CHALO DESH BANAYE

TATA HITACHI

Reliable solutions

NEW !

ZW 225

THE EPITOME OF RELIABILITY AND PRODUCTIVITY

CEV (BS) IV

Model name: ZW225-6 | Engine Power: 225 HP/168 kW | Operating Weight: 17,650 - 18,180 Kg | Bucket Capacity: 2.5 - 5.0 m^3

Unparalleled Productivity and Reliability

The all-new ZW225 Wheel Loader exemplifies Tata Hitachi's commitment to offer the best value to customers in terms of reliability, productivity and return on investment. The ZW225 is packed with state-of-the art innovative technologies that are primed to deliver on this commitment to customers. Capable of delivering exceptional performance, without compromising on fuel efficiency, ZW225 is a versatile Wheel Loader that effortlessly lends itself to a variety of applications, further maximising the customer's earning potential. The ZW225 has also placed special emphasis on operator comfort and convenience, amplifying the productive potential of the machine. ZW225 is powered by an engine that adheres to CEV-IV emission norms, exemplifying our long-term commitment towards larger ecological imperatives and a cleaner environment.

Engineered for Higher Productivity and Efficiency

Powerful, efficient and reliable CEV-IV compliant Cummins engine with common rail direct injection (CRDi) and after-treatment (DOC, DPF & SCR) system

This high power CRDi engine provides higher peak torque at lower rpm which helps in achieving excellent performance across applications.

Waste gate turbocharger maintains the optimum inlet air pressure for better engine performance.

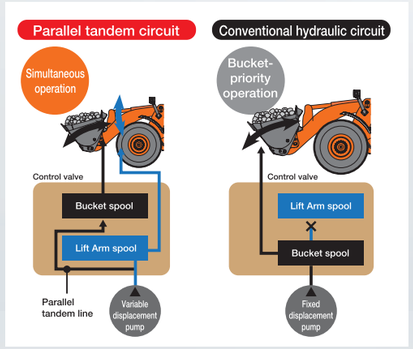
Reduced emissions

The new Cummins QSB 6.7 engine is equipped with efficient after-treatment system which prevents unburnt carbon particles and pollutants discharging into the atmosphere. The inbuilt Selective Catalytic Reduction (SCR) system uses injected urea into exhaust gas to reduce nitrogen oxides (Nox). This cutting-edge technology helps the environment, helps the environment by ensuring compliance to CEV IV emission norms.

Z Bar Linkage

The simultaneous movement of the bucket and lift arm ensures a smooth digging operation. Z Bar linkage improves bucket penetration which helps to increase productivity.

Parallel movement ensures smooth digging operation.
Tandem function prioritizes the bucket movement during loading operation.



Clutch Cut Position Switch

Clutch cut-off timing is adjusted by sensing brake pedal depression for smooth, efficient truck loading.

Salient Features

- Parallel Tandem Hydraulic Circuit
- Automatic Bucket Leveler
- Lift Arm Kick Out Function

Automatic Transmission with Load Sensing System.

- Clutch Cut Position Switch
- Additional Electrical Pump for Emergency Steering
- Limited Slip Differential (LSD) in both forward and reverse axles
- Down Shift Switch (DSS)
- 1st Gear Fix Switch
- Travel Mode Selector (Auto and Manual)

AUTO	Automatic gear shift: gears 1-5			
MANUAL	2nd	3rd	4th	5th

Unmatched Reliability

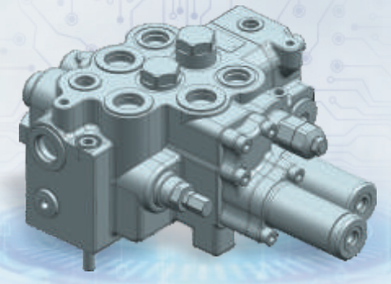
- Guaranteed uptime with Hitachi's advanced hydraulic system.
- Durable, safe and low maintenance with inboard mounted 4 wheel wet disc brakes.
- Easy maneuverability with heavy duty, proven axles and transmission.
- Rigorously tested structures which ensures longer life.
- This machine is equipped with sturdy fluid tanks for the ultimate leak protection which is far superior and reliable.
- Fully enclosed fuel and DEF tank (Diesel Exhaust Fluid).
- Parking brake switch with transmission interlock- It prevents movement of machine by dis-engaging transmission power from the wheels while parking brake is engaged. This prevents accidental damage to parking brake system.

