and simulated computer testing proves their strength.



Durable Bucket

Komatsu buckets are manufactured using high-tensile steel with long life. The bottom, corner and side edges of the bucket are strengthened and durable. The bucket spill guard was redesigned into a shape that difficult to spill load while securing the forward visibility during loading operation.



ICT

High Resolution 7-inch Color LCD Monitor

The machine monitor displays various machine information and allows for various settings of the machine. The monitor is a 7-inch color LCD and displays maintenance information, operation record, ECO guidance record, etc. The switch panel is used to select various screens and the air conditioner control screen. By using the switch panel, you can display various user menus on the LCD screen and adjust the machine settings.

Machine monitor

- | | |
|---------------------------|--|
| ① LCD unit | ⑧ Engine coolant temperature gauge |
| ② LED unit | ⑨ Hydraulic oil temperature gauge |
| ③ Engine tachometer | ⑩ Torque converter oil temperature gauge |
| ④ Speedometer | ⑪ Fuel gauge |
| ⑤ ECO gauge | ⑫ Message pilot lamp |
| ⑥ Air conditioner display | ⑬ Pilot lamps |
| ⑦ Shift indicator | |

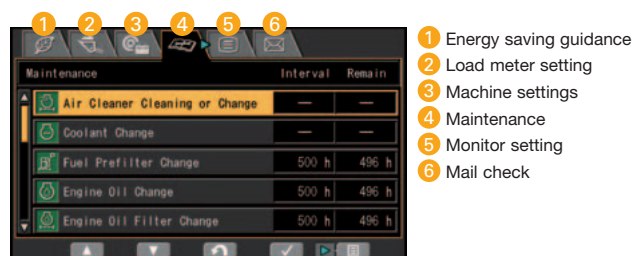
Switch panel

- ① Air conditioner switches / Numeral key pad ② Function switches



Visual User Menu

Pressing the menu switch on the switch panel displays the user menu screen. The menus are grouped for each function, and use easy-to-understand icons which enable the machine to be operated intuitively.



Machine Monitor with Troubleshooting Function to Minimize Downtime

Various meters, gauges and warning functions are centrally arranged on the machine monitor. The monitor simplifies start-up inspection and promptly warns the operator with a lamp and buzzer if any abnormalities should occur.



Energy Saving Operation ECO Guidance

In order to support optimum operation, the following 5 guidance messages are displayed for fuel saving operation.

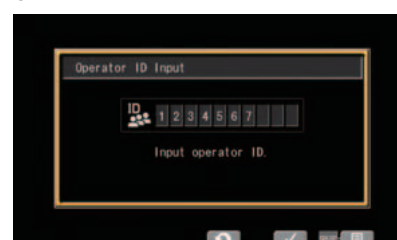
- 1) Excessive engine idling event
- 2) Hydraulic relief pressure event
- 3) Dragging of brake event
- 4) Excessive stepping on accelerator event
- 5) Excessive digging event



The ECO guidance menu enables the operator to check the operation record, fuel consumption history and ECO guidance record by pushing the button. The records can be used to reduce the overall fuel consumption.

Operator Identification Function

An operator identification can be set for each operator, and used to manage operation information of individual machines as KOMTRAX data. Data sent from KOMTRAX Plus can be used to analyze operation status by operator as well as by machine.



MAINTENANCE FEATURES



Side-opening Engine Doors

Daily maintenance is simplified through large side panels. Large steps are provided on each side of the frame to help access.



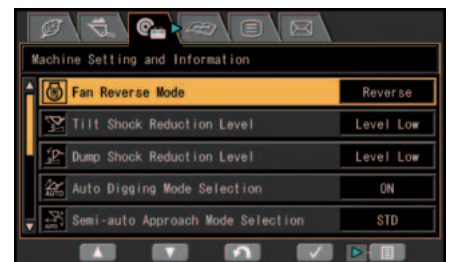
Swing-out Type Cooling Fan and Wide Core Radiator

The cooling fan swings out for cleaning. The coolers feature wide spacing of the cooling fins to reduce clogging.



Reversing Fan

The engine cooling fan is driven hydraulically and can be reversed through the monitor.



Battery Disconnect Switch

The battery disconnect switch is located near the left side battery box. This can be used to disconnect power when performing service work on the machine.



Machine Lock Out System (Optional)

The machine lock out switch is located near the right side battery box. When activating the switch, traveling, steering and work equipment actuation can be locked from outside.

