

Tires or attachments		ating ight	Tippin stra		Tippin full		Wi over		Gro clear		Cha in ve dimen	rtical
	kg	lb	kg	lb	kg	lb	mm	ft in	mm	ft in	mm	ft in
23.5-25-20PR(L-3)	-305	-672	-240	-529	-210	-463	2920	9'7"	460	1'6"	-65	-3"
23.5-25-20PR(L-2)	-615	-1,355	-480	-1,058	-420	-926	2920	9'7"	460	1'6"	-65	-3"
26.5-25-16PR(L-3)	0	0	0	0	0	0	3010	9'11"	525	1'9"	0	0
26.5-25-20PR(L-4)	+425	+937	+330	+728	+290	+639	3010	9'11"	525	1'9"	0	0
Install additional counterweight	+400	+880	+1070	+2.358	+930	+2.050						

S
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#### STANDARD EQUIPMENT

- 2-spool valve for boom and bucket controls
- Alternator, 50 A
- Auto shift transmission with mode select system
- Back-up alarm
- Back-up lamp
- Batteries, 136 Ah/12 V x 2
- Counterweight
- Directional signal
- Engine, Komatsu SAA6D125E-5 diesel

- Engine shut-off system, electric
- Hard water area arrangement (corrosion resister)
- Hydraulic-driven fan with reverse rotation
- Lift cylinders and bucket cylinder
- Main monitor panel with EMMS (Equipment Management
- Monitoring System) PPC fingertip control, two levers · Radiator mask, lattice type
- Rearview mirror for cab

- · Rear window washer and wiper
- ROPS/FOPS cab
- Seat belt
- · Seat, suspension type with reclining
- Service brakes, wet disc type
- Starting motor, 7.5 kW/24 V
- Steering wheel, tiltable, telescopic
- Sun visor
- Tires (26.5-25-16PR tubeless) and rims
- Transmission, 4 forward and 4 reverse



#### OPTIONAL EQUIPMENT

- 12V converter
- 3-spool valve
- · Additional counterweight
- Air conditioner AM/FM radio
- AM/FM stereo radio cassette
- Batteries, 140 Ah/12V x 2
- Bucket teeth (bolt-on type) Bucket teeth (tip type)
- Cutting edge (bolt-on type)

- ECSS (Electronically Controlled Suspension System)
- Emergency steering (SAE)
- Engine pre-cleaner with extension
- Fire extinguisher
- Floor mat
- Front fender
- High lift boom
- Joystick steering
- · Load meter, new type

- Lock-up clutch torque converter
- Ordinary spare parts
- Power train guard
- Seat, air suspension with automatic weight adjustment
- Seament edges
- Tool kit
- Vandalism protection kit
- Limited slip differential (F&R)

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Gross: 204 kW 273 HP @ 2000 rpm Net: 203 kW 272 HP @ 2000 rpm

**BUCKET CAPACITY** 

### **3.6-5.2 m<sup>3</sup>** 4.7-6.8 yd<sup>3</sup>







**KOMATSU®** 

**WA470**-6

Photo may include optional equipment.

## WALK-AROUND

## **Increased Reliability**

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

See page 6.

#### Cathion electrodeposition process is used to apply primer paint

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

**HORSEPOWER** 

Gross: 204 kW 273 HP @ 2000 rpm Net: 203 kW 272 HP @ 2000 rpm

> **BUCKET CAPACITY** 3.6-5.2 m3 4.7-6.8 vd3

### High Productivity & Low Fuel Consumption

- High performance SAA6D125E-5 engine
- Low fuel consumption
- Dual-mode engine power select system
- Large-capacity torque converter
- Automatic transmission with shift timing select system
- Lock-up Torque Converter (option)
- See pages 4 and 5.

Variable displacement piston pump & CLSS



Photo may include optional equipment.

