

KOMATSU®

WA470-5

BUCKET CAPACITY

3.6 - 5.2 m³

4.7 - 6.8 yd³

WA
470

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Photo may include optional equipment.

WA470-5 Wheel Loader

WALK-AROUND

High Productivity & Low Fuel Consumption

- Powerful engine
- 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
- Electrically controlled transmission lever
- Fingertip control levers
- Pillar-less large ROPS/FOPS cab
- Easy entry/exit, rear-hinged doors
- Telescopic/tilt steering column

See page 8.



Harmony with Environment

- EPA Tier 2 and EU Stage 2 emissions certified
- Low fuel consumption

NET HORSEPOWER
195 kW 261 HP @ 2000 rpm

OPERATING WEIGHT
22085– 22315 kg
48,690– 49,195 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 (optional)
- 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.

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 is EPA Tier 2 and EU Stage 2 emissions certified.

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).

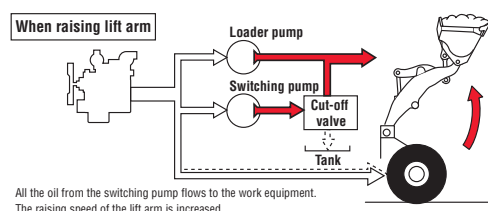
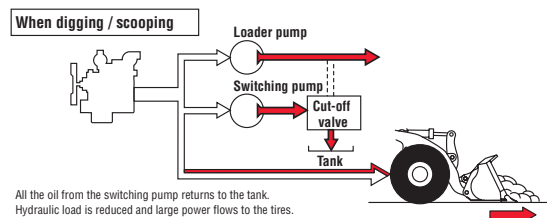


- **Manual:** Transmission is fixed to gear speed selected with gear shift lever.
- **Auto. L:** This mode provides smooth gear change and low fuel consumption since gear shifting is performed at relatively low engine speeds, suitable for general excavating and loading.
- **Auto. M:** Gear is shifted 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: 3185 mm 10'5"

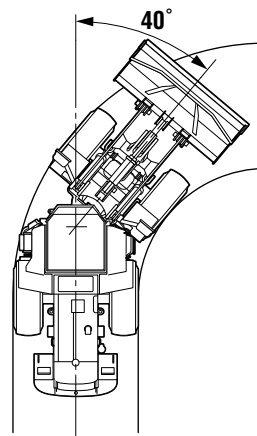
Dumping Reach: 1235 mm 4'1"

(4.2 m³ 5.5 yd³ bucket with B.O.C., 26.5-25 tires)

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.

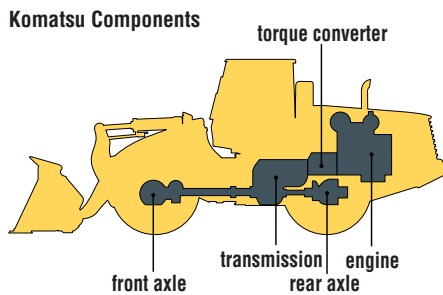
Tread	2300 mm	7'7"
Wheelbase	3450 mm	11'4"
Minimum turning radius (center of outside tire)	5900 mm	19'4"



INCREASED RELIABILITY

Komatsu Components

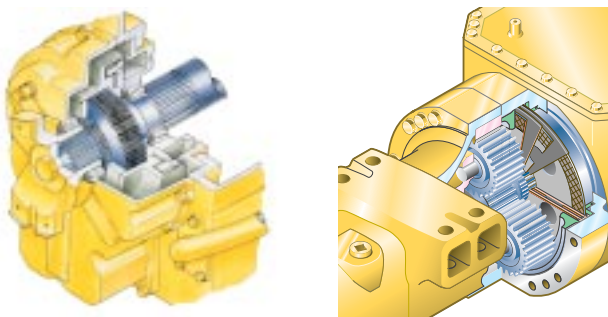
Komatsu manufactures the engine, torque converter, transmission, hydraulic units, electric parts, and even each bolt on this wheel loader. Komatsu loaders are manufactured with an integrated production system under a strict quality control system.