Engine Compartment

The WA900-8R engine compartment is newly designed for easy serviceability. Placement of maintenance items, such as filters, dipsticks and oil fill locations.



Rear Full Fenders

The WA900-8R has rear full fenders standard that is the stairway type with handrail. The fenders prevent the mud splash by a tire in traveling on a bad road or wet road and give the technician safety and easy access to the engine compartment.



LED Lamps Standard Equipment

LED lamps for maintenance free are standard. LED brake lamps, LED turn signal lamps and LED reverse lamps provide long bulb life and free maintenance.



Modular Radiator Core System

The modular radiator core can be removed without removing the entire radiator assembly.



Service Center (Optional)

Replacement and supply of oil, coolant and grease can be done from the ground. Maintenance time can be remarkably shortened.



Fuel Quick Charge System (Optional)

Refueling port on the right deck can be accessed from the ground level.

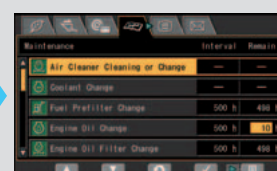


Maintenance Information

"Maintenance time caution lamp" display

When the remaining time to maintenance becomes less than 30 hours*, the maintenance time monitor appears. Pressing the menu switch displays the maintenance screen.

* : The setting can be changed within the range between 10 and 200 hours.



Maintenance screen

ENGINE

U.S. EPA Tier 2 emission equivalent.



