

ZW80



WHEEL LOADER

Model Code : ZW80_{SB}
Max. Engine Power : 47 kW (63 HP)
Operating Weight : 5 090 - 5 790 kg
Bucket ISO Heaped : 1.0 m³

NO COMPROMISE

Offering exceptional levels of performance without compromising on efficiency, Hitachi ZW-5 wheel loaders are designed to satisfy the requirements of the global construction industry.

Designed to be reliable, durable and versatile for a variety of job sites, and to operate with low levels of fuel consumption, they incorporate the high-quality engineering for which Hitachi is renowned.

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DEMAND PERFECTION

Designed and built with an emphasis on the environment, operator comfort and safety, the ZW-5 wheel loaders have been developed to aim for perfection. They incorporate industry-leading technology created in Japan to meet the highest standards for performance at the lowest possible costs of ownership.



Improved fuel efficiency

Reliable EPA Tier 4 Final compliant engines without DPF Deutz (ZW80^{-SB})





Innovative technology

HN Bushings impregnated with high viscosity oil extend lubrication period to 500 hours on linkage pins



Low running costs

Eco Mode provides a fuel efficient setting resulting in better fuel economy



Convenient access

Easy access to cab on both sides of machine



Enhanced design

Wide-open engine hood and side-by-side aluminum radiator and aluminum oil cooler provide easy access for maintenance and cleaning



Smooth operation

Conventional Differential for both axles installs



Enhanced durability

Wrap-around counterweight lowers center of gravity increasing stability

FIRST FOR RELIABILITY

Renowned for reliability, Hitachi ZW-5 wheel loaders achieve exceptional levels of performance and efficiency with minimum downtime. The ZW80-5B have been designed with several user-friendly features that ensure quick and easy maintenance, and also contribute to lower running costs.

Minimal downtime

The battery compartment can be accessed easily for maintenance and battery replacement. This results in minimal downtime and a high level of accessibility.

Quick access

Daily maintenance is simplified with the wide-open engine cover and low-profile counterweight. The engine cover can be opened at a touch and held with a gas damper for quick inspection, replacement, and replenishment.

Easy maintenance

Radiator and oil cooler are located side by side for easy maintenance.

Improved fuel efficiency

The ZW-5 demonstrates greater fuel efficiency than the previous model during V-shape loading and load and carry operations. This results in considerable savings for running costs.

Reduced cost

The new EPA Tier 4 Final certified engine* does not require a diesel particulate filter, which further reduces fuel consumption and maintenance costs.



Easy access to the engine compartment.





HITACHI



The flat cab floor enables easy cleaning.



i The final pre-delivery inspection procedure for each Hitachi wheel loader is typical of Hitachi's dedication to manufacturing products of unflinching quality in response to customer needs.



DEDICATED TO COMFORT AND SAFETY

Industry-leading cab visibility, low noise level, and easily access to the walk-through type cab ensure the ZW80-5B are class leaders in operator comfort.



A standard suspension seat absorbs shock and vibration.

Excellent visibility

- Pillarless design offers unobstructed visibility.
- Front floor to ceiling windows.
- Cab enables panoramic views via addition of a lower window.
- LED working lights (F/R) for better visibility.

Low noise level in cab

The cab is sound insulated with integrating a highly sealed design. New low-noise engine and rubber-mounted operator frame and hydraulics, contribute to reduced decibel levels.

Comfortable seat to reduce fatigue

A comfortable seat to relieve operator fatigue has been adopted. The seat absorbs unpleasant vibrations, reduces psychological and physical burdens, and reduces fatigue due to long time operation.

ZW80-5B : Suspension Seat with vinyl for canopy and falcic for cab, standard.

Walkthrough type cab

The walkthrough type cab allows for easy access from either side. The flat floor enables easy cleaning.

INCREDIBLE VERSATILITY

ZW-5 wheel loaders are often described as a perfect fit by Hitachi customers, which illustrates their versatility for a wide range of applications and job sites. In addition, they are smooth and efficient to operate, and offer increased productivity and greater fuel efficiency.

Efficient flexibility

Switch attachments from the comfort of your canopy or cab with optional pin-on type Quick Coupler, which enables the rapid and seamless replacement of working tools.

