

**ZW-6 series**

**HITACHI**

**Reliable solutions**

# **ZW120/140/150/150<sub>PL</sub>**



*Machine representative of global product.  
Options may not be available in all markets.*

## **WHEEL LOADER**

| Model:                    | <b>ZW120-6</b>                                    | <b>ZW140-6</b>                                     | <b>ZW150-6</b>                                    | <b>ZW150PL-6</b>                          |
|---------------------------|---|--|---|---|
| Gross engine rated power: | 101 hp/74 kW (ISO14396)                           | 141 hp/104 kW (ISO14396)                           | 141 hp/104 kW (ISO14396)                          | 141 hp/104 kW (ISO14396)                  |
| Operating weight:         | 18,590–19,850 lb<br>(8,430–9,000 kg)              | 25,640–26,150 lb<br>(11,610–11,820 kg)             | 26,960–27,470 lb<br>(12,230–12,460 kg)            | 26,960–27,470 lb<br>(12,230–12,460 kg)    |
| Bucket ISO heaped:        | 2.0–2.4 yd <sup>3</sup> (1.5–1.8 m <sup>3</sup> ) | 2.7– 3.1 yd <sup>3</sup> (2.1–2.4 m <sup>3</sup> ) | 3.1–3.5 yd <sup>3</sup> (2.4–2.7 m <sup>3</sup> ) | 2.7 yd <sup>3</sup> (2.1 m <sup>3</sup> ) |



# 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**





HITACHI

ZW150



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.



## **Easy to operate**

The hydrostatic transmission enhances versatility and increases productivity.



## **Smooth operation**

Ride control minimizes machine pitching.



## **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.



### Low running costs

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

\*ZW140-6/ZW150-6/  
ZW150PL-6 only



### Exceptional durability

Developed in-house, the front frame has been reinforced (ZW140-6 and ZW150-6).



### Convenient access

Easy-to-open wide engine covers.

# FIRST FOR RELIABILITY

Renowned for reliability, Hitachi ZW-6 wheel loaders achieve exceptional levels of performance and efficiency with minimum downtime. The ZW120-6/ZW140-6/ZW150-6/ZW150PL-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.





The battery is easy to maintain.



New engine reduces fuel consumption.





Reinforced front frame in the ZW140-6, 150-6 and 150PL-6.



Wide fin coolers reduce heat and increase radiator durability



**i** The final pre-delivery inspection procedure for each Hitachi wheel loader is typical of Hitachi's dedication to manufacturing products of unfailing 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.



## 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 anti-clogging radiators (WPFR) are designed with square-shaped instead of triangular-shaped fins to prevent clogging. This reduces radiators maintenance frequency.



The optional belly guard provides added protection.



# 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

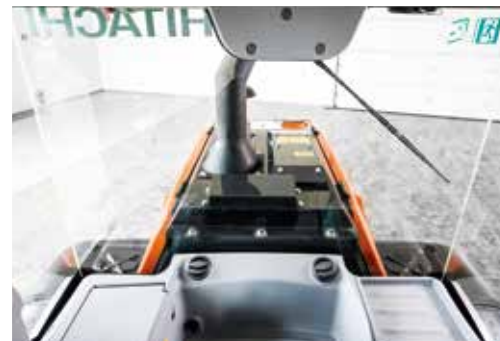
running costs. It is highly effective for light applications.

## **Parallel lift arm**

The ZW150PL-6 provides parallel movement from ground level. Perfect for loading and unloading items with increased load control.

## **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.



Rear visibility has been enhanced by design modifications.





The ride control feature ensures smooth performance.



The traction control system reduces 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 ZW120/ZW140-6/ZW150-6/ZW150PL-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.

## 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.



The optional rear-view camera contributes to all-round visibility.



# 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.

\*ZW140-6/ZW150-6/ZW150PL-6 only

## 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.

\*ZW140-6/ZW150-6/ZW150PL-6 only

## 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 ZW120-6, ZW140-6, and ZW150-6 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.



1st speed select switch optimize performance on different job sites.



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 Support Chain after-sales 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 a high availability of parts provided by HCMA's US parts warehouse.

- 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.

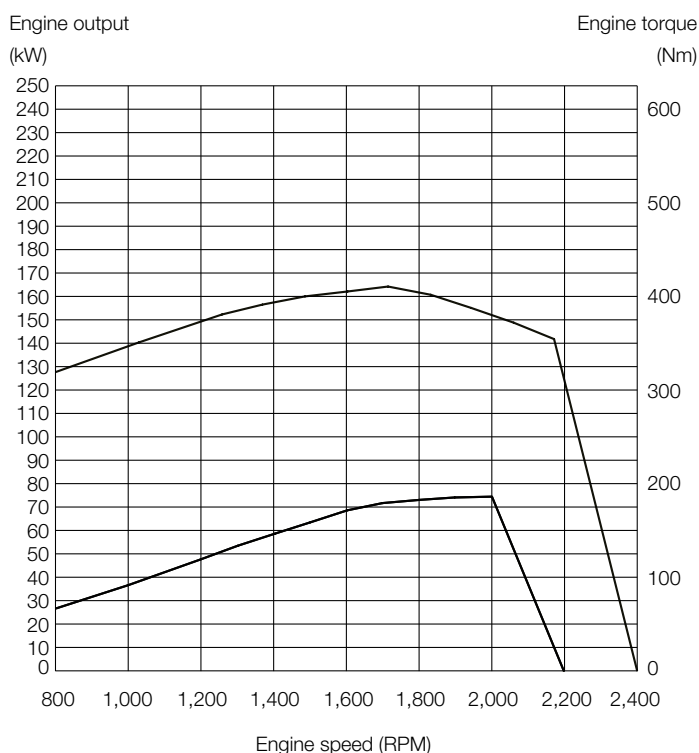


# SPECIFICATIONS

ZW120-6

## ENGINE

|                           |   |
|---------------------------|---|
| Model .....               | DEUTZ TCD3.6L4F                                   |
| Type .....                | 4-cycle water-cooled, direct injection            |
| Aspiration .....          | Turbocharger and intercooled                      |
| Aftertreatment .....      | DOC and SCR system                                |
| No. of cylinders .....    | 4   |
| Maximum rated power       |   |
| ISO 14396, gross .....    | 101 hp (74 kW) at 2,000 min <sup>-1</sup> (rpm)   |
| ISO 9249, net .....       | 96 hp (71 kW) at 2,000 min <sup>-1</sup> (rpm)    |
| Maximum torque .....      | 400 Nm at 1,600 min <sup>-1</sup> (rpm)           |
| Bore and stroke .....     | 3.9 in x 4.7 in (98 mm x 120 mm)                  |
| Piston displacement ..... | 221 in <sup>3</sup> (3.621 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 |



## POWERTRAIN

|                                |  |
|--------------------------------|--|
| Transmission .....             | Electrical-controlled 1 motor hydrostatic transmission with gear box, Gear box: Fixed gear ratio, powershift countershaft type |
| Cooling method .....           | Forced circulation type  |
| Travel speed* Forward/Reverse  |  |
| 1st .....                      | 11.5/7.1 km/mph  |
| 2nd .....                      | 21.4/34.5 km/mph   |
| * With 17.5-25-12PR (L-2) tire |  |

## AXLE AND FINAL DRIVE

|                                       |   |
|---------------------------------------|---|
| 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 proportional differential |
| Oscillation angle .....               | Total 20° (+10°, -10°)                                    |
| Final drives .....                    | Heavy-duty planetary, mounted inboard                     |

