

ZW-5A series

HITACHI

Reliable Solutions

ZW370

Hitachi Construction Machinery Group

LANDCROS

Japanese Excellence—Reliable Solutions



WHEEL LOADER

Model Code: ZW370-5A

Engine power: 300 kW (402 HP)

Operating Weight: 31 750 - 32 570 kg

Bucket ISO Heaped: 4.8 - 8.5 m³

Amazing Performance with Enhanced Controllability

The new ZW370 wheel loader employs advanced technologies to achieve excellent productivity with enhanced controllability. Furthermore, the machine has a comfortable cab, easy maintenance features, and Hitachi's comprehensive service package, including ConSite, enabling operators to work efficiently in tough environments.

CONTENTS

Powerful and Efficient Operation	Page 4 - 5
Productivity and efficiency	
Enhanced Controllability	Page 6 - 7
Controllability	
Operator-Friendly Features to Improve Operator Comfort and Safety	Page 8 - 9
Operator comfort	
Simplified Maintenance and Durability with Proven Support System	Page 10 - 11
Maintainability and durability	

The New **ZW370** Wheel Loader



ZW Empower your Vision.

Note: The photos in the brochure may include optional equipment.

Powerful and Efficient Operation

Operators can choose between 2 modes depending on job site requirements.

Fuel consumption (per operation)

25% less (L / ton)

*against ZW370-G

=

Active Engine Control

+

Variable Displacement Piston Pump

New Transmission

Quick Power Switch

Re-designed bucket



PICK UP

Extra Power with Power Mode

Standard mode, sufficient for ordinary work, is set as default. The other mode, Power mode, gives extra power when needed. It is particularly useful on sites where strong traction or acceleration is required.

	Slope climbing	Handling	Acceleration
Power Mode			
Standard Mode			

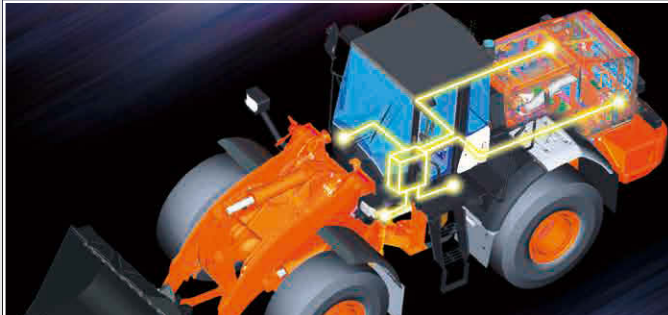
NEW 2 Ways to Activate Power Mode



Power mode can be activated by 2 ways and operators can choose either switch depending on the site requirements.

- A Quick Power Switch (QPS)**
Use the QPS on the lever when extra power is needed temporarily, such as climbing a steep slope. When switching forward/reverse or when the travel load reduces, the power mode selected via the QPS automatically reverts to the standard mode. By using the QPS, the power mode is activated only when needed and this helps to reduce fuel consumption.
- B Power Mode Switch**
Use the power mode switch when extra power is needed constantly, such as moving heavy materials like rocks, and getting the job done quickly. When the power mode is activated via the power mode switch, the mode will remain on until the engine is turned off.

NEW Active Engine Control System for Economical Operation and Easy Control

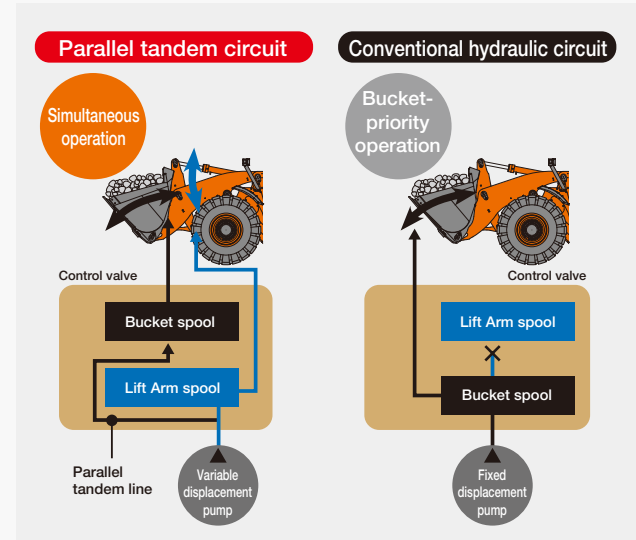


The "Active Engine Control System" plays a key role in achieving economical operation. Strategically positioned sensors detect movements throughout the machine and adjust engine speed accordingly to eliminate energy losses to maximize fuel conservation. This delivers smooth and fuel-efficient operation.