### Harmony with Environment

**Excellent Operator Environment** 

Electronic controlled transmission lever

Variable transmission cut-off system

Automatic transmission with ECMV

- Meets EPA Tier 3 and EU Stage 3A emission regulations
- Low exterior noise
- Low fuel consumption

### Easy Maintenance

- "EMMS" (Equipment Management Monitoring System) See page 7.
- Easy access, gull-wing type engine side doors
- Automatic Reversible Fan (option)

2

## HIGH PRODUCTIVITY AND LOW FUEL CONSUMPTION



#### High Performance SAA6D125E-5 Engine

Electronic Heavy Duty Common Rail fuel injection system provides optimum combustion of fuel.

This system also provides fast throttle response to match the machine's powerful tractive effort and fast hydraulic response.

Net: 203 kW 272 HP

#### **Low Emission Engine**

This engine meets EPA Tier 3 emission regulations and EU Stage 3A emission regulations, without sacrificing power or machine productivity.

#### **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.

#### **Dual-Mode Engine Power Select System**

This wheel loader offers two selectable operating modes— E and P. The operator can adjust the machine's performance with the selection switch.

 E Mode: This mode provides maximum fuel efficiency for general loading.

 P Mode: This mode provides maximum power output for hard digging operation or hill climb.



Dual mode engine power selection switch



The eco indicator will help an operator to promote energy saving.

#### Large-capacity torque converter

Newly designed drive train has a large-capacity torque converter for optimal efficiency. The WA470-6 has plenty of acceleration without the need for full throttle and it can achieve high travel speeds, even on grades or steep ramps leading to feed hoppers. This significantly assists productivity and also delivers great value for load-and-carry operations.

#### **Automatic Transmission with Mode Select System**

This operator controlled system allows the operator to select manual shifting or two levels of automatic shifting (low, and high). Auto L mode is for fuel saving operation with the gear shift timing set at lower speeds than Auto H mode.



relatively low rpm range for fuel conservation while yielding adequate tractive force by

switch depressing the accelerator pedal.

Therefore Auto L mode keeps the engine in a

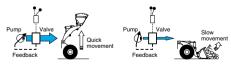
Lock-up Torque Converter (option)

The Komatsu designed lock-up torque converter provides increased production efficiency, reduced cycle times and optimum fuel savings in load & carry or hill-climb operations. The operator can engage the system from 2nd to 4th gear. This optional feature allows the operator to activate the system on/off with a switch located on the right-side control panel.

#### Variable displacement piston pump & CLSS

New design variable displacement piston pump combined with the Closed-center Load Sensing System delivers hydraulic flow just as the job requires preventing wasted hydraulic pressure. Minimized waste loss contributes to better fuel economy.

 New Variable Displacement Piston Pump: The pump delivers only necessary amounts minimizing waste loss.



 Fixed Displacement Piston Pump: The pump delivers the maximum amount at any time and the unused flow is disposed.





#### **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.

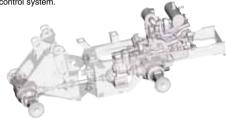
Dumping Clearance: 3185 mm 10'5" Dumping Reach: 1235 mm 4'1" (4.2 m³ 5.5 yd³ bucket with B.O.C.)



## INCREASED RELIABILITY

#### **Komatsu Components**

Komatsu manufactures the engine, torque converter, transmission, hydraulic units, electric parts, 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 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.





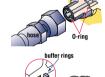
#### High-rigidity Frames and Loader Linkage

The front and rear frames and the loader linkage have more torsional rigidity to secure resistance against increased stress due to the use of a larger bucket.

Frame and loader linkage are designed to accommodate actual working loads, and simulated computer testing proves its strength.

#### Flat Face-to-Face O-Ring Seals

Flat face-to-face O-ring seals are used to securely seal 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 sheet metal 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 for easy



viewing, 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 abnormality occurs, the monitor displays action details on the character display at the bottom center of the monitor.
- Monitor function: Controller monitors engine oil level, pressure, coolant temperature, air cleaner clogging, etc.
   If controller finds abnormalities, the error is displayed on LCD.
- Replacement time notice function: Monitor informs replacement time of oil and filters on LCD when replacement intervals are reached.
- Trouble data memory function: Monitor stores abnormalities for effective troubleshooting.

