WHEEL LOADER

WA900-3

avance LOADER

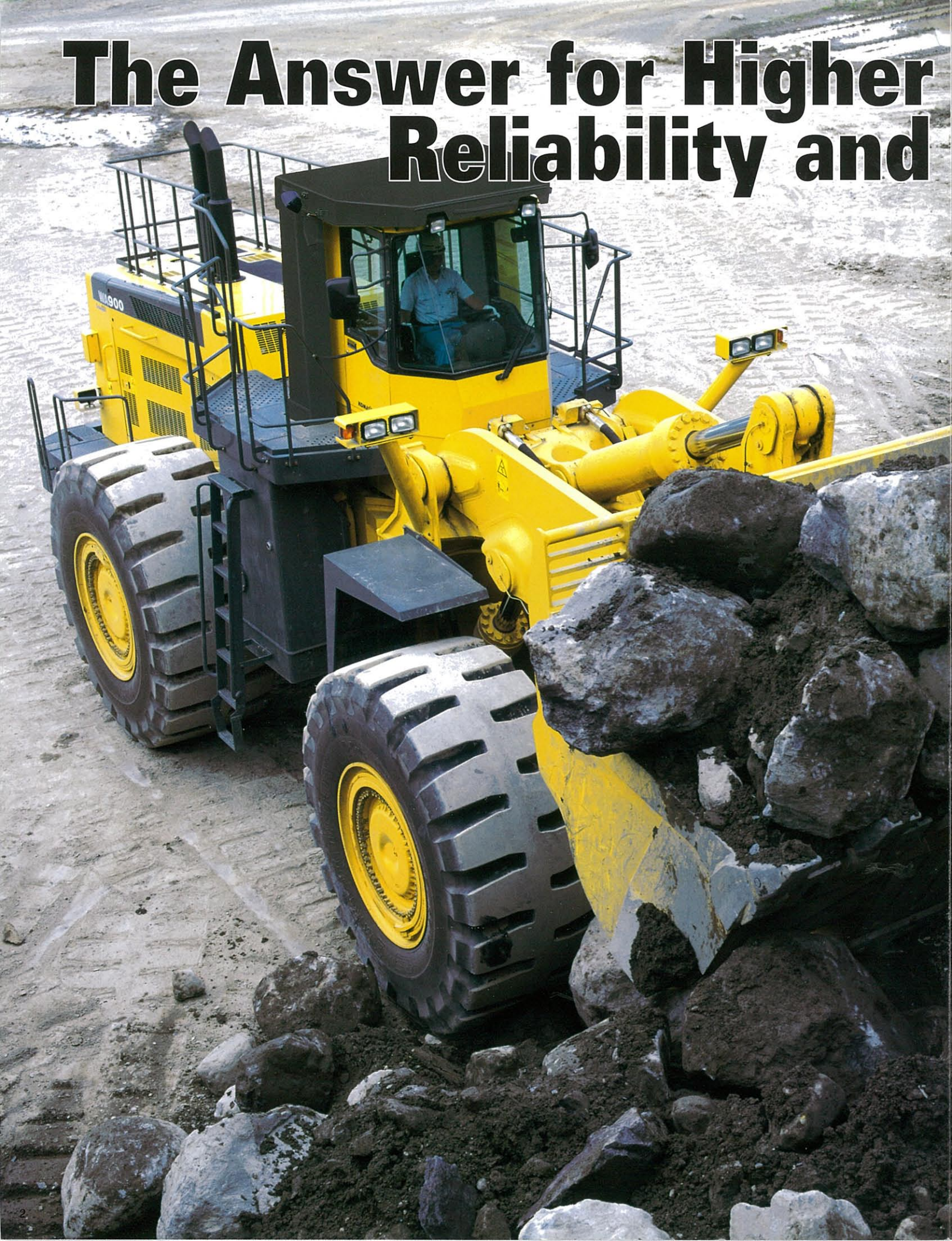
FLYWHEEL HORSEPOWER: **637kW** 853 HP @2,000RPM
BUCKET CAPACITIES: **13.0m³** 17.0cu.yd
OPERATING WEIGHT: **101,550 kg** 223,920 lb

Model shown may include optional equipment.

