

Reliable solutions

**ZW100**

Tier 4 Final Certified

**101 hp** 74 kW  
Engine Output, Max, Gross  
(ISO 14396)

**96 hp** 71 kW  
Engine Output, Max, Net  
(ISO 9249)

**1.7 yd<sup>3</sup>** 1.3 m<sup>3</sup>  
Bucket capacity

**16,140 lbs** 7,320 kg  
Operating weight

**ZW120**

Tier 4 Final Certified

**101 hp** 74 kW  
Engine Output, Max, Gross  
(ISO 14396)

**96 hp** 71 kW  
Engine Output, Max, Net  
(ISO 9249)

**2.0 yd<sup>3</sup>** 1.5 m<sup>3</sup>  
Bucket capacity

**18,590 lbs** 8,430 kg  
Operating weight



# NO COMPROMISE

Offering exceptional levels of performance without compromising on efficiency, Hitachi ZW-6 wheel loaders are designed to satisfy the requirements of the North American 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.



6. FIRST FOR RELIABILITY



8. DEDICATED TO DURABILITY



10. INCREDIBLE VERSATILITY





**12. INDUSTRY-LEADING QUALITY**



**14. UNIQUE TECHNOLOGY**



# DEMAND PERFECTION

Designed and built with an emphasis on the environment, operator comfort and safety, the ZW-6 wheel loaders have been developed to perfection. They incorporate industry-leading technology created in Japan to meet the highest standards for performance at the lowest possible costs of ownership.



## **Powerful performance**

Quick power switch increases engine output when required.



## **Industry-leading safety**

360° visibility from the cab.



## **Smooth operation**

Ride control minimizes machine pitching.



## **Easy to operate**

The hydrostatic transmission enhances versatility and increases productivity.



## **Superior comfort**

Spacious cab with several storage compartments.



**Enhanced design**

Excellent rear view thanks to the curved engine hood.



**Quieter performance**

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



**Enhanced fuel efficiency**

New Tier 4 Final engine without DPF.



**Convenient access**

Easy-to-open wide engine covers.



**Exceptional durability**

Developed in-house, the front frame has been reinforced



**Low running costs**

6%\* fuel saving in V-shaped loading (19%\* in travelling operations).

# FIRST FOR RELIABILITY

Renowned for reliability, Hitachi ZW-6 wheel loaders achieve exceptional levels of performance and efficiency with minimum downtime. The ZW100-6 and ZW120-6 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

The side engine cover opens fully for convenient access. This helps to ensure routine maintenance is completed quickly to ensure a reliable performance.

## Improved fuel efficiency

The ZW-6 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.

## Easy maintenance

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

## Reduced cost

The new 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.













**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 DURABILITY

Strengthened components, robust materials and additional reinforcement for key features ensure the durability. They also contribute to its reliable operation, particularly when working in challenging environments.



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

Heavy-duty axles, designed in-house, have been incorporated into the design to improve durability.

### Durable materials

High-quality radiators improve resistance to corrosion and enhance the overall durability.

### Maximum uptime

Standard cooling cores are designed with wide spaced square-shaped fins, instead of triangular-shaped fins to resist clogging. This reduces cooling cores maintenance.



# INCREDIBLE VERSATILITY

ZW-6 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

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 efficiency

When working in snowy, slippery or muddy conditions, the traction control system helps to avoid tire slippage, and ultimately prevents wear and fuel waste, and lowers running costs. It is highly effective for light applications.

## Superior performance

The rimpull control system allows for a superior digging performance by striking a balance between rimpull and front digging force. Rimpull can be adjusted to varying degrees, depending on the work mode.



Visibility has been enhanced by design modifications.





