

# KOMATSU®

## WA500-6 With Tier 3 Engine

**NET HORSEPOWER**  
263 kW **353 HP** @ 1900 rpm

**OPERATING WEIGHT**  
32470 - 33570 kg  
**71,585 - 74,010 lb**

**BUCKET CAPACITY**  
4.5 - 6.3 m<sup>3</sup> **5.9 - 8.2 yd<sup>3</sup>**

**WA**  
**500**

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Photos may include optional equipment.

# WALK-AROUND

## *High Productivity & Low Fuel Consumption*

- High performance SAA6D140E-5 engine
- Low fuel consumption
- Dual-mode engine power select system
- Automatic transmission with shift timing select system
- Lock-up Torque Converter (Optional)
- Variable displacement piston pump & CLSS
- Increased bucket capacity

## *Excellent Operator Environment*

- Automatic transmission with ECMV
- Low-noise designed cab
- Electronic controlled transmission lever
- Variable transmission cut-off system
- Engine RPM set system with auto decel
- EPC (Electronic Pilot Control) levers
- Large ROPS/FOPS integrated cab
- Telescopic / tilt steering column



## **KOMTRAX™**

KOMTRAX equipped machines can send location, SMR and operation maps to a secure website utilizing wireless technology. Machines also relay error codes, cautions, maintenance items, fuel levels and much more.

## *Environmentally Friendly*

- EPA Tier 3, EU stage 3A and Japan emissions certified
- Low exterior noise
- Low fuel consumption



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### *Increased Reliability*

- Reliable Komatsu designed and manufactured components
- Sturdy main frame
- Maintenance-free, fully hydraulic, wet disc service and parking brakes
- Hydraulic hoses use flat face O-ring seals
- Sealed DT connectors for electrical connections



### *Easy Maintenance*

- “EMMS” (Equipment Management Monitoring System)
- Ease of radiator cleaning
- Modular radiator core system

**GALEO**

Komatsu's highly productive, innovative technology, environmentally friendly machines built for the 21st century.

# PRODUCTIVITY FEATURES



ecology & economy - technology 3

Komatsu's new "ecot3" engines are designed to deliver optimum performance under the toughest of conditions,

while meeting the latest environmental regulations. This engine is EPA Tier 3, EU Stage 3A and Japan emissions certified; "ecot3" - ecology and economy combine with Komatsu technology to create a high performance engine without sacrificing power or productivity.

### High Performance SAA6D140E-5 Engine

Electronic Heavy Duty Common Rail fuel injection system provides optimum combustion of fuel.

This system also provides fast throttle response to match the machine's powerful tractive effort and fast hydraulic response.

Net: 263 kW 353 HP

### Low Emission Engine

This engine is EPA Tier 3, EU stage 3A and Japan emissions certified, without sacrificing power or machine productivity.

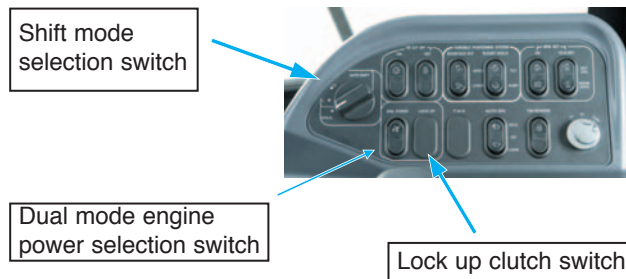
### Low Fuel Consumption

The fuel consumption is reduced greatly because of the low-noise, high-torque engine and the large-capacity torque converter with maximum efficiency in the low-speed range.

### Dual-Mode Engine Power Select System

This wheel loader offers two selectable operating modes— E and P. The operator can adjust the machine's performance with the selection switch.

- **E Mode:** This mode provides maximum fuel efficiency for general loading.
- **P Mode:** This mode provides maximum power output for hard digging operation or hill climb.



### Automatic Transmission with Mode Select System

This operator controlled system allows the selection of manual shifting or two levels of automatic shifting modes (low and high). The operator can match the machine's operating requirements with optimum performance efficiency. This system is controlled with a dial on the right control panel.

