

KOMATSU

WB93R-5



Rigid backhoe loader

Engine power
74.0 kW / 99.2 HP @ 2200 rpm

Operating weight
8070 kg

Bucket capacity
1.0 m³

WB93R-5



Engine power
74.0 kW / 99.2 HP @ 2200 rpm

Operating weight
8070 kg

Bucket capacity
1.0 m³

A user-friendly machine with top class performance

Premium performance

- High productivity
- CLSS (Closed Load Sensing System)
- Variable flow piston pump
- "Power" and "Economy" working modes
- PPC servo-controls for the front loader

Exclusive design

- Optimal parallel lifting
- Excellent loading performances
- S-shape backhoe
- Functional layout with hydraulic piping and hoses along the boom
- Highest breakout force and lifting capacities

Unique comfort

- Ergonomic interior design
- Reduced noise inside cab
- Air condition available as option
- Suspended seats include full adjustable air version

Excellent visibility

- Wide round glass surfaces
- Sloped and narrow engine bonnet
- Upper front window for full visibility of the front bucket
- Total control of the surrounding area

Total versatility

- Several different configurations
- Hydraulic side shift available
- Flip over forks and pallet forks available
- Quick couplers for the front and rear buckets

Komtrax

- Komatsu Wireless Monitoring System



Premium performance

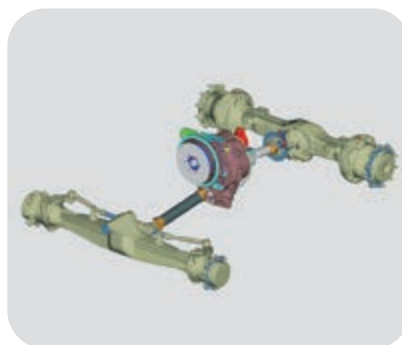


Hydraulic system

The WB93R-5 offers high productivity and top performance, with increased breakout force and lifting capacities. The core of the Komatsu backhoe loader hydraulics is certainly the consolidated CLSS (Closed Load Sensing System). Thanks to its variable flow, the system efficiently supplies the power the machine requires, when it is needed. With two working modes, "Power" and "Economy", the operator can choose between maximum power and minimum fuel consumption.

Absolute control

PPC servo-control is standard for the front loader. The "Power Shuttle" transmission provides the machine with four forward and four reverse speeds, with synchronised mechanical shifting. The electro-hydraulic differential lock, together with the "Heavy duty" axles, increases efficiency and the operator's confidence under any working conditions.



Exclusive design



Loader

The front loader design ensures optimal parallel lifting; in addition, the divergent shape of the arm greatly improves visibility and provides excellent loading performance. The design of the backhoe is completely new: it features a clean and functional layout, with hydraulic piping and hoses along the boom.

S-shape backhoe

The rounded shape of the backhoe enhances the loading ability of the machine and its capacity to overcome obstacles, while ensuring a high breakout force. The telescopic arm significantly increases the machine's versatility.



Unique comfort

Operator's environment

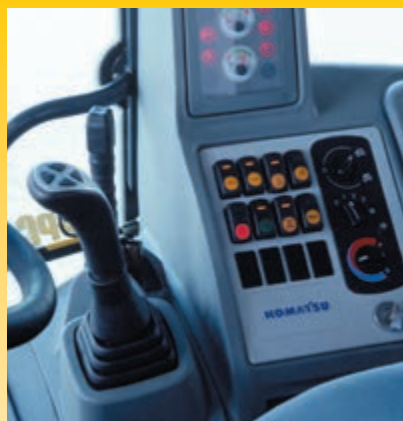
The cab has a modern design, a ROPS and FOPS structure and is fully equipped. Its increased internal volume and wide, round glass surface optimises the ventilation system that includes several conveniently located vents. Particular attention was given to the internal lay-out: an easy-to-reach control panel, ergonomic controls, and plenty of holders and storage compartments show Komatsu's dedication to provide operators with optimal working conditions.

