

WA180-3

WHEEL LOADER

BUCKET CAPACITIES

2.25 - 2.9 yd³

1.7 - 2.2 m³

KOMATSU



WA180-3
WHEEL LOADER

WA180-3

WA180-3 Wheel Loader

WALK-AROUND

Designed for better value through improved reliability and enhanced versatility.

That's why the WA180-3 means VALUE, and anything less is just another Wheel Loader.

Komatsu-integrated design for the best value, reliability, and versatility.

Engine, power train, frame, and all other major components are engineered by Komatsu. You get a machine whose components are designed to work together for higher production, greater reliability, and more versatility.

Komatsu diesel power for productivity and reliability. See pg. 6.

New easier access to engine for servicing. Pneumatic cylinders assure the Gull-wing side covers and rear grill open with an easy touch. See pg. 8

Sight gauges for hydraulic tank and transmission case.

Ground level greasing reduces maintenance time. See pg. 8.

Ground level fueling.

Check battery and clean radiator easily. The rear grill also uses pneumatic cylinders for easy access to the radiator and battery.

Komatsu torque proportioning differentials are standard. See pg. 7.



**WHEEL
LOADER**

WA180-3

FLYWHEEL HORSEPOWER

110 hp 82 kW

OPERATING WEIGHT*

20,720 lb 9397 kg

BUCKET CAPACITY

2.25 - 2.9 yd³ 1.7-2.2 m³



It all adds up to more
value and better return
for your investment. It's
what you expect when
you select Komatsu.

New cab for increased operator productivity. New operator's cab provides better visibility, increased comfort, see-at-a-glance console, two-door walk through and finger-touch shifting. See pg. 5.

New special rubber-mounted cab for productivity. Special rubber-mounted cab reduces vibration and noise that can fatigue the operator and reduce his efficiency. See pg. 5.

Optional coupler system. The versatile coupler system provides fast, efficient tool changes without leaving the cab. This new design also allows superior visibility of the work equipment. An optional third spool valve is available for additional hydraulic functions.

ECSS value-option for better productivity. Electrically Controlled Suspension System (ECSS) absorbs pitching and bouncing. See pg. 5

New sealed, wet disc parking brake for better reliability and less maintenance cost. See pg 7.

Quick kick-down transmission switch is another standard feature. See pg 7.

New Komatsu 4-speed transmission better matches all applications for reliability, productivity, and versatility. See pg. 7.

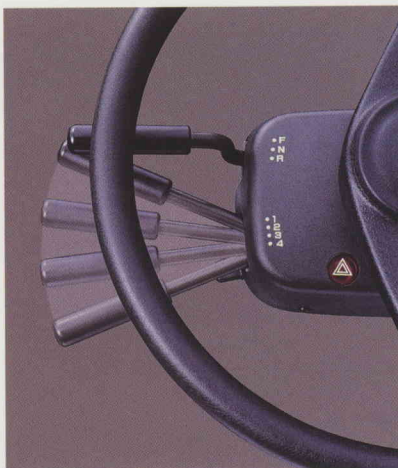


OPERATOR'S COMPARTMENT

Ask the man who runs one—he will tell you the operator's cab sets the Komatsu Wheel Loader apart from the others. That's a productivity feature you can't ignore. No matter how a machine specs out, or how much is promised for productivity, unless the operator can work a full shift without becoming fatigued, you will never get the full measure of promised productivity.

The cab improvements on the Wheel Loaders go beyond providing a large cab with a comfortable seat. Improvements include these production enhancing standard and optional features:

- **Large curved glass front window** provides the operator an unobstructed view of the working area and attachment.
- **Two-door walk through cab.** Good for ventilation as well as easy entry and exit from either side of the cab.
- **Rubber mounts dampen noise and vibration,** reduces fatigue caused by noise. Helps keep the operator productive, longer.
- **Low-effort brake pedals** actuate fully hydraulic brakes. Parking brake provides effective braking with light foot pressure.
- **Steer with ease.** Komatsu's fully hydraulic steering provides fast response with low effort, at low engine RPM.
- **Kick-down switch is conveniently located** on the boom shift lever. A simple motion of the thumb actuates this valuable productivity feature, which enables the operator to downshift easily.
- **Easy shifting and directional changes** with Komatsu 2-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.
- **At-a-glance instrument monitor.** Monitor is mounted in front of the operator and is tilted for easy view, allowing the operator to easily check gauges and warning lights.
- **See the monitor through the steering wheel, not around it.** A specially designed two-spoke steering wheel allows the operator to easily see the instrument panel.





