



TATA HITACHI

Reliable solutions

ZW 225

**THE EPITOME OF
RELIABILITY AND PRODUCTIVITY**



CEV 5



OPERATING WEIGHT
17,690 - 18,210 kg



ENGINE POWER
225 HP



BUCKET CAPACITY
2.5 to 5.0 m³

THE EPITOME OF RELIABILITY AND PRODUCTIVITY

Introducing the CEV 5 Emission-Compliant ZW225 Wheel Loader, engineered for exceptional reliability, higher productivity, and maximum return on investment. Fully compliant with CEV 5 emission norms, this fuel-efficient machine is built to tackle diverse applications while prioritising operator comfort, durability, and cutting-edge performance. Developed with direct customer feedback, the Tata Hitachi ZW225 delivers enhanced comfort, long-term reliability, and higher productivity in every task.



**Enhanced
Productivity and
Efficiency**



**Unmatched
Reliability**



**Lower Operating
Costs**



**Unbeatable
Comfort and
Safety**



**Hassle-free
Maintenance**



**Advanced
Telematics**



ENHANCED PRODUCTIVITY AND EFFICIENCY

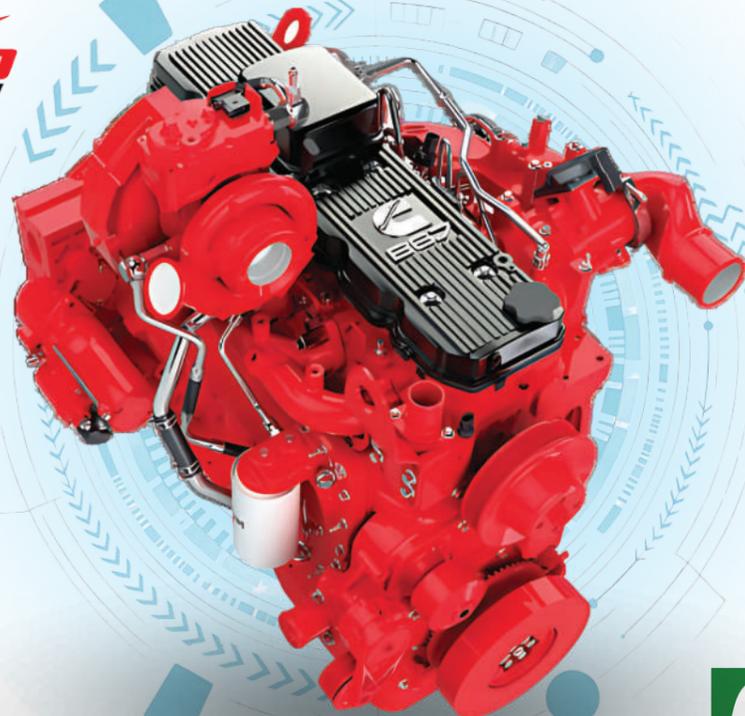
The **Tata Hitachi ZW225** is engineered for enhanced productivity and efficiency, powered by a CEV 5 compliant engine and efficient hydraulics. It ensures seamless operation in demanding conditions while reducing emissions and fuel consumption.

Powerful, Efficient, and Reliable Cummins Engine:

- ▶ CEV 5 compliant Cummins QSB 6.7 engine with Common Rail Direct Injection (CRDi).
- ▶ High-power CRDi engine delivers higher peak torque at lower RPM, enhancing performance across applications.
- ▶ Wastegate turbocharger maintains optimal inlet air pressure for improved engine efficiency.
- ▶ ECM calibration updates with cybersecurity features ensure secure and reliable operation.
- ▶ Engine auto idle and auto shut down for enhanced fuel savings.

Advanced Emission Control System:

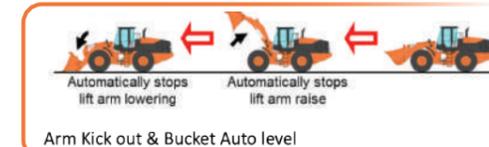
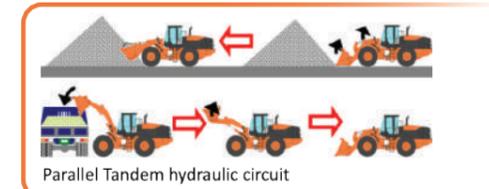
- ▶ Equipped with an efficient after-treatment system (DOC, DPF, and SCR) to minimize unburnt Carbon particles and pollutants.
- ▶ Selective Catalytic Reduction (SCR) system injects urea into exhaust gases to reduce nitrogen oxides (NOx).
- ▶ Single-unit ATD system - designed for easy maintenance.
- ▶ Larger 60L DEF tank.