HITACHI

ZW100

HITACHI

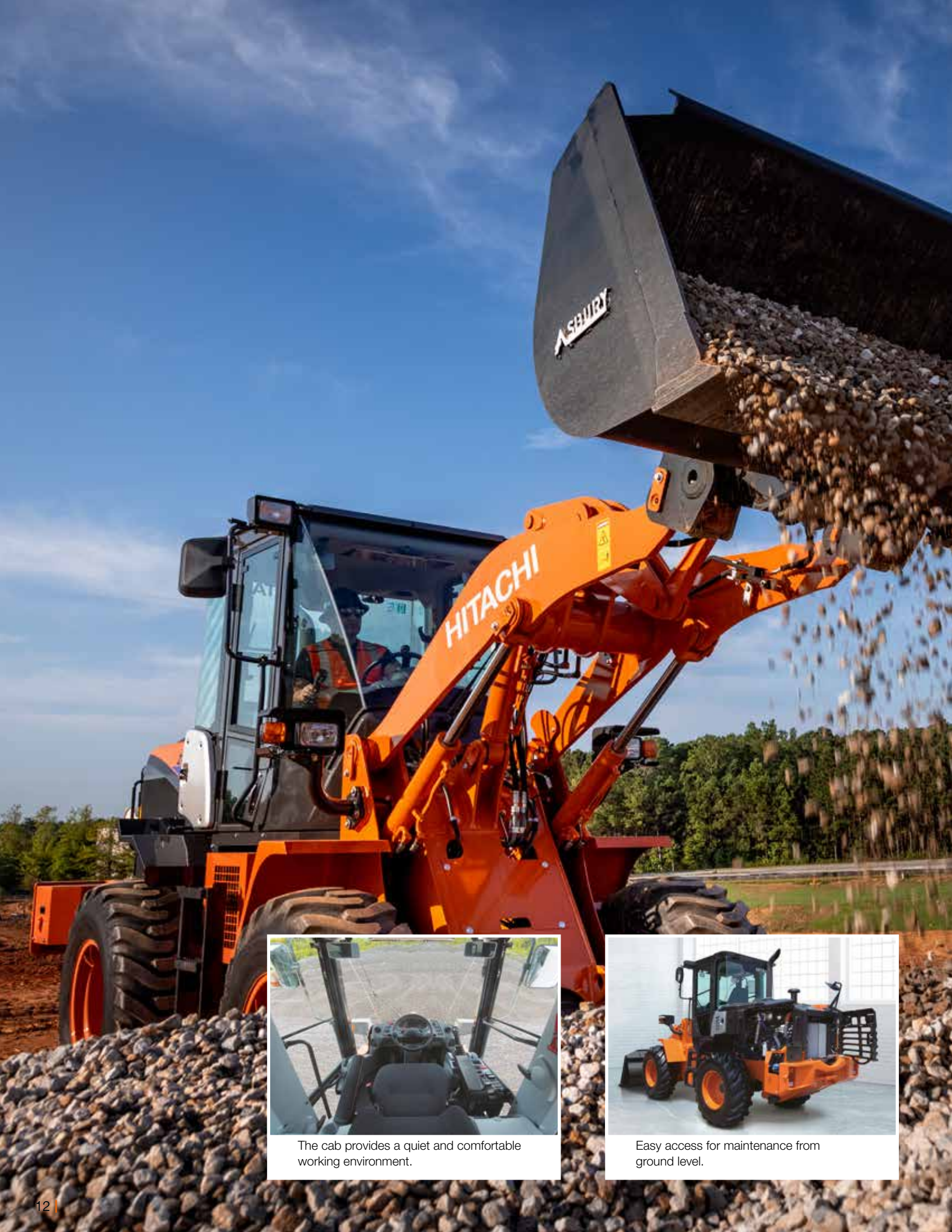


The ride control feature ensures smooth performance.



Torque proportioning differentials reduce tire slippage in wet or wintry conditions.





The cab provides a quiet and comfortable working environment.



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 ZW100-6 and ZW120-6 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 optional rear-view camera contributes to all-round visibility.

## Reduced emission

A selective catalytic reduction (SCR) system injects urea into exhaust gas to reduce nitrous oxide from emissions. This cutting-edge technology not only helps the environment, but also complies with Tier 4 Final 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 optional 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.

# UNIQUE TECHNOLOGY

Advanced technology developed by Hitachi is at the heart of the ZW-6 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 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**

The standard auto idle shutdown feature\* helps to prevent fuel waste, as well as reduce noise levels, exhaust emissions and CO<sub>2</sub> levels in the medium wheel loaders.

## **Optimum performance**

The 1st speed select switch in combination with the creep mode switch\* optimize the usage on different job sites and with hydraulic attachments.

## **Remote monitoring**

Global e-Service allows the owners to monitor their Hitachi machines remotely via Owner's Site (24/7 online access) and ConSite (an automatic monthly report). These help to maximize efficiency, minimize downtime and improve overall performance.

## **Smooth operation**

The ZW100-6 and ZW120-6 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.





The HST control system enables a smooth performance.



The new engine and SCR system have a smaller environmental impact.



# REDUCING THE TOTAL COST OF OWNERSHIP

Hitachi has created the After Sales Solutions Program 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 GMS to [www.globaleservice.com](http://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 programs helps to maximize availability. Running costs can

also be managed by analyzing 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 summarizing 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 emissions.

## **Technical support**

Each Hitachi service technician receives full technical training from HCMA in the USA. These sessions provide access to the same technical knowledge available within the Hitachi quality assurance departments and design centers. 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





Global e-Service



Technical support



Hitachi Parts

conditions or to minimize equipment repair costs — Hitachi dealers offer a unique extended warranty called HELP (Hitachi Extended Life Program) and comprehensive service contracts. These can help to optimize the performance of each machine, reduce downtime and ensure higher resale values.

### Parts

Hitachi offers a wide range, and high availability, of parts located in the new 400,000 sq. ft. Parts Depot centrally located just outside of Atlanta, Georgia.

- Hitachi Genuine Parts: allow machines to work longer, with lower running and maintenance costs.
- Hitachi Select Parts and Genuine Parts: 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.
- Genuine Hitachi rebuilt components are available from HCMA's in-house rebuild center and are offered with a standard warranty.

