

KOMATSU®

WA470-5

BUCKET CAPACITY
3.6–5.2 m³
4.7–6.8 yd³



WA
470



Photo may include optional equipment.

WHEEL LOADER



WA470-5 Wheel Loader

WA470-5-AROUND

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.

Excellent Operator Environment

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

See page 8.



Based upon the expertise, technology and success which Komatsu has accumulated over 80 years, the new brand was born to provide customers all over the world a fresh image of the innovative technology and great value of Komatsu equipment. *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***

Harmony with Environment

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

WA470-5

WHEEL LOADER

NET HORSEPOWER
195 kW 261 HP @ 2000 rpm

OPERATING WEIGHT
21520 – 21750 kg
47,443 – 47,950 lb

BUCKET CAPACITY
3.6 – 5.2 m³
4.7 – 6.8 yd³

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
- 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

See page 6.



Photo may include optional equipment.

Easy Maintenance

- "EMMS" (Equipment Management Monitoring System)
- Reversible radiator fan
- Swing-out aftercooler and oil coolers
- Prolonged engine oil change interval
- Ground check for windshield washer tank and coolant tank
- Easy access gull-wing type engine side doors

See page 7.

PRO PRODUCTIVITY FEATURES

High Productivity and Low Fuel Consumption

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).

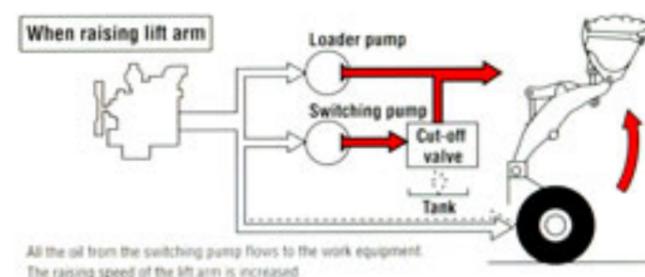
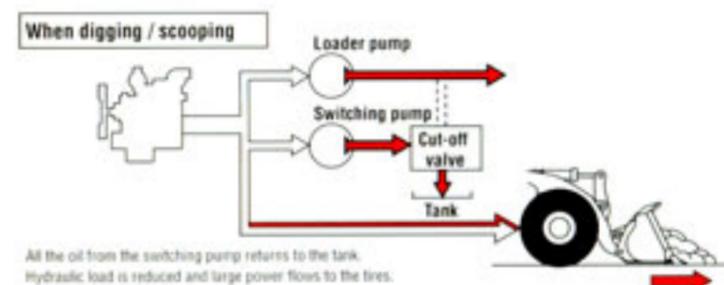


- **Manual:** Transmission is fixed to gear speed selected with gear shift lever.
- **Auto. L:** This mode provides smooth gear change and low fuel consumption since gear shifting is performed at relatively low engine speeds, suitable for general excavating and loading.
- **Auto. M:** Gear is shifted 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 flow to the loader is reduced and pressure is increased. 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



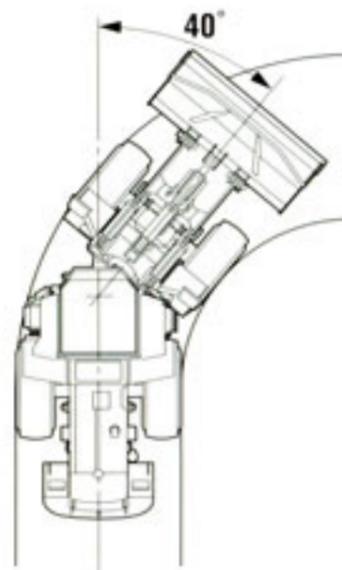
The long lift arms provide high dumping clearances and maximum dumping reach. The operator can even level loads on the body of a dump truck easily and efficiently.

Dumping Clearance: 3120 mm 10'3"
Dumping Reach: 1305 mm 4'3"
 (4.2 m³ 5.5 yd³ bucket with B.O.C.)

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.

Tread	2300 mm 7'7"
Wheelbase	3450 mm 11'4"
Minimum turning radius (center of outside tire)	5900 mm 19'4"

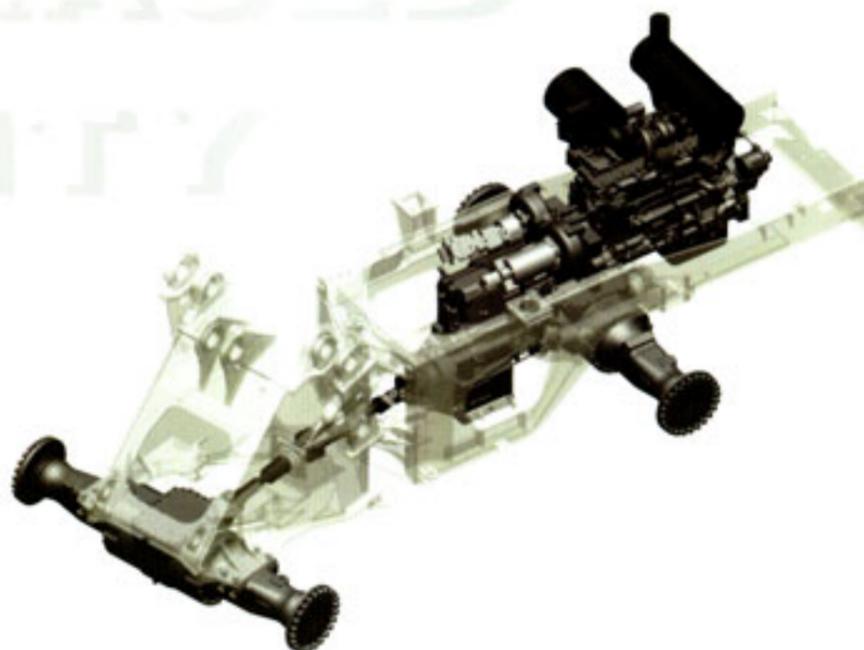
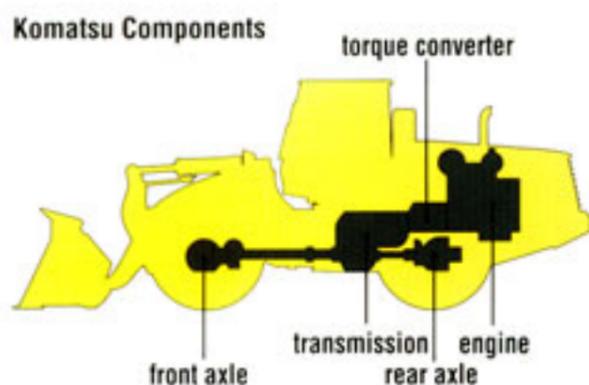