New seat range

The air suspended Deluxe seat or the more traditional mechanical suspended seat both guarantee the best interface between the machine and the operator. The air suspended seat also offers adjustable armrests, headrests and lumbar regulation as standard.



Air suspended seat (option)



Convenient, ergonomic and precise control



PPC servo controls (option)

Total versatility

Custom made

Several different configurations make this machine suitable for a wide variety of customers. The many options offer a high level of customisation: hydraulic side shift for the backhoe, LSS (Load Stabilizer System), radial tyres and quick couplers are just a few.



Excellent visibility



Perfect all round view

The wide round glass surface presents a highly increased visibility. The bonnet shape and the upper front window make it easy and safe to work with the front loader. When operating the backhoe excavator, the operator can easily open the single frame window and comfortably overlook the surrounding area.



Information & communication technology



Knowledge

You get quick answers to basic and critical questions about your machines – what they're doing, when they did it, where they're located, how they can be used more efficiently and when they need to be serviced. Performance data is relayed by wireless communication technology (satellite, GPRS or 4G depending on model) from the machine to a computer and to the local Komatsu distributor – who's readily available for expert analysis and feedback.

Convenience

Komtrax enables convenient fleet management on the web, wherever you are. Data is analysed and packaged specifically for effortless and intuitive viewing in maps, lists, graphs and charts. You can foresee eventual maintenance issues and required spare parts, and troubleshoot a problem before Komatsu technicians arrive on site.



The way to higher productivity

Komtrax uses the latest wireless monitoring technology. Compatible on PC, smartphone or tablet, it delivers insightful and cost saving information about your fleet and equipment, and offers a wealth of information to facilitate peak machine performance. By creating a tightly integrated web of support it allows proactive and preventive maintenance and helps to efficiently run a business.

Power

The detailed information that Komtrax puts at your fingertips 24 hours a day, 7 days a week gives the power to make better daily and long-term strategic decisions – at no extra cost. Problems can be anticipated, maintenance schedules customised, downtime minimised and machines kept where they belong: working on the jobsite.



Specifications

Engine

Model	Komatsu SAA4D104E-1
Type	Vertical, 4-cycle water-cooled diesel engine
Displacement	4485 cm ³
Bore × stroke	104 × 132 mm
No. of cylinders	4
Compression ratio	17.5:1
Combustion	Direct injection (DI)
Aspiration	Turbo-intercooled
Engine power	
at rated engine speed	2200 rpm
ISO 14396	74.0 kW / 99.2 HP
Max. torque / engine speed	420 Nm / 1200 rpm
Cooling system	Radiator
Air filter type	Dry filter with safety element
Starting system	Electric motor with pre-heating air system for cold climate

Operating weight (appr.)

Standard machine operating weight	8070 kg
Total machine weight	9000 kg
Operating weight increase	
standard bucket	-290 kg
offset boom	+190 kg
standard arm	-230 kg
pallet forks	-310 kg
forks for 4×1 bucket	+290 kg

Hydraulic system

SyncroSystem hydraulics allows the operator very precise and simultaneous movements. This system incorporates two different working modes: Power and Economy. The advanced hydraulic system includes also the function "Speed Up" to increase the working speed of the front loader.

System	SyncroSystem
Type	Closed Load Sensing System, CLSS
Pumps type	Variable displacement axial pistons
Pumps control system	Load Sensing
Main valve	LIFD "Load Independent Flow Divider" modular type
Max. delivery	165 l/min
Working pressure	250 bar

Electric system

The electric system is easily accessible and protected: connections are sealed and waterproof, and comply with the strictest international safety rules.

Voltage	12 V
Battery	155 Ah
Alternator	120 A
Starter	3 kW

Steering system

The front steering wheels are controlled by a hydrostatic "Load Sensing" with steering priority valve system.