## BRAKES

|                      |  |
|----------------------|--|
| 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 brakes ..... | Spring applied, hydraulically released, wet disc type  |

## STEERING SYSTEM

|                           |   |
|---------------------------|---|
| Type .....                | Articulated frame steering                |
| Steering angle .....      | Each direction 40°; total 80°             |
| Cylinders .....           | Double-acting piston type                 |
| No. x Bore x Stroke ..... | 2 x 2.4 in x 15.6 in (2 x 60 mm x 395 mm) |

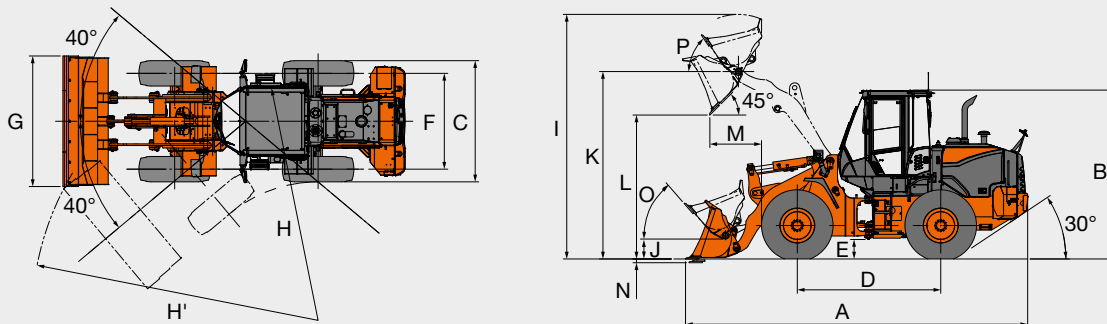
## HYDRAULIC SYSTEM

|   |  |
|---|--|
| Arm and bucket are controlled by multi function control 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 (Load & steer)                                      |  |
| .....   | Gear type 32.0 gal/min (121 L/min) at 2,000 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> ) |
| Relief pressure setting .....                                 | 20.6 MPa (210 kgf/cm <sup>2</sup> )  |
| HST charging pump .....                                       | Gear type 10.4 gal/min (39.2 L/min) at 2,000 min <sup>-1</sup> (rpm) at 2.5 MPa (25 kgf/cm <sup>2</sup> )  |
| Transmission charging pump                                    |  |
| .....   | Gear type 5.9 gal/min (22 L/min) at 2,000 min <sup>-1</sup> (rpm) at 1.8 MPa (18 kgf/cm <sup>2</sup> )     |
| Hydraulic cylinders   |  |
| Type .....  | Double acting type   |
| No. x Bore x Stroke ...                                       | Arm: 2 x 4.1 in x 28.0 in (2 x 105 mm x 710 mm)<br>Bucket: 1 x 4.9 in x 17.5 in (1 x 125 mm x 445 mm)      |
| Filters .....   | Full-flow 10 micron return filter in reservoir   |
| Hydraulic cycle times   |  |
| Lift arm raise .....  | 6.6 s  |
| Lift arm lower .....  | 2.7 s  |
| Bucket dump .....   | 1.6 s  |
| Total .....   | 10.9 s   |

## SERVICE REFILL CAPACITIES

|  |                   |
|--|-------------------|
| Fuel tank .....                            | 39.62 gal (150 L) |
| Engine coolant .....                       | 4.20 gal (16 L)   |
| Engine oil .....                           | 2.80 gal (10.5 L) |
| Front axle differential & wheel hubs ..... | 3.70 gal (14 L)   |
| Rear axle differential & wheel hubs .....  | 3.70 gal (14 L)   |
| Hydraulic oil tank .....                   | 39.62 gal (150 L) |
| DEF/AdBlue® tank .....                     | 4.50 gal (17 L)   |

## DIMENSIONS &amp; SPECIFICATIONS



| Bucket type  |                     |                                   | Standard arm         |                | High lift arm   |
|--|---------------------|-----------------------------------|----------------------|----------------|-----------------|
|  |                     |                                   | General purpose      |                | General purpose |
|  |                     |                                   | Bolt-on cutting edge |                |                 |
| Bucket capacity                                      | ISO heaped          | yd <sup>3</sup> (m <sup>3</sup> ) | 2.0 (1.5)            | 2.4 (1.8)      | 2.0 (1.5)       |
|  | ISO struck          | yd <sup>3</sup> (m <sup>3</sup> ) | 1.6 (1.2)            | 1.5 (1.4)      | 1.6 (1.2)       |
| A Overall length                                     |                     | ft (mm)                           | 21.0 (6,545)         | 21.3 (6,650)   | 21.0 (7,105)    |
| B Overall height                                     |                     | ft (mm)                           |                      | 10.5 (3,210)   |                 |
| C Width over tires                                   |                     | ft (mm)                           |                      | 7.4 (2,270)    |                 |
| D Wheel base   |                     | ft (mm)                           |                      | 8.9 (2,725)    |                 |
| E Ground clearance                                   |                     | in (mm)                           |                      | 14.6 (370)     |                 |
| F Tread  |                     | ft (mm)                           |                      | 6.0 (1,820)    |                 |
| G Bucket width                                       |                     | ft (mm)                           |                      | 8.0 (2,450)    |                 |
| H Turning radius (Centerline of outside tire)        |                     | ft (mm)                           |                      | 16.2 (4,915)   |                 |
| H' Loader clearance circle, bucket in carry position |                     | ft (mm)                           | 17.8 (5,430)         | 17.9 (5,460)   | 18.4 (5,610)    |
| I Overall operating height                           |                     | ft (mm)                           | 15.3 (4,650)         | 15.6 (4,760)   | 16.4 (4,990)    |
| J Carry Height of bucket pin                         |                     | ft (mm)                           | 1.5 (455)            | 1.5 (455)      | 1.5 (455)       |
| K Height to bucket hinge pin, fully raised           |                     | ft (mm)                           | 11.7 (3,560)         | 11.7 (3,560)   | 12.8 (3,900)    |
| L Dumping clearance 45 degree, full height           |                     | ft (mm)                           | 8.9 (2,705)          | 8.6 (2,630)    | 10.0 (3,040)    |
| M Reach, 45 degree dump, full height                 |                     | ft (mm)                           | 3.3 (1,010)          | 3.5 (1,080)    | 3.9 (1,190)     |
| N Digging depth (Horizontal digging angle)           |                     | in (mm)                           | 2.8 (70)             | 2.8 (70)       | 8.3 (210)       |
| O Max. roll back at carry position                   |                     | deg                               | 49                   |                | 50              |
| P Roll back angle at full height                     |                     | deg                               | 56                   |                | 52              |
| Static tipping load *                                | Straight            | lb (kg)                           | 14,330 (6,500)       | 14,200 (6,440) | 12,940 (5,870)  |
|  | Full 40 degree turn | lb (kg)                           | 12,390 (5,620)       | 12,240 (5,550) | 11,140 (5,050)  |
| Breakout force                                       |                     | lbf (kgf)                         | 16,840 (7,520)       | 14,970 (6,790) | 16,590 (7,520)  |
|  |                     | kN                                | 74.9                 | 66.6           | 73.8            |
| Operating weight *                                   |                     | lb (kg)                           | 18,590 (8,430)       | 18,760 (8,510) | 19,850 (9,000)  |

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

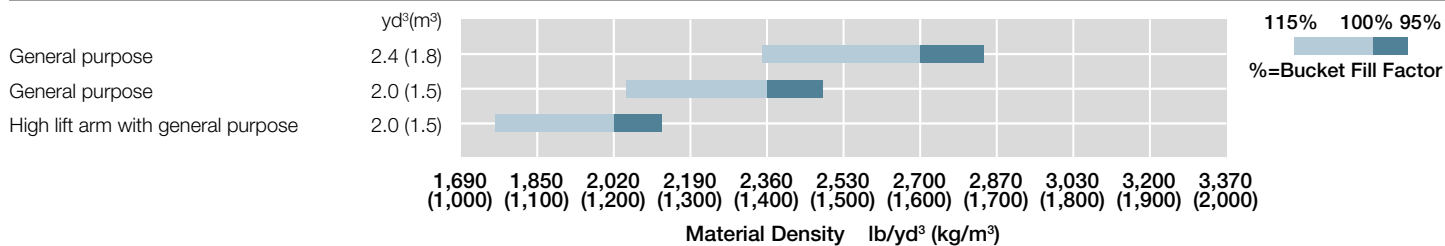
\*: Static tipping load and operating weight marked with\* include 17.5-25-12PR (L-2) tires (No ballast) with lubricants, full fuel tank and operator.