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.

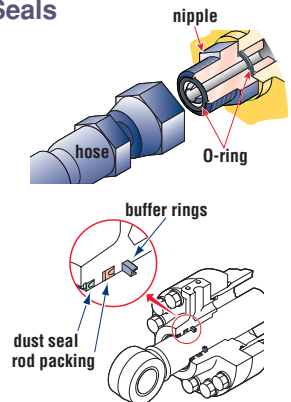


High-rigidity Frames

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.

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.

EASY MAINTENANCE

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 (Optional) 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

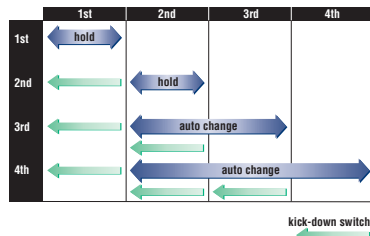
Automatic transmission with ECMV automatically selects the proper gear speed based on travel speed, engine speed, and other travel conditions. The ECMV (Electronically Controlled Modulation Valve) system engages the clutch smoothly to prevent lags and shocks when shifting. This system provides efficient 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.



Comfortable Operation

Low-noise Design

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.



Pillar-less Large Cab

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.



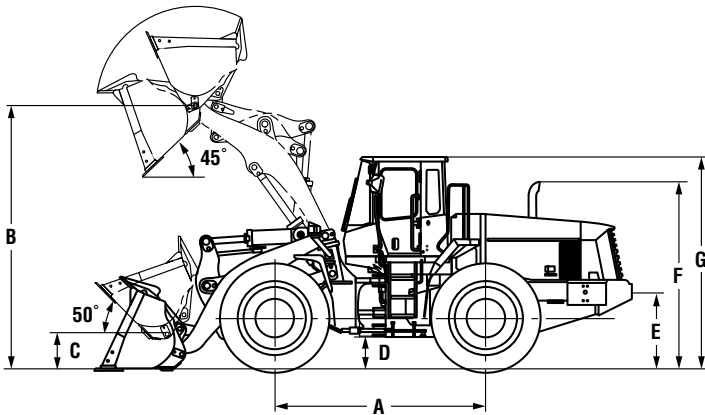
Emergency Brake

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.





Measured with 26.5-25-20PR (L3) tires



Tread	2300 mm	7'7"
Width over tires	3010 mm	9'11"
A Wheelbase	3450 mm	11'4"
B Hinge pin height, max. height	4360 mm	14'4"
C Hinge pin height, carry position	585 mm	1'11"
D Ground clearance	525 mm	1'9"
E Hitch height	1240 mm	4'1"
F Overall height, top of the stack	3080 mm	10'1"
G Overall height, ROPS cab	3460 mm	11'4"

