

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

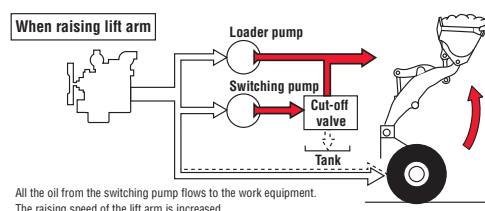
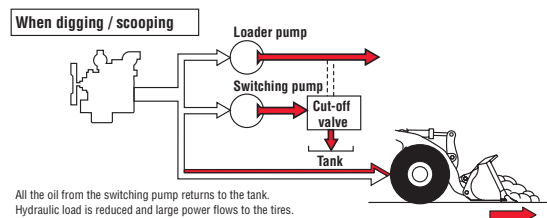
shifting is performed at relatively low engine speeds, suitable for general excavating and loading.

- **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"

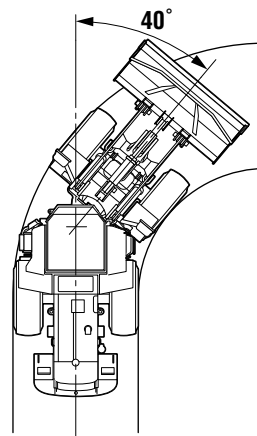
Dumping Reach: 1235 mm 4'1"

(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.

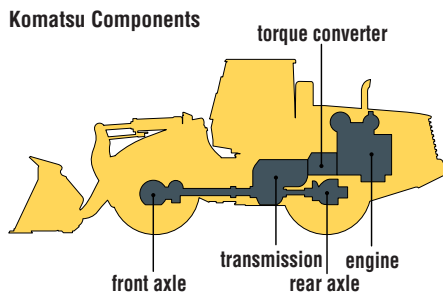
Tread	2300 mm	7'7"
Wheelbase	3450 mm	11'4"
Minimum turning radius (center of outside tire)	5900 mm	19'4"



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.



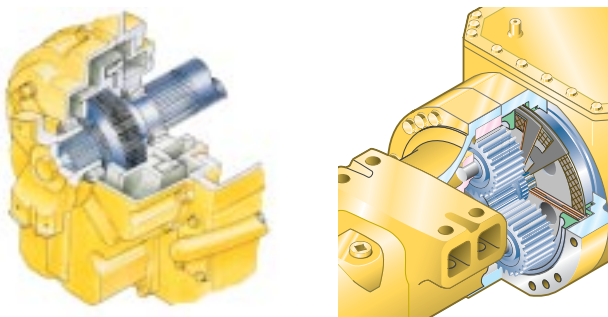
High-rigidity Frames

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.

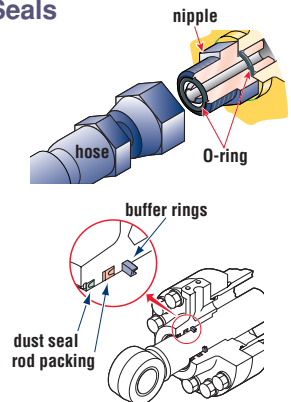
Added reliability is designed into the braking system by the use of two independent hydraulic circuits. Provides hydraulic backup should one of the circuits fail.

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.

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

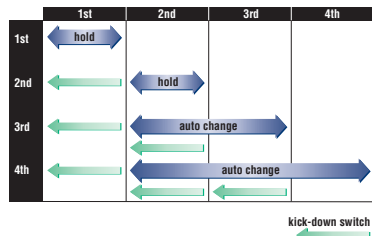
Automatic transmission with ECMV automatically selects the proper gear speed based on travel speed, engine speed, and other travel conditions. The ECMV (Electronically Controlled Modulation Valve) system engages the clutch smoothly to prevent lags and shocks when shifting. This system provides efficient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



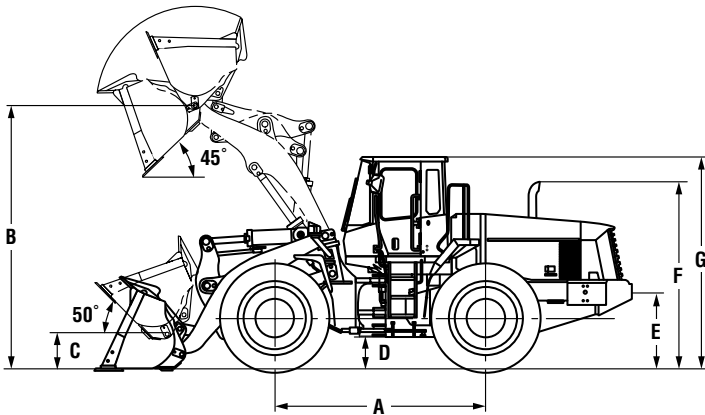
Emergency Brake

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