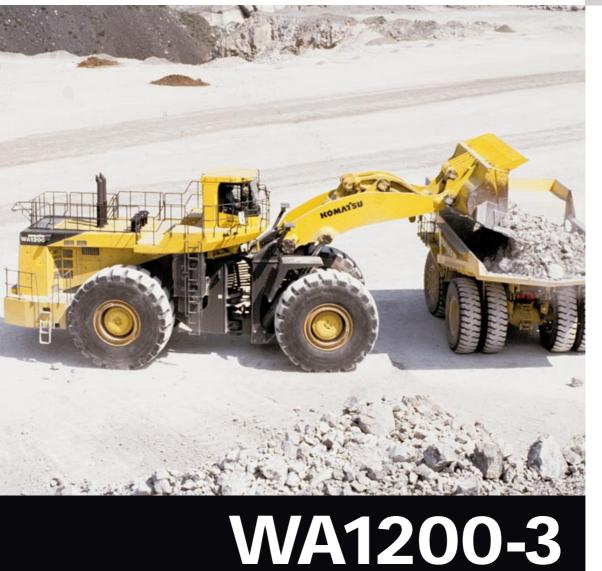


## KOMATSU®

#### BUCKET CAPACITIES 23.5 - 45.8 yd<sup>3</sup> 18.0 - 35.0 m<sup>3</sup>



WHEEL LOADER



## From the Leading Edge of Technology Comes

Today's mines around the world need larger machines to provide improved productivity and economy within their operation. Simple size increases can't achieve this. Komatsu has responded to this need with larger, more productive machines which incorporate leading edge technologies. In keeping with Komatsu's motto "always respond to customer needs with the most advanced equipment available," the *MOUNTAIN MOVER WA1200-3* was born.

The Mountain M

KOMATS

## the New Dimension Wheel Loader



### WA1200-3 Wheel Loader

# MALK-AROUND

Komatsu-integrated design offers the **best value**, **reliability**, and **versatility**. Hydraulics, power train, frame, and all other major components are engineered by Komatsu. You get a machine whose components are designed to work together for **higher production**, greater reliability, and more versatility.

#### Largest bucket in its class— 26.2 yd<sup>3</sup> 20.0 m<sup>3</sup>.

*Cab air conditioner* is a large capacity unit with air ducts strategically located to offer the most comfortable operator work space.

*Main monitor* shows travel condition and has troubleshooting capability.

OHATSU

ROPS/FOPS cab protection.

Operator's safety is built

into the cab with the use

of a ROPS/FOPS canopy,

a two-door system, and

an emergency ladder.

*Rigid frame* for superior digging performance. Single plate frame design employing multiple castings is proven in both lab and field tests.

*Oil sealed pins* offer 2,000 hour maintenance intervals.

*Extra dumping clearance and reach.* Dumping clearance: **20'7**" 6285 mm Dumping reach: **9'9**" 2970 mm

*Extended oil change intervals* using hybrid filter and oversized hydraulic tank.

*Bucket/arm configurations* to match various haul trucks: Standard arm with **26.2 yd**<sup>3</sup> 20.0 m<sup>3</sup> bucket: 150–240 ton trucks High-lift arm with **23.5 yd**<sup>3</sup> 18.0 m<sup>3</sup> bucket: 240–300 ton trucks

Automatic greasing system.

*Centralized filter layout* for transmission/ torque converter oil, engine oil, fuel.

Special viscous mounts support cab to absorb vibration and noise (interior levels of 73 dB(A)).

Automatic transmission for efficient load and carry operations. Electronic Controlled Modulation Valve (ECMV<sup>™</sup>) system provides smooth shifting in all speeds.

*Safe durable service brakes.* Closed wet disc brake system used. Oil cooler allows long downhill travel with full bucket loads.

Low maintenance brake system.

#### The Most Advanced Technology

*The dream has come true.* Advanced Joystick Steering System (AJSS<sup>™</sup>) with light, short strokes for perfect steering accuracy.