- *The powerful Komatsu SA12V140 engine provides fuel-efficient operation*
- *Roomy, quiet cab with high-capacity air conditioner substantially reduces operator fatigue*
- *Large bucket capacity and ample dumping clearance/reach make the WA900 an excellent worker's partner with 105 metric tons dump trucks*
- *Exclusive "Dual Speed Hydraulic System Plus" ensures shorten 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 brake accounts for higher performance and reduced downtime*
- *High-quality components are used for superior reliability and availability*

KOMATSU

The Answer for Higher Reliability and



Proven Power

The world/field-proven Komatsu 12-cylinder, direct-injection turbo-charged SA12V140 engine has all the capability needed for today's tough operations.

Flywheel horsepower

637kW 853HP @2,000RPM

Reliable Power Train

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

Durable Bucket

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

Bucket capacities

13.0m³ (17cu.yd)

Large Dumping Clearance

The WA900-3 was designed with ample dumping clearance for dump truck matching.

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 WA900-3 has the widest tread in its class 3,350mm (11') and a long 5,450mm (17'11") wheelbase, for maximum machine stability.

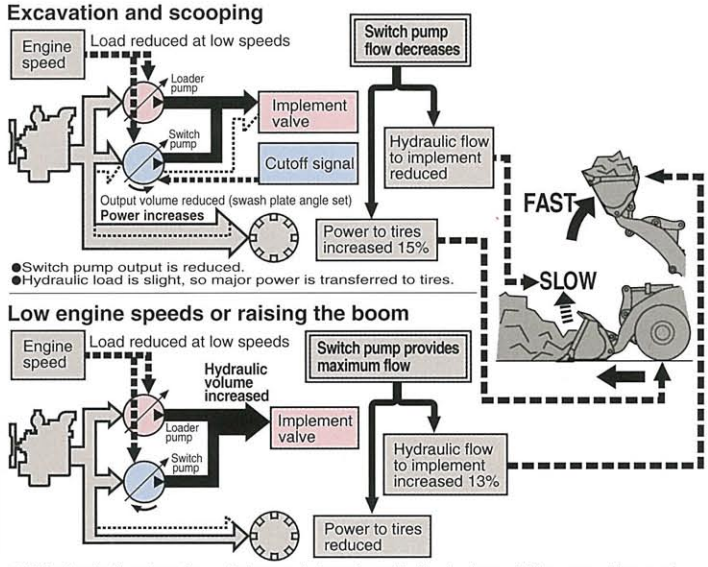
Shortened Cycle Time

●Since the implement requires relatively little hydraulic oil during excavation and scooping, the variable displacement pump's output is reduced. Power freed by reducing the pump load is translated into driving force. As a result, the machine's pushing force increases, which bolsters excavating efficiency.

●During dump approach and other boom-up operations, the variable displacement pump's output is greatly increased. This raises boom speed and reduces cycle times.

●By sensing the engine speed, the system allows the machine to quickly accelerate at low speeds. Also, at low engine speeds the output to the implement pump is reduced, serving as a control to reduce the load on the engine. (Between 800 rpm and 1,100 rpm, the angle of the swash plates in the loader pump and the switch pump is varied depending on engine speed, causing pump output to vary between 50% and 100% of maximum.)

Excavation and scooping



●All hydraulic flow from the switch pump is transferred to the implement. However, at low engine speeds the output volume is controlled to give priority to engine response.
●Power to the tires is reduced only by the amount of the switch pump's driving power.

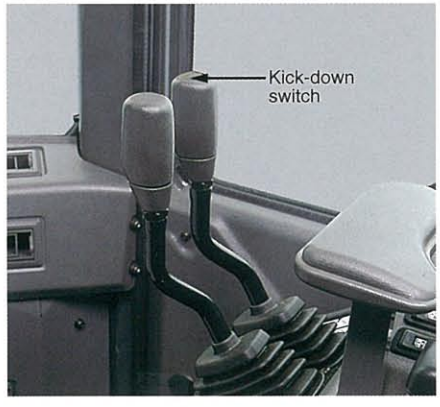
Focus on Operator Comfort and

Easy to Use Joystick Steering (Optional)

A joystick steering system has been incorporated to allow steering and forward/reverse selection to be effected by wrist and finger control without the operator having to move his arm from the rest. The boom lever hold and kick-down switches change to up-shift and down-shift switches respectively.

