

WHEEL LOADER

WA420-3

ADVANCE LOADER

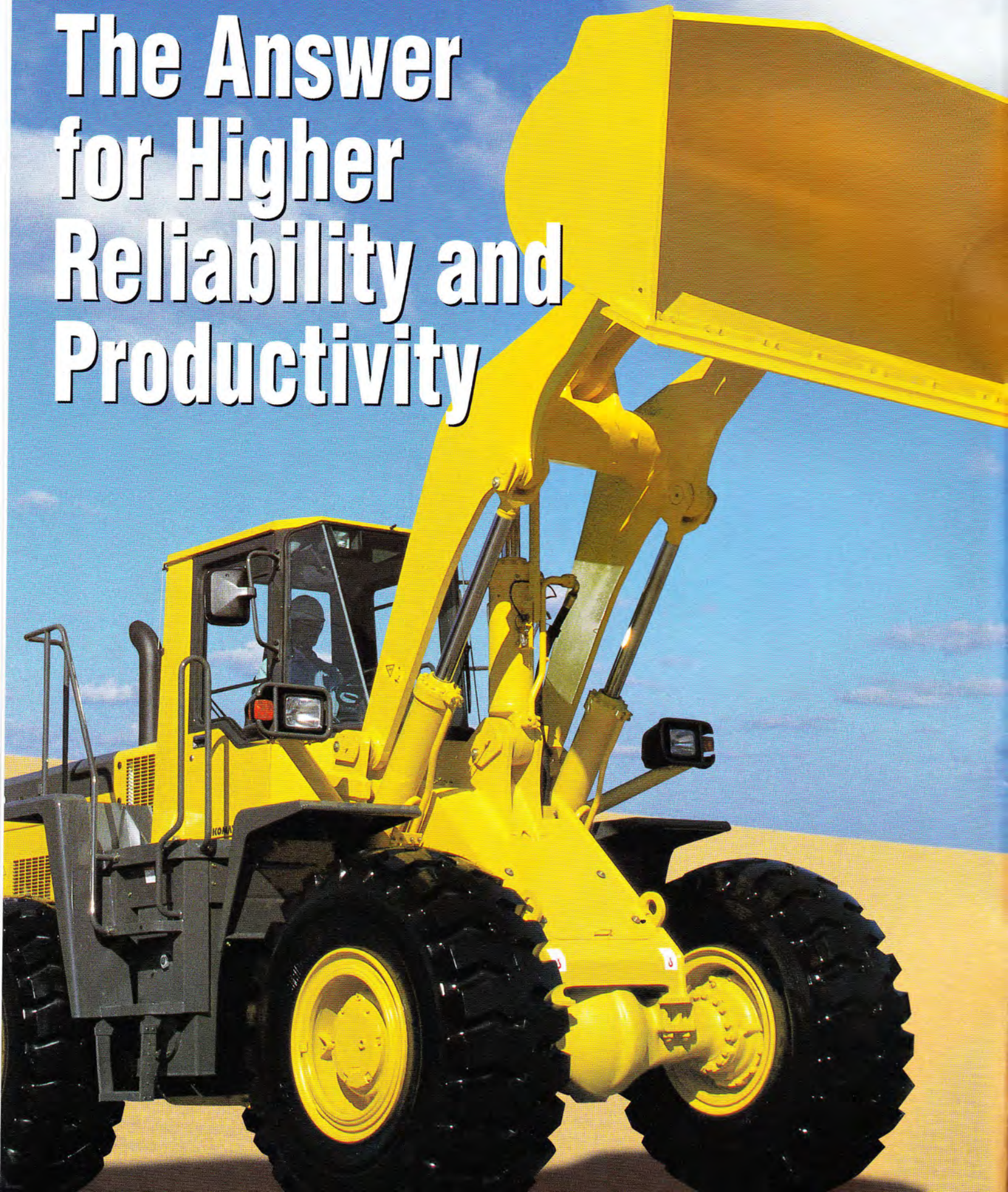
FLYWHEEL HORSEPOWER: **162kW** 217 HP @2,200RPM
BUCKET CAPACITIES: **3.1~4.6m³** 4.05~6.0 cu.yd
OPERATING WEIGHT :**18,990 kg** 41,875 lb



Model shown may include optional equipment.