> *Remote boom positioner* is easy to set up. High and low bucket positions are easily set up promoting smooth bucket movement stops without shocks to machine components.

*Hi-Cab* is extra long and wide to provide a comfortable work environment. The seated operator has a better view inside the body of a 240-ton haul truck. Oversized, obstruction-free windshield, side and rear windows provide a panoramic view of the work site.

> Emergency brakes/emergency steering.



NET HORSEPOWER 1560 HP 1165 kW @ 1900 rpm

> OPERATING WEIGHT 452,390 lb 205200 kg

BUCKET CAPACITY 23.5 - 45.8 yd<sup>3</sup> 18.0 - 35.0 m<sup>3</sup>

*Color Graphic Console (CGC)* serves as a service information center. It has gauge, maintenance, load meter, and remote boom positioner and service functions.

*Overhead panel* for cassette/radio and air conditioner controls.

Safe boarding and exiting machine. Boarding stairs are equipped with safety handrail and step lights for night operation.

*Safe maintenance accessibility.* All maintenance points are equipped with a step and safety handrail. Engine radiator grille pivots open for easy access.

VA1200

#### Selectable traction power.

- Maximum traction control for adjusting the traction to suit the conditions at various operations.
- Maximum speed control of 1st and 2nd travel speeds to help shorten cycle times and extend tire lives.

Breakout force:

286,600 lb 1274 kN 130000 kg

Traction force: 253,500 lb 1127 kN 115000 kg

> *RPM set system* allows engine speed to be easily set with a gentle momentary touch.

*Quick fluid change-out system:* hydraulic oil, transmission/ torque converter oil, engine oil, engine coolant, and fuel.

Variable traction and hydraulic power. Variable Output Hydraulic System (VOHS<sup>™</sup>) is a self-adjusting hydraulic system to meet system demand for high productivity. Longer tire life. Tire Saver<sup>™</sup> controls tire slip and lengthens tire life. Optional wide base tires (65/65-57 62PR) offer longer service life than standard tires.

# PRODUCTIVITY FEATURES

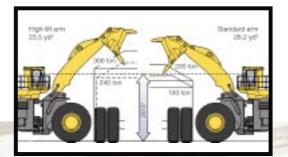
The largest bucket in its class and the most advanced technology available today combine to make the Mountain Mover WA1200-3 the most productive wheel loader.

#### The Largest Bucket in Its Class

The Mountain Mover WA1200-3 is equipped with the largest bucket in its class at **26.2 yd**<sup>3</sup> 20.0 m<sup>3</sup>. Komatsu's bucket is designed for easy loading with little spillage. This, combined with the highest traction and breakout force available, along with the Variable Output Hydraulic System, makes a loader which achieves high bucket fill factors and maximum production, able to outproduce other loaders.



Arm	rm Bucket		Dump Reach	
Standard Arm	<b>26.2 yd<sup>3</sup></b> 20.0 m <sup>3</sup>	<b>20'7</b> " 6285 mm	<b>9'9</b> " 2970 mm	
High-Lift Arm (optional)	<b>23.5 yd</b> <sup>3</sup> 18.0 m <sup>3</sup>	23'0" 7005 mm	10'0" 3045 mm	



#### **Remote Boom Positioner**

The highest and lowest position of the bucket can be set from the operator's cab to match the height of any truck body. Once the positioner is set, the bucket is smoothly stopped at the desired position with no shock.

#### Efficient, Electronically Controlled Diesel Engine

Cummins QSK 60 diesel engine provides exceptional performance and productivity for the job of moving massive loads quickly and cost effectively. Equipped with a **26.2 yd<sup>3</sup>** 20.0 m<sup>3</sup> bucket, an electronic governor for low fuel consumption, an electronic acceleration pedal and rpm set for easy operation, this power plant supplies **1560 HP** 1165 kW of power and **5,772 ft lb** 7.83 kNm of torque.

#### **Maximum Traction Control**

Rim pull force is adjustable from 20–100% allowing the operator to make adjustments with a dial type switch in accordance with operating conditions.

