

# **WA380-7**Tier 4 Interim Engine

NET HORSEPOWER OPERATING WEIGHT

**BUCKET CAPACITY** 



PHOTOS MAY INCLUDE OPTIONAL EQUIPMENT

## **WALK-AROUND**



Courtesy of Machine.Market

NET HORSEPOWER

**191 HP @ 2100 rpm** 142 kW @ 2100 rpm

**OPERATING WEIGHT** 

**39,840–41,115 lb** 18070–18650 kg

**BUCKET CAPACITY** 

**3.8–5.2 yd³** 2.9–4.0 m³



#### HIGH PRODUCTION WITH LOW FUEL CONSUMPTION

## Large capacity torque converter with lock-up:

- 10% lower fuel consumption
- Faster top speed
- Quick acceleration
- Lock-up in 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> gear

Komatsu SmartLoader Logic helps reduce fuel consumption with no decrease in production.

A powerful Komatsu SAA6D107E-2 engine provides a net output of 142 kW 191 HP with 10% improved fuel consumption. This engine is EPA Tier 4 Interim and EU stage 3B emissions certified.

Komatsu Variable Geometry Turbocharger (KVGT) uses a hydraulic actuator to provide optimum air flow under all speed and load conditions.

Komatsu Diesel Particulate Filter (KDPF) captures 90% of particulate matter and

provides automatic regeneration that does not interfere with daily operation.

## Increased cooling capacity

- Auto-reversing fan is standard
- Wider core coolers
- Standard rear screen

**An all new cab** provides the operator with improved comfort and visibility.

#### New high resolution monitor panel

- Enhanced and intuitive on-board diagnostics
- Integrated with KOMTRAX Level 4
- Integrated with Komatsu Tier 4 technology



## New high capacity air suspension seat

- Seat mounted EPC controls with F-N-R switch
- Seat heater is standard

#### **Energy saving guidance**

- Six operator guiding messages
- Enhanced eco-gauge

**Komatsu Auto Idle Shutdown** helps reduce idle time and reduce operating costs.

## Remote boom and bucket positioners can set kick-outs from inside the cab.

Variable displacement piston pumps with CLSS help reduce fuel consumption.



#### **KØMTRAX**®

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.

# MA380-7

# HIGH PRODUCTIVITY & LOW FUEL CONSUMPTION

## High Performance Komatsu SAA6D107E-2 Engine

The Komatsu SAA6D107E-2 engine is EPA Tier 4 Interim and EU Stage 3B emissions certified and provides exceptional performance while reducing fuel consumption. Based on Komatsu proprietary technologies developed over many years, this new diesel engine reduces exhaust gas particulate matter (PM) by more than 90% and nitrogen oxides (NOx) by more than 45% when compared to Tier 3 levels.

Through the in-house development and production of

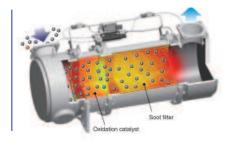
engines, electronics, and hydraulic components, Komatsu has achieved great advancements in technology, providing high levels of performance and efficiency in virtually all applications. The operator will notice high torque at low speeds, excellent operation and low fuel consumption to provide maximum productivity.



#### Komatsu Diesel Particulate Filter (KDPF)

Komatsu has developed a high efficiency diesel particulate filter that captures more than 90% of particulate matter. Both passive and active regeneration are automatically initiated by the engine controller depending on the soot level of the KDPF. A special oxidation catalyst with a fuel injection system is used to oxidize and remove particulate matter while the machine is running so the regeneration process will not interfere with daily operation.

The operator can also initiate regeneration manually or disable regeneration depending on the work environment.



#### **Closed Crankcase Ventilation (CCV)**

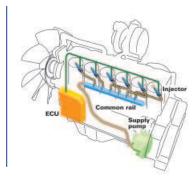
Crankcase emissions (blow-by gas) are passed through a CCV filter. The CCV filter traps oil mist which is returned back to the crankcase while the gas, which is almost oil mist free, is fed back to the air intake.



## Heavy Duty High Pressure Common Rail (HPCR) Fuel Injection System

The heavy duty HPCR system is electronically controlled

to deliver a precise quantity of pressurized fuel into the combustion chamber using multiple injection events to achieve complete fuel burn and reduce exhaust gas emissions. Fuel injector reliability has been improved by using ultra-hard wear resistant materials.



## Komatsu Variable Geometry Turbocharger (KVGT)

Using Komatsu proprietary technology, a newly designed variable geometry turbocharger with a hydraulic actuator is used to manage and deliver optimum air flow to the combustion chamber under all speed and

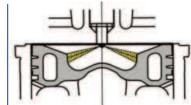
load conditions. The robust hydraulic actuator provides power and precision, resulting in cleaner exhaust gas, quick acceleration and improved fuel economy while maintaining performance.