- *The powerful Komatsu SA6D108 engine provides fuel-efficient operation*
- *Exclusive dual speed hydraulic system ensures shorter cycle time*
- *Kick-down switch on the boom control lever improves pile penetration and scooping operations*
- *Electrically controlled transmission enables light fingertip control of all direction/gear shift changes*
- *Tiltable steering wheel and adjustable seat provide operator comfort and efficiency*
- *Komatsu viscous damping cab mounts reduce vibration and noise*
- *Adjustment-free service and parking brakes account for higher performance and reduced downtime*
- *Gull-wing engine side covers facilitate engine access for easy checking/replacement of engine oil or filters*
- *High-quality components are used for superior reliability and availability*

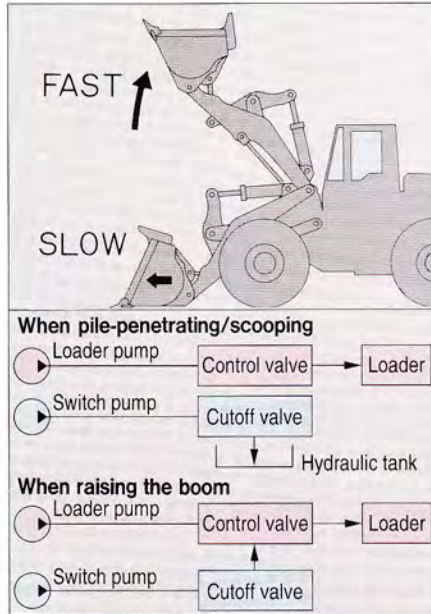
The Answer for Higher Reliability and Productivity





Shortened Cycle Time

The dual speed hydraulic system drastically shortens cycle time. When pile-penetrating and scooping, most of the engine power is applied to the wheels to exert maximum rim pull by turning off the switch pump. Power is also fully applied to the loader through the combination of both switch and loader pumps to give maximum hydraulic power when raising the boom.



Great Power

The world/field-proven Komatsu 6-cylinder, direct-injection turbo-charged SA6D108 engine has all the capability needed for today's tough operations.

Reliable Power Train

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

Durable Bucket

Komatsu buckets are manufactured using high-tensile strength steel with replaceable bolt-on wear plates for extended bucket life. Additional strength has been added to the bucket bottom corners, side edges and spill guard ends

Large Dumping Clearance

The WA420-3 was designed with ample dumping clearance for on-highway dump trucks. The operator can easily level materials in the bed of the dump truck.

High Breakout Force

Komatsu wheel loaders have high-tensile steel Z-bar loader linkages for maximum rigidity and maximum breakout force. Sealed loader linkage pins extend greasing intervals.

Excellent Stability

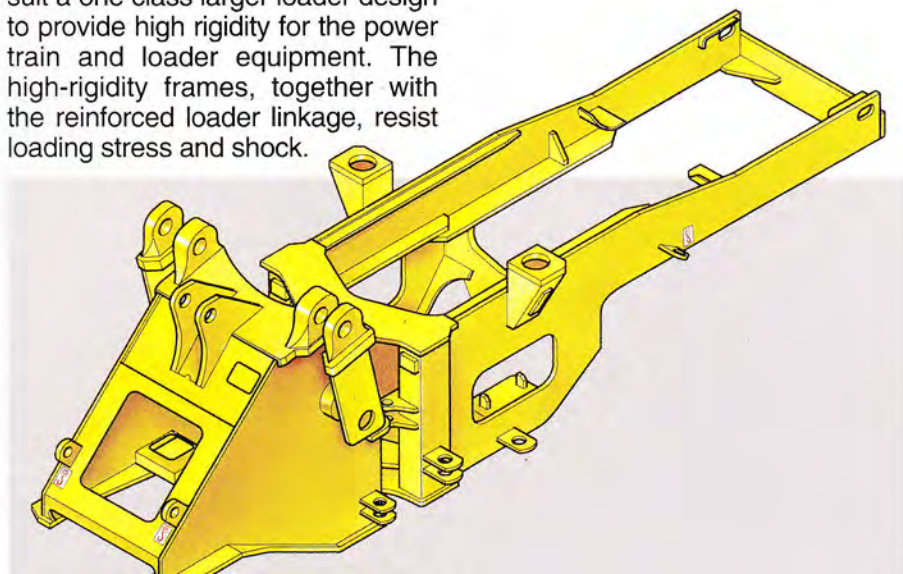
The WA420-3 has the widest tread in its class 2,200mm (7'3") and a long 3,300mm (10'10") wheelbase, for maximum machine stability.

