

# KOMATSU®

## WA700-3

BUCKET CAPACITY  
8.7 – 9.4 m<sup>3</sup>  
11.4 – 12.3 yd<sup>3</sup>

**WA**  
**700**

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Photo may include optional equipment.

# The Answer for Higher Reliability and





# Productivity

## Proven Power

The field-proven Komatsu six-cylinder, direct-injection turbo-charged SAA6D-170E-3 engine has all the capability needed for today's tough operations. This engine is EPA Tier 2 and EU Stage 2 emissions certified.

## Horsepower

**502<sub>kW</sub> 672<sub>HP</sub>**  
**@2,000RPM**

## Reliable Power Train

The engine, torque converter and transmission, as well as the hydraulic equipment and electrical parts, undergo strict quality control checks, ensuring enhanced reliability and durability.

## Durable Bucket

Komatsu buckets are manufactured using high-tensile steel with replaceable welded wear plates for extended bucket life. Sufficient strength has been incorporated into the bucket bottom corners, side edges and spill guard ends for increased durability.

## Bucket capacity

Excavating bucket

**8.7 m<sup>3</sup>(11.4cu.yd)**

General-purpose bucket

**9.4 m<sup>3</sup>(12.3cu.yd)**

## Large Dumping Clearance

The WA700-3 is designed with ample dumping clearance for dump truck loading.

## High Breakout Force

Komatsu wheel loaders use high-tensile steel for Z-bar loader linkage to give maximum rigidity, ensuring durability for high breakout force. Sealed loader linkage pins extend greasing intervals.

## Excellent Stability

The WA700-3 has a wide tread 3,000mm (9'10") and the longest wheelbase in its class 4,800mm (15'9"), for maximum machine stability.

# Focus on Operator Comfort and



Model shown may include optional equipment.

## AJSS (Advanced Joystick Steering System)(Optional)

The most suitable steering system for wheel loader operation should be both smooth and effortless to operate. With this in mind, using its hydraulic and electronic control technology, Komatsu has created AJSS. This system allows the machine operator to articulate the machine proportionally with the angle of the control joystick. He can actually develop a "feel" for the steering articulation and thus increase his operation efficiency.



Transmission forward/reverse and shift control switches are mounted on the joysticks.

## Faster Pile-Penetration & Scooping

A kick-down switch down-shifts the transmission from forward 2nd to 1st gear for increased rim pull, hence improved bucket filling. When the direction control lever is set to reverse, it automatically up-shifts from 1st to 2nd gear, reducing cycle time.



## Ergonomically-Designed Controls

All controls are ergonomically designed to minimize operator fatigue. The steering wheel and instrument panel are similar to those of a car. The bucket and boom controls have PPC valves and short-travel levers to reduce operator effort. With the electrically-controlled transmission, direction and gearshift control levers can be finger-operated while holding the steering wheel with the same hand, allowing instant, positive direction and gearshift changes.

## Comfortable Operator's Seat

The operator's seat has a reclining, air suspension design with headrest to support the operator comfortably during long periods of operation. Also, air suspension makes adjusting the seat height easy.

Air suspension seat:option

# Easy Maintenance

## Smooth Electronic Automatic Transmission (Optional)

With the electronic automatic transmission, you can always enjoy the optimum speed for the machine conditions. Clutch engagement during gear shifting is smooth, so that time lag and shock are small and ride comfort is ensured. When ascending or descending a slope or while operating, the automatic transmission can easily be set to manual shift by using the switch.



## Tiltable Steering Column & One-Glance Monitors

The steering column can be easily tilt-adjusted to the most comfortable position with a lever. Together with the two-spoke steering wheel design, this guarantees better vision of the monitors.



## Stair Light (Optional)

The stair light, which illuminates the rear access stairs for about a minute, is operated by a switch inside the cab, regardless of ignition key position.

## Roomy, Quiet Cab With Power Windows

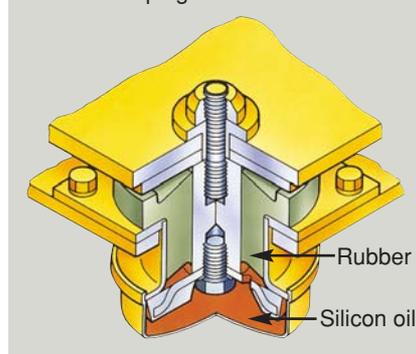
The cab is large, with a spacious interior and power windows. Also, a wide viewing angle is guaranteed because the cab is pillarless. By adopting a high-capacity air conditioner, Komatsu ensures operator comfort, no matter the exterior conditions. Another features designed with operators in mind is a lunchbox storage space.