CEV 5

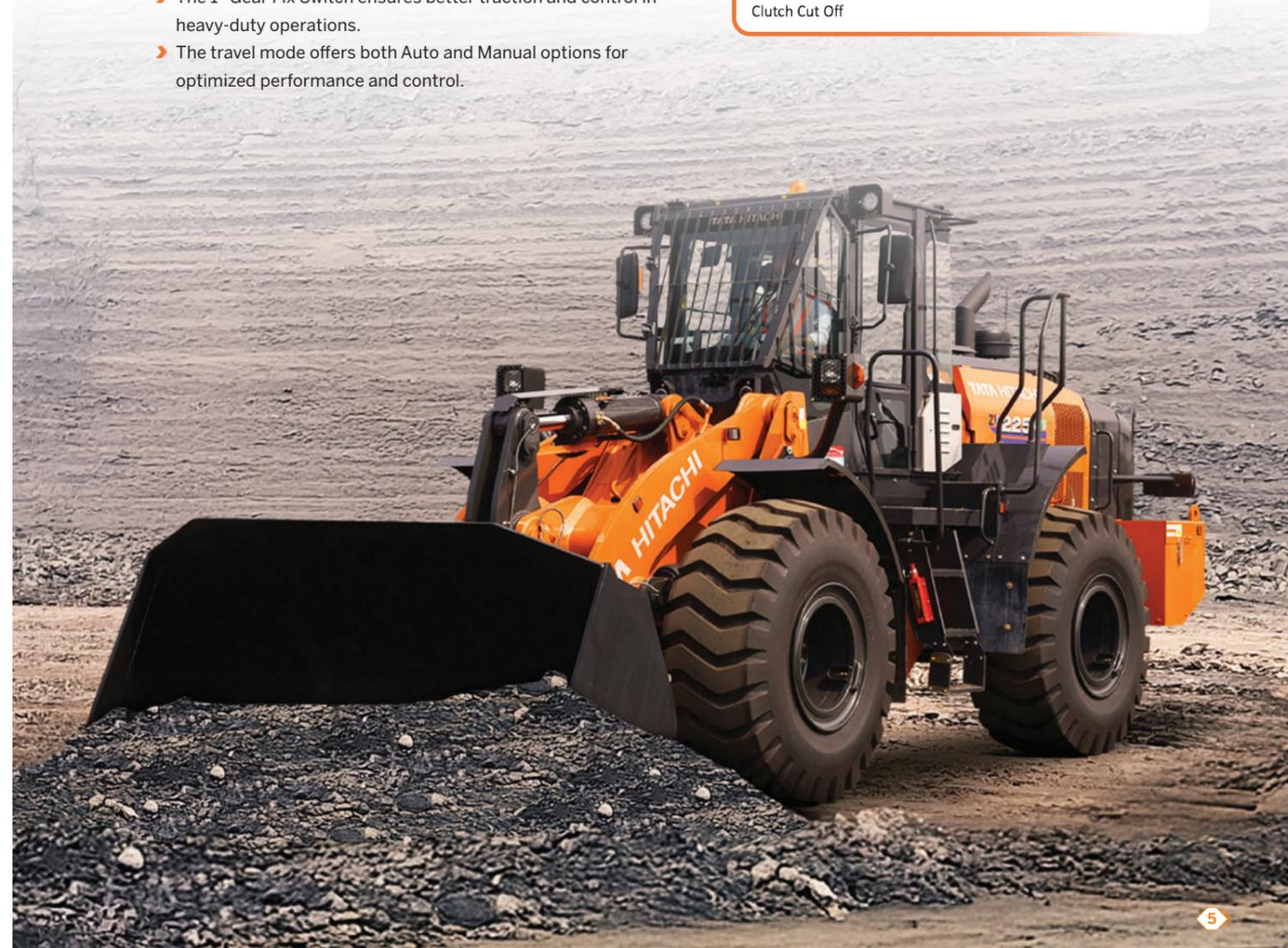
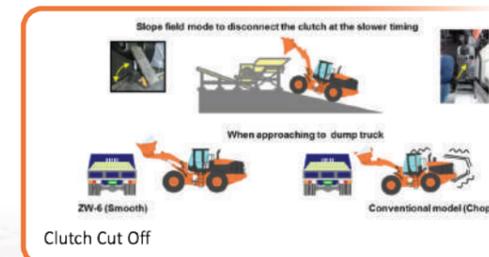
Efficient Hydraulics

- ▶ The parallel tandem circuit ensures faster hydraulic operation and smooth material handling by prioritizing bucket movement during the loading operation.
- ▶ Quick Power function provides a temporary power boost while operating in ECO mode.
- ▶ Bucket auto-leveler reduces the need for manual repositioning, ensuring efficient loading.
- ▶ Arm Kickout (with optional Dual Arm Kickout) presets the arm position, enabling faster loading cycles.
- ▶ Optional Ride Control system enhances ride comfort on rough terrain, boosts machine performance, and minimizes material spillage.



5-Speed Automatic Transmission with Load Sensing System

- ▶ The Clutch Cut-off Switch disconnects power to the wheels before the application of the brake.
- ▶ Limited Slip Differential (LSD) in front and rear axles improves traction and stability on rough terrain.
- ▶ The Down Shift Switch (DSS) auto-shifts to one gear lower for increased power.
- ▶ The 1st Gear Fix Switch ensures better traction and control in heavy-duty operations.
- ▶ The travel mode offers both Auto and Manual options for optimized performance and control.



UNMATCHED RELIABILITY

The **Tata Hitachi ZW225** delivers unmatched reliability with its advanced hydraulic system and durable components, ensuring maximum uptime, superior performance, and efficiency in demanding conditions.

- ▶ Durable and low-maintenance 4-wheel wet disc brakes, safely mounted inboard.
- ▶ Heavy-duty axles and transmission ensure easy maneuverability and proven performance.
- ▶ Rigorously tested structures provide extended machine life.
- ▶ Sturdy, leak-proof fluid tanks offer superior reliability.
- ▶ Fully enclosed fuel and Diesel Exhaust Fluid (DEF) tanks for added protection.
- ▶ Parking and neutral interlock prevent accidental operation.
- ▶ Additional electric pump ensures emergency steering capability.
- ▶ Additional emergency stop switch can be activated from outside the cabin for safety.
- ▶ Optional bucket cylinder guard offers enhanced protection for the cylinder.
- ▶ Optional bottom guard improves protection for the propeller shaft and transmission.

Strengthened components

- ▶ Lift arm torsion resistance enhances reliability during operations.
- ▶ Reinforced buckets and linkages ensure extended durability.

Durable materials

- ▶ High-quality radiators resist corrosion, boosting overall longevity.
- ▶ Robust mainframe and cylinders deliver long-lasting performance.