	General Purpose Buckets						Rock Bucket	Loose Material Bucket			Light Material Bucket	
	Stockpile			Excavating				Teeth	Bolt-on Cutting Edges	Teeth and Segments		Teeth
	Bolt-on Cutting Edges	Teeth and Segments	Teeth	Bolt-on Cutting Edges	Teeth and Segments	Teeth						
Bucket capacity: heaped	4.2 m ³	4.2 m ³	3.9 m ³	3.8 m ³	3.8 m ³	3.6 m ³	3.6 m ³	4.6 m ³	4.6 m ³	4.3 m ³	5.2 m ³	
struck	5.5 yd ³	5.5 yd ³	5.1 yd ³	5.0 yd ³	5.0 yd ³	4.7 yd ³	4.7 yd ³	6.0 yd ³	6.0 yd ³	5.6 yd ³	6.8 yd ³	
	3.5 m ³	3.5 m ³	3.3 m ³	3.2 m ³	3.2 m ³	3.1 m ³	3.1 m ³	3.9 m ³	3.9 m ³	3.7 m ³	4.5 m ³	
	4.6 yd ³	4.6 yd ³	4.3 yd ³	4.2 yd ³	4.2 yd ³	4.1 yd ³	4.1 yd ³	5.1 yd ³	5.1 yd ³	4.8 yd ³	5.9 yd ³	
Bucket width	3170 mm 10'5"	3190 mm 10'6"	3190 mm 10'6"	3170 mm 10'5"	3190 mm 10'6"	3190 mm 10'6"	3170 mm 10'5"	3170 mm 10'5"	3190 mm 10'6"	3190 mm 10'6"	3170 mm 10'5"	
Bucket weight	2005 kg 4,420 lb	2055 kg 4,530 lb	1930 kg 4,255 lb	2150 kg 4,740 lb	2200 kg 4,850 lb	2070 kg 4,564 lb	2165 kg 4,773 lb	2200 kg 4,850 lb	2250 kg 4,960 lb	2125 kg 4,685 lb	2185 kg 4,817 lb	
Dumping clearance, max. height and 45° dump angle*	3185 mm 10'5"	3060 mm 10'0"	3060 mm 10'0"	3235 mm 10'7"	3110 mm 10'2"	3110 mm 10'2"	2975 mm 9'9"	3055 mm 10'0"	2930 mm 9'7"	2930 mm 9'7"	3035 mm 9'11"	
Reach at max. height and 45° dump angle*	1235 mm 4'1"	1335 mm 4'5"	1335 mm 4'5"	1185 mm 3'11"	1285 mm 4'3"	1285 mm 4'3"	1435 mm 4'8"	1365 mm 4'6"	1465 mm 4'10"	1465 mm 4'10"	1385 mm 4'7"	
Reach at 2130 mm (7') clearance and 45° dump angle	1910 mm 6'3"	1950 mm 6'5"	1950 mm 6'5"	1880 mm 6'2"	1925 mm 6'4"	1925 mm 6'4"	2010 mm 6'7"	1980 mm 6'6"	2020 mm 6'8"	2020 mm 6'8"	1990 mm 6'6"	
Reach with arm horizontal and bucket level	2750 mm 9'0"	2905 mm 9'6"	2905 mm 9'6"	2680 mm 8'10"	2835 mm 9'4"	2835 mm 9'4"	3035 mm 9'11"	2935 mm 9'8"	3090 mm 10'2"	3090 mm 10'2"	2960 mm 9'9"	
Operating height (fully raised)	5960 mm 19'7"	5960 mm 19'7"	5960 mm 19'7"	5875 mm 19'3"	5875 mm 19'3"	5875 mm 19'3"	5875 mm 19'3"	5960 mm 19'7"	5960 mm 19'7"	5960 mm 19'7"	6185 mm 20'4"	
Overall length	8765 mm 28'9"	8920 mm 29'3"	8920 mm 29'3"	8695 mm 28'6"	8850 mm 29'0"	8850 mm 29'0"	9050 mm 29'8"	8950 mm 29'4"	9105 mm 29'10"	9105 mm 29'10"	8975 mm 29'5"	
Loader clearance circle (bucket at carry, outside corner of bucket)	13960 mm 45'10"	14080 mm 46'2"	14080 mm 46'2"	13930 mm 45'8"	14040 mm 46'1"	14040 mm 46'1"	13970 mm 45'10"	14060 mm 46'2"	14180 mm 46'6"	14180 mm 46'6"	14080 mm 46'2"	
Digging depth: 0°	80 mm 3.1"	100 mm 3.9"	100 mm 3.9"	80 mm 3.1"	100 mm 3.9"	100 mm 3.9"	85 mm 3.3"	60 mm 2.4"	80 mm 3.1"	80 mm 3.1"	60 mm 2.4"	
10°	315 mm 1'0"	360 mm 1'2"	360 mm 1'2"	305 mm 1'0"	350 mm 1'2"	350 mm 1'2"	370 mm 1'3"	345 mm 1'2"	390 mm 1'3"	390 mm 1'3"	350 mm 1'2"	
Static tipping load: straight	17215 kg 37,950 lb	17170 kg 37,853 lb	17295 kg 38,130 lb	17005 kg 37,490 lb	16955 kg 37,380 lb	17085 kg 37,665 lb	16990 kg 37,455 lb	17045 kg 37,575 lb	17000 kg 37,479 lb	17125 kg 37,755 lb	16970 kg 37,410 lb	
40° full turn	14975 kg 33,015 lb	14930 kg 32,915 lb	15055 kg 33,190 lb	14770 kg 32,560 lb	14720 kg 32,450 lb	14850 kg 32,740 lb	14755 kg 32,530 lb	14810 kg 32,650 lb	14765 kg 32,551 lb	14890 kg 32,825 lb	14735 kg 32,485 lb	
Breakout force	192 kN 43,162 lb	207 kN 46,534 lb	207 kN 46,534 lb	203 kN 45,634 lb	209 kN 46,983 lb	220 kN 49,456 lb	190 kN 42,712 lb	168 kN 37,766 lb	183 kN 41,140 lb	183 kN 41,140 lb	165 kN 37,092 lb	
Operating weight	22165 kg 48,865 lb	22210 kg 48,965 lb	22085 kg 48,690 lb	22205 kg 48,955 lb	22315 kg 49,195 lb	22185 kg 48,910 lb	22280 kg 49,120 lb	22225 kg 48,995 lb	22270 kg 49,097 lb	22145 kg 48,820 lb	22300 kg 49,165 lb	