## Low Vibration & Noise

The cab rests on Komatsu viscous damping mounts (rubber and silicon oil) to reduce vibration and noise. All hydraulic equipment is mounted on high-resistance rubber to further reduce vibration and noise.

Viscous damping mounts



## Auto-Greasing System (Optional)

The periodic lubrication points, except for the drive shaft, are greased automatically according to a preset amount and interval. Quick-change grease canisters make replacement easy and clean.

## Simple Checks, Easy Maintenance

The main monitor and the maintenance monitor (EDIMOS II) are neatly arranged on the instrument panel to give a quick, clear reading of machine functions at all times. The main monitor also has a diagnostic function.



## High-Quality Paint

Most exterior plates are treated with a cationic electro-deposition undercoat and melamine baked final coating for rust resistance and longer service life.

## Maintenance-Free Braking System

Service brakes employ two hydraulically-actuated independent circuits for increased safety. The brakes are adjustment-free, fully-sealed, wet multiple-disc units, preventing intrusion of dirt and dust. Since the brake system does not use air, it provides many features such as absence of condensation, dependable braking even in cold conditions, no need for drainage, and rust-free piping. What's more, charging time after engine starting is drastically shortened and pedal depressing effort is reduced.



# SPECIFICATIONS



## ENGINE

Model .....	Komatsu SAA6D170E-3
Type .....	Water-cooled, 4-cycle
Aspiration .....	Turbocharged and aftercooled
No. of cylinders .....	6
Bore x stroke .....	<b>170mm x 170mm</b> 6.69" x 6.69"
Piston displacement .....	<b>23.15 ltr.</b> 1,413 cu.in
Performance:	
Flywheel horsepower .....	<b>502 kW</b> 672 HP (SAE J1349)
.....	<b>502 kW</b> 682 PS (DIN 6270)
Rated RPM .....	2,000 RPM
Fuel system .....	Direct injection
Governor .....	Electronic, all-speed control
Lubrication system:	
Lubrication method .....	Gear pump, force-lubrication
Filter .....	Full-flow type
Air cleaner .....	Dry type with double elements and dust evacuator, plus dust indicator

EPA Tier 2 and EU Stage 2 emissions certified.



## TRANSMISSION

Torque converter:	
Type .....	3-element, single-stage, single-phase
Transmission:	
Type .....	Full-powershift, planetary gear type
Travel speed: <b>km/h</b> <b>MPH</b>	
Measured with 40/65-39PR tires	
	1st            2nd            3rd            4th
Forward	<b>6.4</b> 4.0 <b>11.1</b> 6.9 <b>18.7</b> 11.6 <b>30.0</b> 18.6
Reverse	<b>7.1</b> 4.4 <b>12.3</b> 7.6 <b>20.5</b> 12.7 <b>32.3</b> 20.1



## AXLES & FINAL DRIVES

Drive system .....	Four-wheel drive
Front .....	Fixed, full-floating
Rear .....	Center-pin-support, full-floating 22° total oscillation
Reduction gear .....	Spiral bevel gear
Differential gear .....	Straight bevel gear
Final reduction gear .....	Planetary gear, single reduction, oil bath



## BRAKES

Service brakes .....	4-wheel, systematic brake for front/rear wheel, hydraulically actuated, wet multiple-disc
Parking brake .....	Dry-disc type, hydraulic released, spring applied on front drive shaft
Emergency brake .....	Uses parking brake



## STEERING SYSTEM

Type .....	Articulated type, full-hydraulic power steering
Steering angle .....	40° each direction
Minimum turning radius at the center of outside tire .....	<b>8,095 mm</b> 26'7"



## HYDRAULIC SYSTEM

Steering system:	
Hydraulic pump .....	Piston pump
Capacity .....	<b>203 ltr./min.</b> 53.6 U.S. gal/min. at rated RPM
Relief valve setting .....	<b>320kg/cm<sup>2</sup></b> 4,550PSI
Hydraulic cylinders:	
Type .....	Double-acting, piston type
No. of cylinders .....	2
Bore x stroke .....	<b>130 mm x 532 mm</b> 5.1" x 20.9"
Loader control:	
Hydraulic pump .....	Piston pump
Capacity .....	<b>405 ltr./min.</b> 107.0 U.S. gal/min. at rated RPM
Relief valve setting .....	<b>320 kg/cm<sup>2</sup></b> 4,550 PSI
Switch pump .....	Piston pump
Capacity .....	<b>203 ltr./min.</b> 53.6 U.S. gal/min. at rated RPM
Hydraulic cylinders:	
Type .....	Double-acting, piston type
No. of cylinders-bore x stroke:	
Lift cylinder .....	<b>2-225 mm x 1,196 mm</b> 8.9" x 47.1"
Bucket cylinder .....	<b>1-280 mm x 729 mm</b> 11.0" x 28.7"
Control valve .....	2-spool type
Control positions:	
Boom .....	Raise, hold, lower and float
Bucket .....	Tilt-back, hold and dump
Hydraulic cycle time (rated load in bucket)	
Raise .....	9.7 sec.
Dump .....	2.5 sec.
Lower (Empty) .....	3.6 sec.



