HITACHI

Reliable solutions

ZW250



WHEEL LOADER

Model code: ZW250-6

Engine rated power: 186 kW / 249 hp (ISO14396)

Operating weight: 20 460 - 20 920 kgBucket ISO heaped: $2.8 - 3.8 \text{ m}^3$

ZW250-6. NO COMPROMISE

With substantial loading capacity, powerful digging force and impressive travel speeds, the Hitachi ZW-6 wheel loaders offer exceptional levels of performance, without compromising on efficiency – thanks to low levels of fuel consumption.

The innovative engineering, reliable features and durable components on the ZW250-6 demonstrate Hitachi's capability for manufacturing construction machinery of the highest quality. It is also extremely versatile to meet the diverse needs of European customers.







6. A TRACK RECORD FOR RELIABILITY



8. DURABILITY TO DEPEND ON



10. EXCEPTIONAL VERSATILITY



DEMAND PERFECTION

Powerful performance
Quick power switch increases
engine output when required.

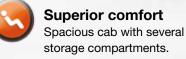
The ZW250-6 has been designed and built using market-leading technology in Japan. Developed to perfection, with an emphasis on the environment, operator comfort and safety, it responds to customer demands for exceptional productivity at the lowest possible cost of ownership.















Quieter performance

New materials in the cab absorb sound to reduce noise levels.



Improved fuel efficiency

Lock-up transmission and Stage IV-compliant engine.





User-friendly

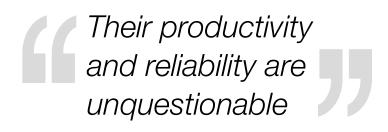
Effortless control with the optional Joystick Steering System.



Convenient access

Easy-to-open wide engine covers.





Eamonn F McGurk, owner, Keyway Group

A TRACK RECORD FOR RELIABILITY

Hitachi has a proven track record for manufacturing reliable construction machinery and its latest range of wheel loaders reinforce this enviable reputation. Designed with several easy maintenance features, and components that are easily accessed from ground level, the ZW250-6 operates efficiently with minimum downtime.

Minimal downtime

The ZW250-6 has one battery compartment instead of two, which provides easier access for maintenance and battery replacement. This results in minimal downtime and a high level of availability.

Quick access

The engine covers open fully for convenient access. This helps to ensure routine maintenance is completed quickly to ensure a reliable performance.

Easy maintenance

For safer and easier maintenance, the battery disconnect switch is now included as standard. This helps to avoid electrical accidents and retain battery energy during long-term storage.

Reduced cost

The new Stage IV-compliant engine does not require a diesel particulate filter, which further reduces fuel consumption and maintenance costs.



Easy access to the engine compartment.







The final checking and inspection procedure for each Hitachi wheel loader is typical of Hitachi's dedication to manufacturing products of unfailing quality in response to customer needs.



DURABILITY TO DEPEND ON

To guarantee a durable performance even on the most demanding job sites, the Hitachi ZW250-6 has been designed and engineered with strong components and robust materials. Like all Hitachi wheel loaders, it operates reliably and with maximum levels of availability.



The optional belly guard provides added protection.



Added protection

The optional belly guard protects the machine powertrain and driveshaft from potential damage caused by materials on the ground.

Strengthened components

The lift arm strength of the ZW250-6 has been increased to meet customer demand.

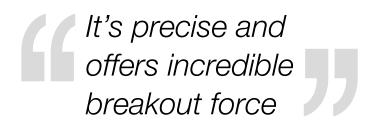
Durable materials

High-quality radiators improve resistance to corrosion and enhance the overall durability of the ZW250-6 wheel loader.

Maximum uptime

Optional anti-clogging radiators (WPFR) are designed with square-shaped instead of triangular-shaped fins to prevent clogging. This enhances the radiator's durability.





Christophe Warnier, operator, Jan De Nul

EXCEPTIONAL VERSATILITY

Wherever the ZW250-6 is required to work, it offers exceptional all-round visibility and operator comfort. It is also easy to operate, smooth and precise, and extremely quiet, which makes it suitable for a wide range of applications.