Large Capacity and Re-designed Bucket for Better Productivity

To maximize the performance of ZW370-5A, the 5.6m³ general purpose bucket has been re-designed in a way to reduce spillage after loading materials in a bucket.

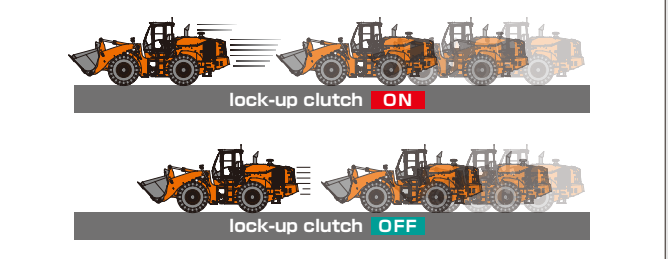
Parallel Tandem for Smooth Operation



The parallel tandem circuit carries out simultaneous operations of the bucket and the lift arm. Front work such as excavation and loading can be done smoothly, which boosts the efficiency.

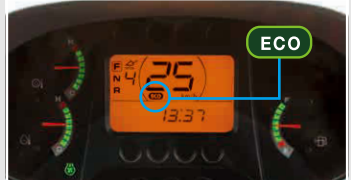
Remarkable increasing of fuel efficiency, "Lock-UP Torque Converter" (Optional)

The lock-up clutch in the torque converter allows direct drive in the top speed range. It connects engine and transmission directly to prevent power loss. This remarkably increases fuel efficiency in long haul, load-and-carry operation, and hill climbing.



NEW ECO Mark Indicator for Fuel-Efficient Operation

The ECO mark indicator turns on when fuel-efficient operation is activated. This function encourages operators to utilize fuel efficient operation.



Enhanced Controllability

Hitachi analyzed various wheel loader operations including digging, approach to a dump truck and travel after dumping. This has led to the development of features to improve wheel loader controllability.



PICK UP New Transmission

The new transmission comes standard with the Auto mode* that can automatically select optimum gears depending on the load, thereby reducing fuel consumption.

* AUTO1 (1st-4th gear) and AUTO2 (2nd-4th gear) are selectable using Travel mode selector.

AUTO1	Automatic gear shift: gears 1-4			
AUTO2	1st	Automatic gear shift: gears 2-4		
Manual	1st	2nd	3rd	4th



Travel mode selector

NEW Levers for Easy Operation



Two levers



Fingertip control



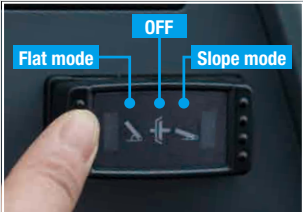
Grip control

In order to offer more efficient and comfortable operation, a new type of lever is employed to suit both fingertip control and grip control.

* A variety of lever patterns are available depending on job needs and operator's preference.

NEW Speed-Responding Clutch Cut-Off System

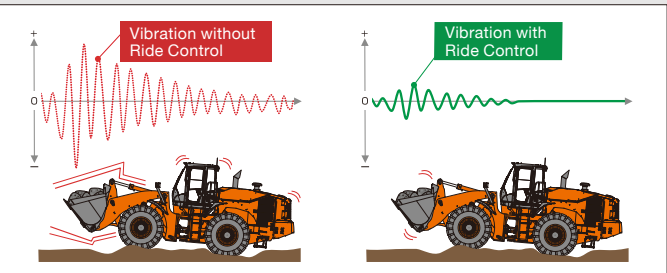
Clutch cut-off timing is adjusted by sensing travel speed and pedal depression for smooth and efficient truck loading. The Flat mode, Slope mode and OFF are selectable with Clutch cut position switch depending on job requirements.