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

## WEIGHT &amp; SPECIFICATION CHANGES

| Option item |         | Operating weight<br>lb (kg) | Tipping load lb (kg) |           | Overall width<br>in (mm)<br>(outside tire) | Overall height<br>in (mm) | Overall length<br>in (mm) |
|-------------|---------|-----------------------------|----------------------|-----------|--|---------------------------|---------------------------|
|             |         |                             | Straight             | Full turn |  |                           |                           |
| Tire        | 17.5R25 | ±0                          | ±0                   | ±0        | ±0   | ±0                        | ±0                        |
| Belly guard |         | +154 (70)                   | +132 (60)            | +110 (50) | ±0   | ±0                        | ±0                        |

## BUCKET SELECTION GUIDE





## STANDARD EQUIPMENT

## ENGINE

|                                       |
|---------------------------------------|
| Air cleaner, double element           |
| Cold start (glow plug)                |
| Cooler, wide fin                      |
| Deutz TCD36 diesel engine             |
| EGR system                            |
| Fuel filter (main), w/water separator |
| Fuel pre-filter, w/water separator    |
| 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                            |
| 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, dual (operator adjustable in cab)         |
| 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   |
| Coat hook   |
| Cooler box storage area   |
| Cup holder (2)  |
| Floormat  |
| Retractable seat belt (3 inch)  |
| ROPS/FOPS certified   |
| Seat, air suspension, fabric  |
| 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 (GSM-version w/4 yrs. service) |
| 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 edge & segments                 |
| Camera, rear view                               |
| Fenders, rear, full, w/mudflap                  |
| HID work lights                                 |
| High lift boom arm                              |
| Hydraulic system, 3rd function control          |
| LED work lights                                 |
| Pre-cleaner (turbine type)                      |
| Quick coupler & attachments                     |
| Seat, heated                                    |
| Secondary steering                              |

| 23

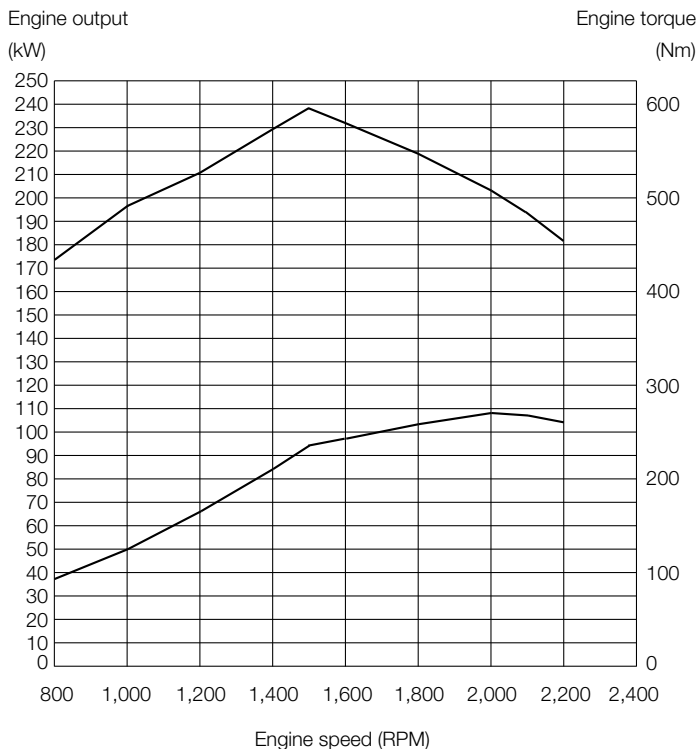


# SPECIFICATIONS

## ZW140-6/ZW150-6/ZW150PL-6

### ENGINE

|                           |   |
|---------------------------|---|
| Model .....               | CUMMINS QSB4.5                                    |
| Type .....                | 4-cycle water-cooled, direct injection            |
| Aspiration .....          | Turbocharger and intercooled                      |
| Aftertreatment .....      | DOC and SCR system                                |
| No. of cylinders .....    | 4   |
| Maximum rated power       |   |
| ISO 14396, gross .....    | 141 hp (104 kW) at 2,200 min <sup>-1</sup> (rpm)  |
| ISO 9249, net .....       | 140 hp (103 kW) at 2,200 min <sup>-1</sup> (rpm)  |
| Maximum torque .....      | 597 Nm at 1 500 min <sup>-1</sup> (rpm)           |
| Bore and stroke .....     | 4.2 in x 4.9 in (107 mm x 124 mm)                 |
| Piston displacement ..... | 272.1 in <sup>3</sup> (4.460 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 |



### POWERTRAIN

|                               |  |
|-------------------------------|--|
| Transmission .....            | Electrical-controlled 2 motor hydrostatic transmission with summation gear box, Gear box: Fixed gear ratio, powershift countershaft type |
| Cooling method .....          | Forced circulation type  |
| Travel speed* Forward/Reverse |  |
| 1st .....                     | 7.0/4.3 km/mph   |
| 2nd .....                     | 13.0/8.0 km/mph  |
| 3rd .....                     | 20.0/12.42 km/mph  |
| 4th .....                     | 39.0/24.2 km/mph   |
| * With 20.5 R25 (L3) tires    |  |

### AXLE AND FINAL DRIVE

|                                       |  |
|---------------------------------------|--|
| 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 limited slip differential |
| Oscillation angle .....               | Total 20° (+10°, -10°)                             |
| Final drives .....                    | Heavy-duty planetary, mounted inboard              |

### BRAKES

|                      |  |
|----------------------|--|
| 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 brakes ..... | Spring applied, hydraulically released, wet disc type  |

### STEERING SYSTEM

|                           |   |
|---------------------------|---|
| Type .....                | Articulated frame steering                |
| Steering angle .....      | Each direction 40°; total 80°             |
| Cylinders .....           | Double-acting piston type                 |
| No. x Bore x Stroke ..... | 2 x 2.6 in x 16.5 in (2 x 65 mm x 419 mm) |