Smoother Ride In Muddy Terrain

The torque proportioning differential for both axles enables smoother ride in muddy or sandy terrain, reducing tire slippage and extending tire life.

High-Rigidity Frames

Front and rear frames are made to suit a one class larger loader design to provide high rigidity for the power train and loader equipment. The high-rigidity frames, together with the reinforced loader linkage, resist loading stress and shock.

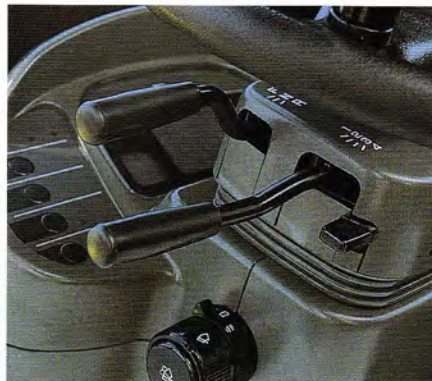


Focus on Operator Comfort and



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-stroke 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



Faster Pile-Penetration & Scooping

to 1st gear, for increased rim pull and hence improved bucket filling. When the direction control lever is set to reverse, it automatically up-shifts from 1st gear to 2nd, to reduce cycle time.



Easy Maintenance

Tiltable Steering Column & One-Glance Monitors

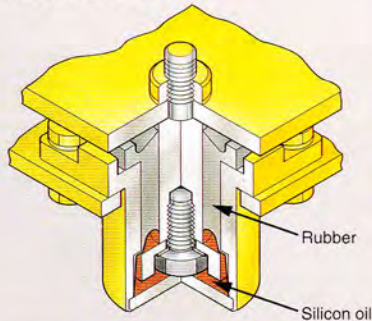
The steering column can be easily tilt-adjusted to the most comfortable position with one lever. Together with the two-spoke design, this guarantees better vision of the monitors.



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



Comfortable Operator's Seat

The operator's seat has a reclining/suspension design with headrest to support the operator com-

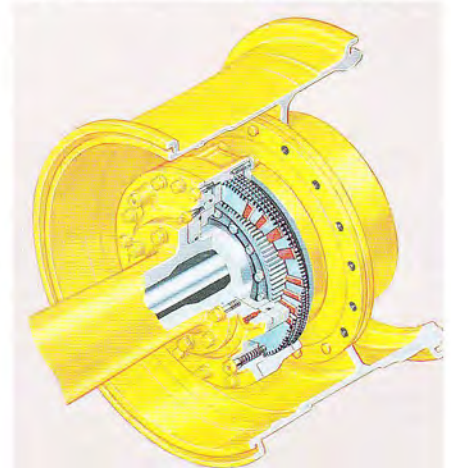
Simple Checks, Easy Maintenance

Gull-wing engine side covers fully open upwards at a fingertouch. The covers allow for easy checking of engine and enable repair from ground level if required. The main monitor and the maintenance monitor (EDIMOS II) are neatly arranged on the instrument panel for a quick, clear reading of machine functions at all times.

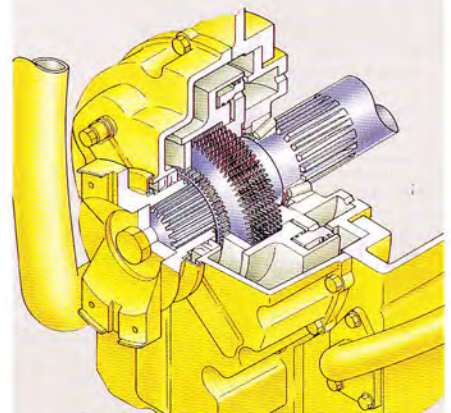


Maintenance-Free Braking System

Service brakes employ two hydraulically-actuated independent circuits for increased safety and are adjustment-free, fully-sealed, wet 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. The parking brake is also an adjustment-free, wet disc type.