INCREASED RELIABILITY

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 a strict quality control system.



High-rigidity Frames

The front and rear frames have high rigidity to bear twisting and bending loads applied repeatedly to the loader body. Both upper and lower center pivot bearings are tapered roller bearings having high durability. The structure is similar to those of large-sized loaders and the reinforced loader linkage also ensures high rigidity.

Wet multi-disc brakes and fully hydraulic braking system

mean lower maintenance costs and higher reliability. Wet disc brakes are fully sealed. Contaminants are kept out, reducing wear and resulting maintenance. Brakes require no adjustments for wear, meaning even lower maintenance. The new parking brake is also an adjustment-free, wet multi-disc for high reliability and long life.

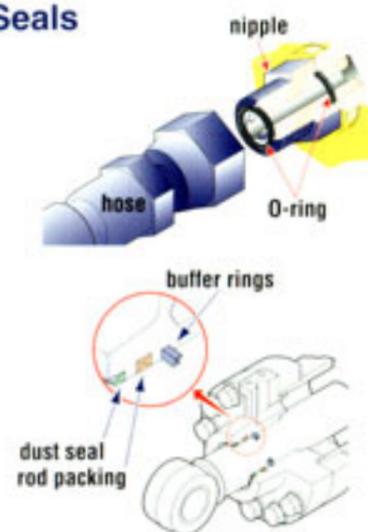
Added reliability is designed into the braking system by the use of two independent hydraulic circuits. Provides hydraulic backup should one of the circuits fail.

Fully hydraulic brakes mean no air system to bleed, or the condensation of water in the system that can lead to contamination, corrosion, and freezing.



Flat Face-to-Face O-Ring Seals

Flat face-to-face O-ring seals are used to securely seal all hydraulic hose connections and to prevent oil leakage. In addition, buffer rings are installed to the head side of the all-hydraulic cylinders to lower the load on the rod seals and maximize the reliability.



Cathion Electrodeposition Primer Paint/ Powder Coating Final Paint

Cathion electrodeposition paint is applied as a primer paint and powder coating is applied as topcoat to the exterior metal sheet parts. This process results in a beautiful rust-free machine, even in the most severe environments. Some external parts are made of plastic providing long life and high impact resistance.

Sealed DT Connectors

Main harnesses and controller connectors are equipped with sealed DT connectors providing high reliability, water resistance and dust resistance.

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.

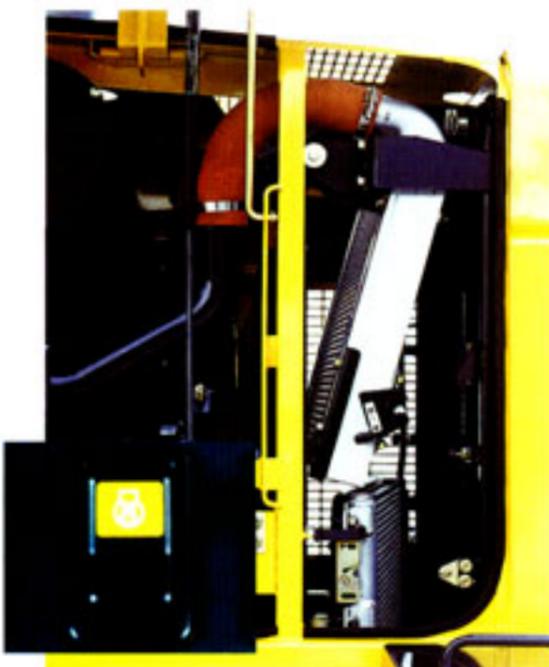


Maintenance Control and Troubleshooting Functions

- **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

OPERATOR ENVIRONMENT

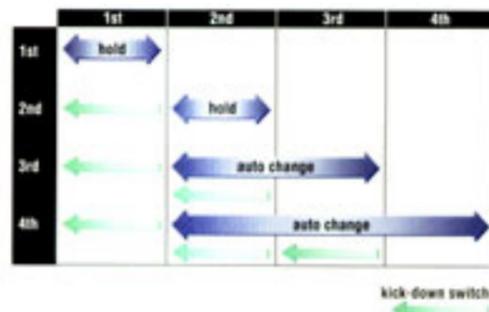
Easy Operation

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



Easy shifting and directional changes with Komatsu two-lever electronic shifting. Change direction or shift gears with a touch of the fingers without removing the shifting hand from the steering

wheel. Solid state electronics and conveniently located direction and gear shift controls make this possible. Automatic shifts in ranges two through four keep production high and manual shifting at a minimum.

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.

Comfortable Operation

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 that 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.