High efficiency

Conventional Differential for both axles are standard on.

Superior performance

Rear axle oscillation provides a stable, comfortable ride for the operator, easily conforming to various terrains.



Optional pin-on type Quick Couple allows seamless transition (hydraulic for ZW80-SE).



Panoramic-rear view for good operability.



Easy access for maintenance from ground level.



i Hitachi conducts user tests in Japan to assess the features of its wheel loaders. Results have revealed an unrivaled level of control.

INDUSTRY-LEADING QUALITY

To set industry-leading standards in terms of performance, reliability, comfort and safety, the ZW80-5B have been built using components of the highest quality. Its clever design offers 360° visibility from the cab and ensures it is one of the quietest wheel loaders in its class.



The fuel cap and engine cover can be locked with the ignition key.

Reduced emission

Cutting-edge technology not only helps the environment, but also complies with EPA Tier 4 Final emission regulations.

Easy access

Handrails and large steps mounted on both the left and right of the operator's station provide safety and easy access to the cab.

Excellent security

The control lever and auxiliary function levers lock for safety, while the fuel cap and engine cover can be locked with the engine key.

Improved comfort

Sound insulation has been improved in the cab to significantly reduce noise levels and provide a quieter working environment for operators. The low-noise engine also results in a quieter performance, which makes it suitable for working in urban areas.

UNIQUE TECHNOLOGY

Advanced technology developed by Hitachi is at the heart of the ZW-5 wheel loaders. It has an impact on everything, from the wheel loader's environmental performance to the comfort and safety of its operator. A technology-led approach enables Hitachi to meet the evolving needs of the construction industry, and improve the experience of its customers.

Reduced maintenance

A new EPA Tier 4 Final certified engine contains a high-volume cooled exhaust gas recirculation (EGR) system, a common rail-type fuel injection system and a diesel oxidation catalyst (DOC). This helps to reduce fuel costs and maintenance requirements.

Smaller environmental impact

Eco Mode helps to prevent fuel waste and exhaust emissions without affecting productivity.

Optimum performance

The Throttle Limit Control reduces tire slippage, especially in wet and slippery conditions such as snow removal, dairy, and agriculture, saving on tire wear and tear.

Precise control

The inching/ brake pedal provides smooth deceleration and natural braking for precise operations at low speeds. The HST brake provides smooth startup on slopes and excellent traction at all speed ranges.

Smooth operation

ZW80-5B are easy to maneuver thanks to the HST control system. The operator can choose between two work modes according to the task and terrain, and it enables a smooth transition between speeds.



Easy-read monitor provides operating data at a glance.

A user-friendly front linkage operating lever.

REDUCING THE TOTAL COST OF OWNERSHIP



Hitachi has created the Support Chain after-sales program to ensure optimum efficiency, as well as minimal downtime, reduced running costs and high resale values.

Parts and remanufactured components

Hitachi offers different lines of parts and components to suit your specific needs. In addition to our range of genuine parts, there are other options available:

- For that highly demanding application or climate, Hitachi provides a line of parts with extra performance.
- When you are looking for an economical solution for preventive replacements, remanufactured components are the best option.

Whatever choice you make, you can be assured of the renowned Hitachi quality and warranty to give you added peace of mind. Your Hitachi dealer can supply you with more details on each of the above parts lines.

Technical support

The professional and highly trained Hitachi service team combines the global expertise and knowledge of Hitachi Construction Machinery with your local language and culture. We take a proactive approach towards customer service by continuously training our dealer personnel, so that the available global knowledge is passed on to each individual technician in our dealer network.



Technical support



Hitachi Parts



BUILDING A BETTER FUTURE

Established in 1910, Hitachi, Ltd. was built upon a founding philosophy of making a positive contribution to society through technology. This is still the inspiration behind the Hitachi group's Reliable solutions that answer today's challenges and help to create a better world.

Hitachi, Ltd. is now one of the world's largest corporations, with a vast range of innovative products and services. These have been created to challenge convention, improve social infrastructure and contribute to a sustainable society.