## ROPS & CAB

Structure complies with ISO 3471 and SAE J1040c ROPS (Roll-Over Protective Structure) standards, as well as ISO 3449 FOPS (Falling Object Protective Structure) standards. The cab is mounted on viscous damper and well insulated.



## SERVICE REFILL CAPACITIES

Cooling system .....	<b>209 ltr.</b> 55.2 U.S.gal
Fuel tank .....	<b>1,100 ltr.</b> 290.6 U.S.gal
Engine .....	<b>52 ltr.</b> 13.7 U.S.gal
Hydraulic system .....	<b>470 ltr.</b> 124.2 U.S.gal
Axle (each front and rear) .....	<b>245 ltr.</b> 64.7 U.S.gal
Torque converter and transmission .....	<b>105 ltr.</b> 27.7 U.S.gal

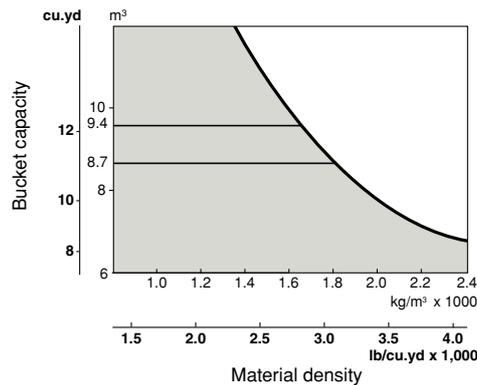


## TIRES

Select ideal tires depending on job requirements.

40/65-39-36 PR (L-5)
41.25/70-39-34 PR (L-5)
45/65-R39 (L-5)

# BUCKET SELECTION



	Capacity Heaped m³ cu.yd	Struck	Bucket width* mm ft.in	Bucket weight kg lb	Breakout force kg lb
I Excavating bucket (straight edge) with tipteeth	8.7 11.4	7.6 9.9	4,330 14'2"	6,770 14,925	64,700 142,640
II Excavating bucket (spade nose) with tipteeth	8.7 11.4	7.6 9.9	4,330 14'2"	7,150 15,760	52,700 116,180
III General-purpose bucket (straight edge) with tipteeth	9.4 12.3	8.2 10.7	4,330 14'2"	7,150 15,760	62,400 137,570

\*Excluding tire protectors

Tires/Buckets	Operating weight kg lb			Static tipping load kg lb					
	I	II	III	Straight			40° full turn		
				I	II	III	I	II	III
40/65-39-36PR(L-5)	70,620 155,690	71,000 156,530	71,000 156,530	46,400 102,290	46,050 101,520	46,700 102,955	40,730 89,790	40,400 89,070	41,080 90,565
41.25/70-39-34PR(L-5)	71,220 157,010	71,600 157,850	71,600 157,850	46,830 103,240	46,480 102,470	47,130 103,900	41,100 90,610	40,750 89,840	41,450 91,380
45/65-R39(L-5)	71,700 158,070	72,080 158,910	72,080 158,910	47,160 103,970	46,810 103,200	47,460 104,630	41,400 91,270	41,070 90,540	41,750 92,040

- 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, steel cab, ROPS canopy, front half fenders, tip type teeth and operator. Machine stability and operating weight are affected by counterweight, or ballast, tire size and other attachments. Use either counterweight or ballast, not both. Apply the following weight changes to operating weight and static tipping load.