- **Manual:** The transmission is fixed to the gear speed and selected with the gear lever.
- **Auto Low:** Low mode provides smooth gear shifting at low engine speeds suitable for general excavating and loading while offering reduced fuel consumption.
- **Auto High:** High mode provides maximum rim pull and fast cycle times by shifting the transmission at high engine speeds. This mode is suitable for hill-climb and load and carry operations

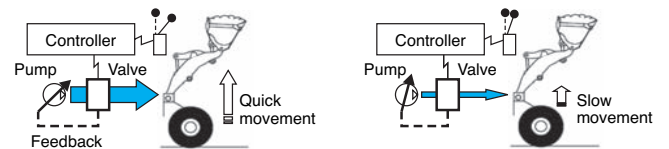
### Lock-up Torque Converter

The Komatsu designed lock-up torque converter provides increased production efficiency, reduced cycle times and optimum fuel savings in load and carry or hill-climb operations..

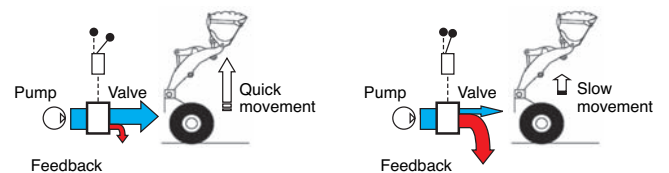
### Variable displacement piston pump & CLSS

New design variable displacement piston pump combined with the Closed-center Load Sensing System delivers hydraulic flow just as the job requires preventing wasted hydraulic pressure. Minimized waste loss contributes to better fuel economy.

- **New Variable Displacement Piston Pump:** The pump delivers only necessary amounts minimizing waste loss.



- **Fixed Displacement Piston Pump:** The pump delivers the maximum amount at any time and the unused flow is disposed.





**Increased Bucket Capacity Matches With One Class Higher Dump Truck**



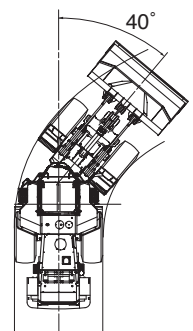
The WA500-6 can load 32 ton(40 Short ton) trucks with the standard boom. The WA500-3 required the optional high lift boom.

**Dumping Clearance:** 3295 mm 10'10"  
**Dumping Reach:** 1500 mm 4'11"  
 (5.6 m<sup>3</sup> 7.3 yd<sup>3</sup> bucket with B.O.C.E.)

**Long Wheelbase/Articulation Angle of 40°**

The wide tread and the long wheelbase provide improved machine stability in both longitudinal and lateral directions. Since the articulation angle is 40°, the operator can work efficiently even on the tightest job sites.

Tread	2400 mm	7'10"
Wheelbase	3780 mm	12'5"
Minimum turning radius (center of outside tire)	6430 mm	21'1"

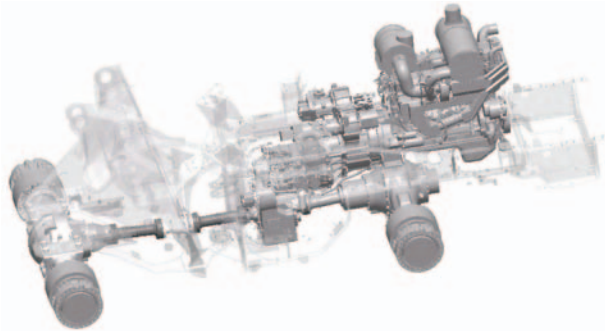




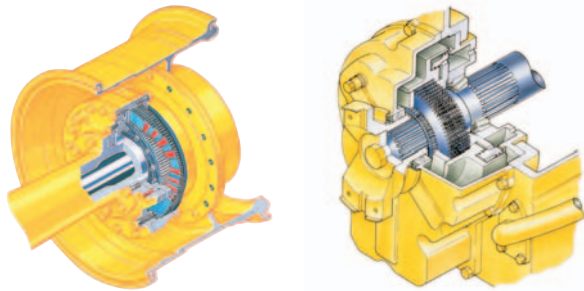
# INCREASED RELIABILITY

## Komatsu Components

Komatsu manufactures the engine, torque converter, transmission, hydraulic units and electric parts on this wheel loader. Komatsu loaders are manufactured with an integrated production system under a strict quality control system.