Hitachi Construction Machinery Co., Ltd. (HCM) was founded in 1970 as a subsidiary of Hitachi, Ltd. and has become one of the world's largest construction equipment suppliers. A pioneer in producing hydraulic excavators, HCM also manufactures wheel loaders, rigid dump trucks and special application machines at state-of-the-art facilities across the globe.

Incorporating advanced technology, Hitachi construction machinery has a reputation for the highest quality standards. Suitable for a wide range of industries, it is always hard at work around the world – helping to create infrastructure for a safe and comfortable way of living, developing natural resources and supporting disaster relief efforts.

Hitachi ZW wheel loaders are renowned for being reliable, durable and versatile – capable of delivering the highest levels of productivity under the most challenging of conditions. They are designed to provide owners with a reduced total cost of ownership, and operators with the ultimate level of comfort and safety.

SPECIFICATIONS

ENGINE		ZW80-5B
Model	DEUTZ "TD2.9L4" diesel engine	
Type	4-cycle, water-cooled, direct injection, with turbocharged	
No. of cylinders	4	
Maximum power	ISO14396	49 kW at 2 200 min ⁻¹
	SAE J1349	47 kW at 2 200 min ⁻¹
Bore and stroke	92 mm × 110 mm	
Piston displacement	2.93 L	
Batteries	1 × DC 12V 92Ah 680CCA	
Air cleaner	Two element dry type with restriction indicator	

POWER TRAIN		ZW80-5B
Transmission controls	Hydrostatic transmission (HST) automatically controls power and 2-speed	
Travel speed Forward	1st	12.0 km / h
	2nd	34.0 km / h
Travel speed Reverse	1st	12.0 km / h
	2nd	34.0 km / h

AXLE AND FINAL DRIVE		ZW80-5B
Drive system	Four - wheel drive system	
Front & rear axle	Full - floating type	
Front	Fixed to the front frame	
Rear	Center pivot	
Oscillation angle	Total 22° (±11°)	
Final drives	Heavy-duty, planetary final drive	

TIRES		ZW80-5B
Standard	17.5 / 65 - 20 10PR (L2)	

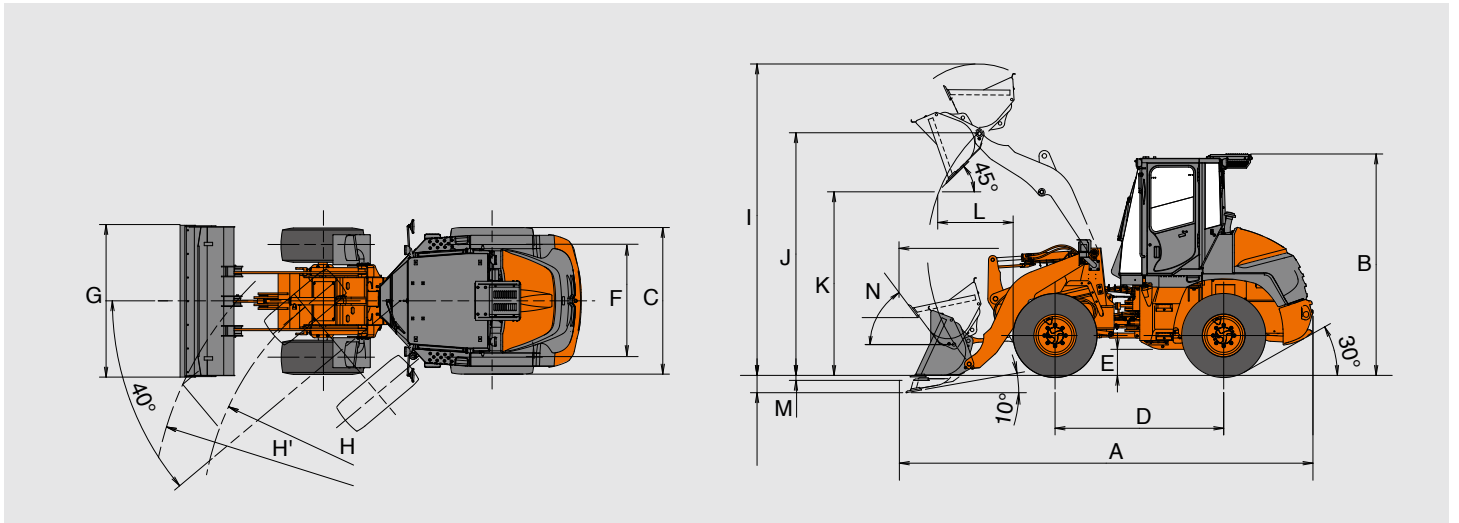
BRAKES		ZW80-5B
Parking brake	Spring applied, hydraulically released wet disc	
Service brake	Inboard mounted fully hydraulic wet disc	