#### **Maximum Speed Control**

Travel speed in both first and second gear is adjustable using a simple dial control adjustment. This allows the operator to find the most effective speed during his work cycle. Using this control can help decrease tire wear, fuel consumption, and help to shorten loading cycle times.

#### **Matching With Haul Trucks**

Aggressive loading and maximum fill factors lead to exceptional productivity in the toughest mining conditions.

The WA1200-3 equipped with a **26.2 yd**<sup>3</sup> 20.0 m<sup>3</sup> bucket can load a 150-ton truck in four passes. Due to its extra dumping clearance and reach it is able to load 200-ton trucks in five passes. The high-lift version can load 240-ton plus trucks.

Arm	150 ton	170 ton	200 ton	240 ton	300 ton
Standard Arm	4 passes	5 passes	5 passes	6 passes	—
High-Lift Arm (optional)	—	—	—	7 passes	8 passes

#### Variable Output Hydraulic System (VOHS)

This self-adjusting system puts the power where needed. A variable displacement pump is employed by this system. When digging, the available traction power increases and as a result the penetration force increases. When the boom is raised, the boom hoist circuit flow is increased to provide faster boom hoist cycle times. This system was designed to lower the machine's work cycle times.

#### Hi-Cab

To enhance the loading performance when using larger buckets with the extra dumping clearance and reach, the hi-cab is standard equipment. From his vantage point, **20'3**" 6170 mm from the ground, the seated operator has a safe, unobstructed full view of the bucket and the inside of a 240-ton truck body.



WA1200-3





# Komatsu Designed Reliability

Integrating the latest technology in all areas of design, Komatsu has developed the WA1200-3 Mountain Mover as the most reliable, durable wheel loader for working in the harshest mining conditions.



#### Rigid Frame

Frame is designed to accommodate actual working loads, and simulated computer testing proves its strength prior to building.

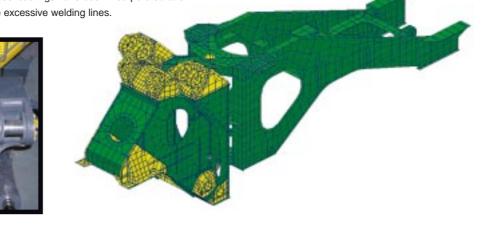
To increase frame reliability, steel castings have been incorporated at all frame pivot points to eliminate excessive welding lines.



#### Exclusive Komatsu Design Features Power Train, Axles, Transmission, and Hydraulic Components

The power train transforms **1560 HP** 1165 kW into **253,500 lb** 1127 kN 115000 kg traction and **286,600 lb** 1274 kN 130000 kg breakout force. All components within the power train, from bolts to final gearing, are all Komatsu-designed.

Designed to bear large loads and transmit large amounts of tractive power, Komatsu's full floating axle is used along with its planetary style transmission—another exclusive Komatsu feature with proven industry experience. The variable displacement hydraulic pump and hydraulic cylinders are also Komatsu-built components.



## WA1200-3

#### Safe Durable Service Brakes

The WA1200-3 uses Komatsudesigned sealed wet disc brakes. This proven design, coupled with a brake oil cooling system, provides reliable and durable final drive braking while downhill traveling with full loads and in all load and carry operations.



#### **Automatic Greasing System**

A microprocessor-based system ensures a preset supply of lubrication is delivered to all lube points at the proper intervals to help reduce maintenance costs.

#### Steps, Ladders, Doors, Hinged Radiator Grille, Handrails

Ladders and steps are arranged to provide easier access to each maintenance point. All doors are easy to open and provide accessibility for maintenance and cleaning. The radiator grille is a hinged design and opens as a door for easy access and cleaning. Safety handrails and steps are used at each maintenance point above ground level.



#### **Quick Fluid Change-out System**

Hydraulic oil, transmission/torque converter oil, engine oil, and engine coolant can all be changed from the ground with a quickfill/change-out system. A fast-fill fuel system is also included as standard equipment. Wiggins Quickfill systems are used.