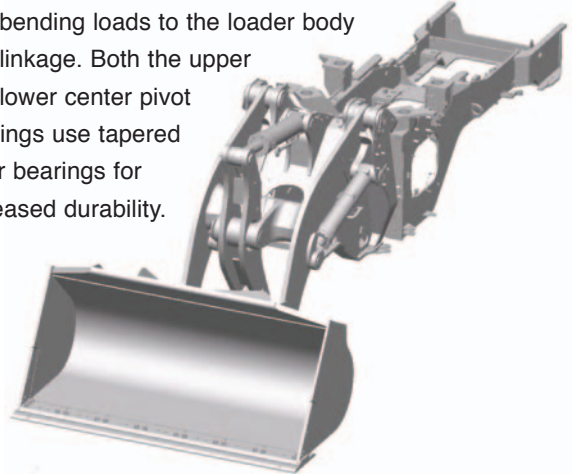


**Wet multi-disc brakes and fully hydraulic braking system** results in lower maintenance costs and higher reliability. The wet disc service and parking brakes are fully sealed and adjustment-free to reduce contamination, wear and maintenance. Added reliability is designed into the braking system by the use of two independent hydraulic circuits providing hydraulic backup should one of the circuits fail. If the brake oil pressure drops, a warning lamp flashes and an alarm sounds intermittently. If the brake pressure continues to drop, the parking brake is automatically applied providing a double safety system.



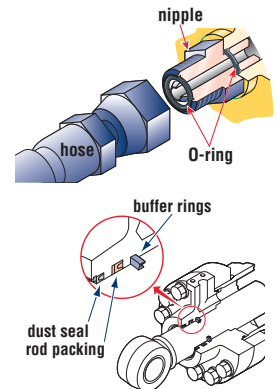
## High-rigidity Frames

The front and rear frames along with the loader linkage have high rigidity to withstand repeated twisting and bending loads to the loader body and linkage. Both the upper and lower center pivot bearings use tapered roller bearings for increased durability.



## Flat Face-to-Face O-Ring Seals

Flat face-to-face O-ring seals are used to securely seal all hydraulic hose connections and to prevent oil leakage. In addition, buffer rings are installed to the head side of the all-hydraulic cylinders to lower the load on the rod seals and maximize the reliability.



## Sealed DT Connectors

Main harnesses and controller connectors are equipped with sealed DT connectors providing high reliability, dust and corrosion resistance.



# EASY MAINTENANCE



Photo may include optional equipment.

### EMMS (Equipment Management Monitoring System)

Komatsu's new main monitor keeps the operator informed of all machine functions at a glance. The monitor is located behind the steering wheel and displays different machine functions including fluid/filter change intervals and troubleshooting memory display functions. The main gauges are analog type for easy viewing and other functions utilize lighted symbols or LCD readouts.



### Maintenance Control and Troubleshooting Functions

- **Action code display function:** If an abnormality occurs, the monitor displays action details on the character display at the bottom center of the monitor.
- **Monitor function:** Controller monitors engine oil level, pressure, coolant temperature, air cleaner clogging, etc. If the controller finds only abnormalities, the error is displayed on the LCD.
- **Replacement time notice function:** Monitor informs replacement time of oil and filters on the LCD when replacement intervals are reached.
- **Error code memory function:** The monitor stores the error codes associated with the abnormalities for effective troubleshooting.

### Gull-wing Type Engine Side Doors Open Wide

Ground level engine service checks are made easy with the gas spring assisted full side opening gull-wing doors



### Modular radiator core system

The modular radiator core is easily accessed without having to remove the entire radiator assembly.



### Reversible Hydraulic Radiator Fan



The Komatsu cooling system is isolated from the engine to provide more efficient cooling and easier cleaning. The variable speed hydraulic fan is reversible to allow the

operator to quickly clean out the cooling system by turning on a switch located on the right side control panel. The variable speed hydraulic fan is temperature activated to provide cooling on demand and reduce fuel consumption.