Strengthened components
Lift arm torsion which enhances the productivity during lifting operations. Strengthened buckets and linkages for longer life.

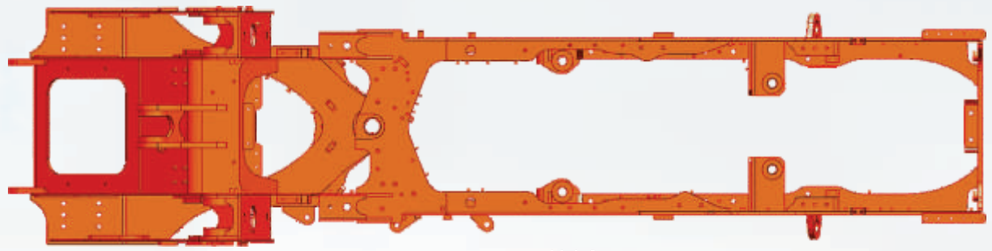
Durable materials
High quality radiators improve resistance to corrosion and enhance the overall durability of the ZW225 wheel loader.
Robust mainframe and cylinders for long lasting performance.

Heavy-Duty Axles

Transmission



Control Valve



Mainframe

Increased lift arm torsion improves productivity.

Low Cost of Operation

- Thanks to the powerful Cummins engine and new generation hydraulics which helps in providing more output with lesser fuel consumption. Equipped with common rail-type fuel injection system and reliable after-treatment system Which further reduces maintenance cost.
- More savings with extended oil change intervals for engine oil/filter, fuel filter and transmission oils.
- Inboard mounted fully hydraulic braking system with multiple oil immersed discs gives the braking system a virtually maintenance free life span.
- **Improved fuel efficiency-**
  The ZW225 demonstrates greater fuel efficiency than the previous model during V-shape loading, and load and carry operations. This results in considerable savings for operating costs.
- Variable Displacement Load Sensing Axial Piston Pump optimizes hydraulic flow and power requirement adding to higher performance and better fuel efficiency.
- The new CEV-IV compliant engine has Diesel particulate filter (DPF) which helps in reducing pollutants. It can be cleaned at the workshops and re-used to lower maintenance costs.
- **New 5-Speed Automatic Transmission**
  The new transmission comes standard with the Auto mode that can automatically select an optimum gear according to the load, thereby reducing fuel consumption. This 5-speed automatic transmission offers improved power distribution to wheels across all speed ranges, by better optimizing gear ratio compared to the conventional 4-speed transmission.
- **Better Engine Control and Optimization**
  The Engine Control Module (ECM), ensures that the machine operates at optimal performance. The ECM monitors most of the sensors in the engine bay in order to manage the machine's injection timing and regulates the emission control systems.

Tata Hitachi Genuine Spare Parts and Lubricants

THE EPITOME OF RELIABILITY AND PRODUCTIVITY

The ZW225 has been designed and built using market leading Japanese technology. Developed to perfection, with an emphasis on the environment, operator comfort and safety, it responds to customer demands for exceptional productivity at the lowest possible cost of ownership in Indian working conditions.

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

Enhanced fuel efficiency
CEV IV engine with single unit after-treatment system

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

Industry-leading safety
360° visibility from the cab.

Low running costs
Fuel savings in load and carry operations

Bucket availability
Wide range of bucket options for various applications

Robust machine
Heavy duty axle and transmission

Easy to operate
Multifunctional monitor shows information at a glance.

Enhanced design
Excellent rear view thanks to the curved engine hood.

Convenient access
Easy-to-open wide engine covers.

Superior comfort
Spacious cab with several storage compartments.

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

Unbeatable Comfort and Safety

- Quieter engine and sound insulated cabin for better operator comfort.
- The 360° panoramic view for the spacious cab creates a comfortable working environment, and helps to increase safety and productivity. The rear-view camera also contributes to excellent all-round visibility and safety on the job site.
- Enhanced rear visibility- The muffler and air intake have been positioned and aligned to improve the rear-view visibility from the cab, enhancing safety on a variety of job sites.
- The rear view monitor allows the operator to see the rear of the machine, including a view behind the counterweight enhancing safe operation.
- To ensure a smooth drive on all kinds of terrain, the ride control feature (optional) prevents unnecessary pitching through the accumulator and movement of lift arm cylinders.
- The convenient utility space at the rear of the ZW225 has been designed to provide sufficient storage for a variety of tools.
- Double door access and safety hand rails for enhanced safety.

