

# KOMATSU®

## WA430-6

### With Tier 3 Engine

#### HORSEPOWER

Gross: 173 kW **232 HP** @ 2100 rpm

Net: 172 kW **231 HP** @ 2100 rpm

#### OPERATING WEIGHT

18530–18700 kg **40,840–41,226 lb**

#### BUCKET CAPACITY

3.1–4.3 m<sup>3</sup> **4.1–5.6 yd<sup>3</sup>**

**WA**  
**430**

W  
H  
E  
E  
L  
L  
O  
A  
D  
E  
R



Photo may include optional equipment.

# WALK-AROUND

***Komatsu-integrated design*** offers the best value, reliability, and versatility. Hydraulics, powertrain, 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.

## ***High Productivity & Low Fuel Consumption***

- High performance SAA6D114E-3 engine
- Low fuel consumption
- Dual-mode engine power select system
- Automatic transmission with shift timing select system
- Variable displacement piston pump & Closed-Center Load Sensing System (CLSS)

## ***Excellent Operator Environment***

- Automatic transmission with Electronically Controlled Modulation Valve (ECMV)
- Electronic controlled transmission lever
- Variable transmission cut-off system
- Telescopic/tilt steering column
- Fingertip control levers
- Low-noise designed cab
- Pillar-less large ROPS/FOPS integrated cab
- Easy entry/exit, rear-hinged doors



## ***Easy Maintenance***

- Equipment Management Monitoring System (EMMS)
- Easy access, gull-wing type engine side doors
- Automatic reversible fan

### **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.

### ***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

**HORSEPOWER**

Gross: 173 kW **232 HP** @ 2100 rpm  
 Net: 172 kW **231 HP** @ 2100 rpm

**OPERATING WEIGHT**

18530–18700 kg **40,840–41,226 lb**

**BUCKET CAPACITY**

3.1–4.3 m<sup>3</sup> **4.1–5.6 yd<sup>3</sup>**



Photo may include optional equipment.

### ***Environmentally Friendly***

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

**GALEO**

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

## HIGH PRODUCTIVITY & LOW FUEL CONSUMPTION



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 SAA6D114E-3 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: 172 kW 231 HP**

### Low Emission Engine

This engine meets EPA Tier 3 emission regulations and EU stage 3A emission regulations, 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.



Dual mode engine power selection switch

### Eco Indicator

The Eco Indicator will inform the operator when the machine is maximizing fuel efficiency.



Eco indicator

### 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.



Shift mode selection switch

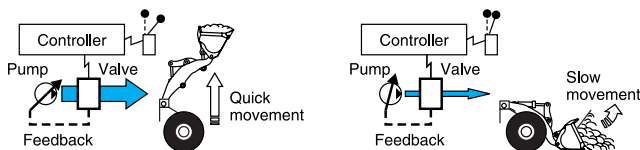
- **Manual:** The transmission is fixed to the gear speed and selected with the gear lever.
- **Auto Low:** Low mode provides smooth gear shifting at low engine speeds suitable for general excavating and loading while offering reduced fuel consumption.
- **Auto High:** High mode provides maximum rim 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.



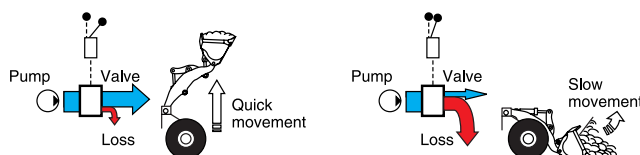
**Variable Displacement Piston Pump and CLSS**

New design variable displacement piston pump combined with the Closed-center Load Sensing System (CLSS) delivers hydraulic flow just as the job requires preventing wasted hydraulic flow. 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.



**Maximum Dumping Clearance and Reach**

The long lift arms provide high dumping clearances and maximum dumping reach. The operator can even level loads on the body of a dump truck easily and efficiently.