* At the end of tooth or B.O.C.

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, Air conditioner 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.



WEIGHT CHANGES

Tires	Operating weight		Tipping load straight		Tipping load full turn		Width over tires		Ground clearance		Change in vertical dimensions	
	kg	lb	kg	lb	kg	lb	mm	ft in	mm	ft in	mm	ft in
26.5-25-20PR(L3)	0	0	0	0	0	0	3010	9'11"	525	1'9"	0	0
26.5-25-16PR(L3)	-70	-155	-50	-110	-45	-100	3010	9'11"	525	1'9"	0	0
26.5-25-20PR(L4)	+355	+780	+270	+595	+235	+520	3010	9'11"	525	1'9"	0	0
26.5-R25(L3)	+115	+235	+90	+200	+75	+165	3010	9'11"	525	1'9"	0	0
23.5-25-20PR(L3)	-460	-1,015	-350	-770	-300	-660	2920	9'7"	460	1'6"	-65	3"
23.5-25-20PR(L2)	-775	-1,710	-585	-1,290	-505	-1,115	2920	9'7"	460	1'6"	-65	3"
Remove ROPS cab with A/C	-730	-1,610	-670	-1,475	-585	-1,290						
Install additional counterweight	+400	+880	+1030	+2,270	+860	+1,895						



STANDARD EQUIPMENT

- 2-spool valve for boom and bucket controls
- Additional fuel filter with water separator
- Air conditioner
- Alternator, 50 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
- EMMS (Equipment Management Monitoring System)
- Engine, Komatsu SAA6D125E-3 diesel
- Engine shut-off system, electric
- Floor mat
- Front fender
- 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
- Rearview mirror
- Rear window washer and wiper
- ROPS/FOPS cab
- Seat, suspension type with reclining
- Seat belt
- Service brakes, wet disc type
- Starting motor, 7.5 kW/24 V
- Steering wheel, tiltable
- Sun visor
- Swing-out aftercooler and oil cooler
- Tires (26.5-25-20PR, L3 tubeless) and rims
- Transmission, 4 forward and 4 reverse



OPTIONAL EQUIPMENT

- 3-spool valve
- Additional counterweight
- AM/FM radio
- Brake cooling system
- Bucket teeth (bolt-on type)
- Bucket teeth (tip type)
- Counterweight for log
- Cutting edge (bolt-on type)
- Deluxe suspension seat
- Emergency steering (SAE)
- Engine pre-cleaner with extension
- Heater and defroster
- High lift arm
- Hydraulic-driven fan with reverse rotation
- KOMTRAX
- Limited slip differential (F&R)
- Log grapple
- Ordinary spare parts
- Power train guard
- Remote grease (lift arm pivot pin)
- Starting motor, 11 kW
- Tool kit
- Vandalism protection kit

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Printed in Japan 201408 IP. AD

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