

# KOMATSU®

## WA430-6

### HORSEPOWER

Gross: 173 kW 232 HP @ 2100 rpm

Net: 172 kW 231 HP @ 2100 rpm

### BUCKET CAPACITY

3.1-4.6 m<sup>3</sup> 4.1-6.0 yd<sup>3</sup>

ecot3

WA  
430

WHEEL LOADER



Photo may include optional equipment.

# WALK-AROUND

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

**BUCKET CAPACITY**  
 3.1–4.6 m<sup>3</sup> 4.1–6.0 yd<sup>3</sup>

## 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
- Large-capacity torque converter
- Variable displacement piston pump & CLSS

See pages 4 and 5.

## Excellent Operator Environment

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

See pages 8 and 9.

## 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

See page 6.

- Cation electrodeposition process is used to apply primer paint
- Powder coating process is used to apply on main structure
- Sealed DT connectors for electrical connections



Photo may include optional equipment.

## Harmony with Environment

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

## Easy Maintenance

- “EMMS” (Equipment Management Monitoring System)
- Easy access, gull-wing type engine side doors
- Automatic Reversible Fan (optional)

See page 7.

# HIGH PRODUCTIVITY AND LOW FUEL CONSUMPTION



### 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 is EPA Tier 3 and EU Stage 3A 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 most of general loading.
- **P Mode:** This mode provides maximum power output for hard digging operation or hill climb.



Dual mode engine power selection switch



The eco indicator will help an operator to promote energy saving.

### Automatic Transmission with Mode Select System

This operator controlled system allows the operator to select manual shifting or two levels of automatic shifting (low, and high).

Auto L mode is for fuel saving operation with the gear shift timing set at lower speeds than Auto H mode. Therefore Auto L mode keeps the engine run in a relatively low rpms range



Shift mode selection switch

for fuel conservation while yielding adequate tractive force by depressing the accelerator pedal.

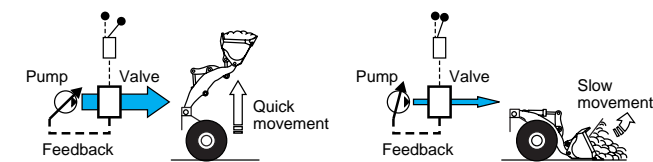
### Large-capacity Torque Converter

Newly designed drive train has a large-capacity torque converter for optimal efficiency. The WA430-6 has plenty of acceleration and it can achieve high travel speeds, even on grades. This significantly assists productivity and also delivers great value for load-and-carry operations.

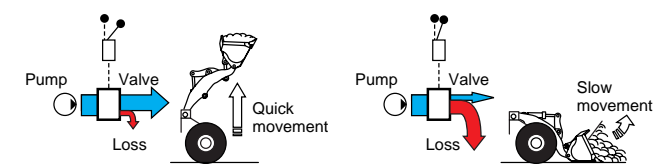
### Variable Displacement Piston Pump & CLSS

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



### 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.

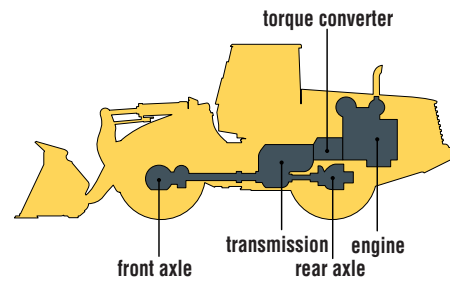
**Dumping Clearance: 3020 mm 9'11"**  
**Dumping Reach: 1190 mm 3'11"**  
**(3.5 m<sup>3</sup> 4.6 yd<sup>3</sup> bucket with B.O.C.)**