**Dumping Clearance:** 3015 mm 9'11"

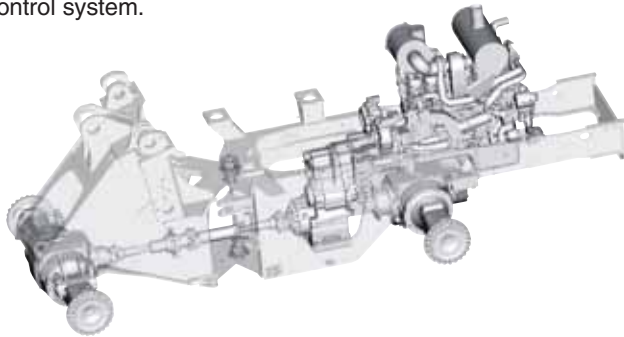
**Dumping Reach:** 1195 mm 3'11"

(3.5 m<sup>3</sup> 4.6 yd<sup>3</sup> bucket with B.O.C.)

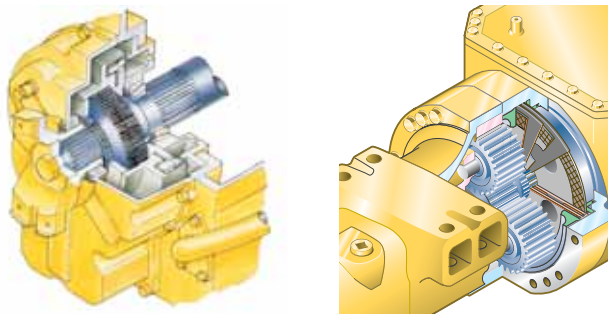
## INCREASED RELIABILITY

### 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** result 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 and Loader Linkage

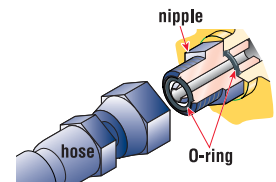
The front and rear frames along with the loader linkage have high rigidity to withstand repeated twisting and bending loads to the loader body and linkage.

Both the upper and lower center pivot bearings use tapered roller bearings for increased durability.



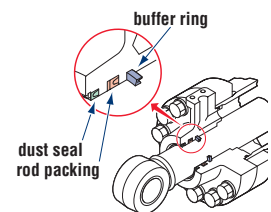
### Flat Face-to-Face O-Ring Seals

Flat face-to-face O-ring seals are used to securely seal hydraulic hose connections and prevent oil leakage.



### Cylinder Buffer Rings

Buffer rings are installed to the head-side of the all-hydraulic cylinders to lower the load on the rod seals, prolong cylinder life by 30% and maximize overall 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.

## Main Monitor—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.



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 controller finds abnormalities, the error is displayed on LCD.
- **Replacement time notice function:** Monitor informs replacement time of oil and filters on LCD when replacement intervals are reached.
- **Trouble data memory function:** Monitor stores abnormalities for effective troubleshooting.

## Full Side—Opening Gull-Wing Engine Doors

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

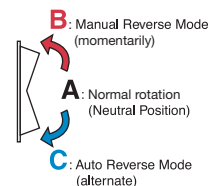


## Ease of Radiator Cleaning

If the machine is operating in adverse conditions, the operator can reverse the hydraulic cooling fan from inside the cab by turning on a switch on the control panel.

## Automatic Reversible Fan

The engine fan is driven hydraulically and can be operated in reverse automatically. When the switch is in the automatic position, the fan revolves in reverse for 2 minutes every 2 hours intermittently (default setting).



# OPERATOR ENVIRONMENT

## Easy Operation

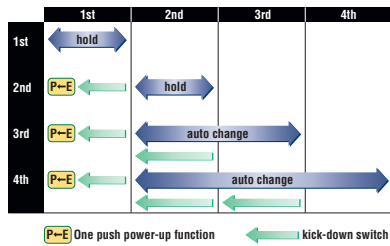
### Automatic Transmission with Electronically Controlled Modulation Valve (ECMV)

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.



- **One push power-up function:** The kick-down switch also functions as a power-up switch in first gear. The first time the kick-down switch is depressed, it functions as a kick-down switch and gear speed is reduced. When the machine is in E operation mode and first gear, pressing the kick-down switch a second time changes the operation mode to P allowing increased power for heavy digging operation. The operation mode returns to E when machine gear speed changes or direction changes to reverse.