#### **Centralized Filter Layout**

Torque converter, transmission, engine oil, and fuel filters have been centrally located for ease of replacement from the ground.





# Operator's Compartment

Designed with the operator in mind, the operator's compartment promotes comfort and efficient operation for both experienced and inexperienced operators alike.

### Operator's Cab Interior

The operator's environment employs a simple open design concept. The front instrument panel and door panels are molded plastic along with the left and right console boxes. There are no obstacles protruding from these panels leading to an open, uncluttered feeling, and making cleaning the cab interior a simple matter of wiping down these panels with a wet cloth.

#### Advanced Joystick Steering System (AJSS)



The most suitable steering system for wheel loader operation should be both smooth and effortless to operate. With this in mind, using its hydraulic and electronic control technology, Komatsu has created AJSS. This system allows the machine operator to articulate the machine proportionally with the

angle of the control joystick. He can actually develop a "feel" for the steering articulation and thus increase his operation efficiency.

Transmission forward/reverse and shift control switches are mounted on the joysticks.

## Automatic Transmission Allows Load and Carry Operations Without Shifting Gears

This system automatically selects the optimum gear in accordance with the conditions, travel speed, engine speed, etc. The transmission is controlled by the Komatsu Electronic Control Modulation Valve (ECMV) system.

The operation is made much easier as the operator no longer has to shift from gear to gear while carrying loads during the work cycle.

### Engine Speed Controls

#### **RPM Set System**

Engine rpm can be easily preset using a pushbutton switch.

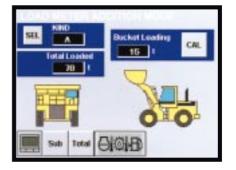


#### Electronic-type Throttle Pedal and Electronically Governed Engine

The use of an electronic control governor coupled with an electronic foot pedal enable smooth engine speeds to be achieved with minimum foot pressure.

#### Main Monitor EDIMOS II (Electronic Display Monitoring System)

This simple functional monitor panel is well-received by operators worldwide. It displays on-line travel speed, gear position, and other important travel-related information. It also has diagnostic functions.



#### Color Graphic Console (CGC)

On the right of the panel is the color graphic system. Through this system remote boom positioning is set. Gauges displayed on the monitor include: engine water temperature, oil pressure, fuel level, and payload meter.

Maintenance diagnostic information is also available on the monitor.



#### Comfortable Operator's Seat

An air suspension operator's seat is supplied as standard equipment. With a retractable seat belt, the six-way adjustable seat provides a comfortable working position for any sized operator.

#### Hi-Cab

The operator's cab has been designed exclusively for the WA1200-3 to provide extra space in the operator's work

area for both increased comfort and enhanced productivity. This cab is equipped with state-of-the-art features including Advanced Joystick Steering System (AJSS) and the Color Graphics Console (CGC) all in easy reach of the seated operator. The obstruction-free front, side, and rear windows offer full panoramic view of working area.



#### **Overhead Panel**

Controls for the AM/FM cassette radio, window wiper and washer, cab lights, and air conditioner are all neatly arranged in an overhead

console easily within the seated operator's reach.



#### Special Viscous Mounts

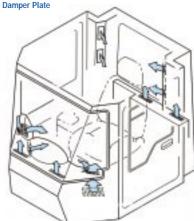
Cab is mounted using viscous dampening hydro-mounts for low vibration and noise (interior noise level 73 dB(A)).

#### Cab Air Conditioning

Large capacity air conditioning system

combined with carefully placed vents provide optimum cool air flow. Defroster vents are designed to keep the rear window frost-free during cold weather operation.

With a simple touch of his hand the operator can easily select from the five operating modes and four fan speeds on the overhead control panel.





11

# Cost-Reducing Features



#### **Tire Saver**

Komatsu answers the call to help control tire costs with its Tire Saver features. The Komatsu Tire Saver feature senses wheel slippage electronically and sends a signal to the modulation controller, which in turn signals the torque converter modulator and the input horsepower is controlled. The rim pull of the tire is controlled, tire slip is stopped, and the tire life is extended.