Value Options

Value options for productivity and those little added touches that make work a little easier.

- **Keep cool, keep productive with a 5-mode air conditioner.** 13 strategically-located vents direct cool air to the operator, keeping him productive on the hottest days.
- **There's nothing more refreshing than a cold drink on a hot day:** The cool box located behind the seat will help keep your lunch and beverage cool. That's something to look forward to at lunch or break-time.
- **Make the time go faster** with an auto-tuning AM/FM cassette radio. Includes a digital clock and access to a weather station. Removable control head minimizes vandalism.
- **Optional Electrically Controlled Suspension System (ECSS).** Takes the bounce out of the ride on rough ground surfaces. Provides greater comfort and confidence for the operator as well as increased travel speed and steering stability, while improving the material retention in the bucket. A switch in the operator's compartment initiates the electrical circuit that actuates solenoid selector valves for the boom cylinders as well as pressure switches for the accumulators. This allows the accumulators to absorb the shocks during roading.

KOMATSU DESIGNED POWER TRAIN

Komatsu integrated design means components are matched to provide most efficient use of power whether you're working the face of a material bank or travelling with a loaded bucket.

The WA180-3 Wheel Loader is designed to effectively match the engine, 4-speed transmission, torque proportioning differentials, axles, and brakes to the most severe applications.

KOMATSU EMISSIONIZED S6D102E-1 DIESEL ENGINE

Four-cycle, water-cooled, turbo-charged, six cylinder engine that is not only fuel efficient, but meets North American emission requirements.

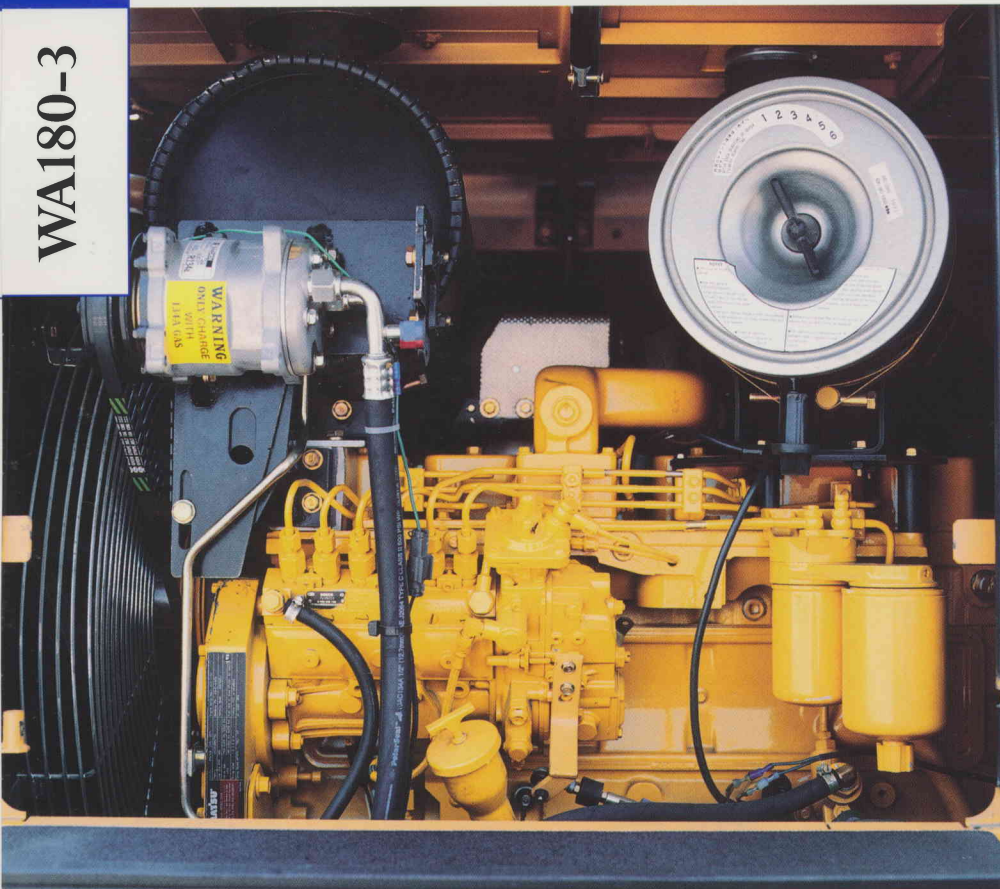
With a piston displacement of 359 cubic inches (5.9 ltr), the Komatsu S6D102E-1 has 110 net flywheel horsepower at 2400 rpm.