	1st	2nd	3rd
Forward	7.6	11.9	23.3
Reverse	7.9	12.1	24.1

AXLES AND FINAL DRIVES

BRAKES

STEERING SYSTEM

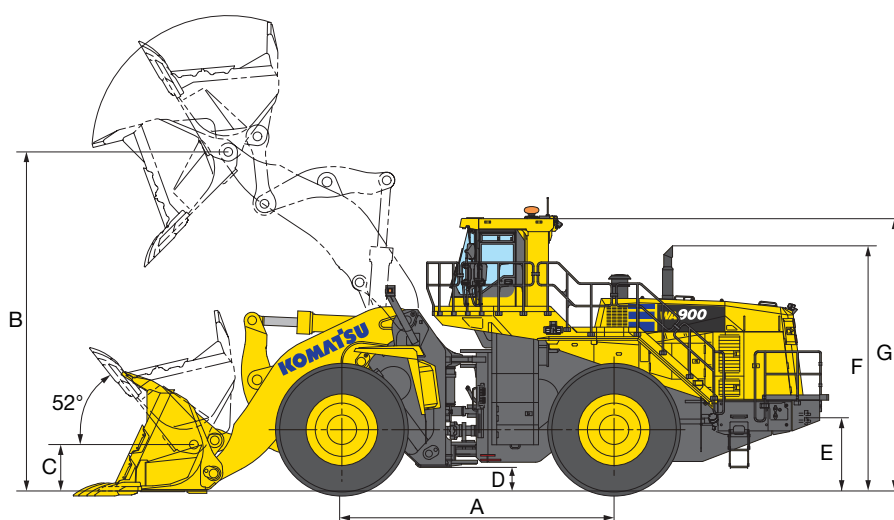
HYDRAULIC SYSTEM

SERVICE REFILL CAPACITIES

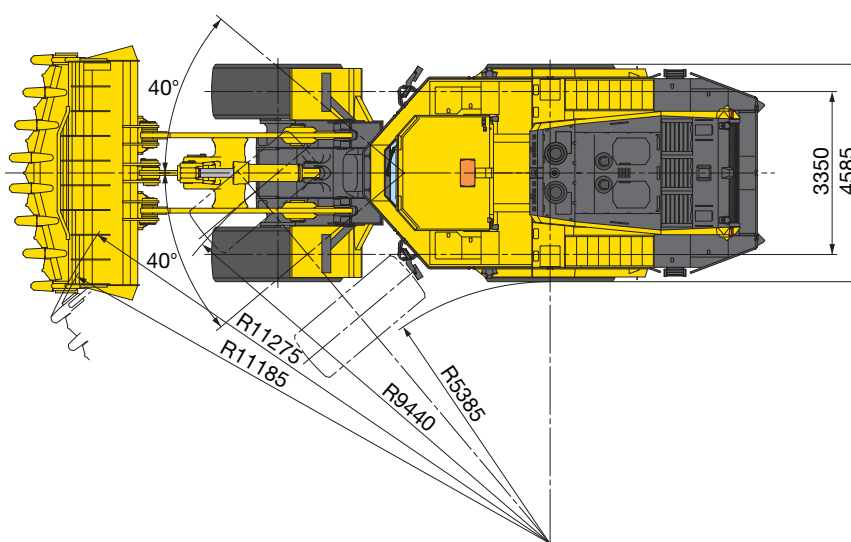
14


DIMENSIONS

Measured with 45/65 R45 (L-5) tires, ROPS/FOPS (ISO 3471/ISO 3449) cab



		Standard boom	High lift boom
	Tread	3350 mm	3350 mm
	Width over tires	4585 mm	4585 mm
A	Wheelbase	5600 mm	5600 mm
B	Hinge pin height, max. height	6975 mm	7485 mm
C	Hinge pin height, carry position	955 mm	1050 mm
D	Ground clearance	485 mm	485 mm
E	Hitch height	1510 mm	1510 mm
F	Overall height, top of the stack	5040 mm	5040 mm
G	Overall height, ROPS cab	5600 mm	5600 mm



SPECIFICATIONS



DIMENSIONS

Measured with 45/65 R45 (L-5) tires, ROPS/FOPS (ISO 3471/ISO 3449) cab

		Standard Boom	High lift Boom
		Excavating Bucket	Excavating Bucket
		*1 Spade nose Teeth & Segments	Spade nose Teeth & Segments
Bucket capacity:	heaped	13.0 m ³	11.5 m ³
	struck	11.0 m ³	9.9 m ³
Bucket width		4935 mm	4935 mm
Bucket weight		13115 kg	12215 kg
Dumping clearance, max. height and 45° dump angle *2		4610 mm	5225 mm
Reach at max. height and 45° dump angle *2		2685 mm	2555 mm
Reach at 2130 mm clearance and 45° dump angle *2		3970 mm	4240 mm
Reach with arm horizontal and bucket level *2		5245 mm	5445 mm
Operating height (fully raised)		9780 mm	10155 mm
Overall length		15355 mm	15610 mm
Loader clearance circle diameter (bucket at carry, outside corner of bucket)		23340 mm	23640 mm
Digging depth: *3	0°	225 mm	225 mm
	10°	660 mm	630 mm
Static tipping load:	straight	71840 kg	65620 kg
	40° full turn	63610 kg	58100 kg
Breakout force		705 kN	755 kN
		71900 kgf	77000 kgf
Operating weight		116400 kg	116720 kg

*1 New shape bucket. *2 At the end of tooth. *3 At the end of segment edges.

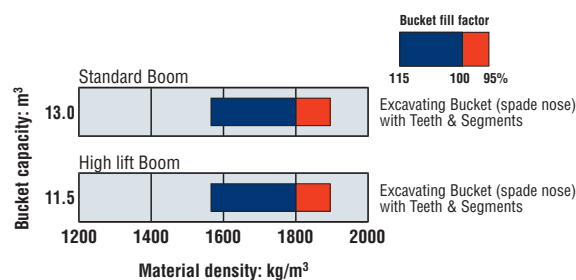
All dimensions, weights, and performance values based on ISO 7131 and 7546 standards.

Static tipping load, operating weight and overall length shown include lubricant, coolant, full fuel tank, ROPS (ISO 3471) cab and operator. Machine stability and operating weight affected by counterweight, tire size, and other attachments.

Apply the following weight changes to operating weight, static tipping load and overall length.

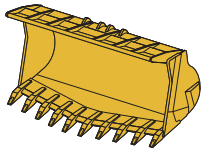


BUCKET SELECTION GUIDE

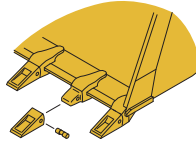


BUCKETS & ATTACHMENTS

Buckets

Type	Feature	Image
Excavating Bucket (Spade nose)	This bucket is used for excavating and loading blasted rock on rock crushing job sites. It has a pointed cutting edge, and provides superior rigidity and wear resistance.	