Efficient flexibility

The quick power switch increases engine output when more power is instantly required, or when driving uphill.

Enhanced rear visibility

The muffler and air intake have been repositioned and aligned to improve the rear-view visibility from the cab, enhancing safety on a variety of job sites.

High productivity

The simultaneous movement of the bucket and lift arm ensures a smooth digging operation. The bucket is prioritised after unloading so that the wheel loader quickly returns to digging, which helps to increase productivity.

Improved fuel efficiency

The five-speed transmission contributes to the versatility of the ZW250-6, bringing additional benefits of increased productivity and fuel efficiency. A lock-up feature, available as standard on the ZW250-6 and larger machines, further reduces fuel consumption on loading and carrying applications.

Effective control

To ensure a smooth drive on all kinds of terrain, the ride control feature prevents unnecessary pitching via the movement of lift arm cylinders.



Rear visibility has been enhanced by design modifications.







Hitachi conducts user tests to assess the features of its wheel loaders. Results have revealed an unrivalled level of control.



CONSISTENT QUALITY

Quality is high on the agenda during the development of Hitachi construction machinery. Every wheel loader is built using the finest components, and is tested to ensure it meets the highest possible standards of performance, reliability, safety and comfort. As a result, the ZW250-6 is not only one of the quietest in its class, but it also offers the best all-round visibility.





The SCR system reduces eemissions.

Reduced emissions

A selective catalytic reduction (SCR) system injects urea into exhaust gas to reduce nitrogen oxide from emissions. This cutting-edge technology not only helps the environment, but also complies with EU Stage IV emission regulations.

Easy access

The engine air filter has been relocated to the rear of the engine compartment, providing easier access at ground level for maintenance. The urea tank is also positioned for convenience.

Excellent visibility

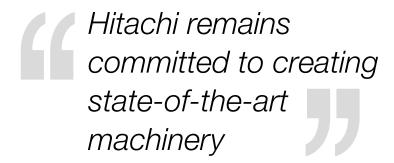
The 360° panoramic view of the spacious cab creates a comfortable working environment, and helps to increase safety and productivity. The rear-view camera also contributes to excellent all-round visibility and safety on the job site.

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.







Vasilis Drougkas, Wheel Loader Product Specialist, Hitachi Construction Machinery (Europe) NV

EXPERTS IN TECHNOLOGY

Hitachi uses advanced technology to create construction machinery that offers exceptional levels of performance at the lowest possible cost of ownership. Its relentless pursuit of innovation enables it to enhance the experience of customers and constantly raise industry standards.

Reduced maintenance

A new Stage IV-compliant engine contains a high-volume cooled exhaust gas recirculation (EGR) system, a common rail-type fuel injection system and a diesel oxidation catalyst (DOC) without DPF. This helps to reduce maintenance requirements.

Smaller environmental impact

The optional auto shutdown feature helps to prevent fuel wastage, as well as reduce noise levels, exhaust emissions and CO₂ levels of the ZW250-6 medium wheel loader.

Multifunctional display

A large LCD colour monitor shows all the information required to operate the Hitachi ZW-6 wheel loader. This includes power mode, oil temperature, and fuel and urea levels, which is useful for easy maintenance. It also includes the display for the easy-to-use rear camera, which enhances visibility for a safe operation.

Remote monitoring

Global e-Service allows ZW250-6 owners to monitor their Hitachi machines remotely via Owner's Site (24/7 online access) and ConSite (an automatic monthly

report). These help to maximise efficiency, minimise downtime and improve overall performance.

User-friendly operation

The optional Joystick Steering System enables operators to reach high levels of productivity with effortless steering, and incorporates a number of useful functions.





The LCD monitor shows the machine's status and settings.

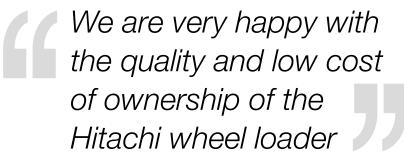


The optional Joystick Steering System provides exceptional control.