Other engine features include:

- **Automatic electric cold-weather heating system.** The preheating time of the engine is automatically set according to the engine water temperature. Provides for quick starts and reduces added wear of cold weather starts made without this heating system.
- **Large capacity, double-wrapped muffler** is mounted under the hood for lower engine noise and better operator visibility.
- **Simple, rugged design** for dependability and low service requirements.
- **Gull-wing doors** use pneumatic cylinders to allow easy access to the engine and radiator for routine maintenance.
- **Spin-on filters** and easily accessible lubrication points mean reduced maintenance time and less chance of missing these important maintenance items.
- **Sealed wet disc service brakes.** Resistant to contaminants even when working in hostile environments.
- **Maintenance-free parking brake** is located in the transmission case and is a wet multi-disc brake.

**WHEEL
LOADER**

WA180-3





Transmission



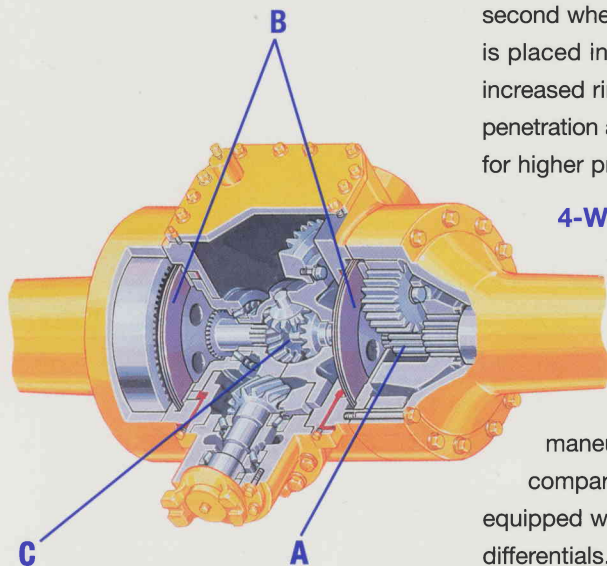
NEW KOMATSU 4-SPEED TRANSMISSION REPLACES 3-SPEED TRANSMISSION

Provides maximum forward speed in fourth gear of up to 21.4 mph (34.5 km/h) and 21.7 mph (35.0 km/h) in reverse. The countershaft transmission is full power shift and soft-shift.

Other features include:

- Solid state electronic shifting control that reduces wear, increases reliability and provides easy directional shifts.
- Fingertip shifting from forward to reverse or from one gear to another.
- Four forward and four reverse gears to better match the cycle conditions. You get higher efficiency and better fuel economy.

Consider this valuable feature for added productivity. Kick-down switch automatically downshifts with the touch of a finger from second to first when beginning the digging cycle. Automatically upshifts from first to second when direction control lever is placed in reverse. The result is increased rim pull for better bucket penetration and reduced cycle times for higher productivity.



4-Wheel drive with torque proportioning differentials

for reduced slippage and longer tire life. This improves the ability of the WA180-3 to maneuver in unstable conditions compared to a similar machine equipped with conventional differentials.

- A) planetary reduction
- B) wet, enclosed brakes
- C) torque proportioning differential

Komatsu designed axles and final drives for rugged reliability and low maintenance.

Axles are semi-floating, the front axle is fixed. The rear axle is a center-pin support design that provides a total oscillation of up to 24 degrees.

The differential reduction gear is a heavy-duty spiral bevel gear for strength and reliable performance

Rugged, inboard planetary final drives carry the total gear reduction of the drive train to the wheel which is mounted to the axle hub.

Wet 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 resulting maintenance. Brakes require no adjustments for wear, meaning even lower maintenance. The new parking brake is also 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 back-up in case one of the circuits fail.

Full hydraulic brakes mean no air system to bleed, or the condensation of water in the system that can lead to contamination and corrosion.