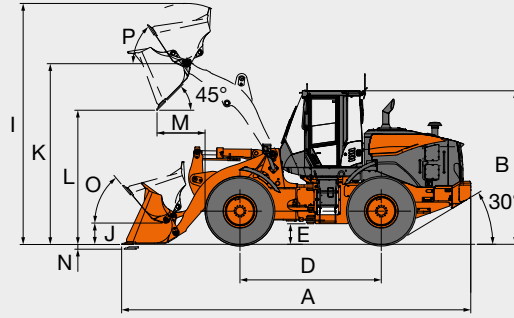
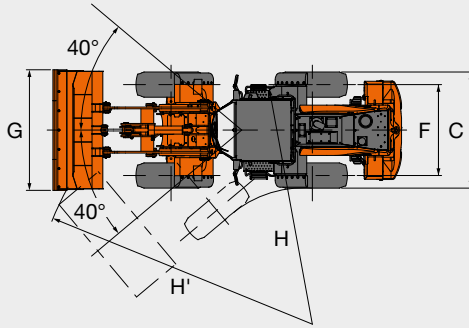
### HYDRAULIC SYSTEM

|   |  |           |
|---|--|-----------|
| Arm and bucket are controlled by multi function control 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 (Load & steer)  |  |           |
| .....   | Gear type 51.2 gal/min (194 L/min) at 2 200 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> ) |           |
| Relief pressure setting .....                                     | 20.6 MPa (210 kgf/cm <sup>2</sup> )  |           |
| HST charging pump .....   | Gear type 14.2 gal/min (53.9 L/min) at 2,200 min <sup>-1</sup> (rpm) at 2.45 MPa (25 kgf/cm <sup>2</sup> ) |           |
| Transmission charging pump  |  |           |
| .....   | Gear type 4.6 gal/min (17.6 L/min) at 2,200 min <sup>-1</sup> (rpm) at 1.96 MPa (20 kgf/cm <sup>2</sup> )  |           |
| ZW140-6/ZW150-6 Hydraulic cylinders                               |  |           |
| Type .....  | Double acting type   |           |
| No. x Bore x Stroke ...   | Arm: 2 x 4.9 in x 29.9 in (2 x 125 mm x 760 mm)<br>Bucket: 1 x 5.9 in x 19.5 in (1 x 150 mm x 495 mm)      |           |
| ZW150PL-6 Hydraulic cylinders                                     |  |           |
| Type .....  | Double acting type   |           |
| No. x Bore x Stroke ...   | Arm: 2 x 4.9 in x 20.9 in (2 x 125 mm x 760 mm)<br>Bucket: 2 x 4.3 in 39.6 in (2 x 110 mm x 1 005 mm)      |           |
| Filters .....   | Full-flow 10 micron return filter in reservoir   |           |
| Hydraulic cycle times   | ZW140-6/ZW150-6  | ZW150PL-6 |
| Lift arm raise .....  | 6.0 s  | 6.0 s     |
| Lift arm lower .....  | 4.5 s  | 3.4 s     |
| Bucket dump .....   | 1.4 s  | 3.4 s     |
| Total .....   | 11.9 s   | 12.8 s    |

### SERVICE REFILL CAPACITIES

|  |                  |
|--|------------------|
| Fuel tank .....                            | 50.2 gal (190 L) |
| Engine coolant .....                       | 2.6 gal (10 L)   |
| Engine oil .....                           | 4.2 gal (16 L)   |
| Front axle differential & wheel hubs ..... | 6.6 gal (25 L)   |
| Rear axle differential & wheel hubs .....  | 6.6 gal (25 L)   |
| Hydraulic oil tank .....                   | 21.1 gal (80 L)  |
| DEF/AdBlue® tank .....                     | 3.2 gal (12 L)   |

## DIMENSIONS &amp; SPECIFICATIONS



| Bucket type  |                     |                                   | Standard arm         |                      | High lift arm        |
|--|---------------------|-----------------------------------|----------------------|----------------------|----------------------|
|  |                     |                                   | General purpose      | General purpose      | General purpose      |
|  |                     |                                   | Bolt-on cutting edge | Bolt-on cutting edge | Bolt-on cutting edge |
| Bucket capacity                                      | ISO heaped          | yd <sup>3</sup> (m <sup>3</sup> ) | 2.7 (2.1)            | 3.1 (2.4)            | 2.7 (2.1)            |
|  | ISO struck          | yd <sup>3</sup> (m <sup>3</sup> ) | 2.4 (1.8)            | 2.6 (2.0)            | 2.4 (1.8)            |
| A Overall length                                     |                     | ft (mm)                           | 24.2 (7,380)         | 24.2 (7,370)         | 25.7 (7,840)         |
| B Overall height                                     |                     | ft (mm)                           |                      | 10.7 (3,265)         |                      |
| C Width over tires                                   |                     | ft (mm)                           |                      | 8.2 (2,490)          |                      |
| D Wheel base   |                     | ft (mm)                           |                      | 9.8 (3,000)          |                      |
| E Ground clearance                                   |                     | in (mm)                           |                      | 16.9 (430)           |                      |
| F Tread  |                     | ft (mm)                           |                      | 6.3 (1,930)          |                      |
| G Bucket width                                       |                     | ft (mm)                           |                      | 8.4 (2,560)          |                      |
| H Turning radius (Centerline of outside tire)        |                     | ft (mm)                           | 16.7 (5,085)         | 17.6 (5,355)         | 17.6 (5,355)         |
| H' Loader clearance circle, bucket in carry position |                     | ft (mm)                           | 19.5 (5,940)         | 19.5 (5,950)         | 20.0 (6,100)         |
| I Overall operating height                           |                     | ft (mm)                           | 16.6 (5,050)         | 16.9 (5,150)         | 17.8 (5,420)         |
| J Carry Height of bucket pin                         |                     | ft (mm)                           | 1.7 (515)            | 1.7 (515)            | 1.7 (515)            |
| K Height to bucket hinge pin, fully raised           |                     | ft (mm)                           | 12.6 (3,835)         | 12.6 (3,835)         | 13.8 (4,200)         |
| L Dumping clearance 45 degree, full height           |                     | ft (mm)                           | 9.5 (2,890)          | 9.3 (2,830)          | 10.7 (3,255)         |
| M Reach, 45 degree dump, full height                 |                     | ft (mm)                           | 3.2 (975)            | 3.4 (1,040)          | 3.8 (1,170)          |
| N Digging depth (Horizontal digging angle)           |                     | in (mm)                           | 3.7 (95)             | 3.7 (95)             | 11.0 (280)           |
| O Max. roll back at carry position                   |                     | deg                               |                      | 50                   |                      |
| P Roll back angle at full height                     |                     | deg                               | 55                   | 55                   | 50                   |
| Static tipping load *                                | Straight            | lb (kg)                           | 20,330 (9,220)       | 19,970 (9,060)       | 16,230 (7,360)       |
|  | Full 40 degree turn | lb (kg)                           | 17,610 (7,990)       | 17,310 (7,850)       | 14,000 (6,350)       |
| Breakout force                                       |                     | lb (kgf)                          | 24,054 (10,910)      | 22,031 (10,446)      | 23,380 (10,604)      |
|  |                     | kN                                | 107                  | 98                   | 104                  |
| Operating weight *                                   |                     | lb (kg)                           | 25,640 (11,630)      | 25,790 (11,700)      | 26,150 (11,860)      |

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

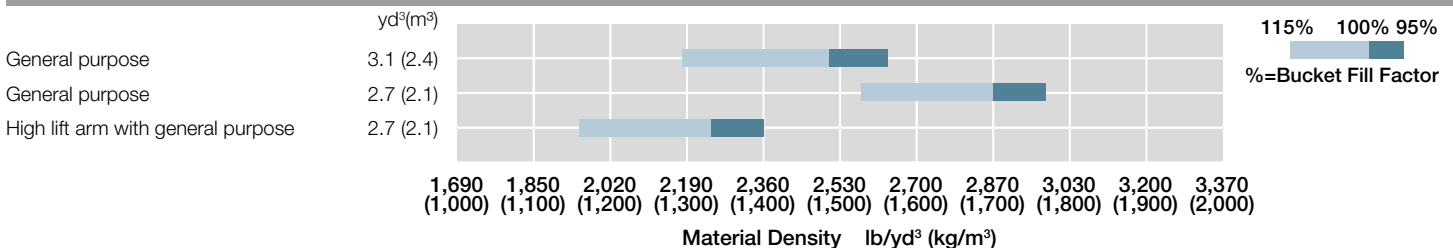
\*: Static tipping load and operating weight marked with\* include 20.5R25 (L3) tires (No ballast) with lubricants, full fuel tank and operator.