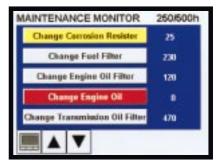
### Inherent to the Komatsu design are features which help mine operators reduce machine operational costs.

#### **Ultra Wide Base Tire Option**

65/65-57 62PR ultra wide base tires have been developed exclusively for the WA1200-3. With the reduction of ground pressure, increase of rubber material, and larger air volume, incidents of premature tire wear and tire cutting have been reduced. The result of this tire technology along with the Tire Saver feature is longer tire life and reduced vehicle-operating costs.

#### **Total Management System**

The VHMS (Vehicle Health Monitoring System) controller functions as a central information point for all system components. Maintenance intervals of all components are displayed as well as gauge-type information such as temperatures, engine speed, and pressures. The on-line availability of this information helps to make the process of maintaining



and troubleshooting the machine much more precise and less time consuming.

#### Extended Hydraulic and Brake Oil Change Intervals

Hydraulic and brake oil change intervals have been extended to 2,000 hours of operation with the use of hybrid oil filters and an oversized hydraulic tank.



#### **Oil Sealed Loader Linkage Pins**

Sealed and lubricated loader linkage pins are used which only require lubrication at 2,000 hour intervals.

# SAFETY Features

## Komatsu put a high priority on the safety of the machine operator while designing the WA1200-3 Mountain Mover.

#### Large Cab Design With Safety Protection

The oversized cab is designed with the operator's safety in mind. It is equipped with both Roll Over Protection (ROPS) and Falling Object Protection (FOPS). There are doors to the operator's left and right. A right-side emergency ladder is included for exiting the machine.

#### **Auxiliary Steering**

In emergency situations when the steering pump is disabled, an emergency steering pump is used to provide hydraulic flow. This pump is transmission-driven, utilizing the machine's traveling speed in emergency situations to safely steer the machine.

#### **Maintenance Accessibility**

For maintenance operations, all maintenance points are equipped with a step and safety handrail.

#### Low Maintenance Brake System

The WA1200-3 utilizes sealed wet disc type service brakes with an internal wet disc parking brake. Service brakes are part of an independent dual circuit system. The parking brake is a spring-actuated and hydraulicallyreleased design. When brake oil pressure is too low, the parking brake is automatically engaged to prevent accidents and promote safe operation.



WA1200-3



#### **Boarding and Exiting Machine**

In addition to the boarding stairs, a rear step with safety handrail is provided. The step width, clearance, and the step angle have been designed for easy climbing both up and down. A step light provides light for night boarding.

## Specifications



Model	Cummins QSK60
Туре	Water-cooled, 4-cycle
Aspiration	Turbocharged and aftercooled
Number of cylinders	
Bore x stroke	. 6.26" x 7.48" 159 mm x 190 mm
Piston displacement	3,674 in <sup>3</sup> 60.2 ltr
Governor	Electronic fuel control
Horsepower rating @ 1900 rpm	
Gross power.	<b>1715 HP</b> 1280 kW
-	<b>1560 HP</b> 1165 kW
Meets 2000 EPA emissions regulations	i.

Fuel system High pressure direct injection
Lubrication system
Method Screw pump, forced lubrication
Filter
Air cleaner Dry-type with double elements and automatic
dust evacuation with dust indicator on monitor



Travel Speed*	Forward		Reve	erse
1st	3.9 mph	6.3 km/h	4.6 mph	7.4 km/h
2nd	7.1 mph	11.5 km/h	8.3 mph	13.4 km/h
3rd	12.3 mph	19.8 km/h	14.0 mph	22.6 km/h

\*Measured with 55.5/80-57 68PR (L5) tires

#### AXLES AND FINAL DRIVES

Drive system	. Four-wheel drive
Front	. Fixed, full floating
Rear Center pin s	support, full floating
	20° total oscillation
Reduction gear	. Spiral bevel gear
Differential gear	Straight bevel gear
Final reduction gear Planetary gear, double	e reduction, oil bath



Service brakes: Hydraulically-actuated, wet, multi-disc brakes actuated on four wheels.