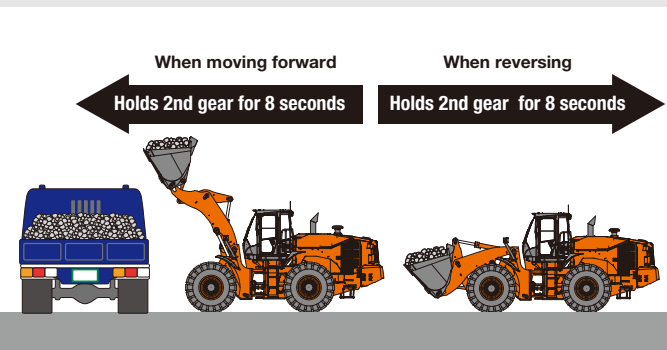
Clutch cut position switch

Ride Control System (Optional)

The ride control system can reduce pitching and bouncing when traveling on rough terrain. This system automatically controls the movement of machine to reduce shock and vibration.



NEW Shift Change Delay Mode



Shift change delay mode is provided to avoid an excessive rise in travel speed during approaching to a dump truck/hopper. When moving forward, the second gear is kept for 8 seconds to prevent over-speed. When reversing, the second gear is kept for 8 seconds. These delays of shifting to the third gear help to keep fuel consumption down, ensuring smooth loading.

Lift Arm Restriction Valve

This restriction valve suppresses the shaking of the machine when the lift arm stops. That improves operator comfort and avoids load spills.



Lift Arm Auto Leveler

The lift arm can be automatically stopped at a preset level for efficient truck-loading, and lowering the bucket after dumping. The operator can concentrate on traveling without worrying about the lift arm.

Operator-Friendly Features to Improve Operator Comfort and Safety

The cab is both comfortable and functional with a series of features aimed at reducing operator fatigue.



PICK UP Bi-Level Auto Air Conditioner

This auto air conditioner has bi-level control function: warming at foot space and cooling at overhead. The pressurized cab shuts out dust, keeping the cab interior clean. In dusty environments, optional external double-filters are available for the air conditioner.



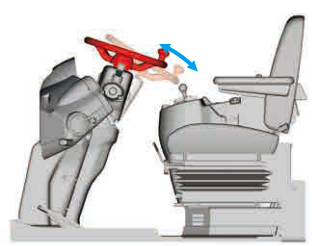
Panoramic Cab



The spacious panoramic cab offers near all-round visibility through pillar-less bonded windows, enhancing safety. The seat and steering wheel can be adjusted to suit the operator, keeping the operator in an optimum position. In-cab noise is suppressed further. Even when the going gets tough, the operator can feel comfortable with less fatigue.

Tiltable Steering Wheel

The steering wheel is tiltable to fit the wheel to the operator for comfortable operation.



Tiltable steering wheel

NEW Angled ladder for safety

In order to ensure safety when getting on and off the cab, the angled ladder is placed at a height and width for better accessibility.



AM/FM Radio with 2 Speakers (Optional)

The AM/FM radio has an auto-tuning feature and the 2 speakers stereo system provides excellent sound quality.



AM/FM radio with 2 speakers

* An AUX port (stereo mini jack) is an option for connection with a mobile music player for entertainment during breaks.

NEW Rearview Monitor (Optional)

The rearview monitor allows the operator to see the rear of the machine, including a view behind the counterweight. This rearview monitor enhances safe operation.



Rearview camera



Rearview monitor

An Array of Convenient Accessories



Drink holder



Large storage space



Storage for small items



Hot and cool box



Front defroster



Rear air outlet



Glove compartment, cigarette lighter and ashtray

Simplified Maintenance and Durability with Proven Support System

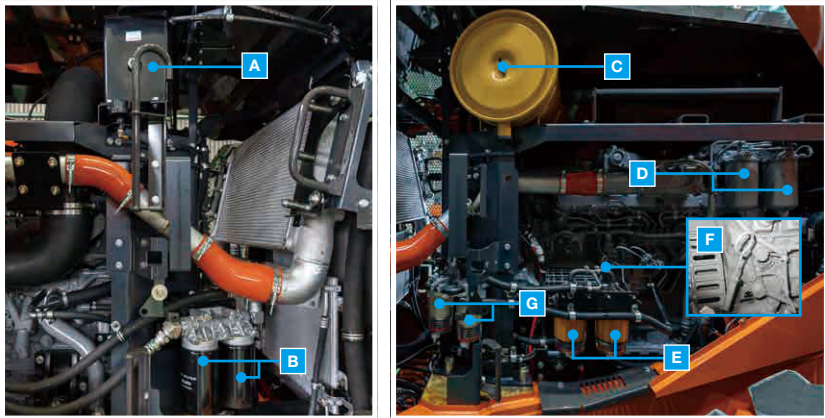
Hitachi Support Chain offers a comprehensive suite of support services for customers.