Heavy-Duty Axles



Transmission



Control Valve



LOW COST OF OPERATION

The **Tata Hitachi ZW225** is designed for efficiency, reducing fuel consumption and maintenance costs while maximizing performance.

- ▶ The powerful Cummins engine and new-generation hydraulics deliver higher output with lower fuel consumption.
- ▶ Common rail fuel injection and a reliable after-treatment system further reduce maintenance expenses.
- ▶ Extended oil change intervals for engine oil/filters, fuel filters, and transmission oil result in additional cost savings.
- ▶ The inboard, fully hydraulic braking system with oil-immersed discs ensures a maintenance-free lifespan.
- ▶ Improved fuel efficiency during V-shape loading and load-and-carry operations reduces overall operating costs.
- ▶ Variable Displacement Load Sensing Axial Piston Pump optimizes hydraulic flow, boosting performance and fuel efficiency.
- ▶ The CEV 5 compliant engine features a Diesel Particulate Filter (DPF) that reduces pollutants, is cleanable and reusable, cutting maintenance costs.

Change Intervals

Hydraulic oil	4000 hrs
Engine oil	1000 hrs
Engine oil filter	1000 hrs
Fuel filter	1000 hrs
Fuel water separator	1000 hrs
Crankcase breather filter	2000 hrs
DEF tank filter	2000 hrs
Supply module filter	2000 hrs

New 5-Speed Automatic Transmission

- ▶ Standard Auto mode optimizes gear selection based on load, reducing fuel consumption.
- ▶ Improved power distribution across all speed ranges with optimized gear ratios compared to conventional 4-speed transmissions.

Better Engine Control and Optimization

- ▶ Engine Control Module (ECM) ensures optimal machine performance by monitoring engine sensors.
- ▶ ECM manages injection timing and regulates emission control systems for efficient operation.
- ▶ Eco mode and auto shutdown feature for enhanced fuel savings.



Tata Hitachi Genuine Spare Parts and Lubricants

THE EPITOME OF RELIABILITY AND PRODUCTIVITY

The Tata Hitachi ZW225, built with Japanese technology, combines advanced features for operator comfort, reliability, and productivity, while reducing engine emissions. It offers exceptional performance and low cost of operation.

Low running costs
Extended oil and filter change intervals.



User-friendly
Effortless single pilot operating lever and power steering system.



Robust machine
Heavy duty axle and transmission.



Enhanced fuel efficiency
CEV 5 engine with single unit after-treatment system. Fuel saving in load and carry operations.



Easy to operate
Multifunctional monitor shows information at a glance.



Superior comfort
Spacious and ergonomically designed cabin.



Convenient access
Easy-to-open wide engine covers.



Higher Versatility
Wide range of bucket options for various applications.



Advanced Safety
ROPS and FOPS (Level II) compliant operator cabin.



Powerful engine
That enables better performance, impressive travel speed and has excellent fuel efficiency.



Quieter performance
New materials in the cabin absorb sound to reduce noise levels.



Enhanced design
Excellent rear view thanks to 360° visibility from the cabin.



UNBEATABLE COMFORT AND SAFETY



Designed for all-day productivity, the ZW225 offers a comfortable and safe operating environment. Ergonomic controls, low noise levels, and advanced safety features ensure a stress-free and secure experience.

- ▶ EM3-compliant suspension seat with hand-rest
- ▶ Heating, Ventilation, and Air Conditioning (HVAC) system
- ▶ Rear-view camera with recording system
- ▶ Larger side-mounted rear-view mirrors
- ▶ 12V power outlet for external device charging
- ▶ Upgraded joystick with Power Boost and FNR switch
- ▶ Front LED work lights
- ▶ ROPS & FOPS-certified cabin
- ▶ Bluetooth for music streaming

- ▶ **Quieter Engine & Sound-Insulated Cabin:** Enhances operator comfort.
- ▶ **360° Panoramic View:** Spacious cabin for improved visibility, safety, and productivity.
- ▶ **Enhanced Rear Visibility:** Optimized muffler and air intake positioning, along with a rear-view monitor, ensure a clear view behind the machine.
- ▶ **Convenient Utility Space:** Rear storage for keeping essential tools.
- ▶ **Safety Features:** Double door access, safety handrails, and a ROPS & FOPS-certified cabin for enhanced protection.



Rearview Monitor



Rearview Camera



Steering



Hot and Cold Storage



Optional AFSS



LCD Colour Monitor

Fitted with a multi functional LCD colour monitor that displays useful information such as fuel and urea levels, operating mode and other working parameters.



Heating, Ventilation, and Air Conditioning (HVAC)

The automatic air-conditioning system, with multiple vents and a 6-stage blower speed, provides cleaner, cooler air, ensuring a comfortable working environment for the operator.



Adjustable Steering Column

The seat and tilt-able steering column can be adjusted to provide a customized position for the operator, ensuring uninterrupted, fatigue-free operation.



Comfortable Suspension Seat

The EM3-compliant mechanical suspension seat with hand rest absorbs shocks and vibrations, reducing operator fatigue.