Faster Pile-Penetration & Scooping

A kick-down switch down-shifts the transmission from forward 2nd 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.



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 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 operation. Also, it is easy to adjust seat height with air suspension.

Easy Maintenance

Smooth Electronic Automatic Transmission (Optional)

With the electronic automatic transmission, you can always enjoy the optimum speed for the machine travelling conditions. Clutch engagement during gear shifting is so smooth 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 the standard manual transmission by using the manual switch.

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.

Stair Light

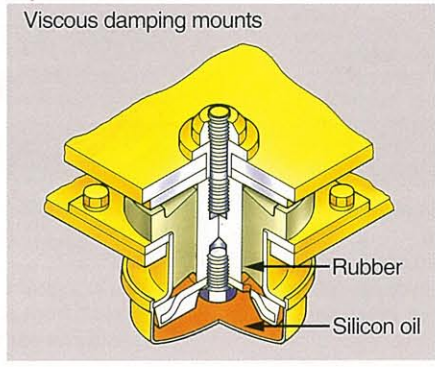
The stair light, which illuminates the rear access stairs for about a minute, is operated by pushing a switch inside the cab, regardless of ignition key position.

Roomy, Quiet Cab With Power Windows

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



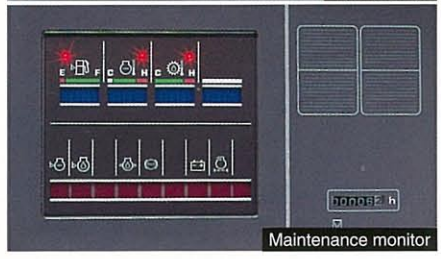
Auto-Greasing System (optional)

The periodic lubrication points, except for 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 for a quick, clear reading of machine functions at all times. The main monitor also has a diagnostic function.

Main monitor

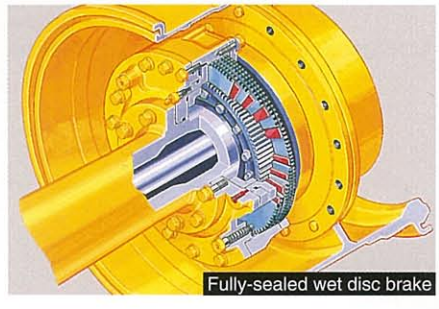

Maintenance monitor

High-Quality Paint

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

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.


Fully-sealed wet disc brake

SPECIFICATIONS

ENGINE

Model	Komatsu SA12V140
Type	Water-cooled, 4-cycle
Aspiration	Turbocharged
No. of cylinders	12
Bore×stroke	**140mm×165mm** 5.5"×6.5"
Piston displacement	**30.5 ltr.** 1,861 cu.in
Performance:	
Flywheel horsepower	**637 kw** 853 HP (SAE J1349) **637 kw** 865 PS (DIN 6270)
Rated RPM	2,000 RPM
Fuel system	Direct injection
Governor	Mechanical, all-speed control
Lubrication system:	
Lubrication method	Gear pump, pressurized lubrication
Filter	Full-flow type
Air cleaner	Dry type with automatic dust ejector and precleaner, cyclopac with vacuator

TRANSMISSION

Torque converter:
Type ..... 3-element, single-stage, single-phase

Transmission:
Type ..... Full-powershift, planetary gear type

Travel speed: **km/h** MPH
Measured with 45/65-45-58R tires

	1st	2nd	3rd
Forward	**7.0** 4.3	**12.3** 7.6	**28.0** 17.4
Reverse	**7.1** 4.4	**12.4** 7.7	**28.3** 17.6