Remote monitoring using Global e-Service maximises efficiency.





Phil Meuser-Schaede, owner, Trasswerke Meurin

REDUCING THE TOTAL COST OF OWNERSHIP



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

Global e-Service

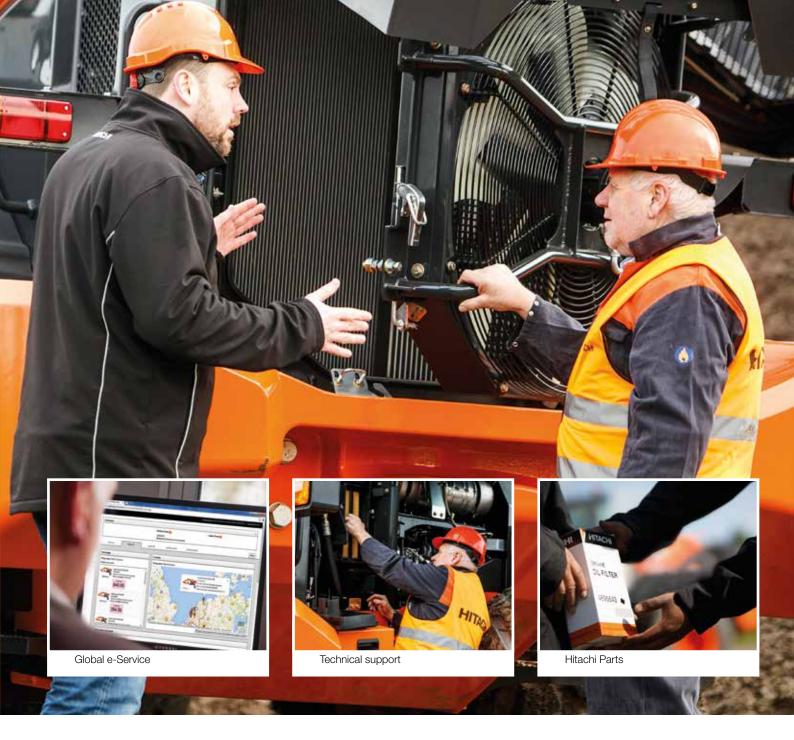
Hitachi has developed two remote monitoring systems as part of its Global e-Service online application. Owner's Site and ConSite are an integral part of the wheel loader, which sends operational data daily via GPRS or satellite to www.globaleservice.com. This allows immediate access to the Owner's Site, and the vital information that is required for support on job sites.

Comparing the ratio of operating and non-operating hours helps to enhance efficiency. Effective management of maintenance programmes helps to maximise availability. Running costs can also be managed by analysing the fuel consumption. The location and movements of each machine are clearly displayed for essential planning.

An automatic service report – ConSite – sends a monthly email summarising the information from Global e-Service for each machine. This includes: daily working hours and fuel consumption data; statistics on the operating mode ratio, plus a comparison for fuel consumption/efficiency, and CO₂ emissions.

Technical support

Each Hitachi service technician receives full technical training from HCME in Amsterdam. These sessions provide access to the same technical knowledge available within the Hitachi quality assurance departments and design centres. Technicians combine this global expertise with the local language and culture of the customer to provide the highest level of after-sales support.



Extended warranty and service contracts

Every new Hitachi ZW-6 model is covered by a full manufacturer's warranty. For extra protection – due to severe working conditions or to minimise equipment repair costs – Hitachi dealers offer a unique extended warranty called HELP (Hitachi Extended Life Program) and comprehensive service contracts. These can help to optimise the performance of each machine, reduce downtime and ensure higher resale values.

Parts

Hitachi offers a wide range and a high availability of parts dispatched from the 53,000 m² HCME European Parts Depot in The Netherlands.