#### **Redesigned Combustion Chamber**

The combustion chamber located at the top of the

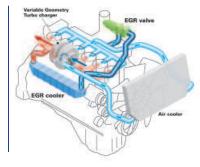
engine piston has a new shape designed to improve combustion and further reduce NOx, PM, fuel consumption, and noise levels.



#### **Cooled Exhaust Gas Recirculation (EGR)**

Cooled EGR, a technology that has been well proven in Komatsu Tier 3 engines, reduces NOx emissions to

meet Tier 4 levels. The hydraulically actuated EGR system has increased capacity and uses larger and more robust components to ensure reliability for demanding work conditions.



#### **Advanced Electronic Control System**

The engine control system has been upgraded to effectively manage the air flow rate, EGR gas flow rate, fuel injection parameters, and aftertreatment functions. The new control system also provides enhanced diagnostic capabilities.

#### Komatsu SmartLoader Logic

The WA380-7 provides Komatsu SmartLoader Logic, a new engine control system. This technology acquires data from various sensors in the vehicle and controls the engine to yield enough torque for each work phase. Engine torque requirements for a wheel loader vary depending on working conditions. For example, the loader requires higher torque for digging in V-shape loading, but less torque when traveling with an empty bucket. This technology limits the engine torque during less demanding work, therefore saving fuel. Komatsu SmartLoader Logic functions automatically and doesn't interfere with operation, saving fuel without decreasing production.

#### **Large-Capacity Torque Converter**

The newly designed power train has a large capacity torque converter for optimum efficiency. The WA380-7 has greater productivity in V-shape loading applications because the increased tractive effort does not require full throttle. The improved hill climbing ability allows the WA380-7 to up-shift gears faster because of improved acceleration. The WA380-7 can achieve higher gear ranges and maintain higher travel speed when working in load-and-carry applications. In most applications, production is increased and fuel consumption is reduced, resulting in improved fuel efficiency.

#### **Enhanced Lock-Up**

The newly designed large-capacity torque converter with lock-up is standard on the WA380-7. The lock-up function activates in 2nd, 3rd and 4th gears to give the loader a maximum travel speed of 40 km/h **24.9 mph**. The large capacity torque converter with enhanced lock-up is effective for both load and carry applications, and V-shape loading which uses lower gears. The enhanced lock-up reduces the clutch engagement shock by controlling engine torque with Komatsu SmartLoader Logic improving operator comfort. The enhanced lock-up combined with Komatsu SmartLoader Logic results in lower fuel consumption and higher travel speeds in load and carry and even some cycle loading applications.

#### Komatsu Auto Idle Shutdown

In order to reduce idle time, Komatsu offers Komatsu Auto Idle Shutdown. This function will shut the engine off and apply the parking brake and hydraulic lock after a preset idle time limit. This time limit can be set by the operator or service technician and may range from 3 minutes to 60 minutes.

#### **Low Fuel Consumption**

Komatsu added many new features on the WA380-7 to reduce fuel consumption. These features enable further fuel efficiency by optimally controlling engine power and matching the Komatsu designed and produced high efficiency power train components and hydraulic system.

## 10% Reduction in Fuel consumption

\* Compared with the WA380-6, fuel consumption varies depending on working conditions.

#### **Dual-Mode Engine Power Select System**

This wheel loader offers two selectable operating modes—E and P.

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



Dual mode engine power selection switch

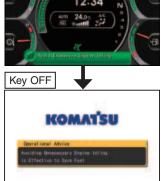
During operation

#### **Eco-Guidance**

The Eco-guidance provides information on the monitor to help save fuel. The monitor displays messages in real-time during operation and on the exit screen when

turning the key to shut off the engine. This function can be controlled through the monitor. The operator can view Eco-guide and fuel consumption through the monitor as well as through KOMTRAX.





#### Variable Displacement Piston Pump & CLSS

The variable displacement piston pump combined with the Closed-center Load Sensing System (CLSS) delivers as much hydraulic flow as the job requires, preventing wasted hydraulic flow. Minimized loss contributes to better fuel economy.

#### **OPERATOR ENVIRONMENT**

#### **New Designed Cabin**

The new cabin offers better ergonomics, more storage space and more features to improve operator comfort.



## Operator Seat with EPC (Electronic Pilot Control) Levers

The work equipment control system has an EPC lever

console integrated into the higher capacity seat and moves with the seat. The angle of the armrest is fully adjustable for optimum operator comfort. An F-N-R switch is now incorporated in dual and three lever configurations as well as the optional monolever configurations. A heated seat is now standard.