Turning radius (without using brakes)	
at the corner of the bucket	5625 mm
at outer edge of front tyre	4185 mm
Turning radius (using brakes)	
at the corner of the bucket	4930 mm
at outer edge of front tyre	3245 mm

Transmission

Switching between 4WD and 2WD is obtained through an electrohydraulic system. The 4 speed mechanical shift is synchronised. The transmission is operated through a torque converter and a power shuttle reversing shift "Power Shuttle" type.

Travel speeds

Gear	Forward	Reverse
1st	6 km/h	6 km/h
2nd	9 km/h	9 km/h
3rd	20 km/h	20 km/h
4th	40 km/h	40 km/h

Axles

"Heavy duty" axles with planetary reduction gears in the wheel hubs. Front axle total oscillation angle 20°. Differential total lock in the rear axle controlled by a switch on the loader's lever.

Max. front strength (dynamic)	9000 daN
Max. rear strength (dynamic)	7500 daN

Brakes

Oil immersed disc brakes are actuated by individual braking on each rear wheel with 2 separate pedals. Total integral braking on the 4 wheels is activated by operating the two pedals at the same time.

Disc diameter	300 mm
---------------	--------

The calliper parking or safety brake is operated through a hand lever.

Tyres

Standard	
front	12.5/80-18 - 14 PR
rear	16.9 × 28 - 12 PR
Option	
front	340/80 R18
	340/80-18
	400/70-20
rear	18.4 × 26 - 12 PR
	480/80-26
	440/80-R28

Cab

ROPS (ISO 3471, SAEJ1040) and FOPS (ISO 3449, SAEJ 231) cab designed in order to offer the best visibility, ergonomics, low noise and comfort. Two doors, full opening rear window with front and rear windscreen wipers. Internal lay out includes full adjustable seat, fresh filtered air intake ventilation and easy to read front and side dash board.

Frame

The frame is a reinforced and closed box structure, which increases stiffness and reliability.

Service refill capacities

Engine oil	12.5 l
Cooling system	14 l
Fuel tank	150 l
Hydraulic oil tank	40 l
Hydraulic oil system capacity	98 l
Front axle oil	7.75 l
Rear axle oil	15 l
Hydraulic transmission	20 l

Loader

The design of the front loader allows excellent parallelism when lifting and lowering the bucket. Furthermore, thanks to the linkage geometry, the greasing points have been reduced.

Standard bucket width	2320 mm
Standard bucket capacity (ISO 7546)	1.03 m ³
Standard bucket weight	432 kg
Lifting capacity	
at maximum height	3820 daN (3900 kg)
Lifting capacity	
at ground level (ISO 14397)	5195 daN (5300 kg)
Breakout force (ISO 14397)	6383 daN (6500 kg)
4×1 bucket width	2340 mm
4×1 bucket capacity (ISO 7546)	1.0 m ³
4×1 bucket weight	731 kg

Backhoe

The boom has a reinforced structure and allows 180° rotation, still preserving high torque. The casted swing support and arm ends ensure high fatigue resistance. Vertical outriggers with adjustable wear device.

Bucket breakout force (ISO 6015)	5980 daN (6100 kg)
Arm breakout force (ISO 6015)	3920 daN (4000 kg)

Environment

Vibration levels (EN 12096:1997)	
Hand/arm	≤ 2.5 m/s ² (uncertainty K = 1.2 m/s ²)
Body	≤ 0.5 m/s ² (uncertainty K = 0.2 m/s ²)