EASY MAINTENANCE

SERVICING WITH A SMILE

It would be better if most of us approached routine maintenance and service as something that made us smile. That's why Komatsu designed the WA180-3 Wheel Loader to make servicing as easy as possible. We know by doing this, routine maintenance and servicing are less likely to be skipped, which can mean a reduction in costly downtime later on. Here are some of the many service features found on the WA180-3.



**Komatsu design
means more
value**

- Large service doors provide easy access to the engine compartment.
- Ground Level Greasing—all grease points are easily reached from ground level and grease banks are provided in some areas to reduce maintenance time.
- Batteries are located in the counterweight for ground-level access.
- Sealed Loader Linkage Pins—designed to keep grease contained longer and prevent the entrance of dust, thereby lengthening greasing intervals.



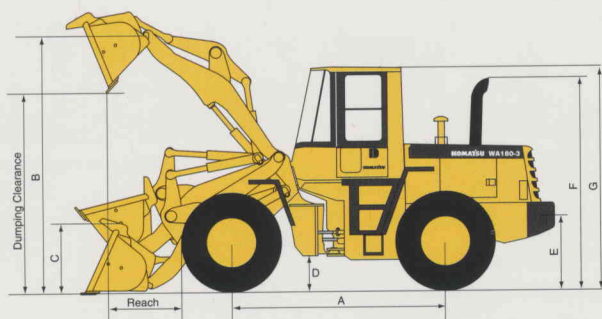
**WHEEL
LOADER**

WA180-3



DIMENSIONS

WA180-3



Tires	17.5/25-12PR (L2)
Tread	6' 1820 mm
Width over tires	7'5" 2260 mm
A Wheelbase	8'10" 2700 mm
B Hinge pin height, max. height	11'7" 3535 mm
C Hinge pin height, carry position	1'2" 365 mm
D Ground clearance	1'5" 420 mm
E Hitch height	2'8" 810 mm
F Overall height, top of the stack	9'10" 2990 mm
G Overall height, ROPS cab	10'2" 3090 mm

Bucket Type		General Purpose with Bolt-on Cutting Edge		Excavating with Bolt-on Cutting Edge		Loose Material with Bolt-on Cutting Edge	
Bucket Capacity	SAE Rated	2.25 yd³	1.7 m ³	2.0 yd³	1.5 m ³	2.9 yd³	2.2 m ³
	Struck	1.8 yd³	1.4 m ³	1.7 yd³	1.3 m ³	2.5 yd³	1.9 m ³
Bucket Width		8'0"	2440 mm	8'0"	2440 mm	8'0"	2440 mm
Bucket Weight		1,570 lb	710 kg	1,600 lb	725 kg	1,760 lb	800 kg
Static Tipping Load	Straight	17,908 lb	8122 kg	17,565 lb	7966 kg	17,721 lb	8037 kg
	40° full turn	15,565 lb	7059 kg	15,730 lb	7134 kg	15,411 lb	6989 kg
Dumping Clearance, max. height and 45° dump angle		8'11"	2715 mm	9'0"	2740 mm	8'6"	2585 mm
Reach at 7' 2130 mm and 45° dump angle		4'8"	1410 mm	4'7"	1395 mm	4'10"	1465 mm
Reach at max. height and 45° dump angle		3'3"	985 mm	3'5"	1030 mm	3'8"	1110 mm
Reach with arm horizontal and bucket level		6'11"	2100 mm	6'9"	2060 mm	7'6"	2280 mm
Operating Height	Fully raised	15'5"	4695 mm	15'3"	4640 mm	16'0"	4875 mm
Overall Length	Bucket ground	21'1"	6415 mm	20'11"	6380 mm	21'8"	6600 mm
	Bucket at carry	21'0"	6410 mm	21'0"	6385 mm	21'6"	6540 mm
Turning Radius*		17'8"	5385 mm	17'8"	5375 mm	17'10"	5435 mm
Digging Depth	0°	5"	120 mm	5"	120 mm	5"	120 mm
	10°	1'0"	290 mm	11"	280 mm	1'1"	320 mm
Breakout Force (Bucket Cylinder)		20,550 lb	9320 kg	21,475 lb	9740 kg	17,040 lb	7730 kg
Operating Weight		20,585 lb	9336 kg	20,620 lb	9352 kg	20,720 lb	9397 kg

• All dimensions, weights, and performance values based on SAE J732c and J742b standards. Static tipping load and operating weight shown include 17.5/25-12PR (L2) tires, additional counterweight, lubricant, coolant, full fuel tank, ROPS cab, and operator. Machine stability and operating weight are affected by counterweight, tire size, and other attachments. Do not use tire ballast with additional counterweight. Apply the following weight changes to operating weight and static tipping load.