## Tiltable / Telescopic Steering Wheel

The WA380-7 comes standard with a tiltable and telescopic steering wheel that can be pushed up and out of the way for easy entry and exit of the cab.



#### **Low Noise Design**

Operator's ear noise level: 72 dB(A)

Dynamic noise level (outside): 108 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 designed to provide a quiet, low-vibration, dustproof, and comfortable operating environment.



#### **Increased Cab Storage Area**

The WA380-7 cab features a storage box on the left hand side of the cab to allow the operator to store items out of the way. A hot or cold box on the right hand side of the cab allows the operator to keep a beverage or lunch warm or cold, depending on the season.



#### **Ergonomic Comfort**

The dashboard and cab have been redesigned to improve operator comfort. The monitor can be controlled by the multi-switch panel. Also, the front glass of the cab has been lowered to improve visibility.



#### **Rear View Monitoring System (standard)**

The operator can view the rear of the machine with a full color monitor that is located on the right side of the cab. This monitor can be always on or only on when the loader goes into reverse. Visual guidlines can also be added for more convenience.





#### Auxiliary Input (MP3 Jack) 12 V Outlets

An Aux input to allow use of an MP3 player or other device is now standard as well as two 12 volt outlets. These are all located on the front of the right hand console.



## Seat Belt Caution Indicator

A warning indicator on the monitor appears when the seat belt is not engaged.



## **Engine Shutdown Secondary Switch**

The engine stop switch is incorporated to allow shutdown of the machine when accessing the key switch is not possible.





#### **OPERATOR ENVIRONMENT**





#### **Easy Entry and Egress**

The WA380-7 has an inclined ladder with wide steps and hand holds to ease entry and exit from the cab. The door latch can be reached from ground level to ease opening and closing the door.

#### **Remote Bucket & Boom Positioner**

The operator can set the bucket angle and remote boom positioner from the cab. Both upper and lower boom positions are adjustable in the cab with the push of a button. The bucket positioner can memorize three horizontal settings, allowing the operator to easily change attachments without having to reset the bucket position. In each horizontal setting, the operator can adjust the setting with the switch in the cab. This can help save the operator time when changing attachments.



Remote positioner switch Boom / Bucket

#### **Automatic Kick-down**

The WA380-7 has the ability to automatically shift down to F1. This can be activated through the monitor.





## Electronically Controlled Suspension System (ECSS)

The Electronically Controlled Suspension System (ECSS) or ride control system uses an accumulator which absorbs some of the shock in the boom arm, giving the operator a much smoother ride. This reduces operator fatigue and reduces material spillage during load and carry operations. ECSS is speed sensitive, meaning that the boom won't move during stationary digging. ECSS is standard on the WA380-7.

## New Mono Lever With Integrated 3rd Spool Control (option)

The mono lever option has been redesigned for better ergonomics. When equipped with the optional 3rd spool valve, it allows the operator to control the 3rd spool with your thumb providing greatly improved operator comfort. The 3rd spool valve can be operated in either continuous or proportional flow modes. The mono lever also includes a F-N-R switch.

### **INFORMATION & COMMUNICATION TECHNOLOGY**

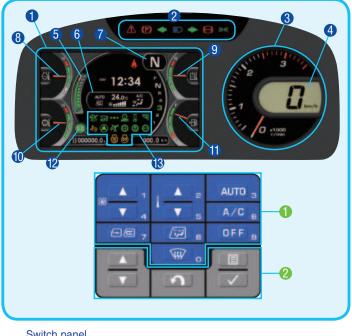
#### **Large High Resolution Monitor Panel**

A new large, user-friendly machine monitor display various machine information and allows for various settings of the machine. The LCD monitor is a 7-inch color TFT-LCD and displays maintenance information, operational records, ECO guidance record, etc.

The switch panel is used to select the various LCD unit screens and the air conditioner control screen. By using the switch panel, you can display various user menus on the screen and perform the settings of the machine.

#### Machine monitor

- 1 LCD unit
- 2 LED unit
- 3 Engine tachometer
- 4 Speedometer
- **6** ECO gauge
- 6 Air conditioner display
- Shift indicator
- 8 Engine coolant temperature gauge
- 9 Hydraulic oil temperature gauge
- 10 Torque converter oil temperature gauge
- Tuel gauge
- Message pilot lamp
- 13 Pilot lamps



#### Switch panel

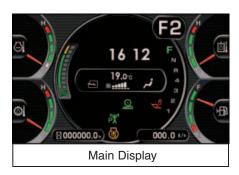
1 Air conditioner switches / Numeral key pad



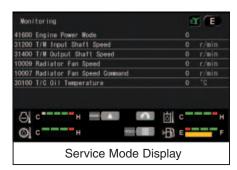
#### **Large LCD Monitor**

The LCD monitor displays various information of the machine such as ECO Guidance, operation records, and maintenance information. Since the LCD unit has a wide full color display area, it displays more information and is easy to read. For example, the "Operation Records" menu displays various records of the actual working hours, average fuel consumption, idling hours, and E mode operation ratio, as well as other features. These records are displayed in the form of daily data and time period data. Data can be displayed in 25 languages to support operators around the world. The controls for the automatic air conditioner are integrated into the LCD monitor panel to allow the operator to easily and precisely set the cab atmosphere.