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







# 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, 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

ZW100-6

Model Name: ZW100-6, EPA Tier 4 Final/EU Stage IV Certified

## ENGINE

Gross power (ISO 14396)	101 HP/2,000 RPM (74 kW/2,000 RPM)
Net power (ISO 9249)	96 HP/2,000 RPM (71 kW/2,000 RPM)
Make/Model	Deutz TCD3.6L4F diesel engine
Type	4-cycle, water-cooled, direct injection with turbocharger and air cooled intercooler
Fuel type	#2 Diesel (Requires ultra-low sulfur fuel.)
Fuel injection pump	Electronically controlled, common rail type
Governor	All speed electrical type
Cooling module type	Forced circulation type
Number of cylinders	4
Bore and stroke	3.9" x 4.7" (98mm x 120mm)
Total displacement	221 in <sup>3</sup> (3,621 liters)
Alternator	AC 24V–2.4 kW (100A)
Air cleaner	Dry type (double element) with restriction indicator
Starter motor	DC 24V–4.0 kW (5.4 HP)
Battery	12V–58 Ah (450 CCA), 2 units

## TORQUE CONVERTER AND TRANSMISSION

Transmission	Electrical-controlled 1 motor hydrostatic transmission with gear box, Gear box: Fixed gear ratio, powershift countershaft type		
		Normal Mode	Power Mode
Speeds: Forward	1st:	7.1 MPH (11.5 km/hr)	7.1 MPH (11.5 km/hr)
	2nd:	21.4 MPH (34.5 km/hr)	21.4 MPH (34.5 km/hr)
Speeds: Reverse	1st:	7.1 MPH (11.5 km/hr)	7.1 MPH (11.5 km/hr)
	2nd:	21.4 MPH (34.5 km/hr)	21.4 MPH (34.5 km/hr)

## SYSTEMS REFILL CAPACITY

LOCATION	GALLONS	LITERS
Fuel tank (diesel fuel)	37	140
Engine lubricant (including oil pan)	2.8	10.5
Engine coolant	4.2	16
T/M	2.1	8
Axle (front/rear)	3.7/3.7	14/14
Hydraulic oil tank	19.8	75
Hydraulic system (including hydraulic tank)	19.8	75
DEF/AdBlue® tank	4.5	17

## HYDRAULIC AND STEERING SYSTEM

Steering type	Articulated frame steering
Steering mechanism	Double-acting piston type
Lift (boom) cylinder	Two (2) double-acting piston type: 4.1" x 28" (105mm x 710mm)
Tilt (bucket) cylinder	Two (2) double-acting piston type: 4.9" x 17.5" (125mm x 445mm)
Steering cylinder	Two (2) double-acting piston type: 2.4" x 15.6" (60mm x 395mm)
Main oil pump	32 GPM/2,988 PSI @ 2,000 RPM (121 LPM/20.6 MPa @ 2,000 RPM)
HST charging pump	10.4 GPM/363 PSI @ 2,000 RPM (39.2 LPM/2.5 MPa @ 2,000 RPM)

HYDRAULIC CYCLE TIME\* front end loading, Z bar linkage system

	Normal Mode
Lifting time (at full load)	6.6 sec.
Lowering time (empty)	2.7 sec.
Bucket dumping time	1.6 sec.
TOTAL	10.9 sec.

\* Measured in accordance with SAE J732C

## AXLE SYSTEM

Drive system	4-wheel drive
Front and rear axle	Semi-floating type
Tires	16.9-24-10PR
Reduction and differential gear	Two-stage reduction with torque proportional differential
Final reduction gear	Inboard mounted, heavy duty planetary gear
Oscillation angle	Total 20 (+10, -10)°

## BRAKE SYSTEM

Service brakes	Inboard mounted fully hydraulic 4-wheel wet disc brakes. Front & rear independent brake circuit, HST (Hydro Static Transmission) system provides additional hydraulic braking capacity
Parking/Emergency brake	Spring-applied, hydraulically-released. Dry disc type with external output shaft.



## Remarks

- Materials and specifications are subject to change without notice and without any obligation on the part of the manufacturer.
- This information, while believed to be completely reliable, is not to be taken as warranty for which we assume legal responsibility.
- Dumping clearance and reach are measured from bucket edge in accordance with SAE J732C.
- Counterweight should not be used with tire ballast.
- This specification sheet may contain attachments and optional equipment not available in your area.

Please contact your local HCMA dealer for additional information.



**BUCKET DATA**

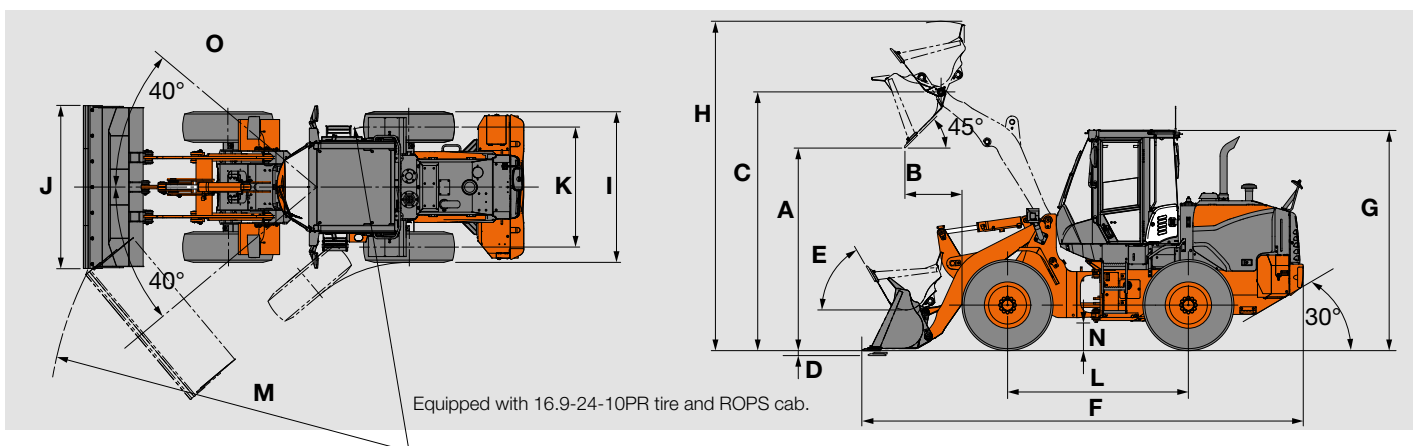
			Standard Arm	
			General Purpose	Material Handling
			Straight Edge w/ Quick Coupler	Straight Edge w/ Quick Coupler
				