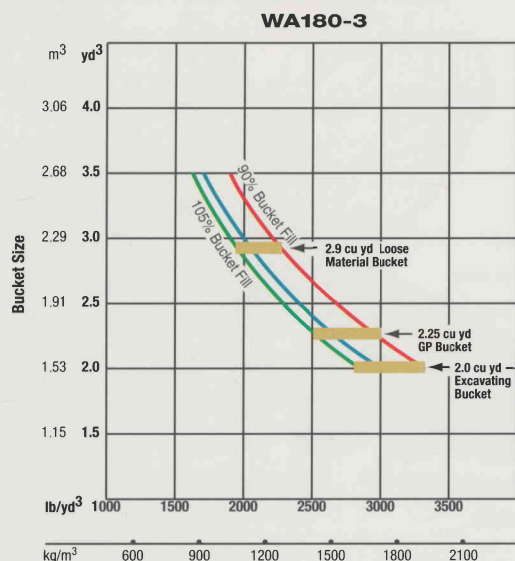
* Turning radius measured with bucket at carry position, outside corner of bucket.

Weight Changes

	Change in Operating Weight		Change in Tipping Load			
			Straight		Full Turn	
15.5/25-12PR (L2)	-264 lb	-120 kg	-198 lb	-90 kg	-176 lb	-80 kg
17.5/25-12PR (L3)	88 lb	40 kg	66 lb	30 kg	55 lb	25 kg
Install ROPS canopy (instead of cab)	-395 lb	-180 kg	-375 lb	-170 kg	-310 lb	-140 kg
Deduct Additional Counterweight	-620 lb	-280 kg	-1150 lb	-520 kg	-990 lb	-450 kg

WA180-3 Wheel Loader

BUCKET SELECTION GUIDE



* This guide, representing bucket sizes not necessarily manufactured by Komatsu, will help you select the proper bucket size for material density, loader configuration, and operating conditions. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment. The 90% bucket fill line on this guide is recommended when operating in conditions such as soft ground and unlevel surfaces. The 105% bucket fill condition on this guide is sometimes utilized when operating on firm ground and level surfaces.

Material (loose weight)	lb/yd³	kg/m³
Caliche	2,100	1250
Cinders	1,000	590
Clay and gravel, dry	2,400	1420
Clay and gravel, wet	2,600	1540
Clay, dry	2,500	1480
Clay, natural bed	2,800	1660
Clay, wet	2,800	1660
Coal, anthracite, broken	1,850	1100
Coal, bituminous, broken	1,400	830
Earth, dry, packed	2,550	1510
Earth, loam	2,100	1250
Earth, wet, excavated	2,700	1600
Granite, broken or large crushed	2,800	1660
Gravel, dry	2,550	1510
Gravel, dry 1/2" to 2" (13 to 50 mm)	2,850	1690
Gravel, pit run (graveled sand)	3,250	1930
Gravel, wet 1/2" to 2" (13 to 50 mm)	3,400	2020
Gypsum, crushed	2,700	1600
Limestone, broken or crushed	2,600	1540
Magnetite, iron ore	4,700	2790
Phosphate rock	2,160	1280
Pyrite, iron ore	4,350	2580
Sand and gravel, dry	2,900	1720
Sand and gravel, wet	3,400	2020
Sand, dry	2,400	1420
Sand, wet	3,100	1840
Sandstone, broken	2,550	1510
Shale	2,100	1250
Slag, broken	2,950	1750
Stone, crushed	2,700	1600
Topsoil	1,600	950