# OPERATOR COMFORT

## Easy Operation

### Automatic Transmission with ECMV

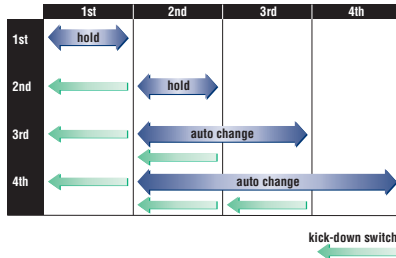
Automatic transmission with ECMV (Electronically Controlled Modulation Valve) automatically selects the proper gear speed based on travel speed, engine speed, and other travel conditions. The ECMV system engages the clutch smoothly to prevent lags and shocks when shifting. This system provides efficient machine operation and a comfortable ride.

- **Kick-down**

**switch:** Consider this valuable feature for added productivity. With the touch of a finger, the kick-down switch

automatically downshifts from second to first when beginning the digging cycle. It automatically upshifts from first to second when the direction control lever is placed in reverse. This results in increased rim pull for better bucket penetration and reduced cycle times for higher productivity.

- **Hold switch:** Auto shift is selected and if the operator turns on this switch when the lever is at the 3rd or 4th gear speed position, the transmission is fixed to that gear speed.



### Electronically Controlled Transmission Lever



The Komatsu two-lever electronic shift control levers provide easy gear selection and directional changes. The transmission levers can be operated with removing the operators hand from the steering

wheel, allowing improved comfort and control. Solid state electronics and conveniently located direction and gear shift controls make this possible. Automatic shifts in ranges two through four keep production high and manual shifting at a minimum.

### Variable Transmission Cut-off System

The operator can select the transmission cut-off pressure desired for the left brake pedal using the switch located on the right-side control panel.

- Higher cut-off pressure allows the transmission to remain engaged at higher engine rpm/hydraulic pressure for increased performance in ramp loading and stockpiling operations.
- Lower cut-off pressure disengages the transmission at lower rpm/hydraulic pressure for more fuel efficient operation on level surfaces



- 1: Cut-off ON/OFF switch
- 2: Cut-off adjustment switch
- 3: Boom positioner switch
- 4: Bucket digging angle control switch
- 5: RPM set ON/OFF switch
- 6: RPM set adjustment switch
- 7: Fan reverse switch
- 8: Boom control
- 9: Bucket control

### Engine RPM Set System with Auto Decel

Engine Low idle RPM can be easily preset using a push button switch. The system provides auto decel for better fuel consumption.





## Comfortable Operation

### EPC (Electronic Pilot Control) levers

The finger control EPC work equipment levers have light operating effort and short stroke facilitating easy operation. The operator's comfort is further increased by the full large size adjustable arm rests. Combined with CLSS, this system allows the following new functions for easy and efficient operation.



- **Remote Boom Positioner with shockless stop function:** The highest and lowest position of the bucket can be set from cab to match of any truck body. Once the positioner is set, the bucket stops smoothly at the desired position without shock.
- **Remote bucket digging angle control:** The digging bucket angle can be easily set from cab to match of ground condition.

### Telescopic/Tilt Steering System

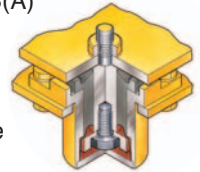
The operator can both tilt and telescope the steering wheel to allow maximum comfort and control. The two-spoke steering wheel allows maximum visibility of the monitor panel and the forward work environment.



### Low-noise Design

Noise at operator's ear noise level: 75 dB(A)  
Dynamic noise level (outside): 109 dB(A)

The large cab is mounted with Komatsu's unique ROPS/FOPS viscous mounts. The low-noise engine, hydraulically driven fan, and hydraulic pumps are mounted with rubber cushions, and the cab sealing is improved to provide a quiet, low-vibration, dustproof with pressurizing, and comfortable operating environment. Pressurization in the cab keeps dirt out further enhancing the operators comfort.



### Pillar-less Large Cab

A wide pillar-less flat glass provides excellent front visibility. The wiper arm covers a large area to provide great visibility even on rainy days.

The cab layout provides the operator with a roomy, quiet and efficient work environment. The cab seat backward slide adjustment distance increases with the introduction of the front mounted air conditioning unit.