Capacity	Heaped	yd <sup>3</sup> (m <sup>3</sup> )	1.7 (1.3)	1.7 (1.3)
	Struck	yd <sup>3</sup> (m <sup>3</sup> )	1.4 (1.1)	— —
<b>A</b>	Maximum dumping clearance	ft-in (mm)	8'10" (2,710)	8'2" (2,480)
<b>B</b>	Dumping reach (to front of bucket edge or tooth)	ft-in (mm)	3'3" (1,000)	4'2" (1,260)
<b>C</b>	Max. hinge pin height	ft-in (mm)	11'6" (3,515)	11'6" (3,515)
<b>D</b>	Digging depth (with bucket level)	in (mm)	3.1" (80)	2" (55)
Breakout force		lb (kN)	13,730 (61)	9,000 (40)
Bucket tilt-back angle	at ground level	degree	55°	55°
	<b>E</b> at carry position	degree	50°	50°
Overall	<b>F</b> Length	ft-in (mm)	21'10" (6,370)	22' (6,695)
	<b>G</b> Height (up to cab top)	ft-in (mm)	10'4" (3,140)	10'4" (3,140)
	<b>H</b> Height (bucket fully raised)	ft-in (mm)	14'10" (4,530)	15'6" (4,725)
	<b>I</b> Width (outside tire)	ft-in (mm)	7'2" (2,180)	7'2" (2,180)
<b>J</b>	Width (outside bucket)	ft-in (mm)	7'8" (2,340)	7'9" (2,350)
	<b>K</b> Tread	ft-in (mm)	5'8" (1,725)	5'8" (1,725)
<b>L</b>	Wheel base	ft-in (mm)	8'6" (2,600)	8'6" (2,600)
	Clearance Circle (bucket carry position)	<b>M</b> at outside of bucket	ft-in (mm)	14'5" (4,440)
at outside of tire		ft-in (mm)	17'1" (5,220)	17'5" (5,310)
<b>N</b>	Minimum ground clearance	in (mm)	1'3" (365)	1'3" (365)
<b>O</b>	Full articulation angle	degree	40°	40°
Operating weight (with ROPS cab)*		lb (kg)	16,140 (7,320)	17,240 (7,820)
Static tipping load (with ROPS cab)*	Straight	lb (kg)	12,740 (5,780)	10,670 (4,840)
	Full turn	lb (kg)	11,020 (5,000)	9,083 (4,120)

Note: All dimensions, weight and performance data based on ISO 6746-1:1987, ISO 7137:2009 and ISO 7546:1983

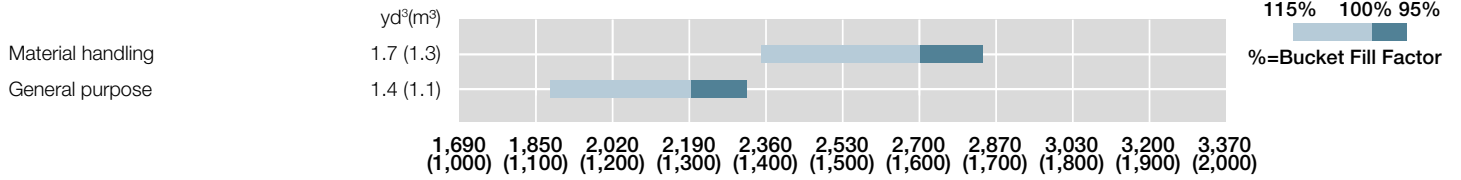
\*: Static tipping load and operating weight marked with\* include 16.9-24-10PR tires (No ballast) with lubricants, full fuel tank and operator.

Machine stability and operating weight depend on counterweight, tire size and other attachments.