PICK UP Simplified Maintenance

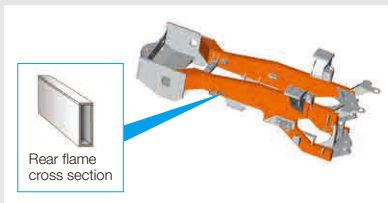
The engine cover swings up to provide a wide service space. Inspection/maintenance points are concentrated for easy inspection and servicing from the ground.

- A Coolant reservoir sight gauge
- B Engine oil filter
- C Air cleaner element
- D Fuel filter (main)
- E Fuel filter (prefilter)
- F Engine oil gauge
- G Water separator



Robust Frame

The ZW370-5A has been designed with a full box rear frame. This provides a robust structure that is capable of handling the rigours of heavy applications.



Robust frame

Dual Z-bar linkage



Dual Z-bar linkage provides enough durability when loading rock and quarry. The loads during digging and loading is distributed efficiently. The durability of each pin and the rigidity against twisting is increased.

NEW Automatic Reversible Cooling Fan (Optional) to Reduce Dust Deposits



The automatic reversible cooling fan is available to keep the radiator clean at all times. The cooling fan is automatically self-reversed for 1 minutes every 30 minutes to blow dust off the radiator.

Universal joint with 4 000 hours greasing interval

The greasing interval of the universal joint of the propeller shaft becomes 4 000 hours. Greasing interval can be reduced by half. (* against ZW370-G)

Parts and Service

Parts

Hitachi Global Online Network, a parts supply system, is linked with CPD (Central Parts Depot), overseas depots and dealers abroad to deliver on-line parts information, including in-stock parts, order receptions, shipments and delivery period of over one million parts and components.

Genuine Hitachi Parts

Genuine Hitachi parts, meeting Hitachi stringent quality standards, are guaranteed according to Hitachi warranty standards. The use of genuine Hitachi parts, including engine, fuel, hydraulic oil and filters, may slash running costs, and extend machine life.

Service

ConSite (Optional)

ConSite is a full-package service menu which is designed for Hitachi's machines used around the world. It closely monitors the entire operation status of your machine to improve its overall performance and increase machine's availability and efficiency. Data Report Service* (Montly Report and Alram Report) is provided via the registered e-mail addresses.

Technical Training

On-site servicing matters in any location to keep the machine at peak performance and reduce downtime. Technical Training Center (TTC), located in Japan, educates and trains service technicians and service support personnel coming from Hitachi dealers and factories on the globe based on the international training programs.