Cutting Edges and Teeth

Type	Feature	Image
Teeth (Tip type)	These teeth tips which are attached to an adapter that is welded or bolted to the bucket edge. This means that an interchangeable part, the tooth tip, absorbs most of the wear and protects the actual bucket edge. They give excellent performance when used to handle blasted rock, piles of earth and similarly heavy duty tasks.	Welded adapter 

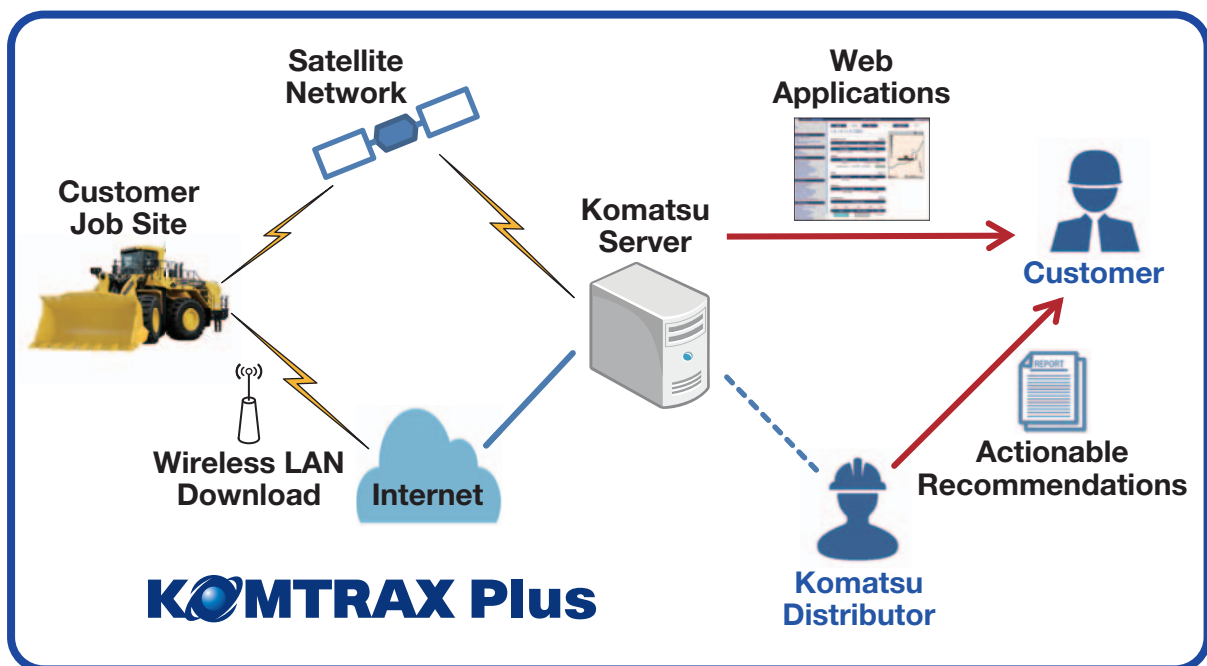
KOMTRAX Plus

KOMTRAX Plus

Assists Customer's Equipment Management and Contributes to Fuel Cost Cutting

KOMTRAX Plus system allows us to monitor the health conditions of major components and to analyze the machine. KOMTRAX Plus controller monitors and stores all data received from the controllers and various additional sensors on the major components.

This way, it's possible to record the evolution of the machine's health condition. This data can be downloaded via a portable computer or via satellite communication. In both cases, customers and Komatsu specialists can analyze this downloaded data and follow up trends in the machine's condition. When using the optional satellite communications, the Komatsu specialist can inform you whenever an abnormal condition occurs. This way, repair and maintenance costs can be optimized, and maximum machine availability can be maintained.



KOMATSU TOTAL SUPPORT



Komatsu Total Support

To keep your machine available and minimize operation cost when you need it, Komatsu Distributor is ready to provide a variety of supports before and after procuring the machine.

Fleet recommendation

Komatsu Distributor can study the customer's job site and provide the most optimum fleet recommendation with detailed information to meet all of your application needs when you are considering to buy new machines or replace the existing ones from Komatsu.

Product support

Komatsu Distributor gives the proactive support and secures the quality of the machinery that will be delivered.

Parts availability

Komatsu Distributor is available for emergency inquiry by the customers for genuine, quality guaranteed Komatsu parts.

Technical support

Komatsu product support service (Technical support) is designed to help customer. Komatsu Distributor offers a variety of effective services to show how much Komatsu is dedicated to the maintenance and support of Komatsu machine.