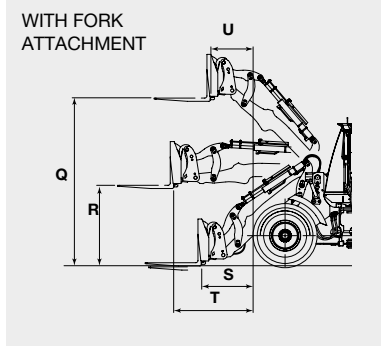
**DIMENSIONS**



### BUCKET SELECTION CHART



### ZW100-6 FORK SPECIFICATIONS



ZW100-6			416 (48)
<b>Q</b>	Max. stacking height	ft	11'4"
<b>R</b>	Height of fork at maximum reach	ft	5'10"
<b>S</b>	Reach at ground level	ft	3'6"
<b>T</b>	Max. reach	ft	5'8"
<b>U</b>	Reach at max. stacking height	ft	3'6"
Tipping load	Straight	lbf	6,829
	Full turn	lbf	5,907
	Max. payload per EN 474-3, 80%	lb	4,726
	Max. payload per EN 474-3, 60%	lb	3,544
	SAE allowable load	ft	2,954
	Operating weight *	lb	18,274



## STANDARD EQUIPMENT

### ENGINE

Air cleaner, double element
Cold start (glow plug)
Deutz TCD36 diesel engine
EGR system
Fuel filter (main), w/water separator
Fuel pre-filter, w/water separator
Rain cap
SCR catalyst and DOC
Work mode selector

### POWERTRAIN

Brakes, service
Enclosed wet disc
Dual system
Inboard mounted
Brake, parking
Spring applied
Oil pressure released
Wet disc type
Cooler, wide fin
Differential, torque proportioning (F/R)
Drive shafts, low maintenance
Hydrostatic transmission
Inching pedal
Maximum speed adjuster for 1st speed
Traction control

### HYDRAULIC SYSTEM

Boom kick-out, mechanically adjusted
Bucket positioner
Control lever, single, pilot-assisted
Control lever lock (electric)
Control valve, 3-spool ready, parallel control
Ride control w/load sensing valve and automatic shut-off
Quick coupler control, lines and controls
Pump, gear, fixed displacement
Steering, orbitrol

### ELECTRICAL

24-volt electrical system
Back-up alarm
Battery disconnect switch
Converter, 12V/15 Amp
Horn, dual electric
Instrument panel, LCD, color
Lights:
2 Headlights (halogen)
2 Forward working lights (halogen)
4 Rear working lights (halogen)
2 Stop/tail/backup (LED)
Turn signal w/4-way flashers/marker

### CAB

ROPS cab: Enclosed cab with sound suppression, front & rear wipers and washers, two rear view and side mirrors, tinted glass, full view latch-back doors, sliding side windows.
Accessory outlet, 12V,
Adjustable armrest/console, (fore/aft sliding)
Air conditioner/heater/pressurizer
AM/FM/WB radio with AUX input
Ashtray
Cab dome lamps (2)
Cigarette lighter (24v)
Coat hook
Cooler box storage area
Cup holder (2)
Floor mat
Retractable seat belt (3 inch)
ROPS/FOPS certified, ISO 3449 Level II compliance
Seat, premium, heated w/TLV suspension
Steering column, telescoping and tilting w/quick-release pedal
Storage box (heated/cooled)
Sun visor

### OTHERS

Articulation locking bar
Counterweight
Drawbar
Global e-Service, telematic monitoring system
Ladders, inclined
Lifting eyes
Linkage pins, HN bushing
Neutral safety start
Steps, rear
Z-bar loader linkage

### ALARMS, GAUGES, INDICATORS

Alarms (visual & audible)	Brake oil low pressure
	Engine oil low pressure
Gauges	DEF/AdBlue® Level
	Engine coolant temperature
	Fuel gauge
	Overheat (engine coolant)
Indicators	Aftertreatment Device
	Air cleaner element
	Air conditioner display
	Battery discharge warning
	Cold start
	Control lever lock
	Eco-operating status
	Emergency steering
	Engine warning
	Fuel filter (water in fuel)
	High beam
	HST oil temperature
	HST warning
	Maintenance
	Operating mode (Normal, Power)
	Parking brake
	Ride control
	Service
	Speedometer
	Time/operating hour/ODO
	Traction control switch
	Turn signal w/4-way flashers/marker
	Work light

### OPTIONAL EQUIPMENT

Belly guard, front chassis, transmission (rear)
Bolt-on cutting edge & segments
Camera, rear view
Engine pre-cleaner
Fenders, rear, full, w/mudflap
High lift boom arm
Lights, LED
Quick coupler & attachments

# SPECIFICATIONS

ZW120-6

Model Name: ZW120-6, EPA Tier 4 Final/EU Stage IV Certified

## ENGINE

Gross power (ISO 14396)	101 HP/2,000 RPM (74 kW/2,000 RPM)
Net power (ISO 9249)	96 HP/2,000 RPM (71 kW/2,000 RPM)
Make/Model	Deutz TCD3.6L4F diesel engine
Type	4-cycle, water-cooled, direct injection with turbocharger and air cooled intercooler
Fuel type	#2 Diesel (Requires ultra-low sulfur fuel.)
Fuel injection pump	Electronically controlled, common rail type
Governor	All speed electrical type
Cooling module type	Forced circulation type
Number of cylinders	4
Bore and stroke	3.9" x 4.7" (98mm x 120mm)
Total displacement	221 in <sup>3</sup> (3,621 liters)
Alternator	DC 24V-100A (2.4 kW)
Air cleaner	Dry type (double element) with restriction indicator
Starter motor	DC 24V-5.4 HP (4.0 kW)
Battery	12V-800 CCA (110 Ah), 2 units