- **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



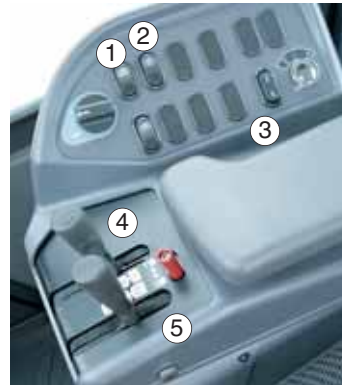
The Komatsu two-lever electronic shift control levers provide easy gear selection and directional changes. The transmission levers can be operated without removing the operator's hand from the steering wheel, allowing improved

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

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: Fan reverse ON/OFF switch
- 4: Boom control
- 5: Bucket control





## Comfortable Operation

### Fingertip Work Equipment Control Levers with Large Arm Rest

New PPC control levers are used for the work equipment. The operator can easily operate the work equipment with fingertip controls, reducing operator fatigue and improving fine work equipment control and productivity. The PPC



control lever column can be slid forward or backward and the large-sized arm rest can be adjusted up or down to provide the operator with a variety of comfortable operating positions.

### Telescopic/Tilt Steering Column

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 : 74 dB(A)  
Dynamic noise level (outside): 112 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, and comfortable operating environment. Pressurization in the cab keeps dirt out, further enhancing the operator's 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 area is the largest in its class providing maximum space for the operator. The front mounted air conditioner was introduced to increase seat reclining and backwards seat adjustment.

### Rear-Hinged Full Open Cab Doors

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.



# WA430-6 WHEEL LOADER

## SPECIFICATIONS



### ENGINE

Model ..... Komatsu SAA6D114E-3  
 Type ..... Water-cooled, 4-cycle  
 Aspiration ..... Turbocharged, aftercooled  
 Number of cylinders ..... 6  
 Bore x stroke ..... 114 mm x 135 mm **4.49" x 5.32"**  
 Piston displacement ..... 8.27 ltr **505 in<sup>3</sup>**  
 Governor ..... All-speed, electronic  
 Horsepower  
 SAE J1995 ..... Gross 173 kW **232 HP**  
 ISO 9249/SAE J1349 ..... Net 172 kW **231 HP**  
 Hydraulic fan at maximum speed ..... Net 163 kW **218 HP**  
 Rated rpm ..... 2100 rpm  
 Fan drive method for radiator cooling ..... Hydraulic  
 Fuel system ..... Direct injection  
 Lubrication system:  
 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 ..... Automatic full-powershift, countershaft type  
 Travel speed: km/h **mph**  
 Measured with 23.5-25 tires

	1st		2nd		3rd		4th	
Forward	7.0	<b>4.4</b>	12.3	<b>7.6</b>	21.6	<b>13.4</b>	37.2	<b>23.1</b>
Reverse	7.6	<b>4.7</b>	12.9	<b>8.0</b>	23.0	<b>14.3</b>	37.2	<b>23.1</b>



### AXLES AND FINAL DRIVES

Drive system ..... Four-wheel drive  
 Front ..... Fixed, semi-floating  
 Rear ..... Center-pin support, semi-floating, 18° total oscillation  
 Reduction gear ..... Spiral bevel gear  
 Differential gear ..... Conventional 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 brake is commonly used



### STEERING SYSTEM

Type ..... Articulated type, full-hydraulic power steering  
 Steering angle ..... 40° each direction  
 Minimum turning radius at the center of outside tire ..... 6335 mm **20'9"**



### HYDRAULIC SYSTEM

Steering system:  
 Hydraulic pump ..... Piston pump  
 Capacity ..... 137 ltr/min **36.2 U.S. gal/min** at rated rpm  
 Relief valve setting ..... 24.5 MPa 250 kgf/cm<sup>2</sup> **3,555 psi**  
 Hydraulic cylinders:  
 Type ..... Double-acting, piston type  
 Number of cylinders ..... 2  
 Bore x stroke ..... 75 mm x 442 mm **3.0" x 17.4"**  
 Loader control:  
 Hydraulic pump ..... Piston pump  
 Capacity ..... 205 ltr/min **54.2 U.S. gal/min** at rated rpm  
 Relief valve setting ..... 31.4 MPa 320 kgf/cm<sup>2</sup> **4,550 psi**  
 Hydraulic cylinders:  
 Type ..... Double-acting, piston type  
 Number of cylinders—bore x stroke:  
 Boom cylinder ..... 2- 130 mm x 776 mm **5.1" x 30.6"**  
 Bucket cylinder ..... 1- 160 mm x 535 mm **6.3" x 21.1"**  
 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 ..... 6.1 sec  
 Dump ..... 2.0 sec  
 Lower (Empty) ..... 3.3 sec