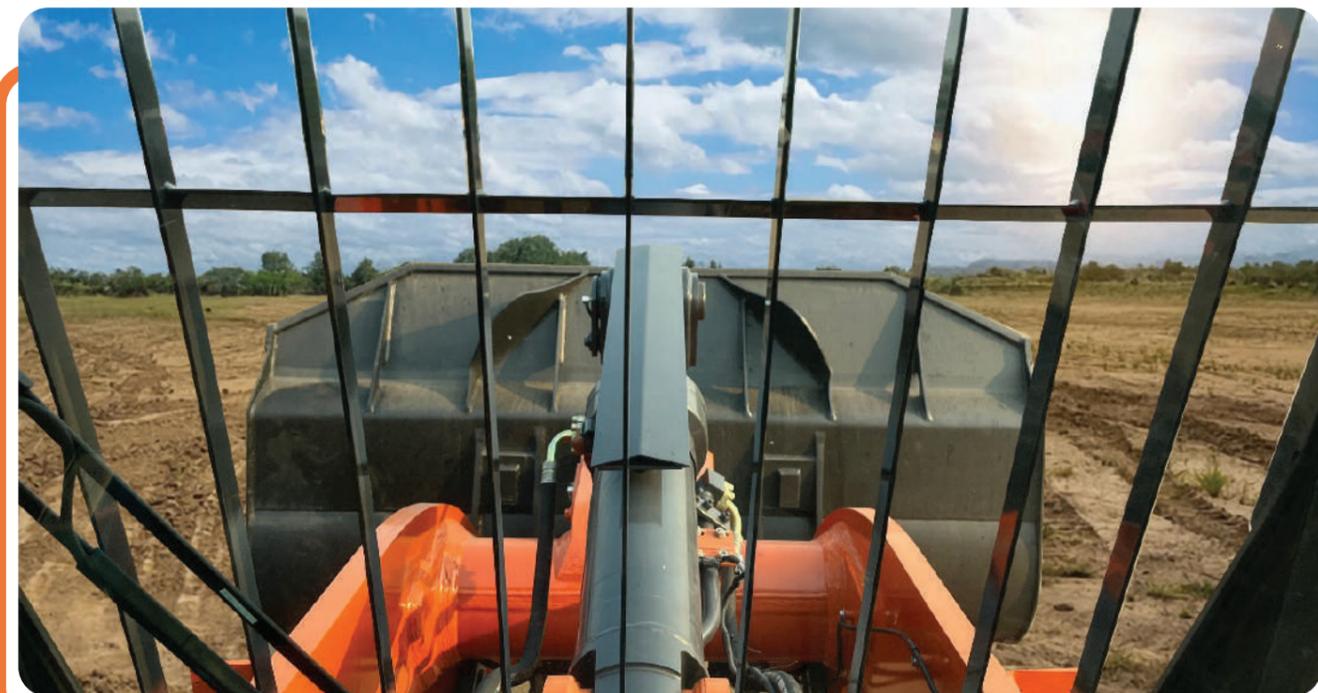


Music System



Speakers

AM/FM radio with an auto-tuning feature and two speakers for excellent sound quality. Includes a USB port for mobile connectivity and charging, along with Bluetooth for music streaming.



Panoramic View from Cabin

HASSLE-FREE MAINTENANCE

Designed for effortless upkeep, the ZW225 ensures minimal downtime and maximum availability with smart serviceability features.

- › Long service intervals and high-quality components make maintenance easy.
- › The engine air filter is positioned at the rear of the engine compartment, allowing easy ground-level access for maintenance.
- › The enlarged 60L DEF tank is strategically placed for convenience and safety.
- › A single battery compartment enables easier maintenance and battery replacement.
- › The battery disconnect switch is now standard. It enhances safety by preventing electrical accidents and preserving battery energy during long-term storage.



Automatic Lubrication System (ALS)

Easy access to consumables:

- › The engine cover swings up and fully opens from both sides, providing easy access. Conveniently grouped maintenance points enable quick and easy ground-level servicing, ensuring reliable performance.
- › The engine air filter has been located to the rear of the engine compartment, providing easier access at ground level for maintenance. The urea tank is conveniently positioned for easy top-up.



Automatic Reversible Cooling Fan

Automatic Reversible Cooling Fan:

- › Keeps the radiator clean at all times. The cooling fan is automatically self-reversed every 30 minutes to blow dust off the radiator.



Mobile Workshop



Field Diagnostic Vehicle

SUPPORT CONTRACTS

Maximize uptime and reduce unexpected costs with tailored maintenance solutions. Choose from an Annual Maintenance Contract (AMC) for periodic servicing or a Full Maintenance Contract (FMC) for complete maintenance coverage, ensuring long-term reliability and performance.



ANNUAL MAINTENANCE CONTRACT

- Planned budgeted activity—no sudden expense
- Maintenance by Tata Hitachi trained professionals-machine in safe hands
- Expert service in an emergency-quick support
- Increased uptime and longer machine life
- Peace of mind
- Discount on parts purchased*

FULL MAINTENANCE CONTRACT

- Guaranteed availability - Increased uptime and maximum production.
- Fix before failure to ensure maximum reliability of machines.
- Onsite availability of float aggregates.
- Trained and experienced manpower at site on 365 days x 24 hours basis.
- Peace of Exclusive onsite warehouse for complete contract period.
- Higher resale value of equipment after the end of the contract.

SERVICE PLAN COVERAGE

Types of Contracts	Machine Availability Guaranteed	Manpower & Organization	Support Equipment & Facilities	Parts Cost Guaranteed	Parts Warehouse at Site	Lubricant Supply Guaranteed
Full Maintenance Contract (FMC)	✓	✓	✓	✓	✓	Optional
Site Support Agreement (SSA)	N/A	✓	Optional	N/A	N/A	N/A
Cost Capping Agreement	✓	✓	Optional	✓	✓	Optional

TYRE HANDLER ATTACHMENT

The Tyre Handler attachment enhances the versatility of the ZW225 Wheel Loader by enabling safe and efficient handling of large off-highway tyres, ranging from 14R25 (360 kg) to 27R49 (2500 kg).

Part Number	Applicable Model	Clamping Range
CA04078	ZW225	900 mm to 3100 mm
Payload		Attachment Weight
3.5 Ton		2100 Kg



TELEMATICS



InSite is a GPS/GPRS based remote machine monitoring system for tracking various machine parameters which helps in better Business decisions. InSite can be accessed by any web and application based platform making it easy to track the machine's performance from any location at any time.

