

KOMATSU WA 800-2

WHEEL LOADER



Flywheel Horsepower @ 2000 RPM

789 HP

588 kW

Operating Weight

204,124 lb

92,589 kg

Bucket Capacities

13.7 yd³

10.5 m³

Photo shown may include optional equipment

KOMATSU

The Comfort Zone

Resiliently Mounted Platform and Sound Suppressed Cab - isolates operator from noise and vibration.

Superior Visibility - 47% of the total cab area is tinted glass, giving the operator a clear and complete view of his working environment. The result is greater operator efficiency and confidence.

Two Door Walk-Through Cab
Provides easy entrance and exit from either side of the machine.



Electronic Display and Monitoring System - is a highly effective and reliable display/warning system which continuously monitors all operating systems. If a malfunction should occur the operator is immediately warned which system is experiencing trouble, saving downtime and repair costs. Also, gauges constantly monitor coolant temperature, transmission oil temperature, fuel level, service hours and speed. Komatsu's transmission safety system ensures the engine cannot be started unless the transmission is in neutral.



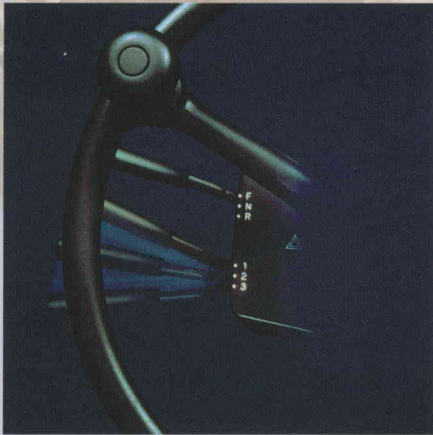
Adjustable Suspension Seat
Ergonomically designed and fully adjustable for maximum operator comfort.

- Fabric seat covering
- Adjustable suspension firmness
- Backrest angle adjustment
- Seat height and tilt adjustment
- 3.9" 100 mm vertical suspension stroke
- 6.9" 160 mm fore and aft adjustment

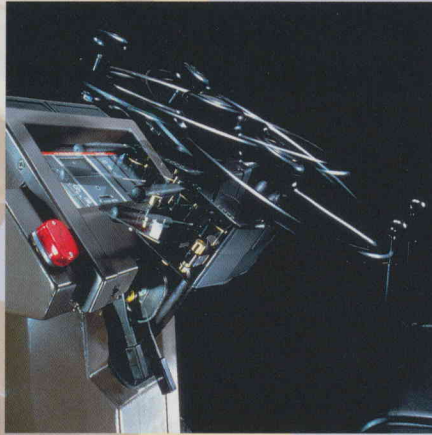
Efficiency Layout of Controls - Komatsu's engineers designed the WA800-2 around the operator. The most critical controls, such as Electran Shift, work equipment controls and Kickdown Switch are conveniently located for low-effort finger tip operation - increasing operator efficiency and machine productivity.

Efficient and Comfortable

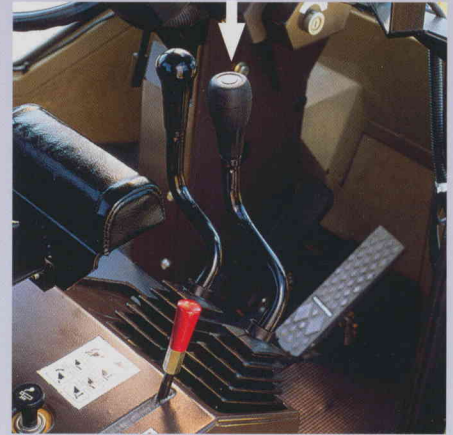
Electrically Controlled Transmission - allows the operator to quickly and easily shift gears without removing their hands from the steering wheel. Adjustable length shift levers send an electrical signal to a solenoid on the transmission control valve, so gear changes are smooth and easy.



Tilt Steering Column - has a 4" 100mm tilt range, allowing the operator to select the optimum position for greater comfort.



Proportional Pressure Equipment Control Valve - improves work equipment response and provides superior fine control over a wide range of lever stroke.



Demand Valve Steering - guarantees smooth, constant steering regardless of engine speed, providing easy machine operation, fast cycle times and increased maneuverability.

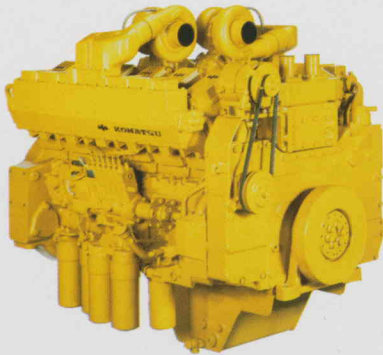
Kickdown Switch - Located on top of the boom control lever.