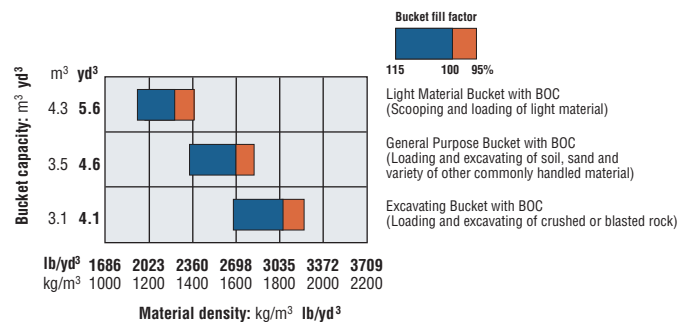


### SERVICE REFILL CAPACITIES

Cooling system ..... 32 ltr **8.4 U.S. gal**  
 Fuel tank ..... 325 ltr **85.9 U.S. gal**  
 Engine ..... 30 ltr **7.9 U.S. gal**  
 Hydraulic system ..... 139 ltr **36.7 U.S. gal**  
 Axle front ..... 49 ltr **12.9 U.S. gal**  
 rear ..... 40 ltr **10.6 U.S. gal**  
 Torque converter and transmission ..... 54 ltr **14.3 U.S. gal**



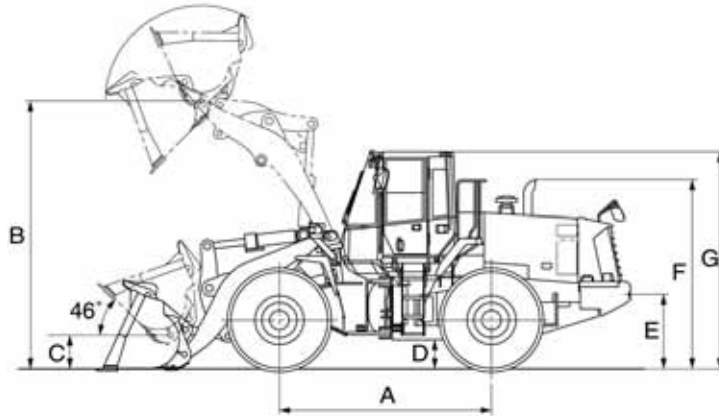
### BUCKET SELECTION GUIDE





**DIMENSIONS**

Measured with 23.5 R25 (L3) tires, ROPS/FOPS cab



	Tread	2200 mm	<b>7'3"</b>
	Width over tires	2820 mm	<b>9'3"</b>
A	Wheelbase	3300 mm	<b>10'10"</b>
B	Hinge pin height, max. height	4165 mm	<b>13'8"</b>
C	Hinge pin height, carry position	520 mm	<b>1'8"</b>
D	Ground clearance	455 mm	<b>1'6"</b>
E	Hitch height	1150 mm	<b>3'9"</b>
F	Overall height, top of the stack	2940 mm	<b>9'8"</b>
G	Overall height, ROPS cab	3390 mm	<b>11'1"</b>