BE IN SYNC WITH YOUR MACHINES

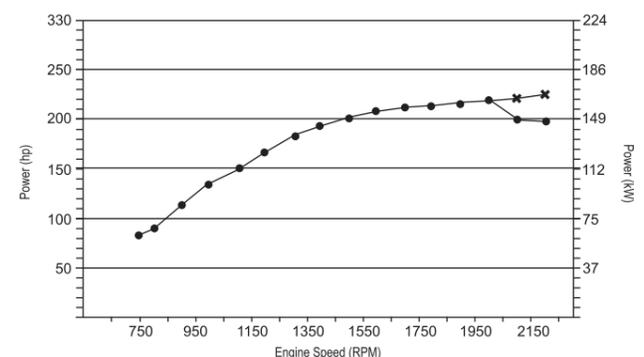
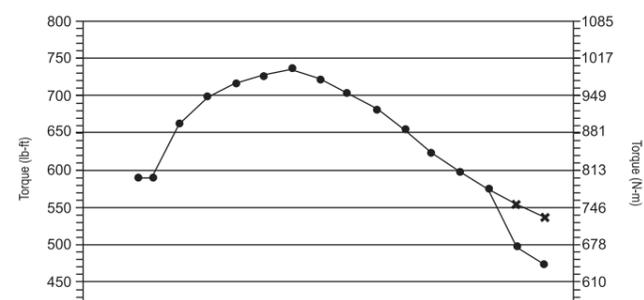
- Location, Geo Fencing
- Overall Fleet Summary in Graphical Widgets (Dashboard)
- Ability to Track Machine Maintenance/ Service Due Date
- Asset Utilization
- Asset Operation
- Fuel Levels
- Fleet Management



SPECIFICATIONS

ENGINE

Model.....CUMMINS QSB6.7
 Type.....4-cycle water-cooled, direct injection
 Aspiration.....Turbo charger and intercooled
 After treatment.....DOC + SCR + DPF system
 No. of cylinders.....6
 Maximum power.....168 kW (225 hp) at 2 200 min⁻¹ (rpm)
 Maximum torque, gross.....1000 Nm at 1300 min⁻¹ (rpm)
 Bore and stroke.....107 mm X 124 mm
 Piston displacement.....6.702 L
 Batteries.....2 x 12 V
 Air cleaner.....Two element dry type with restriction indicator
 Emission.....Complies with CEV Stage V



POWER TRAIN

Transmission.....Torque converter, counter shaft type power shift with computer-controlled automatic shift and manual shift features included.

Torque converter.....Three element, single stage, single phase
 Main clutch.....Wet hydraulic, multi-disc type
 Cooling method.....Forced circulation type
 Travel speed* (Reverse)/ Forward
 1st.....(7.1km/h) / 6.8 km/h
 2nd.....(12.4 km/h)/ 11.8 km/h
 3rd.....(27.4 km/h)/ 17.8 km/h
 4th.....26.2 km/h
 5th.....36.9 km/h

*With 23.5-25-20PR 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.....Limit Slip Differential
 Oscillation angle.....Total 24° (+12° , -12°)
 Final drives.....Heavy-duty planetary, mounted inboard

TIRES

Tire size.....23.5-25-20PR
 Optional.....Refer to standard & optional equipment list

BRAKES

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

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 70 mm x 442 mm

HYDRAULIC SYSTEM

Arm and bucket are controlled by multifunction lever
 Arm controls.....Four position valve; Raise, hold, lower, float
 Bucket controls.....Three position valve; Roll back, hold, dump

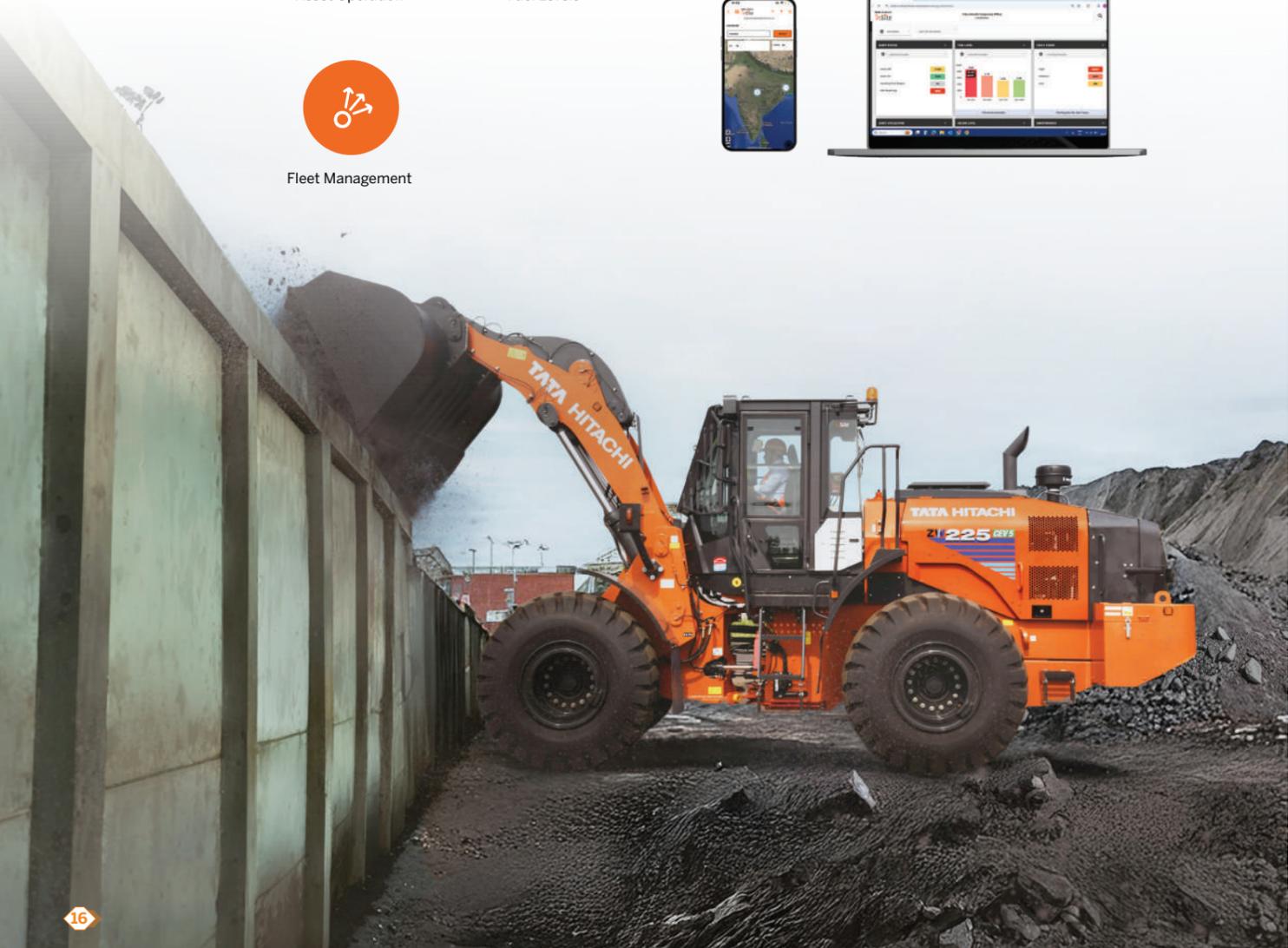
Main pump (Serve as steering pump)
 Type.....Variable Displacement Axial Plunger Pump
 Maximum flow.....271 L/min at 2170 min⁻¹(rpm)
 Maximum pressure.....27.4 Mpa