## TORQUE CONVERTER AND TRANSMISSION

Transmission	Electrical-controlled 1 motor hydrostatic transmission with gear box, Gear box: Fixed gear ratio, powershift countershaft type
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Normal Mode

Power Mode

Speeds:		Normal Mode	Power Mode
Forward	1st:	7.1 MPH (11.5 km/hr)	7.1 MPH (11.5 km/hr)
	2nd:	21.4 MPH (34.5 km/hr)	21.4 MPH (34.5 km/hr)
Reverse	1st:	7.1 MPH (11.5 km/hr)	7.1 MPH (11.5 km/hr)
	2nd:	21.4 MPH (34.5 km/hr)	21.4 MPH (34.5 km/hr)

## SYSTEMS REFILL CAPACITY

LOCATION	GALLONS	LITERS
Fuel tank (diesel fuel)	37	140
Engine lubricant (including oil pan)	2.8	10.5
Engine coolant	4.2	16
T/M	2.1	8
Axle (front/rear)	3.7/3.7	14/14
Hydraulic oil tank	19.8	75
Hydraulic system (including hydraulic tank)	19.8	75
DEF/AdBlue® tank	4.5	17

## HYDRAULIC AND STEERING SYSTEM

Steering type	Articulated frame steering	
Steering mechanism	Double-acting piston type	
Lift (boom) cylinder	Two (2) double-acting piston type: 4.1" x 28" (105mm x 710mm)	
Tilt (bucket) cylinder	Two (2) double-acting piston type: 4.9" x 17.5" (125mm x 445mm)	
Steering cylinder	Two (2) double-acting piston type: 2.4" x 15.6" (60mm x 395mm)	
Main oil pump	32 GPM/2,988 PSI @ 2,000 RPM (121 LPM/20.6 MPa @ 2,000 RPM)	
HST charging pump	10 GPM/363 PSI @ 2,000 RPM (39 LPM/2.5 MPa @ 2,000 RPM)	
Relief valve set pressure	Loading	2,988 PSI, 20.6 MPa (210 kgf/cm <sup>2</sup> )
	Steering	2,495 PSI, 17.2 MPa (175 kgf/cm <sup>2</sup> )
HYDRAULIC CYCLE TIME* front end loading, Z bar linkage system		

Normal Mode

Lifting time (at full load)	6.6 sec.
Lowering time (empty)	2.7 sec.
Bucket dumping time	1.6 sec.
TOTAL	10.9 sec.

\* Measured in accordance with SAE J732C

## AXLE SYSTEM

Drive system	4-wheel drive
Front and rear axle	Semi-floating type
Tires	17.5-25-12PR (L-2)
Reduction and differential gear	Two-stage reduction with torque proportional differential
Final reduction gear	Inboard mounted, heavy duty planetary gear
Oscillation angle	Total 20 (+10, -10)°

## BRAKE SYSTEM

Service brakes	Inboard mounted fully hydraulic 4-wheel wet disc brakes. Front & rear independent brake circuit, HST (Hydro Static Transmission) system provides additional hydraulic braking capacity
Parking/Emergency brake	Spring-applied, hydraulically-released transmission output shaft mounted multi wet disc




## Remarks

- Materials and specifications are subject to change without notice and without any obligation on the part of the manufacturer.
- This information, while believed to be completely reliable, is not to be taken as warranty for which we assume legal responsibility.
- Dumping clearance and reach are measured from bucket edge in accordance with SAE J732C.
- Counterweight should not be used with tire ballast.
- This specification sheet may contain attachments and optional equipment not available in your area.

Please contact your local HCMA dealer for additional information.



**BUCKET DATA**

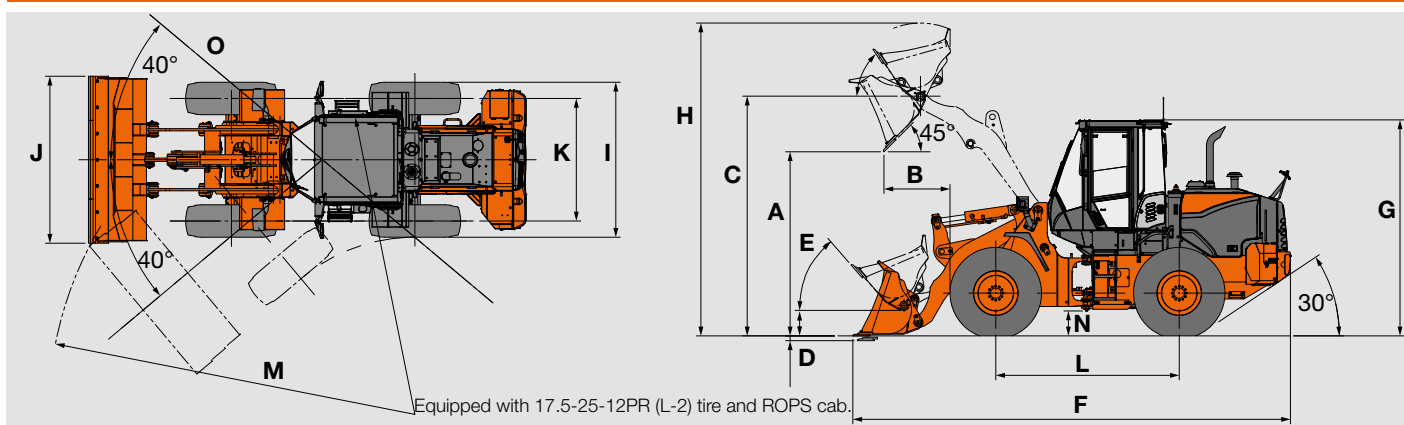
			Standard Arm		High Lift Arm
			General Purpose	Material Handling	General Purpose
			Straight Edge w/ Bolt-on Cutting Edge	Straight Edge w/ Bolt-on Cutting Edge	Straight Edge w/ Bolt-on Cutting Edge
					