The monitor clearly displays abnormality codes to alert the operator. These codes are stored for trouble shooting. The monitor also provides for advanced monitoring of system parameters through the Service Mode to aid in troubleshooting and reduce downtime.







#### **EASY MAINTENANCE**



Photos may include optional equipment

#### **Full Side-Opening Gull-Wing Engine Doors**

The large gull-wing type engine doors are operated with low effort assisted by gas springs. The doors open in two steps. The first position is for daily maintenance and the second

position is for periodic maintenance. Large steps are provided on each side of the frame to help access.



Photos may include optional equipment

#### **Swing-out Type Cooling Unit**

The large capacity cooling unit swings open for cleaning. It features wider spacing of cooling fins to reduce clogging. A

rear screen is also standard to reduce the amount of debris that can enter the engine compartment.



Photos may include optional equipment

#### **Auto Reversing Fan**

The engine cooling fan is driven hydraulically. It can be set to reverse automatically during operation. Fan reverse mode and timing can be controlled through the monitor.



#### **Maintenance Function**

The monitor informs the operator when the replacement interval for oil and filters will be reached.



#### **Battery Disconnect**

The battery disconnect switch is located in front of the right side battery box This can be used to disconnect power when performing service work on the machine.



#### **Engine Compartment**

The WA380-7 engine compartment was laid out for easy serviceability. Great attention was paid to the location of the maintenance items, such as the filters, dipsticks and oil fill locations. The same goes for the KDPF and CCV filter, as even the top of the hood was redesigned to ease removal of the KDPF for cleaning or replacement.



#### **KDPF Regeneration**

Soot trapped by and accumulated in the KDPF is removed by burning it periodically and automatically.



KDPF regeneration indicator

#### **Manual Stationary Regeneration**

Under most conditions, active regeneration will occur automatically with no effect on machine operation. In case the operator needs to disable active regeneration or initiate a manual stationary regeneration, this can be easily accomplished through the monitor panel.

A soot level indicator is displayed to show how much soot is trapped in the KDPF.



#### **Rear Full Fenders (Option)**

The WA380-7 has a new rear fender option. The plastic rear fenders now open outward, keeping the force to open the engine doors low, even when there is mud or snow on the fenders. The fenders swing far out of the way to give the technician easy access to the engine compartment. Mudflaps are also included on the rear fenders.





#### **LED Taillights**

LED tail lamps / brake lamps and reverse lamps provide long bulb life and use less power than the ones on the WA380-6.



The cab air intake filter is located on the front of the cab, on the left hand side of the machine behind a lockable door, for easy access and security.





# MA380-7

# KOMTRAX EQUIPMENT WORKING ENVIRONMENT MONITORING





**KOMTRAX** is **Komatsu's** remote equipment monitoring and management system. KOMTRAX gathers critical machine and operation information and provides it in a user-friendly format so that you can make well-informed decisions. KOMTRAX gives you more control of your equipment and better control of your business!

KOMTRAX comes standard on all new Komatsu machines with complimentary manufacturer communications services throughout the entire ownership period. It is a powerful tool and makes Komatsu machines an even better purchase!

#### **Fleet Optimization**

KOMTRAX tells you how your machines and operators are performing. KOMTRAX provides:

- Fuel consumption data and trends, by unit or fleet
- Machine fuel level
- Machine utilization
- Actual working hours/Machine idle hours
- Attachment usage hours
- Machine travel hours
- Machine load analysis
- Operating mode ratios

#### **Location and Asset Management**

KOMTRAX tells you where your machines are and can help prevent unauthorized use. KOMTRAX provides:

- GPS location/Operation maps
- Out-of-area and movement alert with location and time
- Engine, nighttime, and calendar lock

#### **Maintenance Management**

KOMTRAX monitors the health of your machines and provides critical information so that you, and your distributor, can take proactive maintenance measures and reduce downtime. KOMTRAX provides:

- Service Meter Reading (SMR)
- Cautions/Abnormality codes
- Maintenance replacement notifications

#### **Easy and Flexible Access to Information**

With KOMTRAX, information about your machines is through a convenient, internet-based portal. KOMTRAX provides:

- A user-friendly KOMTRAX website with customized access to your machine information
- E-mail and text alerts
- Web dial-up service
- Monthly fleet summary reports

For more information, including terms and conditions of the manufacturer complimentary KOMTRAX communication service, ask your distributor, pick up a KOMTRAX brochure, or go to www.komatsuamerica.com/komtrax.