## WEIGHT CHANGES

	Change in operating weight		Change in tipping load			
			Straight		Full turn	
Remove ROPS canopy	- 1,050 kg	- 2,315 lb	- 965 kg	- 2,130 lb	- 850 kg	- 1,870 lb
Remove steel cab	- 430 kg	- 950 lb	- 315 kg	- 690 lb	- 275 kg	- 610 lb
Remove teeth and adapter	- 890 kg	- 1,960 lb	+ 1,150 kg	+ 2,535 lb	+ 1,005 kg	+ 2,220 lb

## STANDARD EQUIPMENT

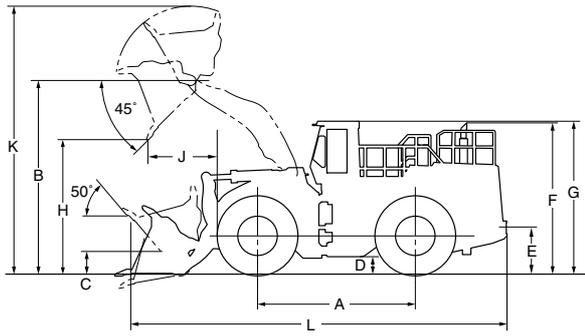
- 672HP/2,000RPM KOMATSU SAA6D170E-3 diesel engine
- C200 battery
- 50A alternator
- Wet type disc brake
- Boom kickout
- Electronic display/monitoring system
- Electrically controlled transmission
- Tiltable steering wheel
- Engine key stop
- ROPS bracket
- Speedometer
- Service meter
- Ladders (right & left)
- Head lamps
- Rear working lights
- Turn indicators (front & rear)
- Horn
- Fan guard
- Counterweight (2,500kg)
- 4x40/65-39-36PR(L-5) tubeless tire
- Inside rearview mirror
- Emergency brake
- Front fender
- Rear half fender
- Floor mat
- Rear view mirror
- Bucket positioner

## OPTIONAL EQUIPMENT

- Bucket teeth (tip type)
- Bucket corner teeth
- ROPS canopy
- Air conditioner
- Emergency steering
- Vandalism protection kit
- Fire extinguisher
- Tool kit
- Ordinary spare parts
- Heater and defroster
- Seat belt
- Sun visor
- Back-up lamp
- Car radio
- Steel cab
- (included front wiper, windshield washer, power window)
- Stair light
- AJSS (Advanced Joystick Steering System)

# DIMENSIONS

(Unit:mm ft.in)



	40/65-39-36(L-5) tires	45/65-R39(L-5) tires
Tread	3,000 9'10"	3,060 10'
Width over tires	4,040 13'3"	4,160 13'8"
A Wheelbase	4,800 15'9"	4,800 15'9"
B Hinge pin height,max. height	5,990 19'8"	6,035 19'10"
C Hinge pin height, carry position	720 2'4"	765 2'6"
D Ground clearance	540 1'9"	585 1'11"
E Hitch height	1,530 5'	1,575 5'2"
F Overall height, top of the stack	4,825 15'10"	4,870 16'
G Overall height, ROPS canopy	4,790 15'9"	4,835 15'10"

## Measured with 40/65-39-36PR(L-5) tires

Buckets	I	II	III
H. Dumping clearance, max. height and 45° dump angle *	4,280 14'1"	4,040 13'3"	4,195 13'9"
J. Reach at max. height and 45° dump angle *	1,890 6'2"	2,135 7'	1,975 6'6"
Reach at 2130 mm (7') cut edge clearance and 45° dump angle	2,770 9'1"	2,985 9'10"	2,850 9'4"
Reach with arm horizontal and bucket level	3,500 11'6"	3,840 12'7"	3,620 11'10"
K. Operating height (fully raised)	8,170 26'10"	8,170 26'10"	8,320 27'3"
L. Overall length (with tipteeth)	12,160 39'11"	12,500 41'	12,280 40'3"
Loader clearance circle (bucket at carry, outside corner of bucket with tipteeth)	19,260 63'2"	19,230 63'1"	19,320 63'5"
Digging depth (with tipteeth)	0°	170 7"	170 7"
	10°	510 1'8"	570 1'10"

\* At the end of tooth

## Measured with 40/65-R39(L-5) tires

Buckets	I	II	III
H. Dumping clearance, max. height and 45° dump angle *	4,325 14'2"	4,085 13'5"	4,240 13'11"
J. Reach at max. height and 45° dump angle *	1,890 6'2"	2,135 7'	1,975 6'6"
Reach at 2130 mm (7') cut edge clearance and 45° dump angle	2,770 9'1"	2,985 9'10"	2,850 9'4"
Reach with arm horizontal and bucket level	3,500 11'6"	3,840 12'7"	3,620 11'10"
K. Operating height (fully raised)	8,215 26'11"	8,215 26'11"	8,365 27'5"
L. Overall length (with tipteeth)	12,135 39'10"	12,475 40'11"	12,255 40'2"
Loader clearance circle (bucket at carry, outside corner of bucket with tipteeth)	19,260 63'2"	19,230 63'1"	19,230 63'5"
Digging depth (with tipteeth)	0°	125 4.9"	125 4.9"
	10°	465 1'6"	525 1'9"

\* At the end of tooth

This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

# KOMATSU