STEERING SYSTEM		ZW80-5B
Type	Articulated frame steering	
Steering angle	Each direction 40°; total 80°	
Cylinders	Double-acting piston type	
No. x Bore x Stroke	2 × 45 mm × 340 mm	
Steering mechanism	Double acting piston	

HYDRAULIC SYSTEM		ZW80-5B
	Arm and bucket are controlled by mechanical single control lever	
Relief pressure setting	20.6 MPa	
Hydraulic cycle times	Arm raise	5.0 s
	Arm lower	3.5 s
	Bucket dump	1.0 s
Filters	Full-flow 10 micron return filter	

SERVICE RIFILL CAPACITIES		ZW80-5B
Fuel tank	82 L	
Engine coolant	15 L	
Engine oil	9 L	
Front axle differential & wheel hubs	6 L	
Rear axle differential & wheel hubs	6 L	
Hydraulic reservoir tank	72 L	

DIMENSIONS

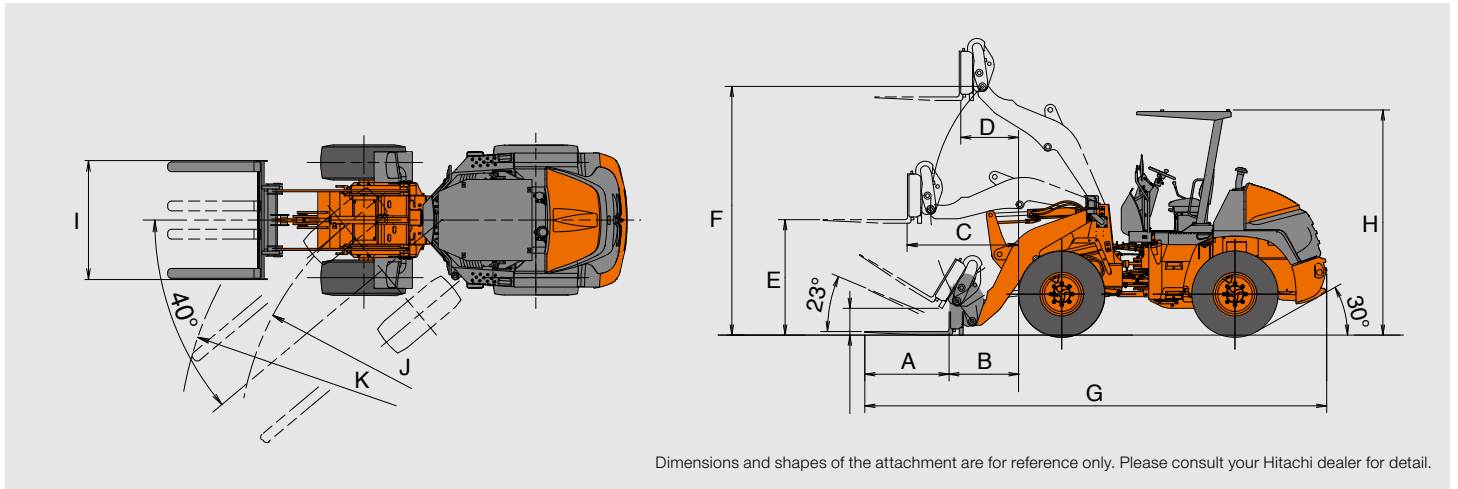


Bucket type			Standard arm		
			General purpose (Stock pile)	Quick coupler	
			Bolt-on cutting edge		
Bucket capacity	ISO heaped	m ³	1.0	1.0	
	ISO struck	m ³	0.73	0.73	
A Overall length		mm	5 235	5 395	
B Overall height, bucket on ground	up to cab** top	mm	2 890		
	up to canopy*** top	mm	2 860		
C Width over tires		mm	1 920		
D Wheel base		mm	2 200		
E Ground clearance		mm	340		
F Tread		mm	1 470		
G Bucket width		mm	1 990		
H Turning radius (centerline of outside tire)		mm	3 795		
H' Loader clearance radius, bucket in carry position		mm	4 475	4 540	
I Overall operating height		mm	4 070	4 170	
J Height to hinge pin, fully raised		mm	3 165		
K Dump clearance 45 degree, full height		mm	2 500	2 390	
L Reach, 45 degree dump, full height		mm	880	990	
M Digging depth (horizontal digging angle)		mm	65		
N Max. roll back at carry position		deg	53	49	
Static tipping load*	cab**	Straight	kg	3 820	3 440
		Full turn	kg	3 385	3 035
	canopy***	Straight	kg	3 615	3 250
		Full turn	kg	3 205	2 865
Breakout force		kN	46.5	36.8	
Operating weight	cab**	kg	5 305	5 465	
	canopy***	kg	5 090	5 250	

- Notes: 1. All dimensions, weight and performance data based on ISO 6746-1:1987, ISO 7131:1997 and ISO 7546:1983
2. Static tipping load and operating weight marked with * include ZW30-_{SB}: 12.5 / 70 - 16 6PR (L2) , ZW40-_{SB}: 15.5 / 60 - 18 8PR (L2) and ZW80-_{SB}: 17.5 / 65 - 20 10PR (L2) tire (no ballast) with lubricants, coolant, full fuel tank and operator.