#### 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

spring to perform dail service checks from the ground.



#### **Ease of Radiator Cleaning**

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.

#### Automatic Reversible Fan (option)

The engine fan is driven hydraulically. It can be operated in reverse automatically. When switch is automatic position. The fan revolves in reverse for 2minutes every 2 hours intermittently. (Default setting)



B: Manual Reverse Mode
A: Normal rotation Mode
C: Auto Reverse Mode

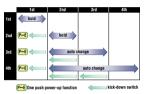
### **OPERATOR ENVIRONMENT**

### **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.

- One push power-up function: The kick-down switch also functions as a power-up switch in first gear. The first time the kick-down switch is depressed it functions as a kick-down switch and gear speed is reduced. When the machine is in E operation mode and first gear, pressing the kick-down switch a second time changes the operation mode to P allowing increased power for heavy digging operation. The operation mode returns to E when machine gear speed changes or direction changes to reverse.
- 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.

#### **Electronically 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 System**

The operator can continuously adjust the transmission cut-off pressure desired for the left brake pedal using switch located on the right-side control panel. The operator can improve the working performance by setting the cut-off pressure properly depending on working condition.

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



1:Cut-off ON/OFF switch 2:Cut-off adjustment switch 3:Fan reverse ON/OFF switch 4:Boom control 5:Bucket control

# off pressure control, reducing operator fatigue and increasing controllability. The PPC control lever column can be slid forward or rearward.

forward or rearward and
the large size arm rest
can be adjusted up
or down to provide the
operator with a variety
of comfortable operating

positions

#### Telescopic/Tilt Steering Column

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

**Fingertip Work Equipment Control levers** 

New PPC control levers are used for the work equipment. The

operator can easily operate the work equipment with fingertip

with Large size arm rest

### Comfortable Operation

#### Low-noise Design

Noise at operator's ear noise level : 72 dB(A) Dynamic noise level (outside): 112 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, exterior noise is lowest



#### 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. Increased seat slide adjustment to backward by introducing front mounted air conditioner unit.

#### 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.





### **WA470**-6

## **SPECIFICATIONS**



#### ENGINE

Model         .Komatsu SAA6D125E-5           Type         .Water-cooled, 4-cycle
AspirationTurbocharged, aftercooled, cooled EGR
Number of cylinders
Bore x stroke
Piston displacement
Governor
Horsepower
SAE J1995
ISO 9249/SAE J1349* Net 203 kW 272 HP
Rated rpm
Fan drive method for radiator cooling
Fuel system
Lubrication system:
MethodGear pump, force-lubrication FilterFull-flow type
Air cleaner

\*Net horsepower at the maximum speed of radiator cooling fan



#### TRANSMISSION

100	HANSI	1155	ION		
Torque cor	verter:				
Type			3-elemer	nt, single-stage	, single-phase
Transmissi	on:				
Type			Full	-powershift, co	ontershaft type
Travel spee	ed: <b>km/h</b> m	ph			
Measure	d with 23.5	-25 tire	es		
	1.0		2nd	2×4	4th

	1st	2nd	3rd	4th	
Forward	<b>7.0</b> 4.3	<b>12.2</b> 7.6	<b>21.3</b> 13.2	<b>33.7</b> 20.9	
Reverse	<b>7.3</b> 4.5	<b>12.6</b> 7.8	<b>21.9</b> 13.6	<b>34.7</b> 21.6	

#### Measured with 26.5-25 tires

	1st	2nd	3rd	4th
Forward	<b>7.6</b> 4.7	<b>13.1</b> 8.1	<b>22.9</b> 14.2	<b>36.2</b> 22.5
Reverse	<b>7.9</b> 4.9	<b>13.5</b> 8.4	<b>23.6</b> 14.7	<b>37.3</b> 23.2



#### AXLES AND FINAL DRIVES

Four-wheel drive
Fixed, semi-floating
Center-pin support, semi-floating,
26° total oscillation
Spiral bevel gear
Planetary gear, single reduction