# INCREASED RELIABILITY

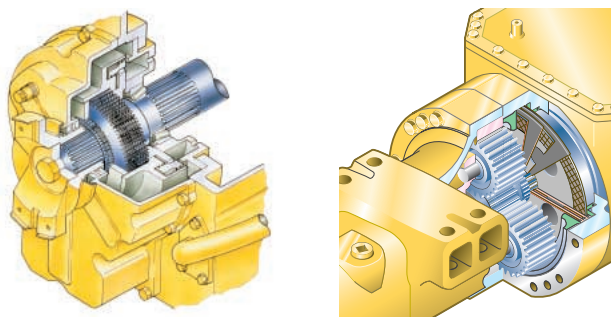
## Komatsu Components

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



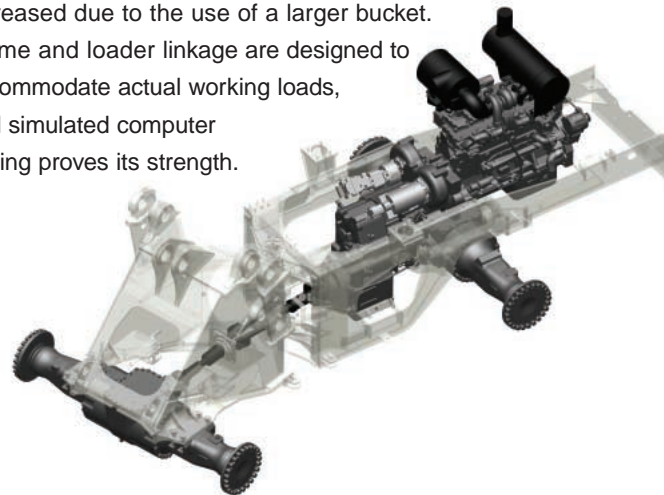
## Wet Multi-disc Brakes and Fully Hydraulic Braking System

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 an 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 backup should one of the circuits fail. Fully hydraulic brakes mean no air system to bleed, or the condensation of water in the system that can lead to contamination, corrosion, and freezing.



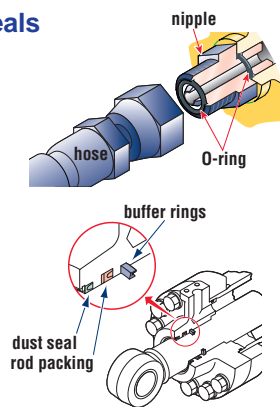
## High-rigidity Frames and Loader Linkage

The front and rear frames and the loader linkage have got more torsional rigidity to secure resistance against stresses increased due to the use of a larger bucket. Frame and loader linkage are designed to accommodate actual working loads, and simulated computer testing proves its strength.



## Flat Face-to-face O-ring Seals

Flat face-to-face O-ring seals are used to securely seal 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.



## Cation Electrodeposition Primer Paint/ Powder Coating Final Paint

Cation electrodeposition paint is applied as a primer paint and powder coating is applied as topcoat to the exterior metal sheet parts. This process results in a beautiful rust-free machine, even in the most severe environments. Some external parts are made of plastic providing long life and high impact resistance.

## Sealed DT Connectors

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



# EASY MAINTENANCE



Photo may include optional equipment.

## EMMS (Equipment Management Monitoring System)

Monitor is mounted in front of the operator for easy view, allowing the operator to easily check gauges and warning lights.



A specially designed two-spoke steering wheel allows the operator to easily see the instrument panel.

## Maintenance Control and Troubleshooting Functions

- **Action code display function:** If the loader has any troubles, the monitor displays action details on the character display at the center bottom of the monitor.
- **Monitor function:** Controller monitors engine oil level, pressure, coolant temperature, air cleaner clogging, etc. If controller finds abnormalities, all of these are displayed on LCD.
- **Replacement time notice function:** Monitor informs replacement time of oil and filters on LCD when it reaches replacement intervals.
- **Trouble data memory function:** Monitor stores abnormalities for effective troubleshooting.

## Gull-wing Type Engine Side Doors Open Wide

The operator can open and close each gull-wing type engine side door easily with the assistance of a gas spring to perform daily service checks from the ground.