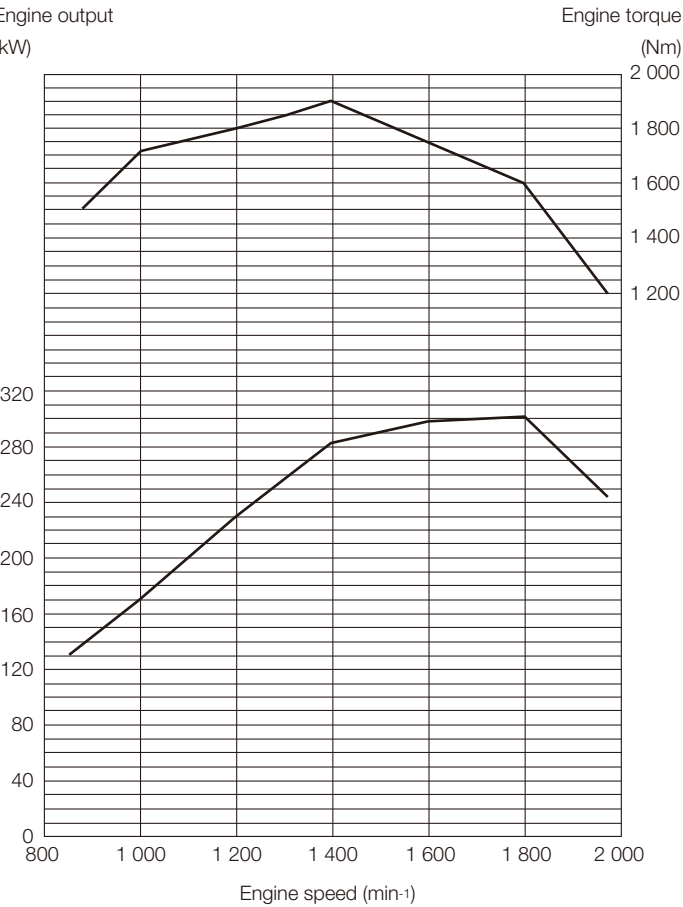


* Data Report Service is available only on machines equipped with the communication system.
* Contact Hitachi authorized dealers for the details of Data Report Service and machine models that are supported.
* The communication availability may rely on your worksite location and environment. Please confirm that your machine is communicating before using this service.
Under no circumstances shall Hitachi Construction Machinery and or subsidiaries and its dealers be held responsible or liable for any communication line failure, interruption, delay in operation or transmission or any other cause of action.

SPECIFICATIONS

ENGINE

Model	ISUZU “6WG1” diesel engine
Type	4-cycle water-cooled, direct injection
Aspiration	Turbocharger, intercooled and cooled EGR
No. of cylinders	6
Maximum power	
SAE J1995/ISO14396, gross.....	300 kW (402 HP) at 1 800 min ⁻¹
SAE J1349/ISO 9249, net	299 kW (401 HP) at 1 800 min ⁻¹
Rated power	
SAE J1995, gross.....	300 kW (402 HP) at 1 800 min ⁻¹
Maximum torque	1 932 Nm at 1 400 min ⁻¹ (rpm)
Bore and stroke	147 mm X 154 mm
Piston displacement	15.68 L
Batteries	DC 12 V X 2
Air cleaner	Double element dry type with restriction indicator



POWER TRAIN

Transmission	Torque converter, planetary gear type powershift with computer-controlled automatic shift and manual shift features included
Torque converter	Three element, single stage, single phase with lock-up clutch (Optional)
Main clutch	Wet hydraulic, multi-disc type
Cooling method	Forced circulation type
Travel speed* Forward / Reverse	
1st	6.1 / 6.5 km/h
2nd	11.3 (12.3) / 12.1 (13.1) km/h
3rd	19.2 (21.6) / 20.7 (23.2) km/h
4th	36.4 (37.0) / - km/h

* With 29.5-25-22PR (L3) tires.
Data at power mode are the same as data at standard mode.
():Date at Lock-up clutch (optional) ON

AXLE AND FINAL DRIVE

Drive system	Four-wheel drive system
Front & rear axle	Full-floating
Front	Fixed to the front frame
Rear	Trunnion support
Reduction and differential gear	Two stage reduction with torque proportional differential (std) / limited slip differential (optional)
Oscillation angle	Total 24° (+12°, -12°)
Final drives	Heavy-duty planetary, mounted outboard

TIRES

Tire size	29.5-25-22PR(L3)
Optional	Refer to standard & optional equipment list

BRAKES

Service brakes	Middle mounted fully hydraulic 4 wheel disc brake. Front & rear independent brake circuit
Parking brakes	Spring applied, hydraulically released, located in front axle driveline

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 90mm X 600 mm

HYDRAULIC SYSTEM

Arm and bucket are controlled by 2 lever	
Lift arm controls	Four position valve; raise, hold, lower, float
Bucket controls	Automatic bucket return-to-dig control Three position valve ; roll back, hold, dump

Main pump (Serve as steering pump)	
.....	Variable displacement axial piston pump
Maximum flow	340 L/min at 1 800 min ⁻¹ (rpm)
Maximum pressure ..	31.4 MPa

Brake & Fan & Pilot oil pump	
.....	Variable displacement axial plunger pump
Maximum flow	90 L/min at 1 800 min ⁻¹ (rpm)
Maximum pressure ..	22.5 MPa

Hydraulic cylinders	
Type	Double acting type
No. x Bore x Stroke ...	Arm : 2 x 160 mm x 1 027 mm Bucket : 2 x 130 mm x 656 mm

Filters	Full-flow 9 micron return filter in reservoir
---------------	---

Hydraulic cycle times*	
Lift arm raise	5.8 s
Lift arm lower	4.5 s
Bucket dump	1.2 s
Total	11.5 s

* Data at power mode are the same as data at standard mode.