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

## WEIGHT &amp; SPECIFICATION CHANGES

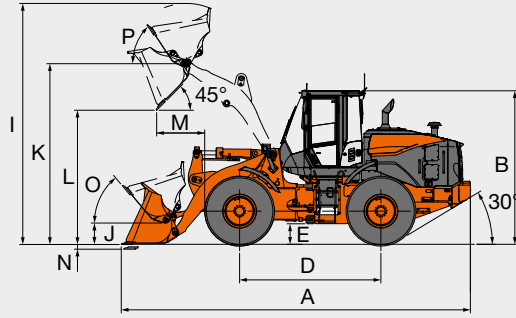
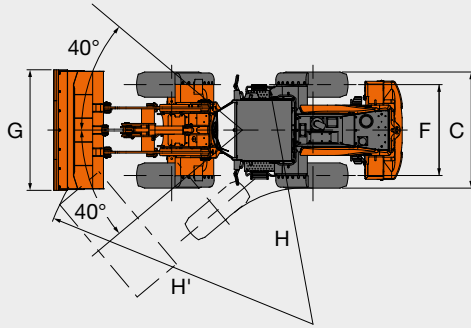
| Option item |                   | Operating weight<br>lb (kg) | Tipping load lb (kg) |             | Overall width in (mm)<br>(outside tire) | Overall height<br>in (mm) | Overall length<br>in (mm) |
|-------------|-------------------|-----------------------------|----------------------|-------------|---|---------------------------|---------------------------|
|             |                   |                             | Straight             | Full turn   |   |                           |                           |
| Tire        | 17.5-25-12PR (L2) | -1,230 (-560)               | -440 (-200)          | -400 (-180) | -3.7 (-95)                              | -3.0 (-75)                | 2.4 (+60)                 |
|             | 17.5-25-12PR (L3) | -1,040 (-470)               | -220 (-100)          | -260 (-120) | -3.7 (-95)                              | -3.0 (-75)                | 2.4 (+60)                 |
|             | 20.5R25 (L3)      | ±0                          | ±0                   | ±0          | ±0                                      | ±0                        | ±0                        |
| Belly guard |                   | +150 (70)                   | +70 (30)             | +90 (40)    | ±0                                      | ±0                        | ±0                        |

## BUCKET SELECTION GUIDE





## DIMENSIONS & SPECIFICATIONS



| Bucket type  |                     |          | Standard arm         |                      | High lift arm        |
|--|---------------------|----------|----------------------|----------------------|----------------------|
|  |                     |          | General purpose      | General purpose      | General purpose      |
|  |                     |          | Bolt-on cutting edge | Bolt-on cutting edge | Bolt-on cutting edge |
| Bucket capacity                                      | ISO heaped          | yd³ (m³) | 3.1 (2.4)            | 3.5 (2.7)            | 3.1 (2.4)            |
|  | ISO struck          | yd³ (m³) | 2.6 (2.0)            | 2.9 (2.2)            | 2.6 (2.0)            |
| A Overall length                                     |                     | ft (mm)  | 24.7 (7,530)         | 24.7 (7,540)         | 26.0 (7,935)         |
| B Overall height                                     |                     | ft (mm)  |                      | 10.7 (3,265)         |                      |
| C Width over tires                                   |                     | ft (mm)  | 8.2 (2,490)          | 8.1 (2,465)          | 8.2 (2,490)          |
| D Wheel base   |                     | ft (mm)  |                      | 9.8 (3,000)          |                      |
| E Ground clearance                                   |                     | in (mm)  |                      | 16.9 (430)           |                      |
| F Tread  |                     | ft (mm)  |                      | 76.0 (1,930)         |                      |
| G Bucket width                                       |                     | ft (mm)  |                      | 8.4 (2,560)          |                      |
| H Turning radius (Centerline of outside tire)        |                     | ft (mm)  | 19.5 (5,955)         | 16.7 (5,085)         | 17.6 (5,355)         |
| H' Loader clearance circle, bucket in carry position |                     | ft (mm)  | 16.7 (5,085)         | 16.7 (5,085)         | 16.7 (5,085)         |
| I Overall operating height                           |                     | ft (mm)  | 17.03 (5,190)        | 17.15 (5,230)        | 18.2 (5,555)         |
| J Carry Height of bucket pin                         |                     | ft (mm)  |                      | 1.2 (380)            |                      |
| K Height to bucket hinge pin, fully raised           |                     | ft (mm)  | 12.6 (3,835)         | 12.6 (3,835)         | 13.8 (4,200)         |
| L Dumping clearance 45 degree, full height           |                     | ft (mm)  | 9.3 (2,830)          | 8.9 (2,720)          | 10.5 (3,205)         |
| M Reach, 45 degree dump, full height                 |                     | ft (mm)  | 3.4 (1,040)          | 3.4 (1,025)          | 4.0 (1,220)          |
| N Digging depth (Horizontal digging angle)           |                     | in (mm)  | 3.7 (95)             | 3.7 (95)             | 11.0 (280)           |
| O Max. roll back at carry position                   |                     | deg      |                      | 50                   |                      |
| P Roll back angle at full height                     |                     | deg      | 57                   | 57                   | 52                   |
| Static tipping load *                                | Straight            | lb (kg)  | 23,020 (10,440)      | 20,233 (9,178)       | 18,250 (8,280)       |
|  | Full 40 degree turn | lb (kg)  | 20,000 (9,070)       | 22,708 (10,300)      | 15,760 (7,150)       |
| Breakout force                                       |                     | lb (kgf) | 22,031 (10,446)      | 19,709 (8,940)       | 21,356 (9,686)       |
|  |                     | kN       | 98                   | 90                   | 95                   |
| Operating weight *                                   |                     | lb (kg)  | 27,010 (12,250)      | 39.7 (12,110)        | 27,540 (12,490)      |

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

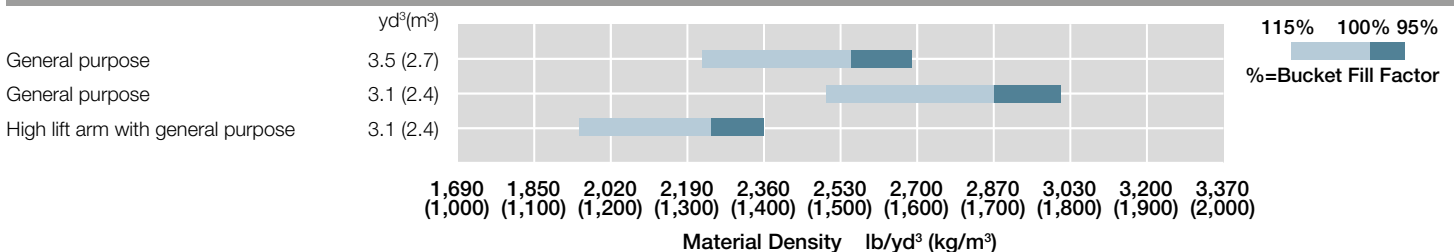
\*: Static tipping load and operating weight marked with\* include 20.5R25 (L3) tires (No ballast) with lubricants, full fuel tank and operator.