Rearview monitor.

Rearview camera

Panoramic cab

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

LCD colour monitor

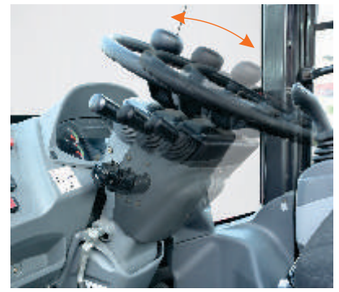
Automatic air-conditioning system with multiple vents provides cleaner and cooler air to the operator for comfortable operation

Auto air-conditioner

Steering

Storage compartment

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



Adjustable Steering Column

AM/FM Radio has an auto-tunning feature and 2 speakers stereo system provides excellent sound quality. An AUX port (USB type) is provided for mobile connectivity and charging.

Music system & Speakers

The mechanical suspension seat absorbs shocks and vibration from the machine in order to reduce operator fatigue.

Comfortable Suspension Seat

Simplified Maintenance

- With long service intervals and quality components, maintaining the machine is easy.
- 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 also strategically positioned for convenience and safety.
- Equipped with one battery compartment instead of two, which provides easier access for maintenance and battery replacement. This results in minimal downtime and a high level of availability.
- For safer and easier maintenance, the battery disconnect switch is now included as standard. This helps to avoid electrical accidents and retain battery energy during long-term storage.

Easy access to consumables:

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

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 also positioned for convenience.

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

Battery Compartment

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.

SUPPORT CHAIN

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*

*Conditions apply

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 x 24 hours basis.
- Exclusive onsite warehouse for complete contract period.
- Higher resale value of equipment after the end of the contract.

inSite
INSIGHTS INTO YOUR JOB SITE

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.

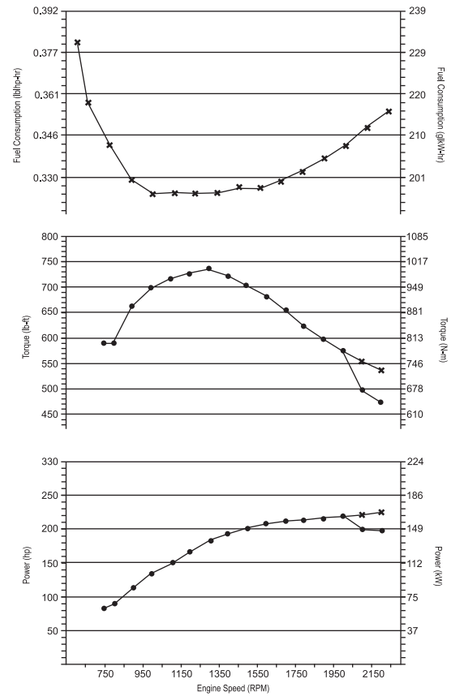
BE IN SYNC WITH YOUR MACHINES

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



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

Fan pump

Type	Fixed Displacement Gear Pump
Maximum flow	43.2 L/min at 1500 min^{-1} (rpm)
Maximum pressure	24.5 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

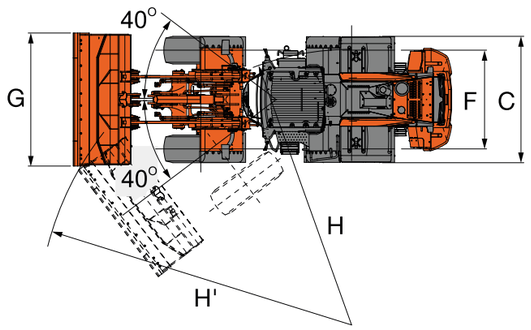
Hydraulic cycle times

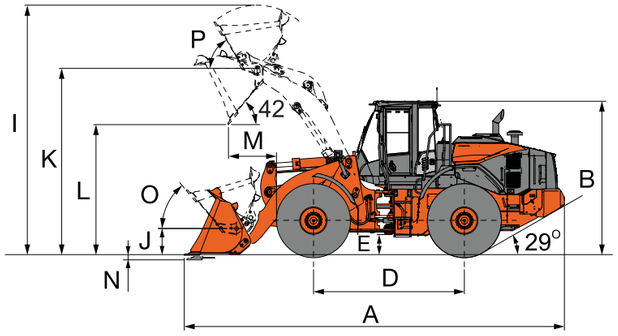
Lift arm lower	2.9 s
Lift arm raise	5.6 s
Bucket dump	1.3 s
Total	9.8 s