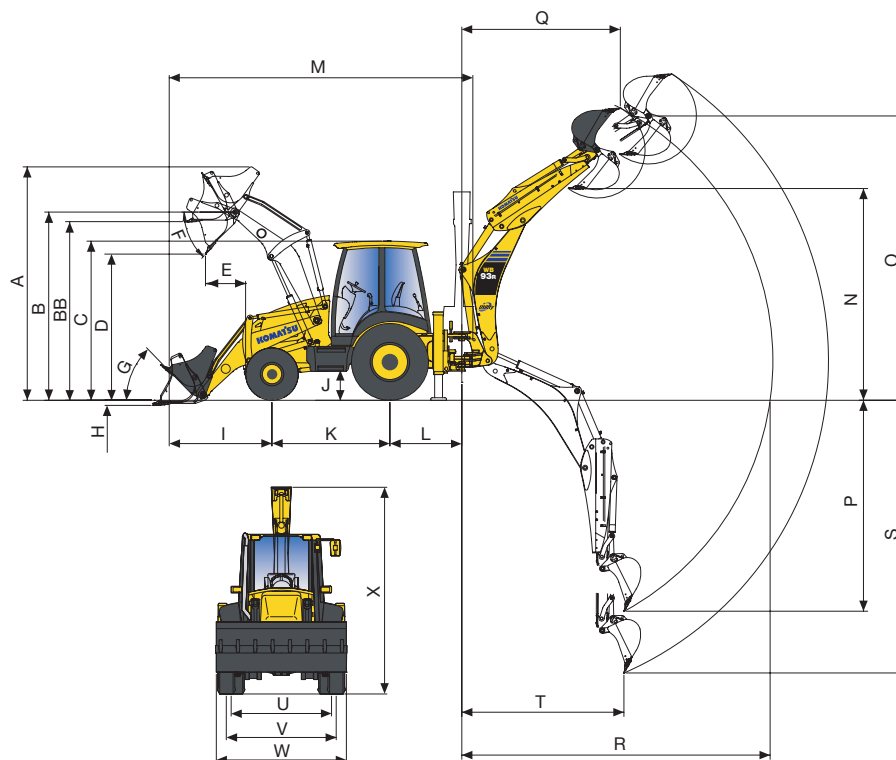
Contains fluorinated greenhouse gas HFC-134a (GWP 1430).

Quantity of gas 2.5 kg; CO₂ equivalent 3.58 t

Dimensions

Machine dimensions

A	Max height	4290 mm	O	Max digging height	5800 mm
B	Pin height	3375 mm		with extended telescopic	6405 mm
BB	Forks loading max height	3175 mm	P	Digging depth sae	4540 mm
C	Cab height	2900 mm		with extended telescopic	5650 mm
D	Max dumping height	2720 mm	Q	Reach at max height	2830 mm
E	Max dumping reach (45°)	750 mm		with extended telescopic	3645 mm
F	Dumping angle	43°	R	Max reach from swing centre	5750 mm
G	Rollback angle	45°		with extended telescopic	6715 mm
H	Digging depth	130 mm	S	Max digging depth	5020 mm
I	Bucket reach (in transport)	1930 mm		with telescopic	6055 mm
J	Ground clearance	416 mm	T	Digging reach	2320 mm
K	Wheel base	2175 mm	U	Rear tread	1800 mm
L	Backhoe swing centre distance	1320 mm	V	Front tread	1945 mm
M	Transport length	6035 mm	W	Overall width (with bucket)	2340 mm
N	Dumping height sae	3760 mm	X	Transport hoe height	3650 mm
	Max dumping height	4170 mm		with telescopic	3880 mm
	with extended telescopic sae	4415 mm			
	with extended telescopic max	4880 mm			



When used in object handling operations, the backhoe portion must be equipped with hose burst valves (boom, arm and overload warning device) in compliance with EN474-4 and must operate in accordance with the related local regulations.