Service brakes	ally actuated,
wet disc brakes actuate or	n four wheels
Parking brake	et disc brake
Emergency brake Parking brake is co	mmonly used



#### STEERING SYSTEM

Type	Articulated type, full-hydraulic power steering
Steering angle	
Minimum turning ra	adius at
the center of outsid	de tire



#### HYDRAULIC SYSTEM

Hydraulic pump
Loader control:
Hydraulic pump
Raise         .5.4 se           Dump         .1.6 se           Lower (Empty)         .3.7 se

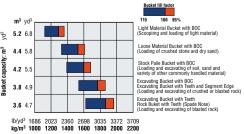


#### SERVICE REFILL CAPACITIES

Cooling system
Fuel tank
Engine
Hydraulic system
Axle front
rear
Torque converter and transmission



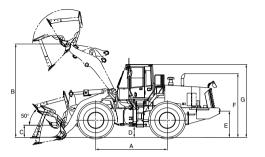
#### **BUCKET SELECTION GUIDE**



Material density: kg/m³ lb/yd³



Measured with 26.5-25-16PR (L3) tires



	Tread	2300 mm	7'7"
	Width over tires	3010 mm	9'11"
Α	Wheelbase	3450 mm	11'4"
В	Hinge pin height, max. height	4360 mm	14'4"
С	Hinge pin height, carry position	585 mm	1'11"
D	Ground clearance	525 mm	1'9"
Ε	Hitch height	1240 mm	4'1"
F	Overall height, top of the stack	3080 mm	10'1"
G	Overall height, ROPS cab	3500 mm	11'6"

