BUCKET CAPACITY
3.6–5.2 m³
4.7–6.8 yd³

WA470-5

Wheel Loader

Photo may include optional equipment.
WA470-5 Wheel Loader

Walk-Around

Excellent Operator Environment

- Automatic transmission with selectable modes
- Low-noise designed cab (option)
- Electrically controlled transmission lever
- Finger tip control levers
- Pillar-less large ROPS/FOPS cab (option)
- Easy entry/exit, rear-hinged doors
- Telescopic/tilt steering column

See page 4.

Increased Reliability

- Reliable Komatsu designed and manufactured components
- Sturdy main frame
- Maintenance-free fully hydraulic, wet disc service and parking brakes
- All hydraulic hoses use flat face O-ring seals

See page 6.

High Productivity & Low Fuel Consumption

- Powerful engine
- Ultra-low fuel consumption
- Dual-mode engine power select system
- Transmission mode select system
- Dual speed hydraulic system
- Superior dumping clearance and reach
- Long wheelbase and 40 degree articulation

See page 4.

Harmony with Environment

- Meets EPA Tier II or EC second emission
- Low spectator noise
- Low fuel consumption

Easy Maintenance

- “EMMS” (Equipment Management Monitoring System)
- Reversible radiator fan
- Swing-out aftercooler and oil coolers

See page 7.

Increased Reliability

- Cathion electrodeposition process is used to apply primer paint
- Powder coating process is used to apply on main structure
- Sealed DT connectors for electrical connections

Based upon the expertise, technology and success which Komatsu has accumulated over 80 years, the new brand name is GALEO. High productivity, environment-friendly, safety and benefiting from cutting-edge technology, GALEO will contribute to our environment in the 21st century.

The new brand name is GALEO. High productivity, environment-friendly, safety and benefiting from cutting-edge technology, GALEO will contribute to our environment in the 21st century.

Genuine Answer for Land and Environment Optimization

Photo may include optional equipment.
High Productivity Features

Powerful Engine
The electronically controlled fuel injection timing in the SAA6D125E-3 engine provides optimum combustion of fuel at both low and high speed/power applications. This system also provides fast throttle response to match the machine’s powerful rim pull and fast hydraulic response.

195 kW, 261 HP
The common rail type fuel injection system provides maximum power with minimum emissions. This engine meets EPA Tier II emission regulations and EC second emission regulations.

Low Fuel Consumption
The fuel consumption is reduced greatly because of the low-noise, high-torque engine and the large-capacity torque converter with maximum efficiency in the low-speed range.

Reduction of Fuel Consumption: 15% (compared with Dash 3 technology)

Dual-Mode Select System
This wheel loader offers two selectable operating modes—Normal and Power. The operator can adjust the machine's performance by flipping a switch.

- Normal Mode: This mode provides maximum fuel efficiency for most of general loading.
- Power Mode: This mode provides maximum power output for hard digging operation or hill climb.

Transmission Mode Select System
This operator controlled system allows the operator to select manual shifting or three levels of automatic shifting (low, medium, and high).

- Manual: Transmission is fixed to gear speed selected with gear shift lever.
- Auto. L: This mode provides smooth gear change and low fuel consumption since gear shifting is performed at relatively low engine speeds, suitable for general excavating and loading.
- Auto. M: Gear is shifted at medium engine speeds between those of L and H modes.
- Auto. H: This mode provides large rim pull and short cycle time since gear shifting is performed at relatively high engine speeds, suitable for load and carry operation on uphill.

New Dual-Speed Hydraulic System
Komatsu’s dual-speed hydraulic system increases operational efficiency by matching the hydraulic demands to work conditions.

Oil from the switch pump is completely returned to the tank when digging and breaking out, therefore, hydraulic load is reduced and large power flows to the tires. This reduces horsepower demand from the engine and makes the operation more efficient. Kick-down switch signal also controls the oil flow. This new technology is greater productivity at the lowest operating cost.

Maximum Dumping Clearance and Reach
The long lift arms provide high dumping clearances and maximum dumping reach. The operator can even level loads on the body of a dump truck easily and efficiently.

Long Wheelbase/Articulation Angle of 40˚
The longest wheelbase in class and the widest tread provide improved machine stability in both longitudinal and lateral directions. Since the articulation angle is 40˚, the operator can work efficiently even in the tightest job sites.
**EMMS (Equipment Management Monitoring System)**

Monitor is mounted in front of the operator allowing the operator to easily check gauges and warning lights. A specially designed two-spoke steering wheel allows the operator to easily see the instrument panel.

**Maintenance Control and Troubleshooting Functions**

- **Action code display function.** If the loader has any troubles, the monitor displays action details on the character display at the center bottom of the monitor.
- **Monitor function.** Controller monitors engine oil level, pressure, coolant temperature, air cleaner clogging etc. If controller finds abnormalities, all of these are displayed on LCD.
- **Replacement time notice function.** Monitor informs replacement time of oil and filters on LCD when it reaches replacement intervals.
- **Trouble data memory function.** Monitor stores abnormalities for effective troubleshooting.