3. **ROPS / FOPS cab
4. ***ROPS / FOPS / canopy
5. Canopy option only available for New Zealand

SPECIFICATIONS

DIMENSIONS



Fork type	ZW80-5B		
	Cab	Canopy	
A Fork tine length	mm	1 070	
B Reach @ ground level	mm	880	
C Maximum reach	mm	1 410	
D Reach @ maximum hinge pin height	mm	755	
E Fork height @ maximum reach	mm	1 465	
F Fork height @ maximum hinge Pin Height	mm	3 165	
Straight tip load with level arms and fork (load centered @24")	kg	2 860	2 700
Full turn tip load with level arms and fork (load centered @24")	kg	2 420	2 270
Maximum operating load	kg	1 440	
Fork attachment weight	kg	325	
Operating weight	kg	5 730 **	5 515 ***
G Overall Length	mm	5 865	
H Overall Height	mm	2 890	2 860
I Fork width	mm	1 520	
J Turning radius	mm	3 795	
K Loader clearance radius, fork in carry position	mm	4 570	

Notes: 1. All dimensions, weight and performance data based on ISO 6746-1:1987, ISO 7131:1997 and ISO 7546:1983
 2. Static tipping load and operating weight marked with * include 17.5 / 65 - 20 10PR: ZW80-5B tires (no ballast) with lubricants, coolant, full fuel tank and operator.
 3. **ROPS / FOPS cab
 4. ***ROPS / FOPS / canopy
 5. Canopy option only available for New Zealand

BUCKET SELECTION CHART

ZW80-5B

%-Bucket Fill Factor 110% 100% 95%

	Bucket capacity m ³	Material density kg/m ³					
		1 200	1 400	1 600	1 800	2 000	2 200
Standard lift with general purpose bucket with bolt-on cutting edge	1.0						
Standard lift with pin-on quick-coupler	1.0						

● Standard equipment ○ Optional equipment - Not applicable

OPERATOR'S STATION	
ROPS (ISO3471), FOPS (ISO3449) cab	●
AM/FM/WB radio with AUX input	●
Coat hook	●
Cup holder	●
Front defroster	●
Manual control air conditioner	●
Rear view mirror	
Inside (1)	●
Outside (2)	●
Seat: Long stroke suspension seat with fabric	●
Sun visor	●
Tinted safety tempered glass	●
Windshield washer front and rear	●
Windshield wiper front and rear	●
ROPS (ISO3471), FOPS (ISO3449) canopy (Canopy option only available for New Zealand)	●
Seat: Long stroke suspension with vinyl	●
Rear view mirror	
Outside (2)	●
Rubber floor mat	●
Seat: Retractable seat belt, 75 mm	●
Steering wheel with spinner knob	●