For construction and compact equipment.



For production and mining class machines.

# **KOMATSU PARTS & SERVICE SUPPORT**



Komatsu is an industry leader in building reliable and technologically advanced machines. It is only fitting that we would provide superior Product Support. Komatsu and its distributors are focused on providing their customers unparalleled Product Support throughout the entire lifecycle of the machine. It's called Komatsu CARE.

## Komatsu CARE – Complimentary Scheduled Maintenance

Komatsu remains focused on lowering the customer's ownership costs by engineering machines with increased fuel efficiency and productivity. In addition, one Komatsu CARE program aimed at further reducing your owning and operating costs is Complimentary Scheduled Maintenance. Komatsu machine owners can now rely on their Komatsu Distributor to perform the preventative maintenance on their Komatsu Tier 4 machines.

- Complimentary scheduled maintenance for the earlier of 3 years or 2,000 hours is standard on all Komatsu Tier 4 construction machines and is available at all distributors in the U.S. and Canada.
- Service is performed by factory certified technicians using only Komatsu Genuine parts and fluids
- Significantly lowers your cost of ownership while maintaining high equipment uptime and reliability
- Increases resale value and provides detailed maintenance records

#### Komatsu CARE - Extended Coverage

Komatsu equipment is built to withstand harsh operating environments, but our Extended Coverage can provide further peace of mind by protecting customers from unplanned expenses and impacts in cash flow. Purchasing Komatsu CARE's Extended Coverage locksin the cost of covered parts and labor for the extended warranty period and helps to turn these variable expenses into a fixed cost.

- No Stop Loss or Loss Limits imposed, regardless of the coverage type or repair expense
- Any combination of months and hours out to five years and 10,000 engine hours – KOWA kits included
- Coverage premium can be rolled into the machine financing at time of sale or purchased any time before the expiration of the machine's standard warranty
- Coverage is fully transferable and honored by all Komatsu distributors throughout the U.S. and Canada

#### Komatsu CARE - Total CARE

Total CARE combines the benefits of the Komatsu CARE Scheduled Maintenance and Extended Coverage programs on your Tier 4 machine. This ensures the use of Komatsu genuine parts and fluids during regular maintenance intervals as well as highly skilled and efficient technicians to perform any other warranty repair work that might be necessary to keep your Komatsu equipment running like new.



#### **Komatsu Parts Support**

Because downtime can be costly, Komatsu maintains a a strategic distribution network throughout the U.S. and Canada, to ensure superior parts availability and to keep your Komatsu machine up and running.

- Komatsu America has nine Parts Distribution Centers strategically located throughout the U.S. and Canada
- Komatsu America's Parts distribution network is accessible 24/7/365 to fulfill your parts needs
- Komatsu has a distributor network of over 325 locations across the U.S. and Canada
- Online parts ordering available through Komatsu eParts, 24/7/365. (See distributor for details)
- Komatsu offers a full line of factory Remanufactured products with same-as-new warranties at a significant cost reduction:
  - 1. Complete Engine Assemblies
  - 2. Transmissions
  - 3. Torque Converters
  - 4. Hydraulic components
  - 5. Starters, Alternators, turbochargers and circuit boards

#### Komatsu Oil and Wear Analysis (KOWA)

The KOWA program uses independent laboratories across the United States to determine how your machine is performing based on a small sample of oil or other fluid. Just like a doctor will take a blood test to check on your personal health, KOWA allows you to check how your equipment is performing. Used with PM Clinic and PM Tune Up, KOWA is one of your best tools for proactively maintaining your Komatsu equipment and maximizing it's availability and performance.

KOWA detects fuel dilution and coolant leaks, identifies contaminants, and measures wear-metals. Your distributor will help you interpret this information so you can identify potential problems and head them off before they lead to major repairs.