	General Purpose Bucket	Excavating Bucket	Light Material Bucket
	Bolt-on Cutting Edges	Bolt-on Cutting Edges	Bolt-on Cutting Edges
Bucket capacity: heaped	3.5 m <sup>3</sup> <b>4.6 yd<sup>3</sup></b>	3.1 m <sup>3</sup> <b>4.1 yd<sup>3</sup></b>	4.3 m <sup>3</sup> <b>5.6 yd<sup>3</sup></b>
struck	3.0 m <sup>3</sup> <b>3.9 yd<sup>3</sup></b>	2.6 m <sup>3</sup> <b>3.4 yd<sup>3</sup></b>	3.7 m <sup>3</sup> <b>4.8 yd<sup>3</sup></b>
Bucket width	2905 mm <b>9'6"</b>	2905 mm <b>9'6"</b>	2905 mm <b>9'6"</b>
Bucket weight	1630 kg <b>3,593 lb</b>	1720 kg <b>3,792 lb</b>	1800 kg <b>3,968 lb</b>
Dumping clearance, max. height and 45° dump angle*	3015 mm <b>9'11"</b>	3090 mm <b>10'2"</b>	2890 mm <b>9'6"</b>
Reach at max. height and 45° dump angle *	1195 mm <b>3'11"</b>	1120 mm <b>3'8"</b>	1320 mm <b>4'4"</b>
Reach at 2130 mm (7') clearance and 45° dump angle	1840 mm <b>6'0"</b>	1795 mm <b>5'11"</b>	1900 mm <b>6'3"</b>
Reach with arm horizontal and bucket level	2690 mm <b>8'10"</b>	2580 mm <b>8'6"</b>	2865 mm <b>9'5"</b>
Operating height (fully raised)	5710 mm <b>18'9"</b>	5590 mm <b>18'4"</b>	5895 mm <b>19'4"</b>
Overall length	8460 mm <b>27'9"</b>	8350 mm <b>27'5"</b>	8640 mm <b>28'4"</b>
Loader clearance circle (bucket at carry, outside corner of bucket)	14540 mm <b>47'8"</b>	14460 mm <b>47'5"</b>	14620 mm <b>48'</b>
Digging depth: 0°	120 mm <b>4.7"</b>	120 mm <b>4.7"</b>	120 mm <b>4.7"</b>
10°	350 mm <b>1'2"</b>	330 mm <b>1'1"</b>	380 mm <b>1'3"</b>
Static tipping load: straight	14960 kg <b>32,981 lb</b>	14915 kg <b>32,882 lb</b>	14710 kg <b>32,430 lb</b>
40° full turn	13785 kg <b>30,390 lb</b>	13770 kg <b>30,358 lb</b>	13615 kg <b>30,016 lb</b>
Breakout force	179 kN 18300 kgf <b>40,333 lb</b>	196 kN 19980 kgf <b>44,048 lb</b>	158 kN 16135 kgf <b>35,572 lb</b>
Operating weight	18530 kg <b>40,852 lb</b>	18620 kg <b>41,050 lb</b>	18700 kg <b>41,226 lb</b>

\* At the end of B.O.C.

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, additional counterweight, and operator. Machine stability and operating weight affected by counterweight, tire size, and other attachments.

Apply the following weight changes to operating weight and static tipping load.



## WEIGHT CHANGES

Attachments	Operating weight		Tipping load straight		Tipping load full turn	
	kg	lb	kg	lb	kg	lb
Remove additional counterweight	-340	<b>-750</b>	-860	<b>-1,900</b>	-720	<b>-1,590</b>



## STANDARD EQUIPMENT

- 2-spool valve for boom and bucket controls
- Auto air conditioner
- Alternator, 60 A
- Auto shift transmission with mode select system
- Back-up alarm
- Back-up lamp
- Batteries, 150 Ah/12 V x 2
- Boom kick-out
- Bucket positioner
- Counterweight, standard and additional
- Directional signal
- ECSS (Electronically Controlled Suspension System)
- Engine, Komatsu SAA6D114E-3 diesel
- Engine shut-off system, electric
- Fan, auto reversing, hydraulic driven
- Floor mat
- Front fenders
- Fuel prefilter with water separator
- KOMTRAX™
- Lift cylinders and bucket cylinder
- Loader linkage with standard lift arm
- Main monitor panel with EMMS (Equipment Management Monitoring System)
- PPC fingertip control, two levers
- Radiator mask, lattice type
- Rear defroster (electric)
- Rear view mirrors for cab
- Rear window washer and wiper
- Rims for 23.5-25 tires
- ROPS/FOPS cab
- Seat belt
- Seat, air suspension with automatic weight adjustment
- Service brakes, wet disc type
- Starting motor, 7.5 kW/24 V
- Steering wheel, tiltable, telescopic
- Sun visor
- Transmission, 4 forward and 4 reverse
- Vandalism protection kit



## OPTIONAL EQUIPMENT

- AM/FM stereo radio cassette
- Cutting edge (bolt-on type)
- Emergency steering (SAE)
- Engine pre-cleaner with extension
- Limited slip differential (F&R)
- Rear full fenders

AESS712-01

©2006 Komatsu Printed in USA

D08(5M) C

08/06 (EV-1)

# KOMATSU®