- Hitachi Genuine Parts: allow machines to work for longer, with lower running and maintenance costs.
- Hitachi Select Parts and 2Genuine Parts: especially for older machines, they cost less, are of proven quality and come with the manufacturer's warranty.
- Performance Parts: to cope with highly demanding conditions, they have been engineered for greater durability, better performance or longer life.
- Remanufactured components: offering an economically viable solution, they are the best option when preventative replacements are required.

Whatever the choice, the renowned quality of Hitachi construction machinery is assured.

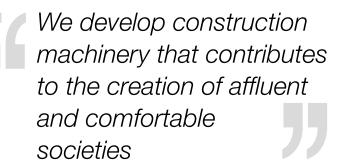


EX ultra-large excavators

ZW wheel loaders

EH dump trucks





Yuichi Tsujimoto, HCM President

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.



Mini excavators

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, crawler cranes and special application machines at state-of-the-art facilities across the globe.

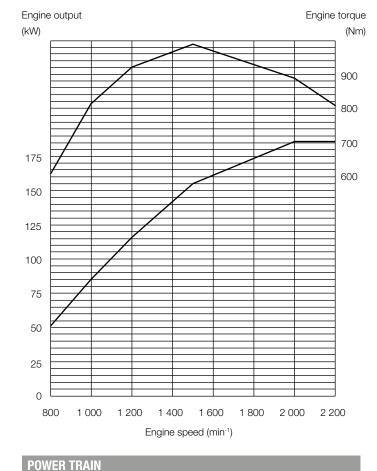
Incorporating advanced technology, Hitachi construction machinery has a reputation for the highest quality standards. Suitable for a wide range of industries, it is always

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	
Model	CUMMINS QSB6.7
Type	4-cycle water-cooled, direct injection
Aspiration	Turbocharger and intercooled
Aftertreatment	DOC and SCR system
No. of cylinders	6
Maximum power	
ISO 14396	186 kW (250 HP) / 2000 min-1 (rpm)
ISO 9249, net	181 kW (243 HP) / 2000 min ⁻¹ (rpm)
Maximum torque, gross	990 Nm at 1 500 min ⁻¹ (rpm)
Bore and stroke	107 mm X 124 mm
Piston displacement	6.69 L
Batteries	2 x 12 V
Air cleaner	Two element dry type with restriction indicator
Emission	Complies with EU stage IV and US EPA Tier 4 Final



Transmission	Torque converter, countershaft type powershift with computer-controlled automatic shift and manual shift features included.
Torque converter	Three element, single stage, single phase with lock up
Main clutch	Wet hydraulic, multi-disc type
Cooling method	Forced circulation type
Travel speed* Forward / Re	everse
1st	5.8 [5.8] / 6.1 [6.1] km/h
2nd	10.1 (10.1) [10.4 (10.8)] /
	10.6 (10.7) [11.4 (11.8)] km/h
3rd	() [()]
	00 4 (04 0) [04 0 (00 7)] //-

22.4 (24.6) [24.2 (26.7)] km/h

*With 23.5R25 (L3) tires

(): Data at Lock-up clutch ON

[]: Data at Power Mode

AVIE	ALUE	EINIAI	BBIVE
	A V A V/I	FINAL	101546743

Drive system Four-wheel drive system Front & rear axle Semi-floating Front Fixed to the front frame Rear Trunnion support

Reduction and

differential gear Two stage reduction with torque proportioning

differential Oscillation angle Total 24° (+12°,-12°)

Final drives Heavy-duty planetary, mounted inboard

TIRES

Optional Refer to standard & optional equipment list

BRAKES

Service brakes Inboard mounted fully hydraulic 4 wheel wet disc brake. Front & rear independent brake circuit Parking brakes Spring applied, hydraulically released, dry disc type with external output shaft

STEERING SYSTEM

Type Articulated frame steering Steering angle Each direction 37°; total 74° Cylinders Double-acting piston type No. x Bore x Stroke 2 x 70 mm x 542 mm