Hydraulic cylinders
 Type.....Double acting type
 No. x Bore x Stroke.....Arm: 2 x 130 mm x 880 mm
 Bucket: 1 x 165 mm x 510 mm
 Filters.....Full-flow 10 micron return filter in reservoir

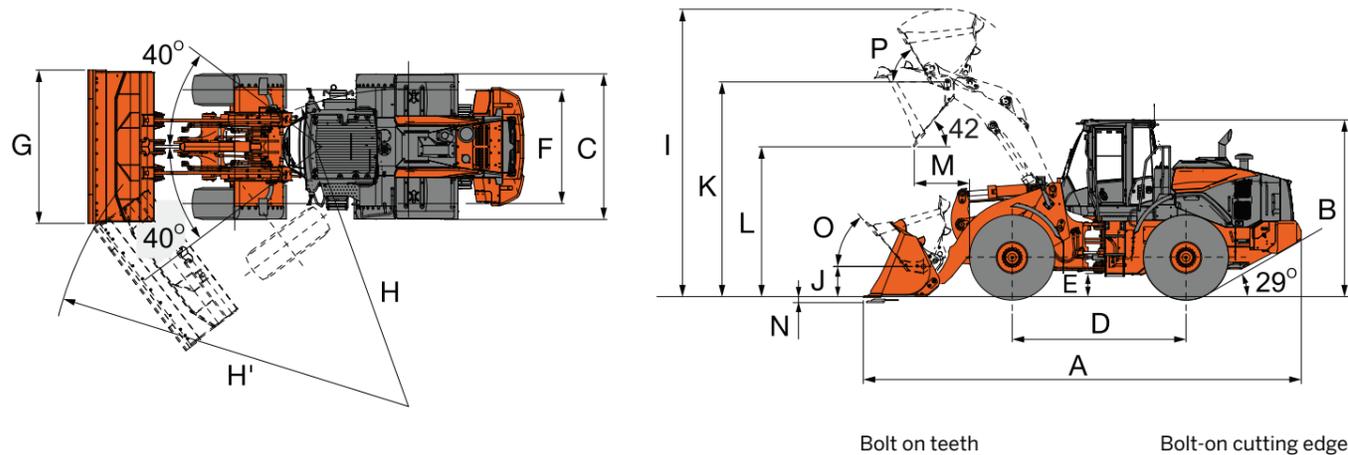
Hydraulic cycle times
 Lift arm lower.....2.9 s
 Lift arm raise.....5.2 s
 Bucket dump.....1.3 s
 Total.....9.4 s

SERVICE REFILL CAPACITIES

Fuel tank.....255 L
 Engine coolant.....28 L
 Engine oil.....25 L
 Torque converter & transmission.....27 L
 Front axle differential & wheel hubs.....35 L
 Rear axle differential & wheel hubs.....35 L
 Hydraulic oil tank.....171 L
 DEF/AdBlue® tank.....60 L