STANDARD EQUIPMENT

- Alternator, 50A
- Back-up alarm
- Back-up lamp
- Batteries, 2X12V/110 Ah
- Bucket positioner, automatic
- Counterweight, standard
- Differentials, torque proportioning
- Engine, Komatsu **S6D102E-1**
- Engine shut-off system, electric
- Fenders, full front, partial rear
- Floor mat
- Horn, electric
- Instrument panel, analog type
- Lights
 - Stop and tail
 - Turn signal (2 front, 2 rear)
 - Working (2 front, 2 rear, 2 in cab)
- Mono lever loader control
- Radiator mask, hinged
- Rearview mirror
- ROPS cab
- Seat belt
- Seat, cloth, suspension, reclining type with armrests and headrest
- Service brakes, wet-type disc
- Speedometer (mph)
- Starting aid, intake manifold preheater type
- Starting motor, 24V/5.5 kw
- Sun visor
- Tires **17.5/25-12PR (L2)** tubeless and rims
- Transmission (**4F, 4R**)
- Transmission control, electric
- 2-spool valve for boom and bucket controls
- Vandalism protection kit
- Wiper/washer, front and rear



OPTIONAL EQUIPMENT

- Additional counterweight
- Air conditioner with heater and defroster
- Auxiliary steering
- Boom kickout (automatic)
- Brand preference, Goodyear
- Bucket teeth (Esco bolt-on type)
- Cutting edge, bolt-on, reversible
- **ECSS** (Electronically Controlled Suspension System)
- Fenders, rear full
- Heater and defroster
- Hydraulic adapter kit, includes valve, lever, and piping
- JRB 48" construction forks for use with coupler
- JRB Hydraulic quick coupler
- JRB 2.25 yd³ general purpose bucket for use with coupler
- Mud guard, front fenders
- Radio, AM/FM with stereo cassette
- ROPS canopy
- Three-spool valve, lever, piping
- Tires (bias ply)
 - 15.5/25-12PR (L2)
 - 15.5/25-12PR (L3)
 - 17.5/25-12PR (L3)
 - Rims only (for 15.5/25-17.5/25 tires)
- Tires (radial ply)
 - 15.5-R25 XTLAT (L2) Michelin
 - 15.5-R25 XHAT (L3) Michelin
 - 17.5-R25 XTLAT (L2) Michelin
 - 17.5-R25 XHAT (L3) Michelin
- Tool kit

SUPPORT

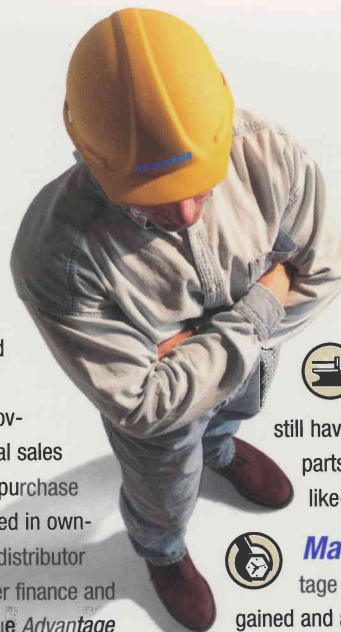
*Count on **Komatsu** and your local distributor for the support you deserve. Our success depends on satisfying your need for productive equipment and supporting that equipment. That's why we have one of the largest and strongest heavy-equipment distributor organizations in North America. Their personnel are not only trained to help you select the equipment that is best-matched for your business but to support that equipment.*



Finance Through its finance company, Komatsu can offer you a wide variety of financing alternatives designed to meet your needs. Programs include municipal leases for governmental agencies, conditional sales contracts, and leases with \$1 purchase options for customers interested in owning their equipment. Ask your distributor about Komatsu leasing. We offer finance and operating leases and the unique *Advantage Lease* which offers you predetermined purchase, return, and renewal options.



Parts Three computer-linked parts distribution centers provide fast access to anywhere in the U.S. and Canada. Most parts are available overnight. Plus, Komatsu distributors keep a large assortment of commonly used parts in stock for immediate access.



Remanufactured parts Save money and still have the same warranty as new parts at a fraction of the cost with like-new remanufactured parts.



Maintenance Take advantage of the experience we have gained and ask your distributor about our factory-supported programs including: regular scheduled maintenance, oil and wear analysis, diagnostic inspections, undercarriage inspections, training, special service tools, parts programs, and even a special software program to help your distributor keep track of and manage service-related data.

AESS437-00

Printed in USA

SN-12/97(15M)

12/97 (EV-1)

KOMATSU

Komatsu America International Company
440 N. Fairway Dr., Vernon Hills, IL 60061