HYDRAULIC SYSTEM

Arm and bucket are controlled by multifunction lever

Arm controls Four position valve ; Raise, hold, lower, float

Bucket controls with automatic bucket return-to-dig control Three position valve; Roll back, hold, dump

Main pump (Serve as steering pump)

...... Variable Displacement Axial Plunger Pump Maximum flow 275 L/min at 2 200 min-1 (rpm)

Maximum pressure ... 29.4 MPa

Fan pump

...... Fixed Displacement Gear Pump Maximum flow 62.5 L/min at 2 200 min-1 (rpm)

Maximum pressure ... 18.2 MPa

Hydraulic cylinders

Type Double acting type No. x Bore x Stroke ... Arm : 2 x 130 mm x 940 mm Bucket: 1 x 165 mm x 530 mm

Filters Full-flow 15 micron return filter in reservoir

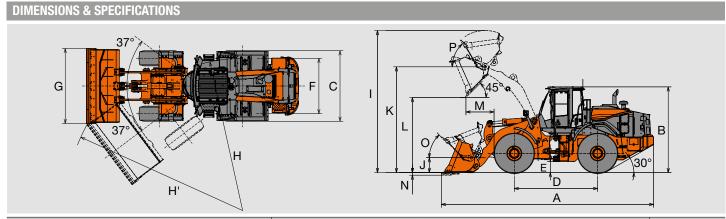
Hydraulic cycle times

Lift arm raise 6.4 s (5.7 s) Lift arm lower 3.6 s (3.6 s) Bucket dump 1.9 s (1.8 s) Total 11.9 s (11.1 s)

(): Data at Power Mode

SERVICE REFILL CAPACITIES

Fuel tank	340 L
Engine coolant	33 L
Engine oil	25 L
Torque convertor & transmission	27 L
Front axle differential & wheel hubs	40 L
Rear axle differential & wheel hubs	40 L
Hydraulic oil tank	115 L
DEF/AdBlue® tank	35 L

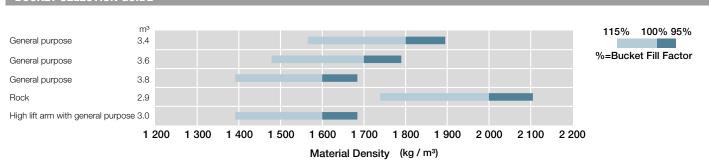


Standard arm					High lift arm			
				General	Rock bucket	General purpose		
Bucket type		Bolt-on teeth	Bolt-on edge	Bolt-on teeth	Bolt-on edge	Bolt-on teeth	Bolt-on edge	
Bucket capacity	ISO heaped	m³	3.4	3.6	3.6	3.8	2.8	3.0
Bucket capacity	ISO struck	m³	2.9	3.1	3.1	3.2	2.4	2.5
A Overall length		mm	8 630	8 450	8 675	8 495	8 550	8 770
B Overall height		mm			3 4	100		
C Width over tires		mm			2 8	370		
D Wheel base		mm			3 3	310		
E Ground clearance		mm			42	20		
F Tread		mm			2 2	200		
G Bucket width		mm			2 9	980		
H Turning radius (Centerline	e of outside tire)	mm			6 (050		
H' Loader clearance radius	, bucket in carry position	mm	7 090	7 040	7 100	7 060	7 070	7 190
I Overall operating height		mm	5 630	5 630	5 680	5 680	5 590	5 990
J Carry height of bucket p	in	mm	590					
K Height to bucket hinge p	in, fully raised	mm			4 190			4 650
L Dumping clearance 45 d	legree, full height	mm	2 850	2 970	2 820	2 940	2 920	3 520
M Reach, 45 degree dump	, full height	mm	1 250	1 110	1 280	1 140	1 200	1 050
N Digging depth (Horizonta	al digging angle)	mm	100	110	100	110	90	130
O Max. roll back at carry p	osition	deg			50			50
P Roll back angle at full he	ight	deg			60			53
Otatia timalia a la a dix	Straight	kg	16 670	16 450	16 610	16 370	16 250	13 210
Static tipping load *	Full 37 degree turn	kg	14 680	14 490	14630	14 420	14 310	11 640
Breakout force		kN	170	157	163	151	186	163
Operating weight *		kg	20 460	20 530	20 500	20 570	20 890	20 920