Fully-sealed wet disc brake



High-Quality Coating

Most exterior plates are treated with a cationic electro-deposition undercoat and powder coating for

SPECIFICATIONS



ENGINE

Model.....	Komatsu SA6D108
Type.....	Water-cooled, 4-cycle
Aspiration.....	Turbocharged
No. of cylinders.....	6
Bore × stroke.....	108mm × 130mm 4.3" × 5.1"
Piston displacement.....	7.15ltr. 436 cu.in
Performance:	
Flywheel horsepower.....	162 kw 217 HP (SAE J1349) 162 kw 220 PS (DIN 6270)
Rated RPM.....	2,200 RPM
Fuel system.....	Direct injection
Governor.....	Mechanical, 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



TRANSMISSION

Torque converter:	
Type.....	3-element, single-stage, single-phase
Transmission:	
Type.....	Full-powershift, countershaft type
Travel speed: km/h MPH	
Measured with 23.5-25 tires	
	1st 2nd 3rd 4th
Forward	6.3 3.9 11.7 7.3 20.5 12.7 32.8 20.4
Reverse	6.6 4.1 12.2 7.6 21.2 13.2 33.9 21.1
Measured with 26.5-25 tires	
Forward	6.8 4.2 12.7 7.9 22.1 13.7 34.5 21.4
Reverse	7.1 4.4 13.2 8.2 22.9 14.2 36.0 22.4



AXLES & FINAL DRIVES

Drive system.....	Four-wheel drive
Front.....	Fixed, full-floating
Rear.....	Center-pin-support, full-floating 26° total oscillation
Reduction gear.....	Spiral bevel gear
Differential gear.....	Torque proportioning type
Final reduction gear.....	Planetary gear, single reduction



BRAKES

Service brakes.....	Hydraulically actuated, wet disc brakes actuate on four wheels
Parking brake.....	Wet disc brake
Emergency brake.....	Parking brakes is commonly used.



STEERING SYSTEM

Type.....	Articulated type, full-hydraulic power steering with orbit-roll system
Steering angle.....	40° each direction
Minimum turning radius at the center of outside tire.....	5,650 mm 18'6"



HYDRAULIC SYSTEM

Steering system:	
Hydraulic pump.....	Gear pump
Capacity.....	137 ltr./min. 36.2 U.S.gal/min. at rated RPM
Relief valve setting.....	210kg/cm² 3,000PSI
Hydraulic cylinders:	
Type.....	Double-acting, piston type
No. of cylinders.....	2
Bore × stroke.....	90 mm × 442 mm 3.5" × 17.4"
Loader control:	
Hydraulic pump.....	Gear pump
Capacity.....	217+111 ltr./min. 57.3+29.3 U.S.gal/min. at rated RPM
Relief valve setting.....	210 kg/cm² 3,000 PSI
Hydraulic cylinders:	
Type.....	Double-acting, piston type
No. of cylinders-bore × stroke:	
Boom cylinder.....	2-160 mm × 846 mm 6.3" × 33.3"
Bucket cylinder.....	1-200 mm × 498 mm 7.9" × 19.6"
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.....	6.5sec.
Dump.....	1.4 sec.
Lower (Empty).....	3.5sec.



SERVICE REFILL CAPACITIES

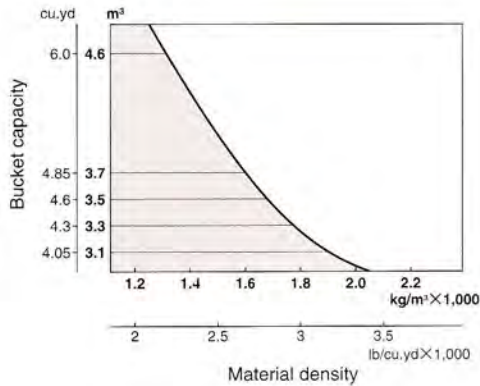
Cooling system.....	53 ltr. 14.0 U.S.gal
Fuel tank.....	320 ltr. 84.5 U.S.gal
Engine.....	28 ltr. 7.4 U.S.gal
Hydraulic system.....	138 ltr. 36.5 U.S.gal
Axle (each front and rear).....	60 ltr. 15.9 U.S.gal
Torque converter and transmission....	60 ltr. 15.9 U.S.gal



TIRES

Select ideal tires depending on job requirements.	
23.5-25-16 PR (L-2)	
23.5-25-16 PR (L-3)	
23.5-25-20 PR (L-2)	
23.5-25-20 PR (L-3)	
26.5-25-16 PR (L-3)	