- The Komatsu Kickdown Switch provides faster cycle times and reduced operator effort.
- As the loader bucket penetrates the pile, depressing the switch immediately shifts the transmission from F2 to F1.
- This enables the machine to fully utilize its maximum loading power for big bucket payloads while allowing the operator to keep his hand on the steering wheel.
- Once the bucket is loaded, a simple flick of the directional lever to reverse automatically puts the transmission in R2 for faster reverse cycle times.

The transmission modulation feature minimizes shock generated during gear changes, assuring a smooth and comfortable ride and protection for the power train components.

Komatsu SA12V140 Engine

Komatsu SA12V140 Engine - delivers the power and efficiency to get the job done quickly and cost effectively.



The Komatsu SA12V140 - is a water cooled, four-stroke-cycle, 12 cylinder V-type, turbocharged and aftercooled, direct injection engine that produces high performance and excellent fuel economy.

Swirl Air Intake System - helical shaped intake ports swirl the intake air to maximize the fuel/air mixture. This means improved fuel economy.

Tuftride-Treated Cylinder Liners - provide maximum heat transfer for longer component life.

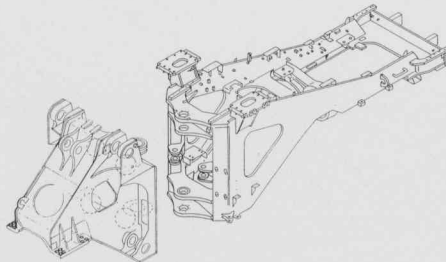
Individual Cylinder Heads - one cylinder head for each cylinder minimizes inspection and maintenance time and reduces parts cost.

High Torque Rise - gives the WA800-2 superior lugging ability and power for heavy-duty digging.

Low Idle Speed Selection - enables the operator to match the engine's low idle speed to the application. At 850 rpm the engine provides quick acceleration for fast cycle times and maximum production. If wait time is occurring between truck loads 650 rpm should be selected to provide lower fuel consumption.

Frame and Loader Linkage

Box-Section Rear Frame - a strong and sturdy backbone for the WA800-2. The box-section design absorbs shock and torsional loads, provides a rigid structure for maintaining driveline alignment for long component life.



Four Plate Loader Tower - ensures the highest durability even under the severest loading conditions. The lift arms, lift cylinders, and bucket cylinders are attached at both sides to resist shocks and corner loading stress.

Solid Plate Lift Arms & Single Z-Bar - for maximum strength and visibility. Cast-steel cross tube assures proper pin bore alignment extending pin life. Single Z-bar provides a clear view to the bucket, even distribution of loads, fewer wear and grease points.

Casting Used in High Stress Areas - provide maximum strength in high stress areas.

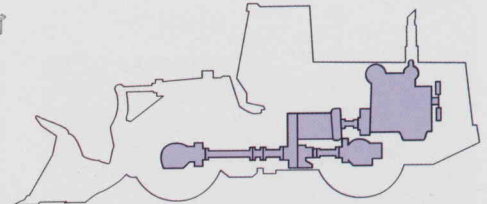
Spread Center Hinge Pin Design - reduces stress loads on hinge pins and roller bearings for longer life and excellent service access.

Sealed Loader Linkage Pins - features internal lip seals and external cord rings at the bucket - to keep the grease in and contaminants out for extended grease intervals.

Quality Welds - majority of welds are performed by robots. Consistent welds with superior penetration and exceptional plate fusion yield strong, fatigue resistant welds.

Power Train System

The proven Komatsu components provide the most reliable and durable power train system in the industry. Providing high production at a low cost.



Multiple Oil Disc Brakes - completely sealed and adjustment free. The brake circuit is divided into the front and rear wheel systems with independent piping and brake fluid reservoirs.

Planetary Power Shift Transmission - electronic shifting with modulation valve provides smooth consistent shifts with light effort fingertip control.

Large diameter clutches and highly heat resistant linings coupled with high contact planetary gear sets provide high torque carrying capacity for outstanding reliability and durability.

Heavy-Duty Axles - have been designed to withstand the stress encountered during tough digging conditions. Axle shafts are full-floating to carry torque but not the weight of the machine.

Torque Converter - the Komatsu three-element, single-stage, single-phase torque converter automatically modulates power flow from the engine to the transmission and acts as a fluid coupling to effectively absorb drive train shock loads.

Buckets

Komatsu buckets are designed to provide aggressive loading for maximum productivity.