Capacity	Heaped	yd <sup>3</sup> (m <sup>3</sup> )	2.0 (1.5)	2.4 (1.8)	2.0 (1.5)
	Struck	yd <sup>3</sup> (m <sup>3</sup> )	1.6 (1.2)	1.5 (1.4)	1.6 (1.2)
<b>A</b>	Maximum dumping clearance	ft-in (mm)	8'10" (2,705)	8'8" (2,630)	10' (3,040)
<b>B</b>	Dumping reach (to front of bucket edge or tooth)	ft-in (mm)	3'4" (1,010)	3'7" (1,080)	3'11" (1,190)
<b>C</b>	Max. hinge pin height	ft-in (mm)	11'8" (3,560)	11'8" (3,560)	12'10" (3,900)
<b>D</b>	Digging depth (with bucket level)	in (mm)	3" (70)	3" (70)	8" (210)
Breakout force		lbf (kN)	16,840 (75)	15,062 (67)	16,636 (74)
Bucket tilt-back angle	at ground level	degree	40°	40°	44°
	<b>E</b> at carry position	degree	49°	49°	50°
<b>F</b>	Length	ft-in (mm)	21'6" (6,545)	21'10" (6,650)	23'4" (7,105)
	<b>G</b> Height (up to cab top)	ft-in (mm)	10'6" (3,210)	10'6" (3,210)	10'6" (3,210)
Overall	<b>H</b> Height (bucket fully raised)	ft-in (mm)	15'3" (4,650)	15'7" (4,760)	16'4" (4,990)
	<b>I</b> Width (outside tire)	ft-in (mm)	7'5" (2,270)	7'5" (2,270)	7'5" (2,270)
<b>J</b>	Width (outside bucket)	ft-in (mm)	8' (2,450)	8' (2,450)	8' (2,450)
	<b>K</b> Tread	ft-in (mm)	6' (1,820)	6' (1,820)	6' (1,820)
<b>L</b>	Wheel base	ft-in (mm)	8'11" (2,725)	8'11" (2,725)	8'11" (2,725)
	Clearance Circle (bucket carry position)	<b>M</b> at outside of bucket	ft-in (mm)	17'10" (5,430)	17'11" (5,460)
at outside of tire		ft-in (mm)	16'2" (4,915)	16'2" (4,915)	16'2" (4,915)
<b>N</b>	Minimum ground clearance	in (mm)	15" (370)	15" (370)	15" (370)
<b>O</b>	Full articulation angle	degree	40°	40°	40°
Operating weight (with ROPS cab)*		lb (kg)	18,590 (8,430)	18,761 (8,510)	19,842 (9,000)
Static tipping load (with ROPS cab)*	Straight	lb (kg)	14,330 (6,500)	14,198 (6,440)	12,941 (5,870)
	Full turn	lb (kg)	12,390 (5,620)	12,236 (5,550)	11,133 (5,050)

Note: All dimensions, weight and performance data based on ISO 6746-1:1987, ISO 7137:2009 and ISO 7546:1983

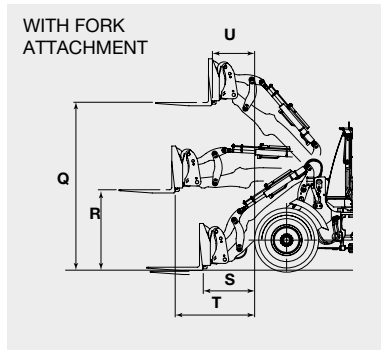
\*: Static tipping load and operating weight marked with\* include 17.5-25-12PR (L-2) tires (No ballast) with lubricants, full fuel tank and operator.

Machine stability and operating weight depend on counterweight, tire size and other attachments.