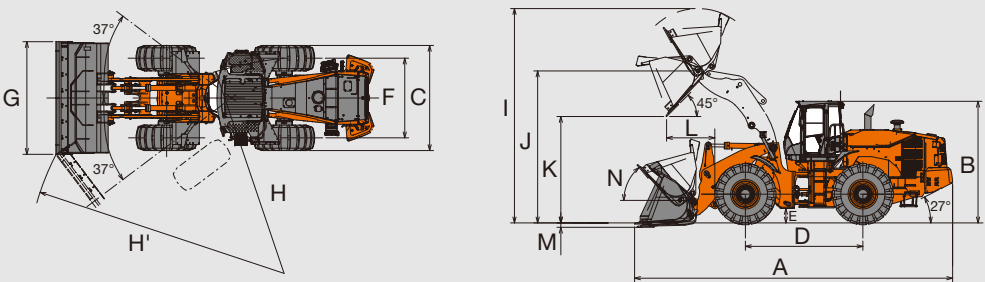
SERVICE REFILL CAPACITIES

Fuel tank	438 L
Engine coolant	76 L
Engine oil	52 L
Torque converter & transmission	71 L
Front axle differential & wheel hubs	95 L
Rear axle differential & wheel hubs	95 L
Hydraulic oil tank	178 L

SOUND LEVEL

Sound level in cab according to ISO 6396	LpA 76 dB (A)
External sound level according to ISO 6395	LpA 110 dB (A)

DIMENSIONS & SPECIFICATIONS



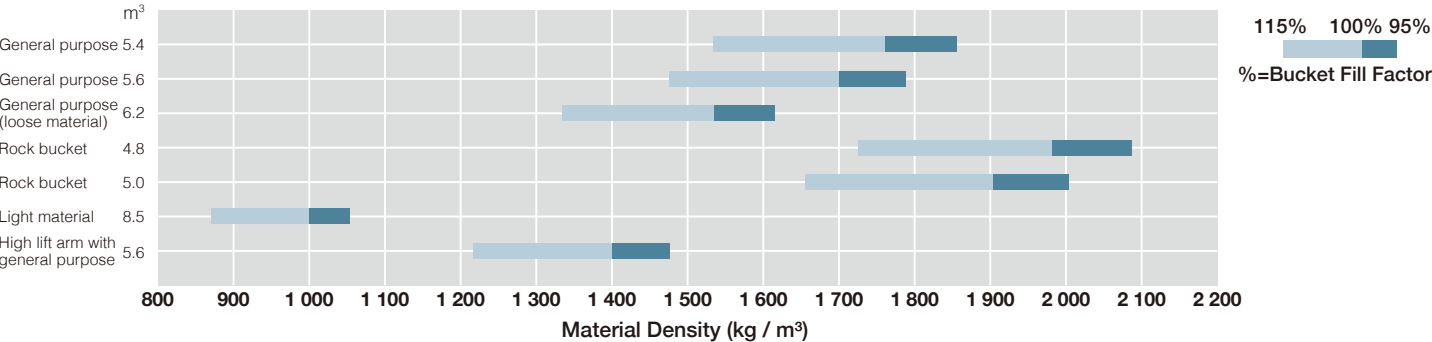
Bucket type			Standard arm							High lift arm
			General purpose			General purpose (Loose material)	Rock straight	Rock V-edge	Light material **	General purpose (Loose material)
						Bolt-on edge	Bolt-on teeth	Bolt-on teeth + Space Edge	Bolt-on edge	Bolt-on teeth
Bucket capacity	ISO heaped	m³	5.6	5.4	5.6	6.2	4.8	5.0	8.5	5.6
	ISO struck	m³	4.9	4.7	4.9	5.4	4.1	4.3	7.3	4.9
A Overall length		mm	9 745	9 890	9 890	9 835	9 830	10 010	9 905	10 160
B Overall height		mm	3 730							
C Width over tires		mm	3 220							
D Wheel base		mm	3 600							
E Ground clearance		mm	440							
F Tread		mm	2 440							
G Bucket width		mm	3 450	3 465	3 465	3 450	3 465	3 465	4 090	3 450
H Turning radius (Centerline of outside tire)		mm	6 605							
H' Loader clearance radius, bucket in carry position		mm	7 845	7 895	7 895	7 870	7 875	7 875	8 180	8 025
I Overall operating height		mm	6 565	6 565	6 565	6 620	6 450	6 450	6 635	6 980
J Height to bucket hinge pin, fully raised		mm	4 655							
K Dumping clearance 45 degree, full height		mm	3 255	3 135	3 135	3 195	3 180	3 050	3 145	3 670
L Reach, 45 degree dump, full height		mm	1 480	1 560	1 560	1 545	1 520	1 645	1 590	1 520
M Digging depth (Horizontal digging angle)		mm	135	160	160	135	165	165	135	130
N Max. roll back at carry position		deg	50							
Static tipping load *	Straight	kg	23 430	23 830	23 400	23 270	23 390	23 100	22 670	19 760
	Full 37 degree turn	kg	20 420	20 760	20 390	20 270	20 370	20 130	19 750	17 220
Breakout force		kN	217	234	217	204	243	209	206	218
		kgf	22 130	23 870	22 130	20 810	24 790	21 320	21 010	22 240
Operating weight *		kg	31 920	31 750	31 950	32 030	32 150	32 280	32 570	32 200