BUCKET SELECTION



	Capacity Heaped m³ cu.yd	Struck	Bucket width mm ft.in	Bucket weight kg lb	Breakout force kg lb
I General-purpose bucket with bolt-on cutting edges; (Loading and excavating of soil, sand and variety of other commonly handled materials)	3.7 4.85	3.2 4.2	3,050 10'	1,740 3,840	18,500 40,800
II General-purpose bucket with teeth	3.5 4.6	3.0 3.9	3,070 10'1"	1,680 3,700	20,000 44,100
III Excavating bucket with bolt-on cutting edges	3.3 4.3	2.8 3.65	3,050 10'	1,830 4,030	19,800 43,650
IV Excavating bucket with teeth (Loading and excavating of crushed rock and blasted rock.)	3.1 4.05	2.6 3.4	3,070 10'1"	1,775 3,910	21,600 47,620
V Light material bucket with bolt-on cutting edges; (A lighter-weight, large-capacity bucket.)	4.6 6.0	4.0 5.25	3,050 10'	1,960 4,320	15,500 34,170
VI Rock bucket with teeth; (Spade nose). (Loading and excavating of blasted rock)	3.1 4.05	2.7 3.55	3,050 10'	1,825 4,020	18,100 39,900

Tires/Buckets	Operating weight kg lb				Static tipping load kg lb											
					Straight				35° turn				40° full turn			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
23.5-25-16PR(L-2)	18,220 40,175	18,160 40,045	18,310 40,375	18,255 40,255	13,415 29,580	13,475 29,710	13,165 29,030	13,220 29,150	12,075 26,625	12,125 26,740	11,845 26,125	11,895 26,230	11,680 25,750	11,730 25,865	11,460 25,270	11,510 25,375
23.5-25-16PR(L-3)	18,590 40,990	18,530 40,860	18,680 41,190	18,625 41,070	13,700 30,210	13,760 30,340	13,445 29,645	13,500 29,765	12,325 27,175	12,380 27,300	12,100 26,680	12,145 26,785	11,975 26,405	11,975 26,405	11,705 25,805	11,750 25,910
23.5-25-20PR(L-2)	18,280 40,305	18,220 40,175	18,370 40,510	18,315 40,385	13,460 29,680	13,520 29,815	13,210 29,130	13,265 29,250	12,115 26,715	12,165 26,830	11,885 26,215	11,935 26,325	11,770 25,955	11,770 25,955	11,500 25,355	11,545 25,460
23.5-25-20PR(L-3)	18,595 41,000	18,535 40,870	18,685 41,200	18,630 41,080	13,705 30,220	13,760 30,345	13,450 29,655	13,505 29,775	12,330 27,190	12,385 27,310	12,105 26,685	12,150 26,795	11,980 26,415	11,980 26,415	11,705 25,815	11,755 25,920
26.5-25-16PR(L-3)	18,900 41,675	18,840 41,545	18,990 41,875	18,935 41,750	13,940 30,735	13,995 30,860	13,680 30,165	13,736 30,285	12,540 27,650	12,595 27,770	12,310 27,145	12,360 27,255	12,180 26,860	12,180 26,860	11,910 26,255	11,955 26,360

- 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 are affected by counterweight, tire size and other attachments. Apply the following weight changes to operating weight and static tipping load.
- Operating weight shown excludes additional counterweight.

WEIGHT CHANGES

	Change in operating weight		Change in tipping load			
			Straight		Full turn	
Remove ROPS cab	- 670 kg	- 1,475 lb	- 600 kg	- 1,325 lb	- 580 kg	- 1,280 lb
Install additional counterweight	+ 325 kg	+ 715 lb	+ 835 kg	+ 1,840 lb	+ 700 kg	+ 1,545 lb

STANDARD EQUIPMENT

Engine, Komatsu SA6D108 Diesel
 Batteries, 2 × 12V/150 Ah
 Alternator, 35A
 Starting motor, 24V/7.5kW
 Back-up alarm
 Back-up lamp
 Engine shut-off system, Electric
 Main monitor panel with speedometer (km/h)
 Maintenance monitor panel
 Directional signal
 Steering wheel, Tilttable
 Seat, Suspension type with reclining
 Transmission, 4 forward & 4 reverse
 Transmission control, Electric
 Service brakes, Wet disc type
 2-spool valve for boom and bucket controls
 Lift cylinders and bucket cylinder
 Hard water area arrangement (corrosion resister)
 Boom
 Boom kick-out
 Bucket positioner
 Counterweight
 Radiator mask, Lattice type
 Tires (23.5-25-16PR, L3 tubeless) and rims