AXLES & FINAL DRIVES

Drive system	Four-wheel drive
Front	Fixed, full-floating
Rear	Center-pin-support, full-floating ±11° 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 disc
Parking brake	Dry-disc type, hydraulic released, spring applied on front axle input 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	**9,200 mm** 30' 2"

HYDRAULIC SYSTEM

Steering system:

Hydraulic pump	Piston pump
Capacity	**307 ltr./min.** 81 U.S. gal/min. at rated RPM
Relief valve setting	**350 kg/cm²** 4,977 PSI
Hydraulic cylinders:	
Type	Double-acting, piston type
No. of cylinders	2
Bore×stroke	**160 mm×503 mm** 6.3"×19.8"

Loader control:

Hydraulic pump	Piston pump
Capacity	**405 ltr./min.** 107 U.S.gal/min. at rated RPM
Relief valve setting	**350 kg/cm²** 4,977 PSI
Switch pump	Piston pump
Capacity	**405 ltr./min.** 107 U.S.gal/min. at rated RPM
Hydraulic cylinders:	
Type	Double-acting, piston type
No. of cylinders-bore×stroke:	
Boom cylinder	**2- 260 mm×1,368 mm** 10.2"×53.9"
Bucket cylinder	**1-300 mm×906 mm** 11.8"×35.7"
Control valve	Spool type
Control positions:	
Boom	Raise, hold lower and float
Bucket	Tilt-back, hold and dump

Hydraulic cycle time (rated load in bucket)
Raise..... 11.2sec. Dump..... 2.8sec.
Lower (Empty)..... 4.8sec.

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 mount and well insulated.

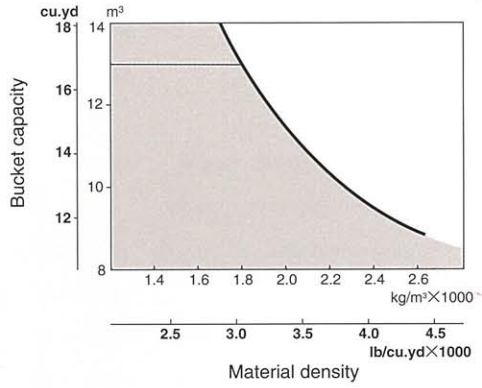
SERVICE REFILL CAPACITIES

Cooling system	**301 ltr.** 79.5 U.S.gal
Fuel tank	**1,430 ltr.** 377.8 U.S.gal
Engine	**132 ltr.** 34.9 U.S.gal
Hydraulic system	**725 ltr.** 191.5 U.S.gal
Axle (each front and rear)	**360 ltr.** 95.1 U.S.gal
Torque converter and transmission	**140 ltr.** 37U.S.gal

TIRES

Front and rear 45/65-45-58PR(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 (spade nose) with tipteeth	**13.0** 17.0	**11.0** 14.4	**4,810** 15'9"	**12,320** 27,160	**67,900** 149,690

*Excluding tire protectors

	Operating weight **kg** lb	Static tipping load **kg** lb	
		Straight	40° full turn
Tires/Buckets	I	I	I
45/65-45-58PR(L-5)	**101,550** 223,880	**66,140** 145,810	**58,200** 128,310

- All dimensions, weights and perfomance 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, air conditioner, tip type teeth and operator. Machine stability and operating weight are affected by counterweight, or ballast, tire size and other attachments. Use either 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	Change in tipping load Full turn
Remove ROPS canopy	**−1,385 kg** −3,055 lb	**−1,220 kg** −2,690 lb	**−1,180 kg** −2,600 lb
Remove steel cab	**− 430 kg** − 950 lb	**− 335 kg** − 740 lb	**− 330 kg** − 730 lb