For more information of all of the manufacturer sponsored programs mentioned in this brochure, including terms and conditions of the individual programs, please speak with your distributor or go to www.komatsuamerica.com

### **SPECIFICATIONS**



#### ENGINE

Model	
AspirationTurbo-charged, after-coo	oled
Number of cylinders	6
Bore	21"
Stroke	
Piston displacement	in <sup>3</sup>
Governor	
Horsepower:	
SAE J1995Gross 143 kW <b>192</b>	HP
ISO 9249 / SAE J1349 Net 142 kW <b>191</b>	
Rated rpm	
Fan drive method for radiator coolingHydra	
Fuel systemDirect inject	
Lubrication system:	
MethodGear pump, force-lubrica	tion
FilterFull-flow t	
Air cleaner	
dust evacuator, plus dust indica	

\*EPA Tier 4 Interim and EU stage 3B emissions certified



#### **TRANSMISSION**

Travel speed	Forward*	Reverse*
1st	6.6 km/h <b>4.1 mph</b>	7.1 km/h <b>4.4 mph</b>
2nd	11.7 km/h <b>7.3 mph</b> (12.4 km/h <b>7.7 mph</b> )	12.4 km/h <b>7.7 mph</b> (13.3 km/h <b>8.3 mph</b> )
3rd	20.9 km/h <b>13.0 mph</b> (22.5 km/h <b>14.0 mph</b> )	22.3 km/h <b>13.9 mph</b> (24.1 km/h <b>15.0 mph</b> )
4th	36.1 km/h <b>22.4 mph</b> (40.0 km/h <b>24.9 mph</b> )	38.6 km/h <b>24.0 mph</b> (40.0 km/h <b>24.9 mph</b> )

\*P-mode Measured with 23.5-25 tires (): Lock-up clutch ON



#### **AXLES AND FINAL DRIVES**

Drive system	Four-wheel drive
	Fixed, semi-floating
Rear	Center-pin support, semi-floating,
	26° 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**



#### **HYDRAULIC SYSTEM**

Steering system: Hydraulic pump
Loader control: Hydraulic pump
Type Double-acting, piston type Number of cylinders—bore x stroke:
Boom cylinder

Number of cylinders—bore x stroke:
Boom cylinder 2- 130 mm x 713 mm <b>5.1" x 28.1"</b>
Bucket cylinder 1- 150 mm x 535 mm <b>5.9" x 21.1"</b>
Control valve 2-spool type
Control positions:
Boom Raise, hold, lower, and float
BucketTilt-back, hold, and dump
Hydraulic cycle time (rated load in bucket)

 Dump
 1.8 s

 Lower (Empty)
 3.3 s

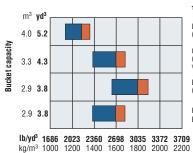
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#### SERVICE REFILL CAPACITIES

Cooling system	.54.4	. Itr	14.4 U.S. gal
Fuel tank	. 300	ltr	79.3 U.S. gal
Engine	23	3 Itr	6.1 U.S. gal
Hydraulic system	142	ltr	37.5 U.S. gal
Axle (each front and rear)	40	ltr	10.6 U.S. gal
Torque converter and transmission	54	. Itr	14.3 U.S. gal



#### **BUCKET SELECTION GUIDE**



115 100 95%

Light Material Bucket with BOCE (Scooping and loading of light material) General Purpose Bucket with BOCE (Loading and excavating of soil, sand and variety of other commonly handled material)

variety of other commonly handled material)

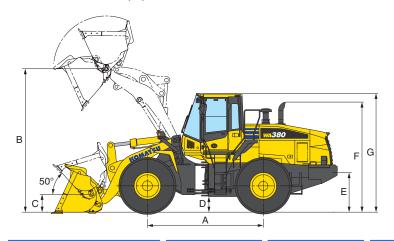
Excavating Bucket with BOCE
(Loading and excavating of crushed or blasted rock)

High Lift Boom Excavating Bucket with BOCE

Material density

## DIMENSIONS

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



Tread		2160 mm	7'1"
Width over tires		2780 mm	9'1"
A Wheelbase		3300 mm	10'10"
B Hinge pin height,	Standard Boom	4095 mm	13'5"
max. height	High Lift Boom	4625 mm	15'2"
C Hinge pin height,	Standard Boom	520 mm	1'8"
carry position	High Lift Boom	680 mm	2'3"
D Ground clearance		455 mm	1'6"
E Hitch height		1150 mm	3'9"
F Overall height, top of the sta	ick	3145 mm	10'3"
G Overall height, ROPS cab		3390 mm	11'2"