Note: All dimensions, weight and performance data based on ISO 6746-1:1987,ISO 7131:2009 and ISO 7546:1983
: Static tipping load and operating weight marked with include 29.5-25-22PR (L3) tires (No ballast) with lubricants, full fuel tank, 2 270kg counterweight, ROPS cab and operator.
Machine stability and operating weight depend on counterweight, tire size and other attachments.
**: Please consult with the local dealer about applicability.

WEIGHT CHANGE

Option item		Operating weight (kg)	Tipping load (kg)		Overall width (mm) (outside tire)	Overall height (mm)	Overall length (mm)
			Straight	37 degree turn			
Tire	29.5-25-22PR (L3)	+0	+0	+0	+0	+0	+0
	29.5-25-28PR (L3)	+300	+210	+180	+0	+0	+0
	29.5-25-22PR (L4)	+730	+520	+450	+10	+35	-30
	29.5-25-22PR (L5)	+1 080	+770	+660	+10	+40	-35
	29.5-25-28PR (L5)	+1 260	+900	+770	+0	+0	+0
	29.5R25 (L3)	+310	+220	+190	+0	+0	+0
	29.5R25 (L4)	+750	+540	+460	+10	+35	-30
	29.5R25 (L5)	+1 180	+840	+720	+10	+40	-35
Optional counter weight		+530	+1 220	+1 040	+0	+0	+0
Lock-up clutch		+80	+90	+80	+0	+0	+0
Emergency steering		+60	+50	+40	+0	+0	+0
Ride control		+100	+30	+20	+0	+0	+0
Belly guard (rear frame)		+90	+90	+80	+0	+0	+0

BUCKET SELECTION GUIDE



● Standard equipment ○ Optional equipment

OPERATOR'S STATION	
Adjustable steering column	●
Ashtray, cigar lighter	●
Audio	
AM/FM radio	○
AM/FM radio with AUX for digital audio player	○
Auto control air conditioner	
with single intake filter	●
with double intake filter	○
Cab	
ROPS (ISO3471), FOPS (ISO3449)	●
Coat hook	●
Front/Rear defroster	●
Glove compartment	●
Rear view camera & monitor	○
Rear view mirrors	
Inside (2)	●
Outside (2)	●
Outside (Heated, 2)	○
Rear under mirror	○
Retractable seat belt, 50 mm	●
Rubber floor mat	●
Seat	
Mechanical suspension seat: fabric, high back, adjustable for armrest angle, fore-aft position, reclining angle and weight-height.	●
Air suspension seat with headrest and heater: fabric, high back, adjustable for armrest angle, damper, fore-aft position, headrest height and angle, inclination of the seat, lumbar support, reclining angle, seat depth and weight-height.	○
Storage	
Cup holder	●
Digital audio player holder (with AUX for digital audio player)	●
Document holder	●
Hot & cool box	●
Seatback pocket	●
Sun visor	●
Textured steering wheel with spinner knob	●
Safety glass (tempered)	●
Windshield washer front and rear	●
Windshield wipers front and rear	●

ELECTRICAL SYSTEM

Alternator	
Standard alternator (50 A-24 V)	●
Large capacity alternator (110 A-24 V)	○
Backup alarm	●
Batteries	
Standard batteries (140 Ah-930 CCA)	●
Large capacity batteries (176 Ah-1 170 CCA)	○
Battery disconnect switch	○
12 V power outlet	○