Standard and optional equipment

Engine

Komatsu SAA4D104E-1 turbocharged direct injection diesel engine	●
Side-by-side radiator	●
Dry type air cleaner with clogging indicator	●
Fuel filter with integrated water separator	●
Battery 155 Ah	●
Cold area arrangement (-30 °C) with 185 Ah battery and pre-heating systems	○
High ambient arrangement	○
Air cyclone pre-filter	○

Hydraulic system

Load sensing, variable displacement axial piston pump	●
Biodegradable hydraulic oil	○
Hydraulic hand hammer circuit	○

Transmission

Power Shuttle transmission with 4 synchronised gears	●
4 wheel drive	●
Electro-hydraulic 100% differential lock	●
Declutch switch	●

Tyres

Front tyres 12.5/80-18 14 PR	●
Rear tyres 16.9 × 28 - 12 PR	●
Front tyres 340/80 R18	○
Front tyres 340/80-18	○
Front tyres 400/70-20	○
Rear tyres 18.4 × 26 - 12 PR	○
Rear tyres 480/80-26	○
Rear tyres 440/80-R28	○
Front mudguards	○

Service and maintenance

Komtrax – Komatsu wireless monitoring system (4G)	●
External lockable toolbox	●
Fully opening bonnet	●
Refuelling pump	○

Cabin

ROPS/FOPS cab with heater and fan	●
Tinted glass	●
Adjustable steering column	●
Adjustable seat with safety belt	●
Gauges & indicators: transmission oil temperature, 4WD engagement, brake oil level, differential lock, fuel level, hour meter, pre-heating, engine speed, engine coolant temperature, engine oil pressure, air filter clogging	●
Foot pedal and hand control accelerator	●
Cup holder	●
Sun visor	●
12 V external electric plug	●
12 V internal electric plug	●
Front and rear washer and windshield wipers	●
Internal storage compartments (one lockable)	●
Air conditioning	○
Deluxe pneumatic suspension seat	○
Radio pre-setting	○
Radio	○

Safety equipment

Rotating beacon	●
Horn	●
External right and left rear view mirror	●
Internal rear view mirror	●
Safe position seat sensor	●
PPC lock switch	●
Backup alarm	●
Battery disconnection safety switch	○
Hose burst valves:	
- loader arm	
- backhoe boom and arm safety valves, overload warning device (for non-EU countries only)	○
- stabilisers	

Lighting system

Front and rear working lights	●
Lights for road travel	●
Four additional working lights on cab	○

Loader equipment

PPC servo-controls	●
Speed-up function	●
Heavy duty safety bar	●
Self-levelling	●
Auxiliary hydraulic circuits:	
Floating and "Return-To-Dig" function	●
Front auxiliary hydraulic circuit	○
LSS (Load Stabiliser System)	○
Safety valve deactivation switch	○

Loader attachments

General purpose bucket with standard teeth	●
Bolt-on cutting edge	○
Cutting edge on teeth	○
Flip-over forks on 4×1 bucket	○
Forks (for quick-coupler)	○
Hydraulic and mechanical quick-coupler	○
4×1 Bucket with pre-setting for flip-over forks and angle opening indicator	○
General purpose bucket (for quick-coupler)	○
4×1 Bucket (for quick-coupler)	○
Dozer blade	○
Heavy duty 4×1 bucket	○

Other equipment

Additional front counterweights (170 kg, 375 kg, 510 kg)	○
Rubber pads for stabilisers	○
Front grid protections	○
Mini wheels for container loading	○
Spare wheels	○

Further equipment on request

- standard equipment
- optional equipment

Backhoe equipment

Mechanical control levers	●
Power/Economy working modes	●
Electro-hydraulic backhoe boom lock	●
Backhoe swing transport lock	●
Electro-hydraulic backhoe slide frame release lock	●
PPC servo-controls for stabilisers	●
Hydraulic cushions	●
PPC servo controls	○
Alternative control pattern	○
Hydraulic backhoe side shift	○
Auxiliary hydraulic circuits:	
2-way circuit for attachments (auger, tilting bucket)	○
Hammer circuit	○
Telescopic arm	○

Backhoe attachments

Ditch cleaning bucket (1400 mm)	○
Full range of buckets (300 mm - 900 mm)	○
Ditch digging bucket (1000 mm)	○
Mechanical quick-coupler (for std buckets)	○
Bucket linkage with lifting hook	○

This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

Your Komatsu partner:

KOMATSU

[komatsu.eu](https://www.komatsu.eu)