Bolt-on Cutting Edge           Bucket capacity: heaped         3.3 m³         2.9 m3         4.0 m3         2.9 m           4.3 yd³         3.8 yd³         5.2 yd3         3.8 yd³           struck         2.9 m³         2.4 m3         3.4 m3         2.4 m3           Bucket width         2905 mm         2905 mm         2905 mm         2905 mm         2905 mm           Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           Dumping clearance, max. height and         2950 mm         3045 mm         2855 mm         3575 mm           8each at max. height and         1150 mm         1055 mm         1240 mm         111'9"
Bucket capacity:         heaped         3.3 m³         2.9 m3         4.0 m3         2.9 m           4.3 yd³         3.8 yd³         5.2 yd3         3.8 yd³           struck         2.9 m³         2.4 m3         3.4 m3         2.4 m3           Bucket width         2905 mm         2905 mm         2905 mm         2905 mm         2905 mm           Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           Jumping clearance, max. height         2950 mm         3045 mm         2855 mm         3575 mm           Bucket weight         9'8"         10'0"         9'4"         11'9"           Reach at max. height and         1150 mm         1055 mm         1240 mm         1185 mm
4.3 yd³         3.8 yd3         5.2 yd3         3.8 yd3           struck         2.9 m³         2.4 m3         3.4 m3         2.4 m3           3.8 yd³         3.1 yd3         4.4 yd3         3.1 yd3           Bucket width         2905 mm         2905 mm         2905 mm         2905 mm           9'6"         9'6"         9'6"         9'6"           Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           3,570 lb         3,570 lb         3,790 lb         4,045 lb         3,790 lb           Dumping clearance, max. height and         2950 mm         3045 mm         2855 mm         3575 mm           Reach at max. height and         1150 mm         1055 mm         1240 mm         1185 mm
struck         2.9 m³         2.4 m3         3.4 m3         2.4 m3           3.8 yd³         3.1 yd3         4.4 yd3         3.1 yd3           Bucket width         2905 mm         2905 mm         2905 mm         2905 mm         2905 mm           Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           Bucket weight         3,570 lb         3,790 lb         4,045 lb         3,790 lb           Dumping clearance, max. height and         2950 mm         3045 mm         2855 mm         3575 mm           Reach at max. height and         9'8"         10'0"         9'4"         11'9"           Reach at max. height and         1150 mm         1055 mm         1240 mm         1185 mm
Bucket width         3.8 yd³         3.1 yd3         4.4 yd3         3.1 yd3           Bucket width         2905 mm         2905 mm         2905 mm         2905 mm         2905 mm           9'6"         9'6"         9'6"         9'6"           Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           3,570 lb         3,790 lb         4,045 lb         3,790 lb           Dumping clearance, max. height and         2950 mm         3045 mm         2855 mm         3575 mm           Reach at max. height and         1150 mm         1055 mm         1240 mm         1185 mm
Bucket width         2905 mm         2905 mm         2905 mm         2905 mm         2905 mm         2905 mm           9'6"         9'6"         9'6"         9'6"         9'6"           Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           3,570 lb         3,790 lb         4,045 lb         3,790 lb           Dumping clearance, max. height and         2950 mm         3045 mm         2855 mm         3575 mm           and 45° dump angle*         9'8"         10'0"         9'4"         11'9"           Reach at max. height and         1150 mm         1055 mm         1240 mm         1185 mm
Bucket weight         9'6"         9'6"         9'6"         9'6"           Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           3,570 lb         3,790 lb         4,045 lb         3,790 lb           Dumping clearance, max. height and         2950 mm         3045 mm         2855 mm         3575 mm           and 45° dump angle*         9'8"         10'0"         9'4"         11'9"           Reach at max. height and         1150 mm         1055 mm         1240 mm         1185 mm
Bucket weight         1605 kg         1715 kg         1835 kg         1715 kg           3,570 lb         3,790 lb         4,045 lb         3,790 lb           Dumping clearance, max. height and 45° dump angle*         2950 mm         3045 mm         2855 mm         3575 mm           and 45° dump angle*         9'8"         10'0"         9'4"         11'9"           Reach at max. height and         1150 mm         1055 mm         1240 mm         1185 mm
Jay 10 lb         3,570 lb         3,790 lb         4,045 lb         3,790 lb           Dumping clearance, max. height and 45° dump angle*         2950 mm         3045 mm         2855 mm         3575 mm           and 45° dump angle*         9'8"         10'0"         9'4"         11'9"           Reach at max. height and         1150 mm         1055 mm         1240 mm         1185 mm
Dumping clearance, max. height         2950 mm         3045 mm         2855 mm         3575 mm           and 45° dump angle*         9'8"         10'0"         9'4"         11'9"           Reach at max. height and         1150 mm         1055 mm         1240 mm         1185 mm
and 45° dump angle*  9'8"  10'0"  9'4"  11'9"  Reach at max. height and  1150 mm  1055 mm  1240 mm  1185 mm
Reach at max. height and 1150 mm 1055 mm 1240 mm 1185 mm
neach at max. height and
45° dump angle* 3'9" 3'6" 4'1" 3'11"
Reach at 2130 mm (7') clearance 1735 mm 1630 mm 1780 mm 2205 mm
and 45° dump angle* 5'8" 5'6" 5'10" 7'3"
Reach with arm horizontal and 2590 mm 2450 mm 2715 mm 2940 mm
bucket level* 8'6" 8'0" 8'11" 9'8"
Operating height (fully raised) 5600 mm 5450 mm 5720 mm 5985 mm
18'5" 17'11" 18'9" 19'7"
Overall length 8280 mm 8140 mm 8255 mm 8780 mm
26'8" 26'3" 27'1" 28'10"
Loader clearance circle (bucket at carry, 14440 mm 14370 mm 14500 mm 14850 mm
outside corner of bucket) 47'5" 47'2" 47'7" 48'9"
Digging depth: 0° 60 mm 60 mm 110 mm
2.4" 2.4" 2.4" 4.3"
10° 290 mm 265 mm 315 mm 320 mm
11.4" 10.4" 1'0" 12.6"
Static tipping load: straight         15565 kg         15450 kg         15330 kg         14660 kg
34,140 lb 33,885 lb 33,620 lb 32,320 lb
40° full turn 13295 kg 13180 kg 13055 kg 10500 kg
29,145 lb 28,900 lb 28,625 lb 23,150 lb
Breakout force 158 kN 175 kN 144 kN 183 kN
16100 kgf 17850 kgf 14700 kgf 18700 kgf
35,495 lb 39,680 lb 32,405 lb 41,220 lb
Operating weight 18155 kg 18265 kg 18385 kg 18650 kg
39,840 lb 40,170 lb 40,950 lb 41,115 lb