High-Tensile Strength Steel Construction - provides high wear resistance and excellent resistance to twisting and distortion when under heavy loads.

Integral Rock Guard - helps prevent spillage and maximize load retention.

Bucket Bottoms - protected by replaceable wear plates on the bucket heel.

Rebuildable - for long bucket life.

Special Configuration

High Lift Arrangement

- Excellent alternative for loading larger sized dump trucks.
- Longer lift arms get the load up higher - doesn't sacrifice digging force
- Sufficient dump clearance to load 120-150 ton dump trucks.
- **17'1"** 5210mm vertical dump clearance



Serviceability

Fast and easy servicing has been designed right into the WA800-2. This means less downtime and more production.



Electronic Display and Monitoring System - in the operator's compartment allows the operator to make pre-starting checks from his seat.

Swing-up and Swing-out doors provide convenient access to:

- Engine dipstick and filler port
- Engine oil filters
- Fuel Filter
- Corrosion Resistor
- Air Cleaner
- Air filter service indicator
- Alternator
- P.P.C. circuit strainer

Ground level fueling

Sight gauges for hydraulic system oil, brake oil, and transmission oil.

Centralized lube points provide ground level greasing.

Remote drain ports for engine oil and radiator.

Batteries are easily accessible through hinged doors at the rear bumper.

Specifications

Engine

The Komatsu SA12V140 is a 4-stroke, water-cooled, overhead valve, direct-injection, turbocharged and aftercooled diesel engine with 12 cylinders and a **5.5"** 140mm bore x **6.5"** 165mm stroke for a **1,861 in³** 30.5ltr piston displacement.

Flywheel horsepower:

789HP 588kW at **2000 RPM** (SAE J1349)

Direct-injection fuel system. All-speed mechanical governor. Gear-pump-driven force-lubrication with full-flow filters. All filters are spin-on style for easy maintenance. Dry-type air cleaner with automatic dust evacuator. 24V/11kW x 2 electric starting motors. 24V/50A alternator. 4 x 12V200Ah batteries.

Transmission

3-element, single-stage, single-phase torque converter. Full powershift, planetary-gear type transmission. A modulating function assures shockless speed and directional changes without braking. An electrically controlled transmission allows fingertip control with speed and directional change levers. A neutral safety circuit allows starting only when the directional control lever is in neutral position.

Travel Speed

	Forward		Reverse	
1st	4.3 MPH	0-7.0 km/h	4.4 MPH	0-7.1 km/h
2nd	7.6 MPH	0-12.3 km/h	7.7 MPH	0-12.4 km/h
3rd	17.4 MPH	0-28.0 km/h	17.6 MPH	0-28.3 km/h

Axles & Final Drives

Four-wheel drive system. A full-floating front axle is fixed to the front frame. Center-pin-supported, full-floating rear axle with a large oscillation of $\pm 11^\circ$. A spiral bevel gear for reduction, a straight bevel gear for differential and a planetary gear for final reduction.

Brakes

Service brakes: Axle-by-axle, air-over-hydraulic, wet, multiple disc brakes actuate all four wheels. Two brake pedals provided. The right for normal braking; the left offers normal braking or neutralizes the transmission when the transmission cut-off switch is activated.

Parking brake: Dry disc type, spring applied, air released on the front axle pinion shaft. The parking brake is automatically actuated when air pressure goes below rated PSI value.

Tires

Select ideal tires depending on job requirements. See option list for available tires. Rims: 36.00-45

Steering System

Center-pivot frame articulation. Mechanical follow-up type, full hydraulic power assisted steering independent of engine RPMs. A wide articulation angle of 40° on each side for a minimum turning radius of **36'1"** 10,990mm at the outside corner of the bucket.

Boom & Bucket

Z-bar loader linkage is made of high-tensile-strength steel to provide maximum rigidity, fast cycle times and superior breakout force. Rap-out loader linkage design enables shock dumping to remove sticky materials. Sealed loader linkage pins fitted with dust seals and cord rings extend maintenance intervals. The bucket is also constructed of high-tensile-strength steel. Bucket corner teeth increase penetrating force and minimize bucket wear.

Boom and Bucket Cycle Times	Standard Boom	Highlift Boom
Raise	11.2 sec.	11.6 sec.
Lower	4.8 sec.	4.8 sec.
Dump	2.8 sec.	2.9 sec.
Total	18.8 sec.	19.3 sec.

Bucket Controls

Proportional Pressure Control assures light-touch work-equipment control. Therefore, little effort is required to operate the bucket and boom control levers, assuring smooth, responsive bucket/boom action. In addition, the bucket positioner and the boom kickout device facilitate repeated digging/loading operations.