WEIGHT CHANGE

	Outline it are		Tipping load (kg)		Overall width	Overall height	Overall length
Option item	(kg)	Straight	37 degree turn	(mm) (outside tire)	(mm)	(mm)	
	23.5 R25(L3)XHA2	±0	±0	±0	±0	±0	±0
	23.5 R25(L5)XLDD2A	+600	+450	+400	+15	+30	-25
Tire	23.5 R25(L5)XMINED2	+710	+540	+470	+10	+25	-20
	23.5 R25(L2)XSNOPLUS	±0	±0	±0	+5	±0	±0
	650/65R25(L3)XLD	+450	+340	+300	+220	±0	±0
Belly guard		+190	+140	+120	-	-	-





Note: All dimensions, weight and perfomance data based on ISO 6746-1:1987,ISO 7131:2009 and ISO 7546:1983
: Static tipping load and operating weight marked with include 23.5R25(L3) tires (No ballast) with lubricants, full fuel tank and operator. Machine stability and operating weight depend on counterweight, tire size and other attachments.

EQUIPMENT

OPERATOR'S STATION	
Adjustable steering column with POP-UP	•
AM/FM radio with AUX for digital audio player	•
Ashtray, cigar lighter	•
Auto control air conditioner	
with single intake filter	•
with double intake filter	0
Coat hook	•
Front/Rear defroster	•
Glove compartment	•
Rear view camera & monitor	•
Rear view mirrors	
Inside (2)	•
Outside (2)	•
Outside (Heated, 2)	0
Retractable seat belt, 50mm	•
ROPS (ISO3471), FOPS (ISO3449): multi-plane isolation mounted for noise, vibration reduction	•
Rubber floor mat	•
Seat	
Air suspension seat with headrest and heater: fabric, high back, adjustable for damper, inclination of the seat, seat depth, weight-height, fore-aft position, reclining angle, armrest angle, headrest height and angle, lumbar support	•
Air suspension seat (heavy duty) with headrest and heater: fabric, high back, adjustable for damper, inclination of the seat, seat depth, weightheight, fore-aft position, reclining angle, armrest angle, headrest height and angle, lumbar support	0
Steering system	
Wheel steering	•
Joystick steering (with wheel steering)	0
Storage	
Cup holder	•
Digital audio player holder	•
Document holder	•
Hot & cool box	•
Seatback pocket	•
Sun visor	•
Textured steering wheel with spinner knob	•
Tinted safety glass	
Front windshield: laminated	•
Others: tempered	•
Windshield washer front and rear	•
Windshield wipers front and rear	•
ELECTRICAL SYSTEM	
Backup alarm	•
Batteries	
Standard batteries (120AH-760A)	•
Large capacity batteries (155AH-900A)	0
Battery disconnect switch	•
12V power outlet	0

• Standard equipment

O Optional equipment

LIGHTS	
Brake & tail lights LED	•
Clearance lights	•
Headlights	•
Rotating lamp	0
Turn signals with hazard switch	•
Work lights	
Front lights on cab (2)	•
Rear lights in rear grille cover (2)	•
Additional front lights on cab (2)	0
Rear lights on cab (2)	0
Additional LED front lights on cab (2)	0
LED rear lights on cab (2)	0
POWER TRAIN	

POWER TRAIN	
Automatic transmission with load sensing system	•
Clutch cut position switch	•
Differential	
TPD (Torque Proportioning Differential, front and rear)	•
LSD (Limited Slip Differential, front and rear)	0
Driving speed limiter (20km/h)	0
DSS (Down Shift Switch)	•
Forward/Reverse lever	•
Forward/Reverse selector switch	•
Lock-up clutch (Torque converter)	•
Power mode switch	•
Quick power switch	•
Travel mode selector (Auto1-Auto2)	•