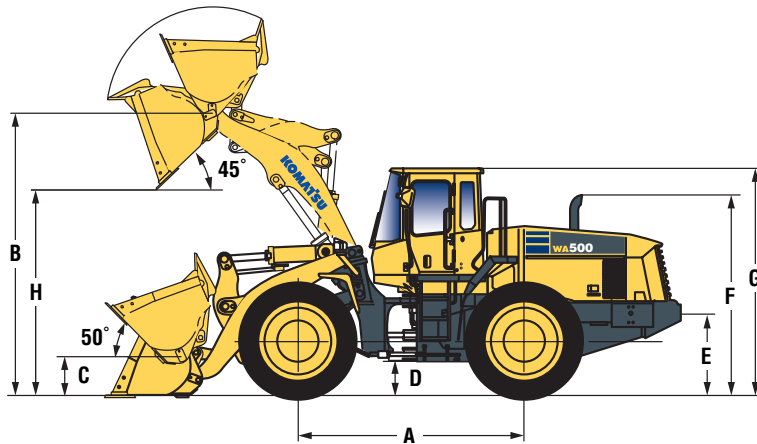
### Rear-hinged Full Open Cab Door

Entry and exit into the new Komatsu cab starts with sloped staircase type steps and large diameter handrails for added safety and comfort. The large cab doors are rear-hinged to open fully offering easy entry/exit and will not hamper visibility when operating the machine with the doors latched open.





 **DIMENSIONS**



	Tread	2400 mm	7'10"
	Width over tires	3190 mm	10'6"
A	Wheelbase	3780 mm	12'5"
B	Hinge pin height, max. height	4755 mm	15'7"
C	Hinge pin height, carry position	575 mm	1'11"
D	Ground clearance	450 mm	1'6"
E	Hitch height	1115 mm	3'8"
F	Overall height, top of the stack	3665 mm	12'0"
G	Overall height, ROPS cab	3785 mm	12'5"

Measured with 29.5-25-22PR (L3) tires

	Standard boom			High lift boom
	General Purpose Buckets	Excavating Buckets	Loose Material Buckets	Excavating Buckets
	Straight edge Bolt-on Cutting edge	Straight edge Bolt-on Cutting edge	Straight edge Bolt-on Cutting edge	Straight edge Bolt-on Cutting edges
Bucket capacity: heaped	5.6 m <sup>3</sup> <b>7.3 yd<sup>3</sup></b>	5.2 m <sup>3</sup> <b>6.8 yd<sup>3</sup></b>	6.3 m <sup>3</sup> <b>8.2 yd<sup>3</sup></b>	4.5 m <sup>3</sup> <b>5.9 yd<sup>3</sup></b>
	struck	4.8 m <sup>3</sup> <b>6.3 yd<sup>3</sup></b>	4.2 m <sup>3</sup> <b>5.5 yd<sup>3</sup></b>	5.3 m <sup>3</sup> <b>6.9 yd<sup>3</sup></b>
Bucket width	3400 mm <b>11'2"</b>	3400 mm <b>11'2"</b>	3400 mm <b>11'2"</b>	3400 mm <b>11'2"</b>
Bucket weight	3110 kg <b>6,855 lb</b>	2870 kg <b>6,325 lb</b>	3475 kg <b>7,660 lb</b>	2795 kg <b>6,160 lb</b>
Dumping clearance, max. height and 45° dump angle* (H)	3295 mm <b>10'10"</b>	3395 mm <b>11'2"</b>	3210 mm <b>10'6"</b>	3890 mm <b>12'9"</b>
Reach at max. height and 45° dump angle*	1500 mm <b>4'11"</b>	1400 mm <b>4'7"</b>	1585 mm <b>5'2"</b>	1435 mm <b>4'8"</b>
Reach at 2130 mm (7') clearance and 45° dump angle	2300 mm <b>7'7"</b>	2215 mm <b>7'3"</b>	2350 mm <b>7'8"</b>	2585 mm <b>8'6"</b>
Reach with arm horizontal and bucket level	3265 mm <b>10'9"</b>	3120 mm <b>10'3"</b>	3385 mm <b>11'11"</b>	3385 mm <b>11'1"</b>
Operating height (fully raised)	6430 mm <b>21'1"</b>	6415 mm <b>21'1"</b>	6540 mm <b>21'5"</b>	6715 mm <b>22'0"</b>
Overall length	9815 mm <b>32'2"</b>	9670 mm <b>31'9"</b>	9935 mm <b>32'7"</b>	10030 mm <b>32'11"</b>
Loader clearance circle (bucket at carry, outside corner of bucket)	7650 mm <b>25'1"</b>	7610 mm <b>24'12"</b>	7710 mm <b>25'3"</b>	7805 mm <b>25'7"</b>
Digging depth: 0°	135 mm <b>5"</b>	135 mm <b>5"</b>	135 mm <b>5"</b>	210 mm <b>8"</b>
	10°	435 mm <b>1'5"</b>	410 mm <b>1'4"</b>	455 mm <b>1'6"</b>
Static tipping load: straight	23600 kg <b>52,030 lb</b>	23750 kg <b>52,360 lb</b>	23100 kg <b>50,295 lb</b>	21705 kg <b>47,850 lb</b>
	40° full turn	20500 kg <b>45,195 lb</b>	20600 kg <b>45,415 lb</b>	20080 kg <b>44,270 lb</b>
Breakout force	245 kN 25000 kgf <b>55,115 lb</b>	268 kN 27300 kgf <b>60,185 lb</b>	227 kN 23200 kgf <b>51,150 lb</b>	286 kN 29140 kgf <b>64,245 lb</b>
	Operating weight	32550 kg <b>71,760 lb</b>	32470 kg <b>71,585 lb</b>	33020 kg <b>72,795 lb</b>