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

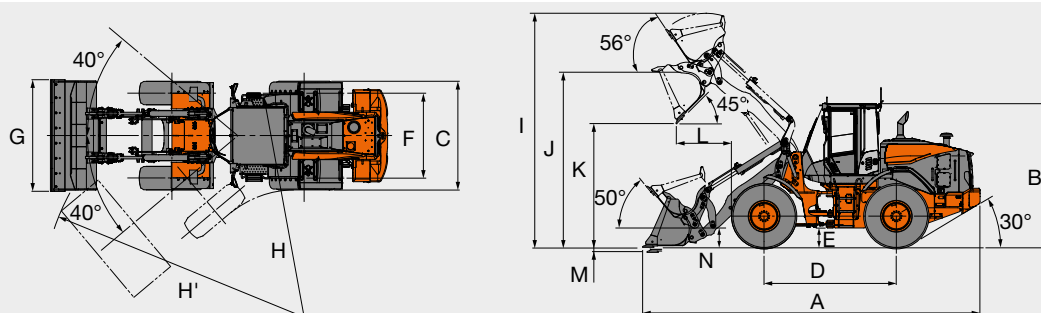
## WEIGHT & SPECIFICATION CHANGES

| Option item |                   | Operating weight<br>lb (kg) | Tipping load kg (lb) |             | Overall width mm (in)<br>(outside tire) | Overall height<br>mm (in) | Overall length<br>mm (in) |
|-------------|-------------------|-----------------------------|----------------------|-------------|---|---------------------------|---------------------------|
|             |                   |                             | Straight             | Full turn   |   |                           |                           |
| Tire        | 20.5-25-12PR (L2) | -400 (-180)                 | -240 (-110)          | -260 (-120) | ±0                                      | ±0                        | ±0                        |
|             | 20.5-25-12PR (L3) | -400 (-180)                 | -240 (-110)          | -260 (-120) | ±0                                      | ±0                        | ±0                        |
|             | 20.5R25 (L3)      | ±0                          | ±0                   | ±0          | ±0                                      | ±0                        | ±0                        |
| Belly guard |                   | +150 (70)                   | +70 (30)             | +90 (40)    | ±0                                      | ±0                        | ±0                        |

## BUCKET SELECTION GUIDE

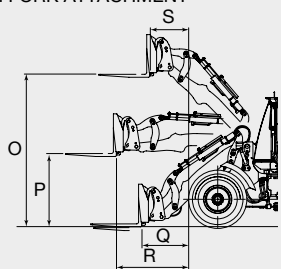


## DIMENSIONS &amp; SPECIFICATIONS



| Bucket type  |                     |           | General purpose      |                         |
|--|---------------------|-----------|----------------------|-------------------------|
|  |                     |           | Bolt-on cutting edge | Weld-on adaptor & teeth |
| Bucket capacity                                      | ISO heaped          | yd³ (m³)  | 2.7 (2.1)            | 2.6 (2.0)               |
|  | ISO struck          | yd³ (m³)  | 2.2 (1.7)            | 2.2 (1.7)               |
| A Overall length                                     |                     | ft (mm)   | 25.8 (7,875)         | 26.1 (7,980)            |
| B Overall height                                     |                     | ft (mm)   |                      | 10.7 (3,265)            |
| C Width over tires                                   |                     | ft (mm)   |                      | 8.2 (2,490)             |
| D Wheel base   |                     | ft (mm)   |                      | 9.8 (3,000)             |
| E Ground clearance                                   |                     | in (mm)   |                      | 16.9 (430)              |
| F Tread  |                     | ft (mm)   |                      | 6.3 (1,930)             |
| G Bucket width                                       |                     | ft (mm)   |                      | 8.3 (2,535)             |
| H Turning radius (Centerline of outside tire)        |                     | ft (mm)   |                      | 16.7 (5,085)            |
| H' Loader clearance circle, bucket in carry position |                     | ft (mm)   | 19.6 (5,980)         | 19.8 (6,030)            |
| I Overall operating height                           |                     | ft (mm)   |                      | 17.4 (5,290)            |
| J Height to bucket hinge pin, fully raised           |                     | ft (mm)   |                      | 13.1 (3,980)            |
| K Dumping clearance 45 degree, full height           |                     | ft (mm)   | 9.2 (2,800)          | 8.8 (2,680)             |
| L Reach, 45 degree dump, full height                 |                     | ft (mm)   | 4.1 (1,250)          | 4.5 (1,380)             |
| M Digging depth (Horizontal digging angle)           |                     | in (mm)   | 4.3 (110)            | 3.9 (100)               |
| N Carry height of bucket pin                         |                     | in (mm)   |                      | 20.7 (525)              |
| Bucket weight  |                     | lb (kg)   | 2,840 (1,290)        | 2,730 (1,240)           |
| Static tipping load *                                | Straight            | lb (kg)   | 19,820 (8,990)       | 19,910 (9,030)          |
|  | Full 40 degree turn | lb (kg)   | 17,110 (7,760)       | 17,200 (7,800)          |
| Breakout force                                       |                     | lbf (kgf) | 24,030 (10,900)      | 21,080 (9,560)          |
|  |                     | kN        | 106.9                | 93.7                    |
| Operating weight *                                   |                     | lb (kg)   | 28,890 (13,100)      | 28,780 (13,050)         |

## WITH FORK ATTACHMENT



| Attachment type                 |                                 |           | Fork            |
|---------------------------------|---------------------------------|-----------|-----------------|
| O                               | Max. stacking height            | ft (mm)   | 12.3 (3,740)    |
| P                               | Height of fork at maximum reach | ft (mm)   | 5.9 (1,810)     |
| Q                               | Reach at ground level           | ft (mm)   | 3.8 (1,170)     |
| R                               | Max. reach                      | ft (mm)   | 5.9 (1,790)     |
| S                               | Reach at max. stacking height   | ft (mm)   | 3.2 (990)       |
| Static tipping load             | Straight                        | lbf (kgf) | 18,120 (8,220)  |
|                                 | Full 40 degree turn             | lbf (kgf) | 15,720 (7,130)  |
| Max. payload per EN 474-3, 80 % |                                 | lb (kg)   | 12,350 (5,600)  |
| Max. payload per EN 474-3, 60 % |                                 | lb (kg)   | 9,260 (4,200)   |
| Fork tine length                |                                 | ft (mm)   | 4.0 (1,220)     |
| Operating weight *              |                                 | lb (kg)   | 28,440 (12,900) |

Note: All dimensions, weight and performance data based on ISO 6746-1:1987, ISO 7137:1997, ISO 7546:1983 and ISO 8313:1989

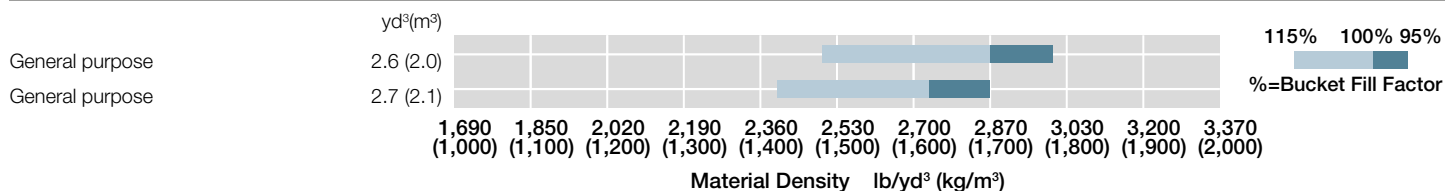
\*: Static tipping load and operating weight marked with\* include 20.5R25 (L3) tires (No ballast) with lubricants, full fuel tank and operator.