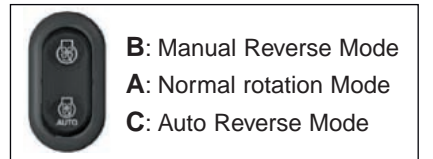


## Ease of Radiator Cleaning

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 (optional)

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



# OPERATOR ENVIRONMENT

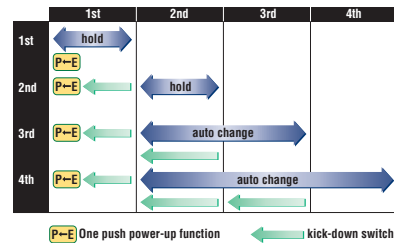
## Easy Operation

### Automatic Transmission with ECMV

Automatic transmission with ECMV automatically selects the proper gear speed based on travel speed, engine speed, and other travel conditions. The ECMV (Electronically Controlled Modulation Valve) 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



#### Easy shifting and directional changes

with Komatsu two-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. Automatic shifts in ranges two through four keep production high and manual shifting at a minimum.

### Variable Transmission Cut-off System

The operator can continuously adjust the transmission cut-off pressure desired for the left brake pedal using switch located on the right-side control panel. The operator can improve the working performance by setting the cut-off pressure properly depending on working condition.

- High cut-off pressure for digging operations.
- Low cut-off pressure for truck-loading operations.



- 1: Cut-off ON/OFF switch
- 2: Cut-off adjustment switch
- 3: Fan reverse ON/OFF switch
- 4: Boom control
- 5: Bucket control



Photo may include optional equipment.

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

New PPC control levers are used for the work equipment. The operator can easily operate the work equipment with fingertip control, reducing operator fatigue and increasing controllability. The PPC control lever column can be slid



forward or rearward and the large size arm rest can be adjusted up or down to provide the operator with a variety of comfortable operating positions.

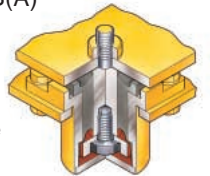
### Telescopic/Tilt Steering Column

The operator can tilt and telescope the steering column to provide a comfortable working position.

## Comfortable Operation

### 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, dustproof with pressurizing, and comfortable operating environment. Also, exterior noise is lowest in this class.



### 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. Increased seat reclining and slide adjustment to backward by introducing front mounted air conditioner unit.

### Rear-hinged Full Open Cab Doors

The cab door hinges are installed to the rear side of the cab providing a large opening angle for the operator to enter and exit. The steps are designed like a staircase, so that the operator can get on and off the cab easily.



# 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  
 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

\*Net horsepower at the maximum speed of radiator cooling fan is 163 kW 218 HP.

EPA Tier 3 and EU Stage 3A emissions certified.



## 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 4.4	12.3 7.6	21.6 13.4	37.2 23.1
Reverse	7.6 4.7	12.9 8.0	23.0 14.3	37.2 23.1

Measured with 26.5-25 tires

	1st	2nd	3rd	4th
Forward	7.4 4.6	12.9 8.0	23.0 14.3	38.0 23.6
Reverse	7.9 4.9	13.7 8.5	24.5 15.2	38.0 23.6



## 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 .....35° each direction (40° end stop)  
 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  
 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:  
 Lift 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

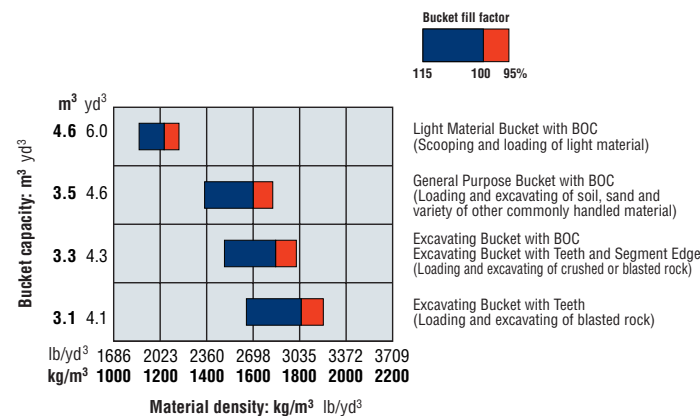


## SERVICE REFILL CAPACITIES

Cooling system .....32 ltr 8.5 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