**DIMENSIONS**



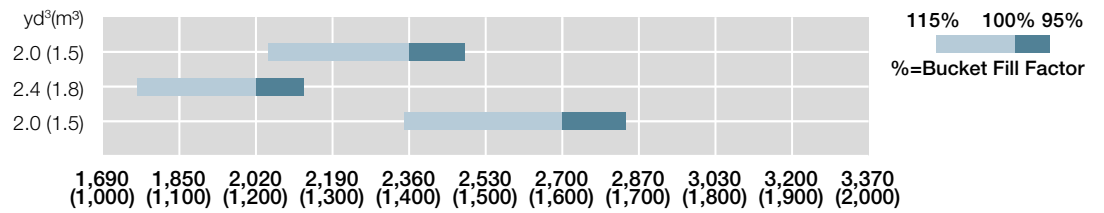
### ZW120-6 FORK SPECIFICATIONS



ZW120-6		ISO (48")	416 (48")	ISO (60")	416 (60")	
<b>Q</b>	Max. stacking height	ft	11'4"	11'5"	11'4"	11'5"
<b>R</b>	Height of fork at maximum reach	ft	5'8"	5'11"	5'8"	5'11"
<b>S</b>	Reach at ground level	ft	3'5"	3'4"	3'5"	3'4"
<b>T</b>	Max. reach	ft	5'5"	5'6"	5'5"	5'6"
<b>U</b>	Reach at max. stacking height	ft	3'4"	3'5"	3'4"	3'5"
Tipping load	Straight	lb	7,996	7,681	7,498	7,211
	Full turn	lb	6,913	6,641	6,483	6,235
Max. payload per EN 474-3, 80%		lb	5,531	5,313	5,187	4,988
Max. payload per EN 474-3, 60%		lb	4,148	3,985	3,890	3,741
SAE allowable load		lb	3,457	3,321	3,242	3,118
Operating weight *		lb	19,134	19,136	19,236	19,239

### BUCKET SELECTION CHART

- High lift arm with general purpose
- Material handling
- General purpose





## STANDARD EQUIPMENT

### ENGINE

Air cleaner, double element
Cold start (glow plug)
Deutz TCD36 diesel engine
EGR system
Fuel filter (main), w/water separator
Fuel pre-filter, w/water separator
Pre-cleaner (turbine type)
SCR catalyst and DOC
Work mode selector

### POWERTRAIN

Brakes, service
Enclosed wet disc
Dual system
Inboard mounted
Brake, parking
Spring applied
Oil pressure released
Wet disc type
Cooler, wide fin
Differential, torque proportioning (F/R)
Drive shafts, low maintenance
Hydrostatic transmission
Inching pedal
Maximum speed adjuster for 1st speed (creeper function)
Traction control

### HYDRAULIC SYSTEM

Boom kick-out, dual (operator adjustable in cab)
Bucket positioner
Control lever, single, pilot-assisted w/ F-N-R switch, w/3rd aux function lever
Control lever lock (electric)
Control valve, 3-function, parallel control
Ride control w/load sensing valve and automatic shut-off
Quick coupler control, lines and controls
Pump, gear, fixed displacement
Steering, orbitrol

### ELECTRICAL

24-volt electrical system
Back-up alarm
Battery disconnect switch
Converter, 12V/15 Amp
Horn, dual electric
Instrument panel, LCD, color
Lights:
2 Headlights (halogen)
4 Forward working lights (halogen)
4 Rear working lights (halogen)
2 Stop/tail/backup (LED)
Turn signal w/4-way flashers/marker

### CAB

ROPS cab: Enclosed cab with sound suppression, front & rear wipers and washers, two rear view and side mirrors, tinted glass, full view latch-back doors, sliding side windows.
Accessory outlet, 12V,
Adjustable armrest/console, (fore/aft sliding)
Air conditioner/heater/pressurizer
AM/FM/WB radio with AUX input
Ashtray
Cab dome lamps (2)
Cigarette lighter (24v)
Coat hook
Cooler box storage area
Cup holder (2)
Floor mat
Retractable seat belt (3 inch)
ROPS/FOPS certified, ISO 3449 Level II compliance
Seat, premium, heated w/TLV suspension
Steering column, telescoping and tilting w/quick-release pedal
Storage box (heated/cooled)
Sun visor

### OTHERS

Articulation locking bar
Counterweight
Drawbar
Global e-Service, telematic monitoring system
Ladders, inclined
Lifting eyes
Linkage pins, HN bushing
Neutral safety start
Steps, rear
Z-bar loader linkage

### ALARMS, GAUGES, INDICATORS

Alarms (visual & audible)	Brake oil low pressure
	Engine oil low pressure
Gauges	DEF/AdBlue® Level
	Engine coolant temperature
	Fuel gauge
	Overheat (engine coolant)
Indicators	Aftertreatment Device
	Air cleaner element
	Air conditioner display
	Battery discharge warning
	Cold start
	Control lever lock
	Eco-operating status
	Emergency steering
	Engine warning
	Fan reverse rotation
	Fuel filter (water in fuel)
	High beam
	HST oil temperature
	HST warning
	Maintenance
	Operating mode (Normal, Power)
	Parking brake
	Ride control
	Service
	Speedometer
	Time/operating hour/ODO
	Traction control switch
	Turn signal w/4-way flashers/marker
	Work light

### OPTIONAL EQUIPMENT

Belly guard, front chassis, transmission (rear)
Bolt-on cutting edges
Camera, rear view
Fenders, rear, full, w/mudflap
High lift boom arm
Quick coupler & attachments



# HITACHI

Reliable solutions



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With manufacturing facilities in Banshu, Ryugasaki, Tierra, and Hitachinaka, Japan, and the U.S. corporate office and campus in Newnan, Georgia, Hitachi Construction Machinery Americas Inc. (HCMA) has the experience and technology to design, engineer, manufacture, and service your Hitachi construction machinery. The HCMA team is securely poised as your go-to source in the North American and Latin American construction machinery market.

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