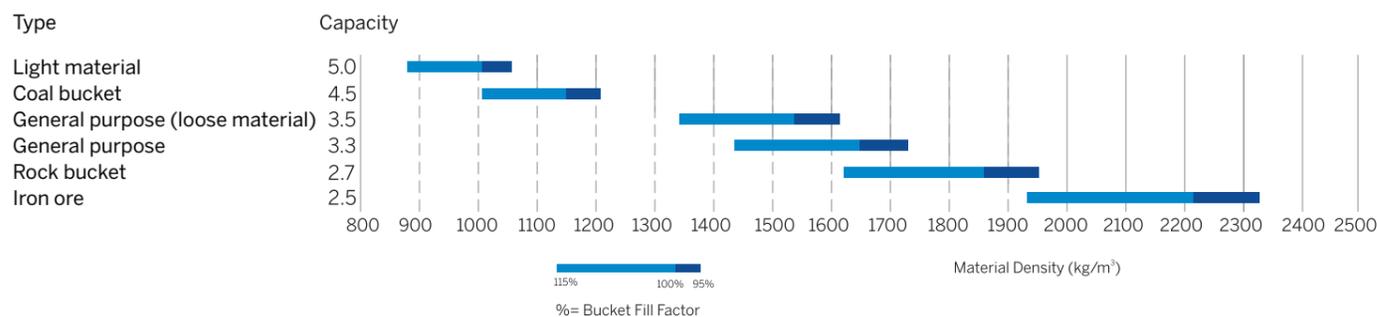
DIMENSIONS & SPECIFICATIONS



Bucket type	Bolt on teeth								Bolt-on cutting edge							
	Capacity	ISO heaped	ISO struck	2.5*	2.7*	3.3	3.5*	4.5*	5.0*	2.5*	2.7*	3.3	3.5*	4.5*	5.0*	
Bucket capacity																
A Overall length				8,345	8,420	8,525	8,570	8,640	8,525							
B Overall height						3,360										
C Width over tires						2,785										
D Wheel base						3,300										
E Ground clearance						450										
F Tread						2,160										
G Bucket width						2,910			3,500							
H Turning radius (Over outside tire)						6,080										
H' Loader clearance radius, bucket in carry position				6,575	6,596	6,625	6,640	6,675	6,910							
I Overall operating height				5,280	5,460	5,500	5,570	5,740	5,640							
J Carry height of bucket pin						300										
K Height to bucket hinge pin, fully raised						4,070										
L Dumping clearance 45 degree, full height				2,885	2,820	2,756	2,710	2,665	2,755							
M Reach, 45 degree dump, full height				1,100	1,155	1,230	1,260	1,315	1,240							
N Digging depth (Horizontal digging angle)						120										
O Max. roll back at carry position					40	47		40								
P Roll back angle at full height						60										
Static tipping load * Straight				14,858	14,360	14,960	14,803	14,530	14,370							
Full 40 degree turn				12,683	12,258	12,770	12,636	12,403	12,267							
Breakout force				182	170	156	149	121	130							
Operating weight *				18,581	17,309	15,860	15,223	12,307	13,254							
				17,690	18,220	17,800	17,850	18,040	18,210							

Note: All dimensions, weight and performance data based on ISO 6746:1987, ISO 7131:2009 and ISO 7546:1983
 * Static tipping load and operating weight marked with* include 23.5-25 tires (No ballast) with lubricants, full fuel tank and operator. Machine stability and operating weight depend on counterweight, tire size and other attachments.

BUCKET SELECTION GUIDE



MONITORING SYSTEM

- Gauge: coolant temperature, fuel level ●
- Indicator lights: clearance lights, control lever lock, low fuel level, high beam, parking brake, turn signals, work lights ●
- Indicator on multifunction monitor: air conditioner display, clock, DEF alarm indicator, DEF level gauge, fan reverse indicator, F-N-R/ Shift position indicator, forward/reverse selector switch indicator, hold display, hour meter, odometer, seat belt indicator, speedometer, tachometer, transmission auto-shifting indicator, transmission oil temperature ●
- Warning lights: air filter restriction, brake oil low pressure, communication system error, discharge warning, engine oil low pressure, engine warning, hydraulic oil level, low steering oil pressure, overheat, transmission warning ●

BRAKE SYSTEM

- Front & rear independent brake circuit ●
- Inboard mounted fully hydraulic 4 wheel wet disc ●
- Spring-applied/Hydraulic-released parking brake ●

HYDRAULIC SYSTEM

- Bucket auto leveler (Automatic return to dig control) ●
- Multi-functional control lever (MF lever) ●
- Control lever lock switch ●
- Bucket auto level ●
- Hydraulic filters ●
- Lift arm kickout ●
- Reservoir sight gauge ●
- Ride control system (OFF-AUTO type) ○
- Arm Kickout ●
- Bucket auto leveler ●
- Clutch cut off ●
- DSS ●
- Dual Arm Kick out ○

TIRES

- 23.5-25-20 PR (L3) ●
- 23.5R 25 E3/L3 ○

MISCELLANEOUS

- Articulation lock bar ●
- Auto Fire Detection and Suppression System (AFDSS) ○
- Auto centralized lubrication system ○
- Bucket cylinder guard ○
- Counterweight, built-in ●
- Drawbar with locking pin ●
- Emergency steering ●
- Fenders (Front & rear fenders with mud flaps) ●
- Front windshield guard ○
- InSite ●
- Lift & tie down hooks ●
- On board information controller ●
- Pilfer proof ●
- Battery cover with locking bracket ●
- Lockable engine cover ●
- Lockable fuel refilling cap ●
- Rear licence plate bracket ●
- Standard tool kit ●
- Attachment ○
- Piping kit ○
- Side dump bucket ○
- Quick coupler ○
- High lift arm ○
- Forklift ○
- Additional rear full fender ○
- Machine bottom guard ○

LIGHTS

- Brake & tail lights ●
- Clearance lights ●
- Headlights ●
- Rotating lamp ●
- Turn signals with hazard switch ●
- Work lights ○
- Front LED lights on cab (2) ●
- Rear lights in rear grille cover (2) ●
- Rear LED lights ○

OPERATOR'S STATION

- Adjustable steering column ●
- AM/FM radio with AUX and bluetooth for digital audio player ●
- Auto control air conditioner with single intake filter HVAC ●
- Coat hook ●
- Glove compartment ●
- Rear view camera & monitor with recording system ●
- Rear view mirrors ●
- Inside (2) ●
- Outside (2) ●
- Retractable seat belt ●
- ROPS (ISO3471), FOPS (ISO3449): multi-plane isolation mounted for noise, vibration reduction ●
- Rubber floor mat ●
- Weight adjusted suspension seat with headrest: fabric, dumper, adjustable for weight-height, reclining angle, armrest angle, head rest height. ●
- Steering system ●
- Wheel steering ●
- Storage ●
- Cup holder ●
- Document holder ●
- Hot & cool box ●
- Seatback pocket ●
- Sun visor ●
- Textured steering wheel with spinner knob ●
- Tinted safety glass ●
- Front windshield: laminated ●
- Others: tempered ●
- Windshield washer front and rear ●
- Windshield wipers front and rear ●