**Parking brake:** Wet, multi-disc, hydraulically-released, spring applied in the transmission.



Type ..... Articulated, fully-hydraulic power steering Articulation angle ..... 40° each direction Turning radius outside corner of bucket and teeth ... 47'0" 14330 mm



#### Control positions

Boom.....Raise, hold, lower, and float Bucket.....Tilt-back, hold, and dump



#### HYDRAULIC SYSTEM

Steering pump	flow) @1900 engine rpm 276 gal/min 172 gal/min 172 gal/min	650 ltr/min
Relief valve setting	<b>4,550 psi</b> 31.4 MPa	320 kg/cm <sup>2</sup>
Control valves	A double spool closed-cent valve and a steering valve co a demand valve to provide op	mbined with

Hydraulic Cylinders	Number of Cylinders		ore	Si	roke
Boom	2	14.2"	360 mm	72.2"	1835 mm
Bucket	2	11.8"	300 mm	40.4"	1025 mm
Steering	2	8.9"	225 mm	26.0"	660 mm

Hydraulic cycle time (rated load in bucket): Total **21.5 sec** Raise...**13.5 sec**/Dump...**3.0 sec**/Lower (empty)...**5.0 sec** 

### SERVICE REFILL CAPACITIES

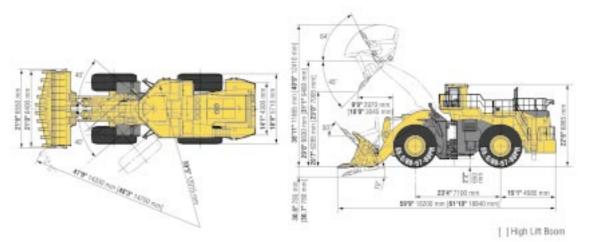
Hydraulic system 317 U.S. gal   Differential, final drive (each axle). 177 U.S. gal   Torque converter and transmission 92 U.S. gal   Brake oil 12 U.S. gal	5100 ltr 260 ltr 1200 ltr 670 ltr 350 ltr 45 ltr
Brake cooling	45 ltr 270 ltr



Select proper tires based on job requirements.

Standard rim size	57
Standard tire size	PR

#### 



Bucket		Standard Boom, 26.2 yd <sup>3</sup> 20.0 m <sup>3</sup> Spade Nose Rock With Teeth		High Lift Boom, 23.5 yd <sup>3</sup> 18.0 m <sup>3</sup> Spade Nose Rock With Teeth		
Bucket capacity	SAE rated		26.2 yd3	20.0 m <sup>3</sup>	23.5 yd <sup>3</sup>	18.0 m <sup>3</sup>
	Struck		22.5 yd <sup>3</sup>	17.2 m <sup>3</sup>	19.6 yd <sup>3</sup>	15.0 m <sup>3</sup>
Bucket width			21'0"	6400 mm	21'0"	6400 mm
Bucket width with ti	re protector		21'6"	6550 mm	21'6"	6550 mm
Bucket weight			52,560 lb	23840 kg	51,080 lb	23170 kg
Static tipping loads	Straight	55.5/80-57 tire	264,100 lb	119800 kg	235,454 lb	106800 kg
		65/65-57 tire	292,900 lb	102380 kg	243,200 lb	110300 kg
	Full turn (40°)	55.5/80-57 tire	231,000 lb	104800 kg	206,100 lb	93500 kg
		65/65-57 tire	237,400 lb	107700 kg	211,600 lb	96000 kg
Dump clearance, ma height and 45° dum	p angle	55.5/80-57 tire	20'7"	6285 mm	23'0"	7005 mm
(tooth end measure)	)	65/65-57 tire	20'10"	6350 mm	23'2"	7070 mm
Reach at maximum and 45° dump angle	5	55.5/80-57 tire	9'9"	2970 mm	10'0"	3045 mm
(tooth end measure)		65/65-57 tire	9'6"	2905 mm	9'9"	2980 mm
Height to hinge pin	Fully raised	55.5/80-57 tire	29'0"	8830 mm	31'1"	9480 mm
		65/65-57 tire	29'2"	8895 mm	31'4"	9545 mm
Operating height	Fully raised	55.5/80-57 tire	38'11"	11865 mm	40'9"	12410 mm
		65/65-57 tire	39'2"	11930 mm	40'11"	12475 mm
Overall length	Bucket ground		59'9"	18200 mm	61'10"	18840 mm
Turning radius*			47'0"	14330 mm	48'3"	14700 mm
Digging depth	0°	55.5/80-57 tire	9.4"	290 mm	10.2"	260 mm
		65/65-57 tire	6.9"	175 mm	7.7"	195 mm
	10°	55.5/80-57 tire	30.9"	785 mm	30.7"	780 mm
		65/65-57 tire	28.3"	720 mm	28.1"	715 mm
Breakout force (bucket cylinder)			286,600 lb	1274 kN 130000 kg	277,782 lb	1236 kN 126000 kg
Operating weight		55.5/80-57 tire	452,390 lb	205200 kg	459,200 lb	208300 kg
		65/65-57 tire	463,400 lb	210200 kg	470,200 lb	213300 kg