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

## WEIGHT &amp; SPECIFICATION CHANGES

| Option item |                   | Operating weight<br>lb (kg) | Tipping load lb (kg) |             | Overall width in (mm)<br>(outside tire) | Overall height<br>in (mm) | Overall length<br>in (mm) |
|-------------|-------------------|-----------------------------|----------------------|-------------|---|---------------------------|---------------------------|
|             |                   |                             | Straight             | Full turn   |   |                           |                           |
| Tire        | 20.5-25-12PR (L2) | -400 (-180)                 | -240 (-110)          | -260 (-120) | ±0                                      | ±0                        | ±0                        |
|             | 20.5-25-12PR (L3) | -400 (-180)                 | -240 (-110)          | -260 (-120) | ±0                                      | ±0                        | ±0                        |
|             | 20.5R25 (L3)      | ±0                          | ±0                   | ±0          | ±0                                      | ±0                        | ±0                        |
| Belly guard |                   | +150 (70)                   | +70 (30)             | +90 (40)    | ±0                                      | ±0                        | ±0                        |

## BUCKET SELECTION GUIDE





## STANDARD EQUIPMENT

## ENGINE

|                                       |
|---------------------------------------|
| Air cleaner, double element           |
| Auto idle shut down                   |
| Cold start (air intake heater)        |
| Cooling fan, automatic reversible     |
| Cummins QSB4.5                        |
| EGR system                            |
| Fuel filter (main), w/water separator |
| Fuel pre-filter, w/water separator    |
| SCR system and DOC                    |
| VGT (Variable Geometry Turbocharger)  |
| Work mode selector                    |

## POWERTRAIN

|   |
|---|
| Brakes, service   |
| Enclosed wet disc   |
| Dual system   |
| Inboard mounted   |
| Brake, parking  |
| Spring applied  |
| Oil pressure released   |
| Wet disc type   |
| Coolers, wide fin   |
| Differential, limited slip (F/R)                                    |
| Drive shafts, low maintenance                                       |
| F-R direction selector (2-column mounted/HYD-control lever mounted) |
| Hydrostatic transmission  |
| Inching pedal   |
| Maximum speed adjuster for 1st speed                                |
| Traction control  |
| Universal joints, sealed  |

## HYDRAULIC SYSTEM

|   |
|---|
| Boom kick-out, dual (operator adjustable in cab)                          |
| Bucket positioner   |
| Control lever, single, pilot-assisted w/1 aux lever for 3rd spool control |
| Control lever lock (electric)   |
| Control valve, 3-spool, parallel and tandem control                       |
| Pump, gear, fixed displacement  |
| Quick coupler control lines and controls                                  |
| Ride control w/Load sensing valve and automatic shut-off                  |
| Steering, orbitrol  |

## ELECTRICAL

|                                     |
|-------------------------------------|
| 24-volt electrical system           |
| Back-up alarm                       |
| Batteries (2), 12V, 565 CCA         |
| 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   |
| Coat hook   |
| Cooler box storage area   |
| Cup holder (2)  |
| Floormat  |
| Retractable seat belt (3 inch)  |
| ROPS/FOPS certified   |
| Seat, air suspension, fabric  |
| Steering column, telescoping and tilting w/quick-release pedal  |
| Storage box (heated/cooled)   |
| Sun visor   |

## OTHERS

|  |
|--|
| Articulation locking bar   |
| Counterweight  |
| Drawbar  |
| Fenders, front, w/mudflap  |
| Fenders, rear, deck-type, w/mudflap  |
| Global e-Service, telematic monitoring system (GSM-version w/4 yrs. service) |
| Ladders, inclined  |
| Lifting eyes   |
| Linkage pins, HN bushing   |
| Neutral safety start   |
| Rear grill, steel  |
| Steps, rear  |
| Vandalism protection   |
| Z-bar loader linkage   |

## ALARMS, GAUGES, INDICATORS

|                              |                                     |
|------------------------------|-------------------------------------|
| Alarms<br>(visual & audible) | Air cleaner element                 |
|                              | Aftertreatment device               |
|                              | Brake oil low pressure              |
|                              | Engine oil low pressure             |
|                              | Emergency steering alarm            |
|                              | Engine trouble                      |
|                              | Engine warning                      |
|                              | Fuel filter (water in fuel)         |
|                              | Hydraulic oil level                 |
|                              | Hydraulic oil temperature           |
|                              | Overheat (engine coolant)           |
|                              | Steering oil low pressure           |
| Gauges                       | DEF/AdBlue® Level                   |
|                              | Engine coolant temperature          |
|                              | Fuel gauge                          |
|                              | Speedometer                         |
| Indicators                   | Air conditioner display             |
|                              | Cold start                          |
|                              | Control lever lock                  |
|                              | Eco-operating status                |
|                              | Engine warning                      |
|                              | Fan reverse rotation                |
|                              | F-N-R selection                     |
|                              | F-N-R switch enable                 |
|                              | Fuel filter (plugged filter)        |
|                              | Fuel filter (water in fuel)         |
|                              | High beam                           |
|                              | HST oil temperature                 |
|                              | HST warning                         |
|                              | Low fuel level                      |
|                              | Maintenance                         |
|                              | Operating mode (Normal, Power)      |
|                              | Parking brake                       |
|                              | Ride control                        |
|                              | 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                 |
| Bucket teeth                                    |
| Camera, rear view                               |
| Cooling system cores, narrow fin                |
| Dual lever hydraulic control                    |
| Fenders, rear, full, w/mudflap                  |
| HID work lights                                 |
| High lift boom arm                              |
| LED work lights                                 |
| Pre-cleaner (turbine type)                      |
| Quick coupler & attachments                     |
| Quick coupler, ISO                              |
| Seat, heated                                    |

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

## STANDARD EQUIPMENT

## ENGINE

Air cleaner, double element  
 Auto idle shut down  
 Cold start (glow plug)  
 Cooling fan, automatic reversible  
 Cummins QSB4.5 diesel engine  
 EGR system  
 Fuel filter (main), w/water separator  
 Fuel pre-filter, w/water separator  
 SCR catalyst and DOC  
 VGT (Variable Geometry Turbocharger)  
 Work mode selector

## POWERTRAIN

Brakes, service  
 Enclosed wet disc  
 Dual system  
 Inboard mounted  
 Brake, parking  
 Spring applied  
 Oil pressure released  
 Wet disc type  
 Cooling system cores, wide-fin  
 Differential, limited slip (F/R)  
 Drive shafts, low maintenance  
 F-R direction selector (2-column mounted/HYD-control lever mounted)  
 Hydrostatic transmission  
 Inching pedal  
 Maximum speed adjuster for 1st speed  
 Traction control  
 Universal joints, sealed

## HYDRAULIC SYSTEM

Boom kick-out, dual (operator adjustable in cab)  
 Bucket positioner  
 Quick coupler control lines and controls  
 Control Lever, single, pilot-assisted w/1 aux Lever for 3rd spool control  
 Control lever lock (electric)  
 Control valve, 3-spool, parallel control  
 Pump, gear, fixed displacement  
 Quick coupler control lines and controls  
 Ride control w/load sensing valve and automatic shut-off  
 Steering, orbitrol