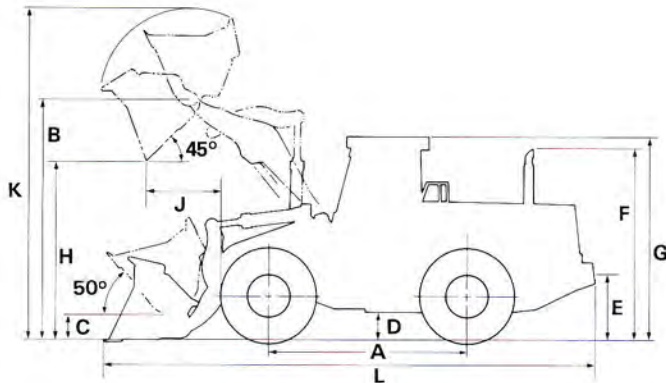
OPTIONAL EQUIPMENT

Cutting edge (bolt-on type)
 Bucket teeth (bolt-on type)
 Bucket teeth (tip type)
 Additional counterweight
 Counterweight for log
 Hydraulic adapter kit
 3-spool valve
 Automatic greasing
 Canvas canopy
 ROPS canopy
 Steel cab
 ROPS cab
 Air conditioner
 Auto-tuning AM/FM cassette stereo set
 Car radio
 Automatic bucket leveler and remote boom positioner
 Emergency steering
 E.C.S.S.
 (Electrically Controlled Suspension System)

Vandalism protection kit
 Front fender
 Rear full fender
 Fire extinguisher
 Power train guard
 Tool kit
 Ordinary spare parts
 Floor mat
 Heater and defroster
 Air intake extension
 Rear window washer and wiper
 Deluxe suspension seat
 Seat belt
 Sun visor
 Rearview mirror
 Front working light for cab

DIMENSIONS

(Unit: mm ft.in)



	23.5-25 tires	26.5-25 tires
Tread	2,200 7'3"	2,250 7'5"
Width over tires	2,820 9'3"	2,950 9'8"
A Wheelbase	3,300 10'10"	3,300 10'10"
B Hinge pin height, max. height	4,250 13'11"	4,315 14'2"
C Hinge pin height, carry position	520 1'8"	500 1'8"
D Ground clearance	460 1'6"	525 1'9"
E Hitch height	1,175 3'10"	1,240 4'1"
F Overall height, top of the stack	3,340 10'11"	3,405 11'2"
G Overall height, ROPS cab	3,380 11'1"	3,445 11'4"

Measured with 23.5-25 tires

Buckets	I	II	III	IV
H. Dumping clearance, max. height and 45° dump angle *	3,125 10'3"	3,000 9'10"	3,180 10'5"	3,055 10'
J. Reach at max. height and 45° dump angle *	1,110 3'8"	1,210 4'	1,055 3'6"	1,155 3'9"
Reach at 2,130 mm (7") cut edge clearance and 45° dump angle	1,810 5'11"	1,850 6'1"	1,775 5'10"	1,820 6'
Reach with arm horizontal and bucket level	2,620 8'7"	2,780 9'1"	2,540 8'4"	2,700 8'10"
K. Operating height (fully raised)	5,815 19'1"	5,815 19'1"	5,650 18'6"	5,650 18'6"
L. Overall length	8,160 26'9"	8,315 27'3"	8,080 26'6"	8,235 27'
Loader clearance circle (bucket at carry, outside corner of bucket)	13,270 43'6"	13,370 43'10"	13,230 43'5"	13,330 43'9"
Digging depth	0°	120 4.7"	140 5.5"	120 4.7"
	10°	350 1'2"	400 1'4"	335 1'1"

* At the end of tooth or BOC

Measured with 26.5-25 tires

Buckets	I	II	III	IV
H. Dumping clearance, max. height and 45° dump angle *	3,190 10'6"	3,065 10'1"	3,245 10'8"	3,120 10'3"
J. Reach at max. height and 45° dump angle *	1,045 3'5"	1,145 3'9"	990 3'3"	1,090 3'7"
Reach at 2,130 mm (7") cut edge clearance and 45° dump angle	1,785 5'10"	1,825 6'	1,750 5'9"	1,795 5'11"
Reach with arm horizontal and bucket level	2,555 8'5"	2,715 8'11"	2,475 8'1"	2,635 8'8"
K. Operating height (fully raised)	5,815 19'1"	5,815 19'1"	5,715 18'9"	5,715 18'9"
L. Overall length	8,100 26'7"	8,255 27'1"	8,020 26'4"	8,175 26'10"
Loader clearance circle (bucket at carry, outside corner of bucket)	13,220 43'4"	13,320 43'8"	13,180 43'3"	13,280 43'7"
Digging depth	0°	55 2.2"	75 3.0"	55 2.2"
	10°	285 11.2"	335 1'1"	270 10.6"

* At the end of tooth or BOC

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