Control positions:

Boom	Raise, hold, lower and float
Bucket	Roll-back, hold and dump

Hydraulic System

Two variable displacement piston pumps for loader control, four fixed displacement pumps for switch and steering control, and one gear pump for pilot control.

Capacity (discharge flow) at 2000 RPM

Loader pump	107 U.S. gal	405 ltr.
Switch pump	107 U.S. gal	405 ltr.
Steering pump	79 U.S. gal	298 ltr.
Pilot Pump	18 U.S. gal	68 ltr.
Relief valve setting:	4550 psi	320 kg/cm ²

Control valves:

A double-spool type control valve and a steering valve with a demand valve.

Hydraulic cylinders	Number of cylinders	Bore	Stroke
Boom	2	10.2" 260mm	53.9" 1368mm
Bucket	1	11.8" 300mm	35.7" 906mm
Steering	2	6.3" 160mm	19.8" 503mm

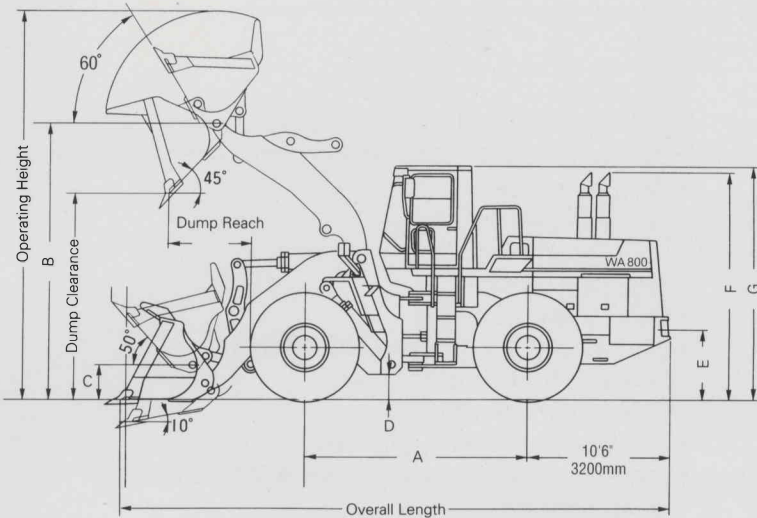
Service Refill Capacities

Cooling system	79.5 U.S. gal	301 ltr.
Fuel tank	377.8 U.S. gal	1430 ltr.
Engine	16.4 U.S. gal	62 ltr.
Brake oil	4.8 U.S. gal	18 ltr.
Hydraulic system	145.3 U.S. gal	550 ltr.
Differential, final drive case (each front and rear)	95.1 U.S. gal	360 ltr.
Torque converter and transmission	37.0 U.S. gal	140 ltr.

Operating Weight

Operating weight includes rated capacity of lubricant, coolant, full fuel tank, 45/65-45-46PR (L5) tires, **13.7 yd³** 10.5m³ SAE capacity spade nose bucket with teeth, ROPS canopy, steel cab, additional counterweight, operator and other standard equipment: **204,124 lbs** 92,589 kg.

WA800-2 Standard Boom



Tires	45/65-45-46PR (L5)	
Tread	11'0"	3350mm
Width over tires	15'1"	4585mm
A Wheelbase	17'11"	5450mm
B Hinge pin height, max. height	22'3"	6785mm
C Hinge pin height, carry position	2'7.5"	800mm
D Ground clearance	1'10"	565mm
E Hitch height	4'7"	1405mm
F Overall height, top of the stack	16'9"	5095mm
G Overall height, ROPS canopy	17'4"	5290mm

All specs are with teeth and 45/65-45-46PR (L5) tires, ROPS canopy, steel cab, lubricant, full fuel and operator.