**Reversible Cooling Fan and Swing-out Cooler Elements**

If the machine is operating in adverse conditions, the operator can reverse the hydraulic cooling fan from inside the cab by turning on a switch on the control panel. The coolers can also swing out for easy cleaning.

**Gull-wing Type Engine Side Doors Open Wide**

The operator can open and close each gull-wing type engine side door easily with the assistance of a gas spring to perform daily service checks from the ground.

**Lengthened Maintenance Interval**

Lengthened engine oil replacement interval: 250 H – 500 H

Lengthened drive shaft greasing interval: 1000 H – 4000 H
Easy Operation

Automatic Transmission with ECMV

Automatic transmission with ECMV automatically selects the proper gear speed based on travel speed, engine speed, and other travel conditions. The ECMV (Electronically 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.

- Kick-down switch: Consider this valuable feature for added productivity. With the touch of a finger, the kick-down switch automatically downshifts from second to first when beginning the digging cycle. It automatically upshifts from first to second when the direction control lever is placed in reverse. This results in increased rim pull for better bucket penetration and reduced cycle times for higher productivity.

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

Electrically Controlled Transmission Lever

Variable Transmission Cut-off

The operator can adjust the transmission cut-off connected to the left brake pedal with the switch near the operator's seat to set the brake/cut-off point for easier operation and higher operating performance in variable operating conditions.

- High cut-off pressure for digging operations.
- Low cut-off pressure for truck-loading operations.

Telescopic/Tilt Steering Column

The operator can tilt and telescope the steering column to provide a comfortable working position.

Fingertip Work Equipment Control Lever

New PPC control levers are used for the work equipment. The operator can easily operate the work equipment with fingertip control, reducing operator fatigue and increasing controllability. The PPC control lever column can be tilted forward or rearward and the wrist rest can be adjusted up or down to provide the operator with a variety of comfortable operating positions.

Low-noise Design

Operator noise: 72 dB(A)
Dynamic noise (outside): 109 dB(A)

The large cab is mounted with Komatsu's unique ROPS/FOPS 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, dustproof with pressurizing, and comfortable operating environment. Also, spectator noise is lowest in this class.

Pillar-less Large Cab (Optional)

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.

Rear-hinged Full Open Cab Door

The cab door hinges are installed to the rear side of the cab providing a large opening angle for the operator to enter and exit. The steps are designed like a staircase, so the operator can get on and off the cab easily.

Emergency Brake

If the brake oil pressure drops, the warning lamp flashes and the warning buzzer sounds intermittently. If the brake pressure drops lower, the parking brake is applied providing a double safety system.

Comfortable Operation

Easy Operation

Low-noise Design

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Dynamic noise (outside): 109 dB(A)

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### SPECIFICATIONS

**Model** | Komatsu SAA6D125E-3
---|---
**Type** | Water-cooled, 4-cycle
**Number of cylinders** | 6
**Bore x stroke** | 125 mm x 150 mm 4.9” x 5.9”
**Performance** | 11.04 ft/36.6 in

**DIMENSIONS**

- **Tread Width over tires**: 2920 mm
- **Wheelbase**: 1955 mm
- **Hinge pin height, max. height**: 4295 mm
- **Hitch height**: 1175 mm
- **Overall height, top of the stack**: 3675 mm

**ENGINE**

- **Rated rpm**: 2000 rpm
- **Fuel system**: Direct injection
- **Governor**: Electronic, all-speed control
- **Steering system**: Hydraulic pump
- **Gear pump**: Capacity 38.6 U.S. gal/min at rated rpm
- **Fuel system**: Direct injection
- **Governor**: Electronic, all-speed control

**HYDRAULIC SYSTEM**

- **Tipping load**:
  - Max: 16700 kg
  - Min: 14500 kg
- **Operating weight**:
  - Max: 21695 kg
  - Min: 14162 kg

**TRANSMISSION**

- **Torque converter**:
  - Capacity: 210 kgf/cm²
- **Relief valve setting**:
  - Gearbox: 38 ltr
  - Final reduction gear: 60 ltr
  - Overall length: 13.2 U.S. gal
  - Overall length: 13.7 U.S. gal
- **Boom cylinder**:
  - Stroke: 4.7 m
  - Pressure: 2110 kN
- **Bucket cylinder**:
  - Stroke: 10.5 m
  - Pressure: 3920 kN

**BRAKES**

- **Service brake**:
  - Type: Wet disc brakes actuated on four wheels
- **Parking brake**:
  - Type: Wet disc brake
- **Emergency brake**:
  - Type: Parking brake is commonly used