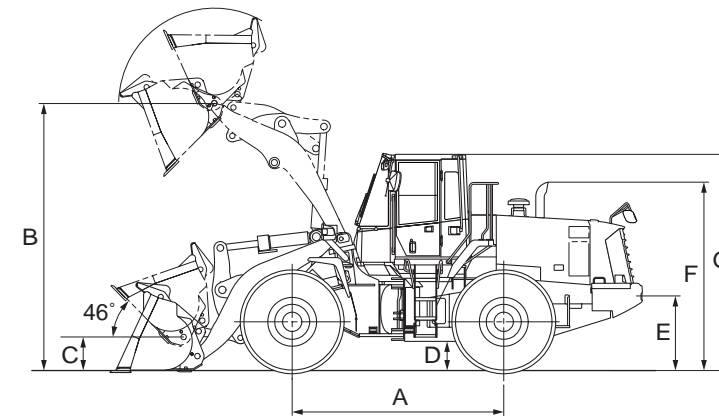


## BUCKET SELECTION GUIDE



## DIMENSIONS

Measured with 23.5-25-16PR (L3) tires, ROPS/FOPS cab



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

	General Purpose Buckets		Excavating Buckets			Light Material Bucket
	Bolt-on Cutting Edges	Teeth	Bolt-on Cutting Edges	Teeth and Segments	Teeth	Bolt-on Cutting Edges
Bucket capacity: heaped	3.5 m <sup>3</sup> 4.6 yd <sup>3</sup>	3.3 m <sup>3</sup> 4.3 yd <sup>3</sup>	3.3 m <sup>3</sup> 4.3 yd <sup>3</sup>	3.3 m <sup>3</sup> 4.3 yd <sup>3</sup>	3.1 m <sup>3</sup> 4.1 yd <sup>3</sup>	4.6 m <sup>3</sup> 6.0 yd <sup>3</sup>
struck	3.0 m <sup>3</sup> 3.9 yd <sup>3</sup>	2.8 m <sup>3</sup> 3.7 yd <sup>3</sup>	2.8 m <sup>3</sup> 3.7 yd <sup>3</sup>	2.8 m <sup>3</sup> 3.7 yd <sup>3</sup>	2.6 m <sup>3</sup> 3.4 yd <sup>3</sup>	4.0 m <sup>3</sup> 5.2 yd <sup>3</sup>
Bucket width	3050 mm 10'0"	3065 mm 10'1"	3050 mm 10'0"	3065 mm 10'1"	3065 mm 10'1"	3050 mm 10'0"
Bucket weight	1735 kg 3,820 lb	1665 kg 3,670 lb	1810 kg 3,990 lb	1870 kg 4,120 lb	1740 kg 3,840 lb	1990 kg 4,390 lb
Dumping clearance, max. height and 45° dump angle*	3020 mm 9'11"	2895 mm 9'6"	3090 mm 10'2"	2970 mm 9'9"	2970 mm 9'9"	2870 mm 9'5"
Reach at max. height and 45° dump angle*	1190 mm 3'11"	1290 mm 4'3"	1120 mm 3'8"	1215 mm 4'0"	1215 mm 4'0"	1340 mm 4'5"
Reach at 2130 mm (7") clearance and 45° dump angle	1835 mm 6'0"	1870 mm 6'2"	1795 mm 5'11"	1835 mm 6'0"	1835 mm 6'0"	1910 mm 6'3"
Reach with arm horizontal and bucket level	2685 mm 8'10"	2840 mm 9'4"	2580 mm 8'6"	2735 mm 9'0"	2735 mm 9'0"	2895 mm 9'6"
Operating height (fully raised)	5645 mm 18'6"	5645 mm 18'6"	5590 mm 18'4"	5590 mm 18'4"	5590 mm 18'4"	5945 mm 19'6"
Overall length	8305 mm 27'3"	8460 mm 27'9"	8200 mm 26'11"	8355 mm 27'5"	8355 mm 27'5"	8515 mm 27'11"
Loader clearance circle (bucket at carry, outside corner of bucket)	14670 mm 48'2"	14760 mm 48'5"	14590 mm 47'10"	14700 mm 48'3"	14700 mm 48'3"	14760 mm 48'3"
Digging depth: 0°	120 mm 4.7"	135 mm 5.3"	120 mm 4.7"	135 mm 5.3"	135 mm 5.3"	120 mm 4.7"
10°	350 mm 1'2"	395 mm 1'4"	330 mm 1'1"	375 mm 1'3"	375 mm 1'3"	385 mm 1'3"
Static tipping load: straight	13980 kg 30,820 lb	14320 kg 31,570 lb	13955 kg 30,770 lb	13885 kg 30,610 lb	14150 kg 31,200 lb	13665 kg 30,130 lb
40° full turn	12990 kg 28,640 lb	13280 kg 29,280 lb	12985 kg 28,630 lb	12940 kg 28,530 lb	13145 kg 28,980 lb	12785 kg 28,190 lb
Breakout force	180 kN 18400 kgf 40,565 lb	194 kN 19800 kgf 43,650 lb	196 kN 20000 kgf 44,090 lb	198 kN 20200 kgf 44,530 lb	213 kN 21700 kgf 47,840 lb	155 kN 15800 kgf 34,830 lb
Operating weight	18290 kg 40,320 lb	18220 kg 40,170 lb	18365 kg 40,490 lb	18425 kg 40,620 lb	18295 kg 40,330 lb	18545 kg 40,880 lb