Bucket Type		Standard Boom		High Lift Boom	
		Straight-Edge Rock w/Teeth	Spade-Nose Rock w/Teeth	Spade-Nose Rock w/Teeth	Spade-Nose Rock w/Teeth
Bucket Capacity	SAE Rated	13.7yd³ 10.5m ³	13.7d³ 10.5m ³	12.4 yd³ 9.5m ³	
	Struck	11.9 yd³ 9.1m ³	11.9 yd³ 9.1m ³	10.9 yd³ 8.3m ³	
Bucket Width		15'7" 4760mm	15'7" 4760mm	15'7" 4760mm	
Static Tipping Loads	Straight	129,985 lbs 58,960kg	128,441 lbs 58,260kg	110,485 lbs 50,115kg	
	Full Turn (40°)	113,990 lbs 51,705kg	112,667 lbs 51,105kg	97,290 lbs 44,130kg	
Dumping Clearance, max. height and 45° dump angle		16'0" 4865mm	15'3" 4640mm	17'1" 5210mm	
Reach @ 7' 2130 mm cutting edge clearance and 45° dump angle		11'4" 3445mm	12'0" 3650mm	12'3" 3735mm	
Reach at max. height and 45° dump angle		7'0" 2125mm	7'8" 2345mm	6'10" 2085mm	
Height to hinge pin (fully raised)		22'3" 6785mm	22'3" 6785mm	23'11" 7280mm	
Operating Height (fully raised)		30'6" 9285mm	30'6" 9285mm	31'7" 9630mm	
Overall Length	Bucket on ground	43'9" 13,335mm	44'9" 13,650mm	46'1" 14,055mm	
	Bucket at carry	43'4" 13,210mm	43'11" 13,375mm	45'8" 13,920mm	
Turning radius (bucket at carry, outside corner of bucket)		35'10" 10,910mm	36'1" 10,990mm	36'5" 11,100mm	
Digging Depth	0°	6.7" 170mm	6.7" 170mm	6.7" 170mm	
	10°	22.0" 560mm	24.2" 615mm	22.8" 580mm	
Breakout Force		179,900 lbs 81,600kg	152,120 lbs 69,000kg	157,850 lbs 71,600kg	
Operating Weight		203,014 lbs 92,086kg	204,124 lbs 92,589kg	209,959 lbs 95,236kg	

• All dimensions, weights and performance values based on SAE J-732C and J-742B standards.

• Static tipping load and operating weight shown include lubricants, coolant, full fuel tank, ROPS cab (option), front & rear fenders, additional counterweight, 45/65-45-46PR (L5) tubeless tires and operator. Machine stability and operating weight are affected by counterweight, tire size and other attachments. Use either tire ballast or counterweight, not both. Add the following weight changes to operating weight and static tipping loads.

Weight Changes (Standard Boom)

Tires & Options	Change in Operating Weight		Change in Static Tipping Load	
			Straight	Full Turn
45/65-45-46PR (L5) tubeless tires	0		0	0
45/65-45-38PR (L5) tubeless tires	-1,181 lbs	-536 kg	-1,752 lbs	-795 kg
Steel Cab removed	-573 lbs	-260 kg	-434 lbs	-197 kg

Standard Equipment

- Alternator, 50Amp
- Axles, full floating
- Air conditioner with heater/defroster/pressurizer
- Back-up alarm
- Batteries, 4 x 12V/200Ah
- Boom kick-out, automatic
- Brakes, service, wet multiple disc
- Brakes, parking dry disc
- Bucket positioner, automatic
- Electronic display & monitoring system
- Fenders, front & rear
- Guard, power train
- Hitch
- Horn
- Lights: Stop & tail lights, turn signals with hazard switch (2 front, 2 rear), working lights (2 front, 2 rear)
- Mirrors, rearview
- PPC hydraulic controls
- Rims for 45/65-45 tires
- Seat belt, 3 inch
- Seat, suspension type
- Starter, 24V, 2 x 11 kW direct electric
- Steering, full hydraulic power
- Steering wheel, tilt type
- Transmission, F3-R3, planetary
- Transmission control levers, electric type with kick down switch
- Vandalism protection kit

* ROPS canopy must be ordered with all machines

Optional Equipment

- Additional counterweight
- Air dryer
- Auxiliary steering
- Back-up light
- Joystick steering control
- Radiator core protective grid
- ROPS canopy
- Steel cab, includes; windshield washer & wiper (front & rear) inside mounted mirror, 2 cab mounted working lights, domelight & floor mat

Tires

- 45/65-45-38PR (L5)
- 45/65-45-46PR (L5)
- 45/65-R45 XRDIAT Michelin
- 45/65-R45 XRD2AT Michelin

Work Equipment

- High lift boom arrangement
- **13.7 yd³** 10.5m³ Spade Nose Heavy Duty Rock Bucket
- **13.7 yd³** 10.5m³ Straight Edge Rock Bucket
- **12.4 yd³** 9.5m³ Spade Nose Rock Bucket for high lift only
- Bucket Teeth - weld on for spade nose bucket
- Bucket Teeth - weld on for straight edge bucket
- ESCO Zipper Lip for **13.7 yd³** 10.5m³ Spade Nose Heavy Duty Rock Bucket

AESS313-02

Materials and specifications are subject to change without notice.

KOMATSU

ÉQUIPEMENT FÉDÉRAL QUÉBEC LTÉE

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