Air intake	
Rain cap	•
Pre-cleaner (Sy-Klone)	0
Pre-cleaner (Turbo II)	0
Air filter double elements	•
Automatic reversible cooling fan with heat sensing	•
Cartridge-type engine oil filter	•
Cartridge-type fuel pre-filter	•
Cartridge-type fuel main filter	•
Coolant reservoir sight gauge	•
DEF/AdBlue [®] tank inlet strainer	•
DEF/AdBlue® tank with ISO magnet adapter	•
Engine auto shut-down control system	0
Engine oil remote drain	•
Fan guard	•
Radiator	
Standard fin pitch radiator	•
Anti-clogging radiator (wide fin pitch)	0

Standard and optional equipment may vary by country, so please consult your Hitachi dealer for details.

* Hitachi Construction Machinery cannot be held liable for theft, any system will just minimize the risk of theft.

MONITORING SYSTEM	
Gauge: coolant temperature, fuel	•
ndicator lights: clearance lights, control lever lock, fuel level, high beam, parking brake, preheat, turn signals, work lights	•
ndicator on multifunction monitor: air conditioner display, auto shut-down ndicator, clock, clutch cut off indicator, DEF alarm indicator, DEF level gauge, dual lift arm auto leveler indicator, ECO indicator, fan reverse indicator, F-N-R/shift position indicator, forward/reverse selector switch indicator, hold display, nour meter, joystick steering indicator (optional), odometer, power mode ndicator, ride control indicator, seat belt indicator, speedometer, tachometer, transmission auto-shifting indicator, transmission oil temperature	•
Warning lights: air filter restriction, brake oil low pressure, communication system error, discharge warning, engine oil low pressure, engine warning, nydraulic oil level, low steering oil pressure, overheat, transmission warning, engine overrun warning	•
BRAKE SYSTEM	
Front & rear independent brake circuit	
nboard mounted fully hydraulic 4 wheel wet disc	_
Spring-applied/Hydraulic-released parking brake	_
HYDRAULIC SYSTEM	
Bucket auto leveler (Automatic return to dig control)	•
Control lever	
for 2 spools control valve	
Multifunction lever (MF lever)	
	•
2 levers	
Self	0
for 3 spools control valve	
MF lever & AUX lever for 3rd function	0
2 levers & AUX lever for 3rd function	
888	
- Inside layout pattern (3rd - bucket - liftarm)	0
for 4 spools control valve	
MF lever & AUX joystick lever for 3rd & 4th function	

2 levers & AUX 2 levers for 3rd & 4th function - Inside layout pattern (4th - 3rd - bucket - liftarm) 0

Control lever lock switch	•
Dual lift arm auto leveler	•
Hydraulic filters	•
Lift arm float system	•
Reservoir sight gauge	•
Ride control system (OFF-AUTO type)	•
TIRES	
23.5R25 (L3) XHA2	•
23.5R25 (L5) XLDD2A	0
23.5R25 (L5) XMINED2	0
23.5R25 (L2) XSNOPLUS	0
750/65R25 (L3) XLD	0
MISCELLANEOUS	
Articulation lock bar	•
Auto lubrication system	0
Belly guard (Bolt on type)	0
Bucket cylinder guard	0
Counterweight, built-in	•
Cutting edge protection	0
Drawbar with locking pin	•
Emergency steering	•
Fenders	
for 23.5R25 (Front & full covered rear fenders with mud flaps)	•
for 750/65R25 (Front & full covered rear fenders with mud flaps)	0
Front windshield guard	0
Global e-Service	•
 Lift arm	
Standard lift arm	•
High lift arm	0
<u> </u>	

in a country other than a country of its intended use, it may be necessary to make modifications to it so that it complies with the local regulatory	These specifications are subject to change without notice. Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features. Before use, read and understand the Operator's Manual for proper operation.

KL-EN111EUP

Hitachi Construction Machinery

www.hitachicm.eu