ELECTRICAL SYSTEM	
Backup alarm	●
Batteries	
Standard batteries (92Ah - 680A)	●
Battery disconnect switch	●

COOLING SYSTEM	
Fan guard	●
Radiator	
Side-by-side radiator and oil cooler	●
Dust screen	●
Radiator reserve tank	●

LIGHTS	
Brake & tail lights	●
Clearance lights	●
Headlights	●
Turn signals with hazard switch	●
Work lights (LED type, only for cab)	
Front light (2)	●
Rear light (2)	●
Work lights (LED type for canopy)	
Rear light (2)	●

POWER TRAIN	
Differential	
Conventional type for both axles	●
Electrically controlled HST system	●
Forward/Reverse lever	●
Travel mode selector switch (L - H)	●

ENGINE	
Air filter double elements	●
Air intake	
Rain cap	●
Cartridge-type engine oil filter	●
Cartridge-type fuel main filter	●
Cartridge-type fuel pre-filter with water separator	●
Engine oil remote drain	●
Glow plugs	●
Throttle limit switch	●

MONITORING SYSTEM	
Gauge: coolant temperature, fuel	●
Indicator lights: turn signal, high beam, work lights, clearance lights, discharge warning, preheat	●
LCD monitor display: F - N - R / Shift position, speedometer, hour meter, odometer, replacement intervals	●
Warning lights: service Indicator, parking brake, brake oil low level, engine warning, overheat, engine oil low pressure, air filter restriction, HST warning	●

BRAKE SYSTEM	
Automatic spring applied / Hydraulic-released / wet disk type parking brake	●
Inboard mounted fully hydraulic wet disc	●

HYDRAULIC SYSTEM	
Bucket auto leveler (Automatic return to dig control)	●
Control lever	
for 3 hydraulic function control valve	●
single control lever & AUX lever for 3rd function	●
Control lever lock lever	●
Cartridge-type hydraulic main filters	●
Cartridge-type HST filters	●
Lift arm float system	●
Quick coupler plumbing	●
Quick coupler lever	●
Reservoir sight gauge	●

TIRES	
17.5 / 65 - 20 10PR (L2)	●

MISCELLANEOUS	
Articulation lock bar	●
Attachments	●
General-purpose bucket with bolt-on cutting edge	●
Quick coupler (pin-on, hydraulic)	●
Fork (pin - on, hydraulic / quick-coupler)	○
Counterweight	●
Drawbar with locking pin	●
Fenders	●
Innovative HN bushing technology extends lubrication intervals	●
Standard lift arm	●
Lift & tie down hooks	●
Pilfer proof	
Lockable engine cover	●
Lockable fuel refilling cap	●
Tool with tool bag	●



Built on the foundation of superb technological capabilities, Hitachi Construction Machinery is committed to providing leading-edge solutions and services which contribute to the businesses of our customers worldwide.

Hitachi Environmental Vision 2050

Our Environmental Vision envisions a low-carbon society; a resource efficient society; a harmonized society with nature. To achieve such a sustainable society, we have established a set of long-term environmental targets called Hitachi Environmental Innovation 2050.

Reducing Environmental Impact by New ZW

Hitachi makes a green way to cut carbon emissions for global warming prevention according to LCA*. New ZW utilizes many technological advances, including the new standard mode which optimizes fuel efficiency. Hitachi has long been committed to recycling of components, such as aluminum parts in radiators and oil coolers. Resin parts are marked for recycling.

*Life Cycle Assessment – ISO 14040

Before using a machine with a satellite or tele-communication system, please make sure that the satellite or tele-communication system complies with local regulations, safety standards and legal requirements. If not so, please make modifications accordingly.

Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, customer installed and modified parts, optional parts and all standard equipment with some differences in colour and features. Before use, read and understand the Operator's Manual for proper operation.

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