	General Purpose Buckets					Rock Bucket	Loose Material	Light Material
	Stockpile		Excavating			(Spade nose)	Bucket	Bucket
	Bolt-on Cutting edges	Teeth	Bolt-on Cutting edges	Teeth and Segments	Teeth	Teeth	Bolt-on Cutting edges	Bolt-on Cutting edges
Bucket capacity: heaped	<b>4.2 m³</b>	<b>3.9 m³</b>	<b>3.8 m³</b>	<b>3.8 m³</b>	<b>3.6 m³</b>	<b>3.6 m³</b>	<b>4.4 m³</b>	<b>5.2 m</b>
	5.5 yd³	5.1 yd³	5.0 yd³	5.0 yd³	4.7 yd³	4.7 yd³	5.8 yd³	6.8 yd
struck	<b>3.5 m³</b>	<b>3.3 m³</b>	<b>3.2 m³</b>	<b>3.2 m³</b>	<b>3.1 m³</b>	<b>3.1 m³</b>	<b>3.9 m³</b>	<b>4.5 m</b>
	4.6 yd³	4.3 yd³	4.2 yd³	4.2 yd³	4.1 yd³	4.1 yd³	5.1 yd³	5.9 yd
Bucket width	<b>3170 mm</b>	<b>3190 mm</b>	<b>3170 mm</b>	<b>3190 mm</b>	<b>3190 mm</b>	<b>3170 mm</b>	<b>3170 mm</b>	<b>3170 mm</b>
	10'5"	10'6"	10'5"	10'6"	10'6"	10'5"	10'5"	10'5'
Bucket weight	<b>2050 kg</b>	<b>1970 kg</b>	<b>2150 kg</b>	<b>2200 kg</b>	<b>2070 kg</b>	<b>2165 kg</b>	<b>2110 kg</b>	<b>2185 kg</b>
	4,519 lb	4,343 lb	4,740 lb	4,850 lb	4,564 lb	4,773 lb	4,652 lb	4,817 lb
Dumping clearance, max. height and 45° dump angle*	<b>3185 mm</b>	<b>3060 mm</b>	<b>3235 mm</b>	<b>3110 mm</b>	<b>3110 mm</b>	<b>2975 mm</b>	<b>3055 mm</b>	<b>3035 mm</b>
	10'5"	10'0"	10'7"	10'2"	10'2"	9'9"	10'0"	9'11'
Reach at max. height	1235 mm	<b>1335 mm</b>	<b>1185 mm</b>	1285 mm	<b>1285 mm</b>	1435 mm	<b>1365 mm</b>	<b>1385 mm</b>
and 45° dump angle*	4'1"	4'5"	3'11"	4'3"	4'3"	4'8"	4'6"	4'7'
Reach at 2130 mm (7') clearance and 45° dump angle	1935 mm	<b>1975 mm</b>	<b>1905 mm</b>	<b>1950 mm</b>	1950 mm	2035 mm	<b>2010 mm</b>	<b>2020 mm</b>
	6'4"	6'6"	6'3"	6'5"	6'5"	6'8"	6'7"	6'8'
Reach with arm horizontal and bucket level	<b>2755 mm</b>	<b>2910 mm</b>	<b>2685 mm</b>	<b>2840 mm</b>	<b>2840 mm</b>	<b>3040 mm</b>	<b>2940 mm</b>	<b>2965 mm</b>
	9'0"	9'7"	8'10"	9'4"	9'4"	10'0"	9'8"	9'9'
Operating height (fully raised)	<b>5960 mm</b>	<b>5960 mm</b>	<b>5875 mm</b>	<b>5875 mm</b>	<b>5875 mm</b>	<b>5875 mm</b>	<b>5960 mm</b>	<b>6185 mm</b>
	19'7"	19'7"	19'3"	19'3"	19'3"	19'3"	19'7"	20'4'
Overall length	8825 mm	<b>8980 mm</b>	<b>8755 mm</b>	<b>8910 mm</b>	<b>8910 mm</b>	<b>9210 mm</b>	<b>9010 mm</b>	<b>9035 mm</b>
	28'11"	29'6"	28'9"	29'3"	29'3"	29'11"	29'7"	29'8'
Loader clearance circle (35°) (bucket at carry, outside corner of bucket)	15280 mm 50'2"	15380 mm 50'6"	<b>15240 mm</b> 50'0"	<b>15340 mm</b> 50'4"	<b>15340 mm</b> 50'4"	15280 mm 50'2"	<b>15370 mm</b> 50'5"	<b>15380 mm</b> 50'6'
Digging depth: 0°	80 mm	100 mm	<b>80 mm</b>	100 mm	100 mm	<b>85 mm</b>	<b>80 mm</b>	<b>80 mm</b>
	3.1"	3.9"	3.1"	3.9"	3.9"	3.3"	3.1"	3.1'
10°	315 mm	360 mm	<b>305 mm</b>	<b>350 mm</b>	350 mm	<b>370 mm</b>	<b>345 mm</b>	<b>350 mm</b>
	1'0"	1'2"	1'0"	1'2"	1'2"	1'3"	1'2"	1'2'
Static tipping load: straight	18295 kg	18370 kg	18205 kg	18160 kg	18275 kg	18190 kg	18240 kg	<b>18175 kg</b>
	40,330 lb	40,500 lb	40,130 lb	40,040 lb	40,290 lb	40,100 lb	40,210 lb	40,070 lb
40° full turn	15720 kg	<b>15795 kg</b>	15630 kg	15585 kg	15705 kg	15615 kg	15665 kg	15600 kg
	34,660 lb	34,820 lb	34,460 lb	34,360 lb	34,620 lb	34,420 lb	34,530 lb	34,390 lb
Breakout force	<b>192 kN</b>	<b>207 kN</b>	203 kN	<b>209 kN</b>	220 kN	190 kN	<b>168 kN</b>	<b>165 kN</b>
	19600 kgf	21120 kgf	20710 kgf	21330 kgf	22450 kgf	19390 kgf	17140 kgf	16840 kg
	43,160 lb	46,560 lb	45,660 lb	47,020 lb	49,490 lb	42,750 lb	37,790 lb	37,130 lb
Operating weight	22960 kg	22880 kg	23060 kg	23110 kg	22980 kg	23075 kg	23020 kg	23095 kg
	50,620 lb	50,440 lb	50,840 lb	50,950 lb	50,660 lb	50,870 lb	50,750 lb	50,910 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, 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.