COOLING SYSTEM	
Fan	
Cooling fan with heat sensing	●
Automatic reversible cooling fan with heat sensing	○
Fan guard	●
Radiator	
Standard fin pitch radiator	●

LIGHTS

Brake & tail lights	●
Brake & tail lights (LED)	○
Clearance lights	●
Headlights	●
Turn signals with hazard switch	●
Work lights	
Front lights on cab (2)	●
Front lights on cab (2) (LED)	○
Rear lights on rear grille side cover (2)	●
Additional front lights on cab (2)	○
Additional front lights on cab (2) (LED)	○
Rear lights on cab (2)	○
Rear lights on cab (2) (LED)	○
Rotaing warning light on cab	○
Rotating warning light on engine hood	○

POWER TRAIN

Automatic transmission with load sensing system	●
Axle oil cooler	○
Lock-up torque converter	○
Clutch cut position switch	●
Forward/Reverse lever	●
Forward/Reverse selector switch	○
Differential	
TPD (Torque Proportioning Differential)	●
LSD (Limited Slip Differential)	○
DSS (Down Shift Switch)	●
Power mode switch	●
Quick power switch	●
Shift change delay mode	●
Travel mode selector (Auto1-Auto2)	●

ENGINE

Air intake	
Rain cap	●
Pre-cleaner (Sy-Klone)	○
Air filter double elements	●
Cartridge-type engine oil filter	●
Cartridge-type fuel filter	●
Cartridge-type water separator filter	●
Engine oil remote drain	●
Fuel tank for bio fuel	○






MONITORING SYSTEM

Gauge: coolant temperature, fuel, transmission oil temperature	●
Indicator lights: air filter restriction, clearance lights, control lever lock, discharge warning, emergency steering, engine warning, fan reverse, forward/reverse selector switch, high beam, hydraulic oil temperature, maintenance, parking brake, power mode, preheat, seat belt, service, transmission oil temperature, transmission warning, turn signals, work lights	●
LCD monitor display: clock, ECO, F-N-R/Shift position, hold, hour meter, odometer, replacement intervals, ride control, speedometer	●
Warning lights: axle oil temperature, brake oil low pressure, engine oil low pressure, overheat, steering oil low pressure	●

BRAKE SYSTEM

Front & rear independent brake circuit	●
Inboard mounted fully hydraulic 4 wheel wet disc	●
Pedal	
Single brake pedal	●
Double (LH & RH) brake pedal	○
Spring-set/Hydraulic-released parking brake	●

HYDRAULIC SYSTEM

Bucket auto leveler (Automatic return to dig control)	●
Control lever	
for 2 spools control valve	
2 levers	 ●
Multifunction lever (MF lever)	 ○
for 3 spools control valve	
MF lever & AUX lever for 3rd function	 ○
2 levers & AUX lever for 3rd function	
- Outside layout pattern (Bucket - liftarm - 3rd)	 ○
- Inside layout pattern (Bucket - liftarm - 3rd)	 ○
Control lever lock switch	●
Dual lift arm auto leveler	●
Hydraulic filters	●
Lift arm float system	●
Lift arm kick out	●
Reservoir sight gauge	●
Ride control system (OFF-AUTO type)	○

TIRES

29.5-25-22PR (L3)	●
29.5-25-28PR (L3)	○
29.5-25-22PR (L4)	○
29.5-25-22PR (L5)	○
29.5-25-28PR (L5)	○
29.5R25 (L3)	○
29.5R25 (L4)	○
29.5R25 (L5)	○

MISCELLANEOUS

Articulation lock bar	●
Belly guard (bolt on type) (front / rear frame)	○
Bucket cylinder guard	○
Counterweight	
2 270 kg counterweight	●
2 800 kg counterweight	○
Drawbar with locking pin	●
Emergency steering	○
Fenders	
Front & half covered rear fenders	●
Front & half covered rear fenders with mud flaps	○
Global e-service	○
Lift arm	
Standard lift arm	●
High lift arm	○
Lift & tie down hooks	●
On board information controller	●
Anti-vandal protection	
Battery cover with locking bracket	●
Engine coolant filler cover	○
Lockable engine cover	●
Lockable fuel refilling cap	●

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



Built on the foundation of superb technological capabilities, Hitachi Construction Machinery is committed to providing leading-edge solutions and services to contribute as a reliable partner to the business of customers worldwide.



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

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.