- Preventive Maintenance (PM) clinic
- Oil & Wear analysis program

Repair & maintenance service

Komatsu Distributor offers quality repair and maintenance service to the customer, utilizing and promoting Komatsu developed programs.

Komatsu Reman (Remanufactured) components

Komatsu Reman products are the result of the implementation of the Komatsu global policy which establishes and agrees to reduce the owning, operating and total Life Cycle Costs (LCC) to Komatsu's customer through high quality, prompt delivery and competitively priced in own remanufactured products (QDC).





WEIGHT AND DIMENSION CHANGES

	Operating weight	Tipping load	
		Straight	Full turn
	kg	kg	kg
Remove ROPS canopy	-1385 kg	-1220 kg	-1180 kg
Remove steel cab	-430 kg	-335 kg	-330 kg



STANDARD EQUIPMENT

ENGINE

- Air cleaner, double element with dust indicator
- Alternator, 24 V/140 A
- Batteries, large capacity, 4 x 12 V/160 Ah
- Engine, Komatsu SAA12V140E-7
- Starting motor, 2 x 24 V/11 kW

CAB

- 2 x DC12V electrical outlets
- Advanced joystick steering system
- Auto air conditioner
- AM/FM radio
- Ashtray
- Cigarette lighter
- Color multi-monitor
- Cup holder
- Electronic Pilot Control fingertip control
- Floor mat
- Front wiper (with washer and intermittent)
- Operator seat with 2-point seat belt, reclining, air suspension type
- Rear defroster (electric)
- Rear wiper (with washer and intermittent)
- Room mirror
- Room lamps, LED
- ROPS/FOPS (ISO 3471/ISO 3449)
- Space for lunch box
- Spot lamp, LED
- Steel cab included front, rear and side wiper with windshield washer

- Sun visor (front)
- Trainer seat with 2-point seat belt

LIGHTING SYSTEM

- Access stair lamp, LH side, LED
- Directional signal
- Hazard lamps
- Headlamps, LED
- Front work lamps, LED
- Rear work lamps, LED
- Side work lamps, LED
- Stop and tail lamps and turn signal lamps, LED

SAFETY EQUIPMENT

- Back-up alarm
- Engine shutdown secondary switch
- Hand rails for platform
- Horn, electric
- Parking brake, electric
- Rear view monitoring system
- Secondary brake
- Secondary steering (ISO 5010)
- Service brakes, wet disc type

TIRES

- 45/65R45 (L-5) tubeless

OTHER

- 2-way engine power mode
- 3rd gear prohibition and speed limit control

- Automatic digging system
- Automatic shift transmission
- Battery disconnect switch
- Boom positioner with kick-out
- Brake cooling system
- Brake oil thermometer display
- Bucket positioner
- Circuit breaker
- Counterweight
- ECO guidance, ECO gauge
- Engine RPM set system with auto deceleration
- Front fenders
- Fuel pre-filter with water separator
- Hydraulic-driven fan with reverse rotation
- Inline filters, steering and hydraulic
- Komatsu auto idle shutdown
- Komatsu SmartLoader Logic
- KOMTRAX Plus
- Lift cylinders and bucket cylinder
- Load meter system
- Modulation clutch
- Modular radiator core
- Radiator mask, swing out
- Rear access stair with handrail
- Semi-auto approach & dump system
- Sweeper wing
- Tire slip control
- Tool kit
- Wall digging protection control
- Work equipment shock reduction control



OPTIONAL EQUIPMENT

- 3-point seat belt with ventilation
- Auto greasing system
- Beacon lamp
- Electronically Controlled Suspension System
- Emergency engine stop switch
- Engine bay lamp, LED
- Engine pre-lubrication
- Engine starter disconnect switch
- Fire extinguisher
- Fog lamp, LED
- Heated mirrors (for cold district)

- High lift boom
- KomVision system (with radar/radar less)
- KOWA sampling port
- Machine lock out system
- Oil heater system (for cold district)
- Operator seat, reclining, suspension type with 2-point retractable 78 mm width seat belt
- Ordinary spare parts
- Power ladder
- Power train guard

- Quick coupling for fuel tank
- Rear corner additional work lamp, LED
- Service center, engine, transmission, break oil, and coolant
- Starter receptacle
- Sun shades (front and rear), retractable type
- Trainer seat with 3-point seat belt
- Various bucket options
- Various tire options, radial

Paraffine fuel can be used. Please consult your Komatsu distributor for detail.

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