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, air conditioning unit, ECCS (Electronically Controlled Suspension System) and operator. Machine stability and operating weight affected by tire size and other attachments.

\* At the end of tooth or B.O.C.E.





## WEIGHT CHANGES

Tires or attachments	Operating weight		Tipping load straight Standard Boom		Tipping load full turn Standard Boom		Width over tires		Ground clearance		Change in vertical dimensions	
	kg	lb	kg	lb	kg	lb	mm	ft in	mm	ft in	mm	ft in
29.5-25-22PR(L-3)	-160	<b>-353</b>	-104	<b>-229</b>	-59	<b>-130</b>	3190	<b>10'6"</b>	450	<b>1'6"</b>	0	<b>0</b>
Install additional counterweight	+900	<b>+1985</b>	+1865	<b>+4110</b>	+1645	<b>+3625</b>						
Emergency steering	+70	<b>+155</b>	+65	<b>+145</b>	+55	<b>+120</b>						
Lock-up clutch torque converter	+45	<b>+100</b>	+60	<b>+130</b>	+50	<b>+110</b>						



## STANDARD EQUIPMENT

- 2-spool valve for boom and bucket controls
- Air conditioner
- Alternator, 75 A/24 V
- Auto shift transmission with mode select system
- Back-up alarm
- Back-up lamp
- Batteries, 200 Ah/12 V x 2
- 12V converter
- Cab heater and defroster
- Counterweight (2480 kg **5,470 lb**)
- Directional signal
- ECSS (Electronically Controlled Suspension System)
- Engine, Komatsu SAA6D140E-5 diesel
- Engine pre-cleaner with extension
- Engine shut-off system, electric
- EPC fingertip control levers with automatic leveler and positioner
- Floormat
- Front fender
- Hard water area arrangement (corrosion resister)
- Hydraulic-driven fan with reverse rotation
- KOMTRAX
- Main monitor panel with EMMS (Equipment Management Monitoring System)
- Radiator mask, lattice type
- Rearview mirror for cab
- Rear window washer and wiper
- Rims for 29.5-25 tubeless tires (set of 4)
- ROPS/FOPS cab
- Seat, air suspension with automatic weight adjustment
- Seat belt, 76 mm 3"
- Service brakes, wet disc type
- Starting motor, 11.0 kW/24 V
- Steering wheel, tiltable
- Sun visor
- Transmission, 4 forward and 4 reverse



## OPTIONAL EQUIPMENT

- Additional counterweight (900 kg **1985 lb**)
- AM/FM stereo radio cassette
- Emergency steering (SAE)
- Fuel quick coupler
- High lift boom
- In-line filter
- Joystick steering
- Power train guard
- Limited slip differential (F&R)



## ALLIED ATTACHMENTS

- Loadrite weighing system, Force Model
- Loadrite weighing system, Pro Model
- Loadrite weighing system, Pro Model with Material Management System
- Loadrite weighing system, Printer
- Lincoln Automated Lubrication System

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# KOMATSU®