\* At the end of tooth or 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, 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

Tires or attachments	Operating weight		Tipping load straight		Tipping load full turn		Width over tires		Ground clearance		Change in vertical dimensions	
	kg	lb	kg	lb	kg	lb	mm	ft in	mm	ft in	mm	ft in
23.5-25-16PR(L-3)	0	0	0	0	0	0	2820	9'3"	455	1'6"	0	0
26.5-25-16PR(L-3)	+420	+925	+330	+730	+290	+640	2940	9'8"	620	2'0"	+65	+3"
Install additional counterweight	+340	+750	+860	+1,900	+720	+1,590						



## STANDARD EQUIPMENT

- 2-spool valve for boom and bucket controls
- Alternator, 60 A
- Auto shift transmission with mode select system
- Back-up alarm
- Back-up lamp
- Batteries, **136 Ah/2** x 12 V
- Boom kick-out
- Bucket positioner
- Counterweight
- Directional signal
- Engine, Komatsu SAA6D114E-3 diesel
- Engine shut-off system, electric
- Floor mat
- Front fender
- Fuel prefilter with water separator
- Hydraulic-driven fan with reverse rotation
- 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 mirror
- Rear window washer and wiper
- ROPS/FOPS cab
- Seat, suspension type with reclining
- Seat belt
- Service brakes, wet disc type
- Starting motor, **7.5 kW/24 V**
- Steering wheel, tiltable, telescopic
- Sun visor
- Tires (23.5-25-16PR, L3 tubeless) and rims
- Transmission, 4 forward and 4 reverse



## OPTIONAL EQUIPMENT

- 3-spool valve
- Additional counterweight
- Air conditioner
- AM/FM radio
- AM/FM stereo radio cassette
- Auto air conditioner
- Batteries, **140 Ah/2** x 12V
- Bucket teeth (bolt-on type)
- Bucket teeth (tip type)
- Counterweight for log
- Cutting edge (bolt-on type)
- Deluxe suspension seat
- ECSS (Electronically Controlled Suspension System)
- Emergency steering (SAE)
- Engine pre-cleaner with extension
- High lift arm
- Joystick steering
- Limited slip differential (F&R)
- Lock-up clutch torque converter
- Log grapple
- Ordinary spare parts
- Power train guard
- Rear fender
- Tool kit
- Vandalism protection kit

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Printed in Japan 201309 IP.SIN

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CEN00139-04

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