**AXLES AND FINAL DRIVES**

- **Drive system**: Four-wheel drive
- **Front**:
  - Type: Fixed, semi-floating
- **Rear**:
  - Center-pin support, semi-floating
- **Reduction gear**:
  - Spiral bevel gear
- **Differential gear**:
  - Conventional type
- **Final reduction gear**:
  - Planetary gear, single reduction

**STEERING SYSTEM**

- **Type**: Double-acting, piston type
- **Number of cylinders**: 2
- **Control valve**:
  - Type: 2-spool type
- **Control positions**:
  - Raise, hold, lower, and dump

**FUEL SYSTEM**

- **Rated rpm**: 1950 rpm
- **Fuel system**: Direct injection
- **Governor**: Electronic, all-speed control

**LUBRICATION SYSTEM**

- **Relief valve setting**:
  - Gearbox: 38 ltr
  - Final reduction gear: 60 ltr
- **Air cleaner**:
  - Type: Dry type with double elements and general purpose buckles

**TIRE SELECTION GUIDE**

- **Material density**: tan/m³
- **Material type**: Light Material Bucket with C.B.

**BUCKET SELECTION GUIDE**

- **Material type**: Light Material Bucket with C.B.
  - Cubic meter of content in bucket
  - Cubic meter of content in bucket

**SERVICE REFILL CAPACITIES**

- **Cooling system**:
  - Fuel tank: 390 l
  - Engine: 30 l
  - Hydraulic system: 146 l
  - Air (front and rear): 57 l
- **Torque converter and transmission**:
  - 40 l

**STANDARD TOOLS**

- **20° full turn**
- **40° full turn**

**BUCKET CAPACITY**

- **Heavy Material Bucket with C.B.**

**GENERAL PURPOSE BUCKETS**

- **Material density**: tan/m³
- **Material type**: Light Material Bucket with C.B.
## WEIGHT CHANGES

<table>
<thead>
<tr>
<th>Tires</th>
<th>Operating weight</th>
<th>Tipping load straight</th>
<th>Tipping load full turn</th>
<th>Width over tires</th>
<th>Ground clearance</th>
<th>Change in vertical dimensions</th>
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<td></td>
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<td>512</td>
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<td>532</td>
<td>210</td>
<td>16.0</td>
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</tbody>
</table>

Remove ROPS cab

Install additional counterweight

Install front/rear compartments

### STANDARD EQUIPMENT

- 2-spool valve for boom and bucket controls
- Alternator, 35 A
- Auto shift transmission with mode select system
- Back-up alarm
- Back-up lamp
- Batteries, 150 Ah/2 x 12 V
- Boom kick-out
- Bucket positioner
- Counterweight
- Directional signal
- DMMS (Equipment Management Monitoring System)
- Engine, Komatsu SAA6D125E-3 diesel
- Engine shut-off system, electric
- Hard water area arrangement (corrosion resistant)
- Hydraulic-driven fan with reverse rotation
- Lift cylinders and bucket cylinder
- Loader linkage with standard lift arm
- Main monitor panel with speedometer
- PPC fingertip control, two levers
- Radiator mask, lattice type
- Seat, suspension type with reclining
- Service brakes, wet disc type
- Starting motor, 7.5 kW/24 V
- Steering wheel, tiltable
- Swing-out aftercooler and oil cooler
- Tires (23.5-25-20PR, L3 tubeless) and rims
- Transmission, 4 forward and 4 reverse

### OPTIONAL EQUIPMENT

- 3-spool valve
- Additional counterweight
- Additional fuel filter
- Air conditioner
- Air conditioner side louvers
- Alternator, 50 A
- Alternator, 90 A
- AM/FM/MP3 radio
- AM/FM/MP3 stereo radio cassette
- Auto air conditioner
- Automatic greasing
- Battery disconnect switch
- Brake cooling system
- Bucket teeth (bolt-on type)
- Bucket teeth (tip type)
- Counterweight for log
- Cutting edge (bolt-on type)
- Deluxe suspension seat
- ECSS (Electrically Controlled Suspension System)
- Emergency steering (SSE)
- Engine pre-cleaner with extension
- EPC fingertip control levers with automatic loader and positioner
- Floor mat
- Front fender
- Heater and defroster
- High lift arm
- Joystick slewing
- Limited slip differential (F&A)
- Load meter, new type
- Lock-up clutch torque converter
- Log grapples
- Ordinary spare parts
- Power train guard
- Rear defroster (electric)
- Rear fender
- Rearview mirror
- Rear window washer and wiper
- Remote grease (lift arm pivot pin)
- ROPS/FOPS cab
- ROPS/FOPS canopy
- Seat belt
- Single lever, loader control
- Starting motor, 11 kW
- Sun visor
- Tool kit
- Vandalism protection kit
- Water separator

www.Komatsu.com Materials and specifications are subject to change without notice