• Static tipping load and operating weight shown include lubricants, coolant, full fuel tank, ROPS cab, front and rear fenders, and operator. Machine stability and operating weight are affected by counterweight, tire size, and other attachments. All dimensions, weights, and performance values based on SAE J732c and J742b standards.

\* Turning radius measured with bucket at carry position, outside corner of bucket.

### STANDARD EQUIPMENT

- Alternator, 140 A/24 V
- AM/FM radio with cassette
- Air conditioner, heater, defroster, pressurizer
- Automatic greasing system
- Automatic transmission
- Auxiliary steering system
- Axles, full floating
- Backup alarm with light
- Batteries, 200 Ah/6 x 12 V
- Boarding stairs
- · Boom kick-out, automatic and adjustable
- Brakes:
- -Service: wet, multiple-disc -Parking: wet, multiple-disc
- Bucket positioner, automatic
- Cab with ROPS/FOPS canopy
- Converter, 2.5 amps 12 volt

- · Counterweight, standard
- Electronic display/color graphic console
- · Fenders, front and left rear
- Ground level shutdown
- Hitch
- Horn, electric
- · High pressure filters
- Lights
- -Backup light
- -Headlights (4 front)
- -Stop and tail
- -Turn signal with hazard switch (2 front, 2 rear)
- -Working lights (6 front, 4 rear) -Access stairs and service area
- · Payload meter
- Proportional pressure hydraulic controls
- · Rearview mirror and rear underview mirror mounted to radiator guard

- Rims, 44.00-57
- Seat belt, 3" 78 mm with retractor
- · Seat, air suspension
- Starting motor, direct electric 24 V with pre-lube
- · Steering, full hydraulic power (joystick steering control)
- Sun visor
- Tinted glass
- Tires, 55.5/80-57 68PR
- Tire saver (modulation clutch controlled)
- · Vandalism protection kit
- · Washer, front and rear
- · Wiggins fast fuel fill
- · Wiggins fast oil fill
- · Wipers, front and rear, front intermittent

- **OPTIONAL EQUIPMENT**
- Beacon lamp
- Buckets:
  - -26.2 yd<sup>3</sup> 20.0 m<sup>3</sup> spade nose rock -23.5 yd3 18.0 m3 spade nose rock (both with ESCO loadmaster system teeth and wear shrouds)
- -45.8 yd3 35.0 m3 coal
- Cold weather arrangement

- · Fire extinguisher
- High-lift arrangement
- · Power train guard
- Radiator core protective grid
- · Rear cab glass with internal heat element
- Rims, 52.00-57
- Tires
  - -65/65-57 62PR
  - -53.5/85-57 76PR
- Tire chains

#### AESS520-00

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Komatsu America International Company 440 N. Fairway Dr., Vernon Hills, IL 60061



- Odometer
  - - Retractable rear window shade