ENGINE

- Auto idle ●
- Pre-cleaner ●
- Air filter double elements ●
- Automatic reversible cooling fan with heat sensing ●
- Cartridge-type engine oil filter ●
- Cartridge-type fuel pre-filter ●
- Cartridge-type fuel main filter ●
- Coolant reservoir sight gauge ●
- DEF/AdBlue® tank inlet strainer ●
- Engine auto shut-down control system ●
- Fan guard ●
- Quick power switch ●
- Standard fin pitch radiator ●

ELECTRICAL SYSTEM

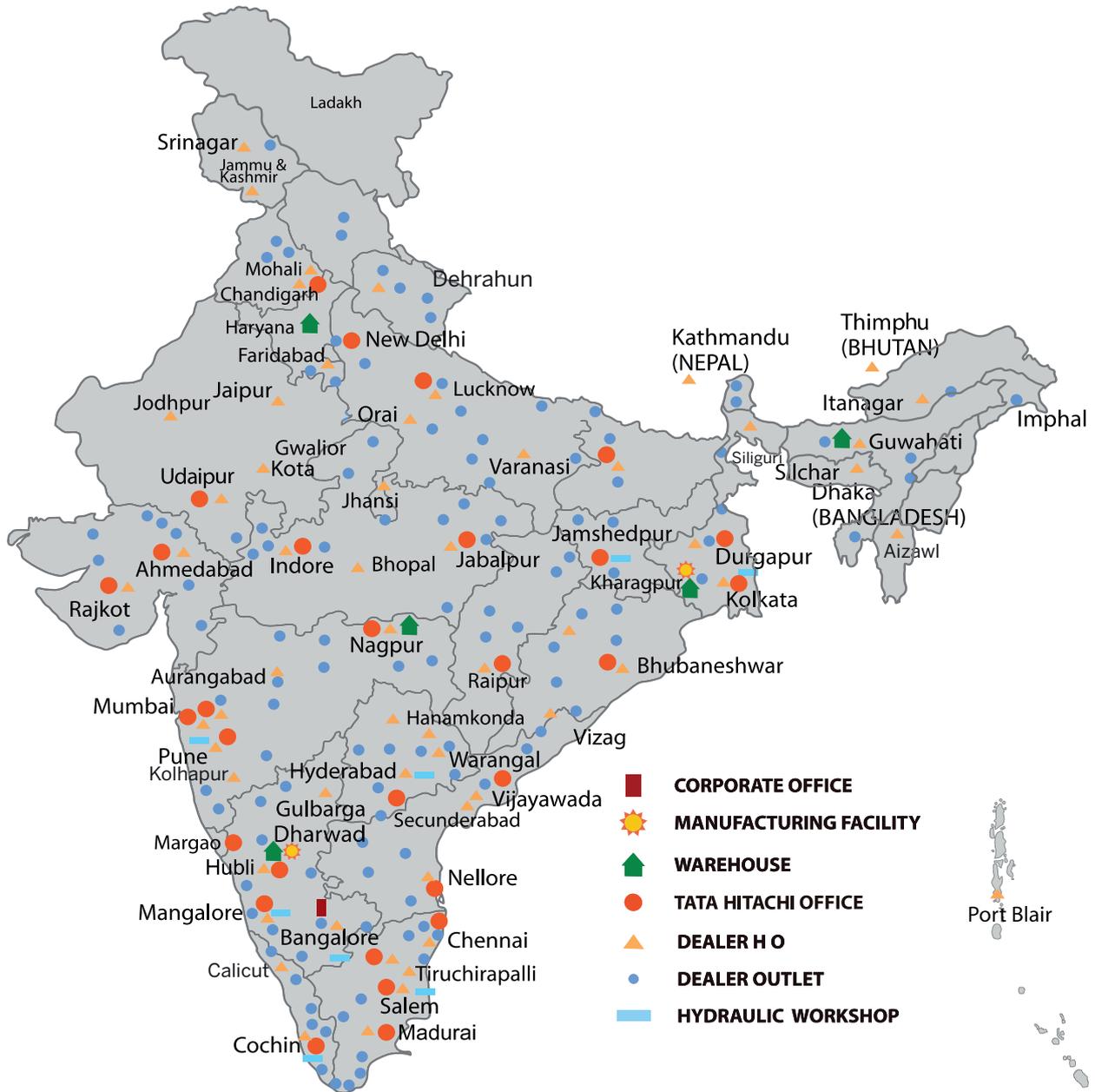
- Backup alarm ●
- Standard batteries (130AH-720CCA) ●
- Battery disconnect switch ●

POWER TRAIN

- Automatic transmission with load sensing system ●
- Clutch cut position switch ●
- Differential ●
- LSD (Limited Slip Differential, front and rear) ●
- DSS (Down Shift Switch) ●
- Forward/Reverse lever ●
- Travel mode selector (Auto -Manual) ●
- 1st speed fixed switch ●
- Forward/reverse select switch ●

● Standard equipment ○ Optional equipment

OUR NETWORK



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VALUE



Authorised Dealer

These specifications are subject to change without prior notice. The machine depicted may vary from the actual machine. Please contact our nearest office for latest specifications. Accessories shown here are not part of the standard equipment. Performance of the machine may vary with site and operating conditions encountered.

THCM/ZW225CE/SE/20P/MAY/2025