<sup>\*</sup> 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.



#### STANDARD EQUIPMENT

- 2-spool valve for boom and bucket control
- Auto air conditioner
- Alternator, 60 A
- Auto shift tranmission with mode select system
- Automatic hydraulic-driven fan with automatic reverse rotation
- Back-up alarm
- Back-up lamp, LED
- Batteries, 150 Ah/12 V (2)
- Boom Kick-out, in-cab adjustable
- Bucket Positioner, in-cab adjustable, 3 positions
- Counterweight, standard and additional
- Electronically Controlled Suspension System (ECSS)
- Engine, Komatsu SAA6107E-2 diesel
- Engine shut-off system, electric
- EPC fingertip controls with F-N-R switch, two levers

- Equipment Management Monitoring System (EMMS)
  - Lights (central warning, brake oil pressure, engine oil pressure, parking brake, cooling fan reverse, KDPF restriction, seat belt caution, Komtrax message)
  - Gauges (Engine water temperature, ECO, Fuel level, Hydraulic oil temperature, speedometer/tachometer)
- Floormat
- Front Fenders
- Fuel pre-filter with water separator
- Komatsu SmartLoader Logic
- Komatsu Auto Idle Shutdown
- KOMTRAX® Level 4
- Large LCD color monitor, high resolution
- Lift cylinders and bucket cylinder
- Loader linkage with standard lift arm
- Lock-up torque converter

- Provision for JRB quick coupler
- Radiator mask, lattice type
- Radio with auxiliary input
- Rear defroster, electric
- Rear view mirrors, outside (2) inside (2)
- Rear view monitoring system (camera)
- Rear window washer and wiper
- ROPS / FOPS Level 2 cab
- Seat belt, 76 mm 3" wide, retractable
- Seat, heated, air suspension
- Service brakes, wet disc type
- Starting motor, 5.5 kW
- Steering wheel, tiltable, telescopic
- Sun visor
- Rims for 23.5-25 tires
- Transmission, 4 forward and 4 reverse
- Vandalism protection kit



#### OPTIONAL EQUIPMENT

- 3-spool valve with lever and piping
- Cutting edge (bolt-on type)
- Auxiliary steering (SAE)
- Engine pre-cleaner with extension
- High-lift boom
- Limited slip differential (F&R)
- Monolever loader control with transmission F-N-R switch
- Rear full fenders
- Various tire options, radial and bias
- Various bucket options



#### **ALLIED EQUIPMENT**

- JRB bucket, General Purpose 4.0 yd<sup>3</sup> for use with coupler
- JRB bucket, Multi-purpose 3.25 yd<sup>3</sup> for use with coupler
- JRB fork, Construction 106" carriage, 60" tines for use with coupler
- JRB fork, Utility Pallet 96" carriage,
   72" tines for use with coupler
- JRB boom-Extendable 3 section,
   13' 7" extension for use with coupler
- JRB hydraulic quick coupler
- Loadrite weighing system

- Loadrite weighing system, printer, LP950
- Loadrite weighing system, with Material Management System

AESS829-02

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Printed in USA

AD09(5M)OSP

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