STANDARD EQUIPMENT

Engine and cooling system: Starter, Alternator, Preheater, Corrosion resistor
Electrical components: Headlights(2), Rear working lights(2),Brake lamps or tail lamps, Turn indicators (front and rear), Electric display/monitoring system/stair light
Gauges: Fuel level, Coolant temperature, Torque converter oil temperature, Speedometer, Service meter
Pilot lamps: Engine preheating, Working light on, Turn indicator on, Parking brake applied, Transmission cut-off
Monitor lights: Engine oil level, Brake oil level, Coolant level
Caution lamps: Battery charging, Fuel level, Transmission oil filter clogging, Air cleaner filter clogging
Caution lamps with alarm: Engine oil pressure, Coolant level, Coolant temperature, Torque converter oil temperature, Parking and neutral, Brake oil pressure
Others: Sight gauges (hydraulic reservoir level, transmission oil level, brake oil level), Dust indicator Emergency brake, 45/65-45-58PR (L-5) tubeless tires, Bucket positioner, Boom kickout, Air suspension seat

OPTIONAL EQUIPMENT

Front working lights(2), Side working lights(2), Air conditioner, Heater and defroster, Car radio, Sun visor, Fire extinguisher, Vandalism protection kit, Emergency steering, Yellow rotating lamp, Backup alarm, Underview mirror, Power-train underguard, Ashtray and cigarette lighter, Rear under view mirror, Room mirror, Seat belt, Fenders, Bucket teeth (weld-on/tip type), Bucket corner teeth, Sweeper wing, 11.5m³ (15 cu. yd) spade nose rock bucket for high-lift boom, High-lift boom, Counterweight for high-lift boom, ROPS canopy, Steel cab included front wiper, windshield washer and power window, Fast fill fuel system, Auto-greasing kit, Joystick steering, Automatic transmission, Coal bucket, Auto-greasing system

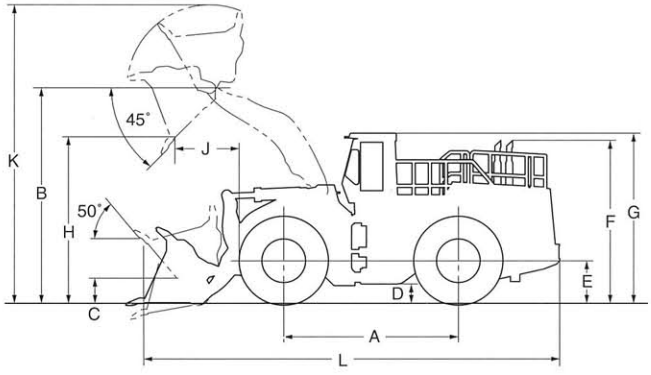
Specifications with High-Lift Boom

		Spade Nose with teeth
Bucket capacity	m³	11.5
Rated Load	kg	20,700
Bucket width	mm	5,045〔4,760〕
Dumping Clearance (teeth)	mm	5,635(5,255)
Dumping Reach (teeth)	mm	2,000(2,235)
Tire Size	—	45/65-45-58PR (L-5)

〔 〕 without tire guard

DIMENSIONS

(Unit:**mm** ft.in)



		45/65-45 tires
	Tread	**3,350** 11'
	Width over tires	**4,585** 15'1"
A	Wheelbase	**5,450** 17'11"
B	Hinge pin height,max. height	**6,960** 22'10"
C	Hinge pin height, carry position	**800** 2'7"
D	Ground clearance	**550** 1'10"
E	Hitch height	**1,300** 4'3"
F	Overall height, top of the stack	**5,080** 16'8"
G	Overall height, ROPS canopy	**5,275** 17'4"

Measured with 45/65-45 tires

Buckets		I
H. Dumping clearance, max. height and 45° dump angle (edge)*		**4,640** 15'3"
J. Reach at max. height and 45° dump angle (edge)*		**2,450** 8'
Reach at 2130 mm (7') cut edge clearance and 45° dump angle (edge)		**3,650** 12'
Reach with arm horizontal and bucket level (edge)		**4,640** 15'3"
K. Operating height (fully raised)		**9,680** 31'9"
L. Overall length (with teeth)		**14,270** 46'10"
Loader clearance circle (bucket at carry, outside corner of bucket)		**22,000** 72'2"
Digging depth (at teeth)	0°	**165** 6.5"
	10°	**645** 2'1"

*At the end of teeth

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

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