## ELECTRICAL

24-volt electrical system  
 Back-up alarm  
 Batteries (2), 12V, 565 CCA  
 Battery disconnect switch  
 Converter, 12V/15 Amp  
 Horn, dual electric  
 Instrument panel, LCD, monochrome  
 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  
 Coat hook  
 Cooler box storage area  
 Cup holder (2)  
 Floor mat  
 Retractable seat belt (3 inch)  
 ROPS/FOPS certified  
 Seat, air suspension, fabric  
 Steering column, telescoping and tilting w/quick-release pedal  
 Storage box (heated/cooled)  
 Sun visor

## OTHERS

Articulation locking bar  
 Counterweight  
 Drawbar  
 Fenders, front, w/mudflap  
 Fenders, rear, deck-type, w/mudflap  
 Global e-Service, telematic monitoring system (GSM-version w/4 yrs. service)  
 Ladders, inclined  
 Lifting eyes  
 Linkage pins, HN bushing  
 Neutral safety start  
 Rear grill, steel  
 Steps, rear  
 Vandalism protection  
 Z-bar loader linkage

## ALARMS, GAUGES, INDICATORS

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

## OPTIONAL EQUIPMENT

Belly guard, front chassis, transmission (rear)  
 Bolt-on cutting edge & segments  
 Bucket teeth  
 Camera, rear view  
 Dual lever hydraulic control  
 Fenders, rear, full, w/mudflap  
 HID work lights  
 High lift boom arm  
 LED work lights  
 Pre-cleaner (turbine type)  
 Quick coupler & attachments  
 Quick coupler, ISO



## STANDARD EQUIPMENT

## ENGINE

|                                       |
|---------------------------------------|
| Air cleaner, double element           |
| Auto idle shut down                   |
| Cold start (glow plug)                |
| Cooling fan, automatic reversible     |
| Cummins QSB4.5                        |
| EGR system                            |
| Fuel filter (main), w/water separator |
| Fuel pre-filter, w/water separator    |
| SCR system                            |
| VGT (Variable Geometry Turbocharger)  |
| Work mode selector                    |

## POWERTRAIN

|   |
|---|
| Brakes, service   |
| Enclosed wet disc   |
| Dual system   |
| Inboard mounted   |
| Brake, parking  |
| Spring applied  |
| Oil pressure released   |
| Wet disc type   |
| Coolers, wide fin spacing   |
| Differential, limited slip (F/R)                                    |
| Drive shafts, low maintenance                                       |
| F-R direction selector (2-column mounted/HYD-control lever mounted) |
| Hydrostatic transmission  |
| Inching pedal   |
| Maximum speed adjuster for 1st speed                                |
| Traction control  |
| Universal joints, sealed  |

## HYDRAULIC SYSTEM

|   |
|---|
| Boom kick-out, dual (operator adjustable in cab)                          |
| Bucket positioner   |
| Control Lever, single, pilot-assisted w/1 aux lever for 3rd spool control |
| Control lever lock (electric)   |
| Control valve, 3-spool, parallel control                                  |
| Pump, gear, fixed displacement  |
| Quick Coupler Control Lines and Controls                                  |
| Ride Control w/Load sensing valve and automatic shut-off                  |
| Steering, orbitrol  |

## ELECTRICAL

|                                     |
|-------------------------------------|
| 24-volt electrical system           |
| Back-up alarm                       |
| Batteries (2), 12V, 565 CCA         |
| Battery disconnect switch           |
| Converter, 12V/15 Amp               |
| Horn, dual electric                 |
| Instrument panel, LCD, monochrome   |
| 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   |
| Coat hook   |
| Cooler box storage area   |
| Cup holder (2)  |
| Floormat  |
| Retractable seat belt (3 inch)  |
| ROPS/FOPS certified   |
| Seat, air suspension, fabric  |
| Steering column, telescoping and tilting w/quick-release pedal  |
| Storage box (heated/cooled)   |
| Sun visor   |

## OTHERS

|  |
|--|
| Articulation locking bar   |
| Counterweight  |
| Drawbar  |
| Fenders, front, w/mudflap  |
| Fenders, rear, deck-type, w/mudflap  |
| Global e-Service, telematic monitoring system (GSM-version w/4 yrs. service) |
| Ladders, inclined  |
| Lifting eyes   |
| Linkage, parallel, sealed  |
| Linkage pins, HN bushing   |
| Neutral safety start   |
| Rear grill, steel  |
| Steps, rear  |
| Vandalism protection   |
| Quick coupler  |

## ALARMS, GAUGES, INDICATORS

|                           |                                     |
|---------------------------|-------------------------------------|
| Alarms (visual & audible) | Brake oil low pressure              |
|                           | Engine oil low pressure             |
|                           | Hydraulic oil level                 |
|                           | Overheat (engine coolant)           |
|                           | Steering oil low pressure           |
| Gauges                    | DEF/AdBlue® Level                   |
|                           | Engine coolant temperature          |
|                           | Fuel gauge                          |
|                           | HST oil temperature                 |
| 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                |
|                           | F-N-R selection                     |
|                           | F-N-R switch enable                 |
|                           | Fuel filter (plugged filter)        |
|                           | Fuel filter (water in fuel)         |
|                           | High beam                           |
|                           | HST oil temperature                 |
|                           | HST warning                         |
|                           | Maintenance                         |
|                           | Operating mode (Normal, Power)      |
|                           | Parking brake                       |
|                           | 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                               |
| Dual lever hydraulic control                    |
| Fenders, rear, full, w/mudflap                  |
| HID work lights                                 |
| LED work lights                                 |
| Pre-cleaner (turbine type)                      |
| Seat, heated                                    |

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Hitachi Construction Machinery Co., Ltd. (Hitachi Construction Machinery) was established in 1970, when Hitachi, Ltd. spun off its Construction Machinery Division. Currently, there are 84 companies that comprise the Hitachi Construction Machinery Group providing Reliable solutions for customers in the heavy construction equipment industry. Hitachi Construction Machinery continues to grow as a strong, global, competitive enterprise.

Fast forward to 2010. A joint venture with Hitachi Construction Machinery and Kawasaki Heavy Industries was entered into to further develop the global scope of the wheel loader product line. This relationship combined the huge technological and manufacturing resources of Kawasaki Heavy Industries and Hitachi Construction Machinery Group. This effort has resulted in a very productive, reliable, and cost-effective product.

In 2016 Hitachi Construction Machinery bought 100% of KCM Corporation's stock transitioning to KCMA Corporation. In 2018 Hitachi Construction Machinery took the reins transitioning KCMA Corporation to Hitachi Construction Machinery Loaders America Inc., furthering their commitment to the North American market by introducing the Hitachi brand wheel loader line, offering outstanding parts availability, an unmatched factory component exchange program, customer and dealer training programs, and a wide range of services and programs.

With manufacturing facilities in Banshu, Japan; Ryugasaki, Japan, and Newnan, Ga., Hitachi Construction Machinery Loaders America has the experience and technology to design, engineer, manufacture, and service your next wheel loader. The Hitachi Construction Machinery Loaders America Inc. team is focused on wheel loaders. As a subsidiary of one of the largest construction machinery companies in the world, Hitachi Construction Machinery Loaders America Inc. is securely poised as your go-to source in the North American wheel loader market.



## Reliable solutions



## A FULL LINE OF WHEEL LOADERS

- 13 Models
- 30 HP – 531 HP

## REPUTATIONS ARE BUILT ON IT

Prior to operating this machine, including satellite communication system, 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 standards (including safety standards) and legal requirements of that particular country. Please do not export or operate this machine outside the country of its intended use until such compliance has been confirmed. Please contact your Hitachi dealer in case of questions about compliance.

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.