SERVICE REFILL CAPACITIES

Fuel tank	255 L
Engine coolant	28 L
Engine oil	25 L
Torque convertor & 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	24 L

DIMENSIONS & SPECIFICATIONS

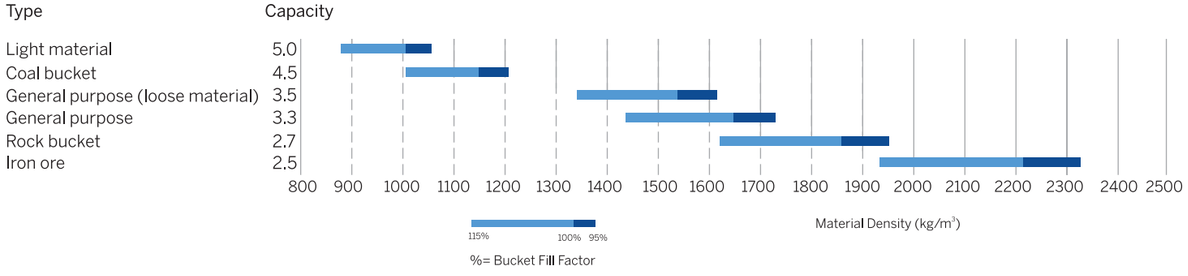




	Bucket type			Bolt on teeth				Bolt-on cutting edge	
Bucket capacity		ISO heaped	m^3	2.5*	2.7*	3.3	3.5*	4.5*	5.0*
		ISO struck	m^3	2.2	2.3	2.8	3	3.8	4
A	Overall length		mm	8,345	8,420	8,525	8,570	8,640	8,525
B	Overall height		mm			3,360			
C	Width over tires		mm			2,785			
D	Wheel base		mm			3,290			
E	Ground clearance		mm			450			
F	Tread		mm			2,160			
G	Bucket width		mm			2,910			3,500
H	Turning radius (Centerline of outside tire)		mm			5,770			
H'	Loader clearance radius, bucket in carry position		mm	6,560		6,375	6,620	6,655	6,880
I	Overall operating height		mm	5,390	5,515	5,395	5,680	5,885	5,815
J	Carry height of bucket pin		mm			300			
K	Height to bucket hinge pin, fully raised		mm			4,070			
L	Dumping clearance 45 degree, full height		mm	2,885	2,820	2,900	2,710	2,665	2,755
M	Reach, 45 degree dump, full height		mm	1,030	1070	1,020	1,180	1,235	1,160
N	Digging depth (Horizontal digging angle)		mm			120			
O	Max. roll back at carry position		deg	40		50		40	
P	Roll back angle at full height		deg			60			
	Static tipping load *	Straight	kg	14,858	14,360	14,960	14,803	14,530	14,370
	Full 40 degree turn		kg	12,683	12,258	12,770	12,636	12,403	12,267
	Breakout force		kN	182	170	156	149	121	130
			kgf	18,581	17,309	15,860	15,223	12,307	13,254
	Operating weight *		*kg	17,650	18,180	17,760	17,810	18,000	18,170

Note: All dimensions, weight and performance data based on ISO 67461:1987,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)	●
Control lever	
for 2 spools control valve	
Multifunction lever (MF lever)	●
Control lever lock switch	●
Bucket auto level	●
Hydraulic filters	●
Lift arm kickout	●
Reservoir sight gauge	●
Ride control system (OFF-AUTO type)	○

TIRES

23.5-25-20 PR (L3)	●

MISCELLANEOUS

Articulation lock bar	●
Auto lubrication system	○
Bucket cylinder guard	○
Counterweight, built-in	●
Drawbar with locking pin	●
Emergency steering	●
Fenders	
for 23.5R25 (Front & rear fenders with mud flaps)	●
Front windshield guard	○
InSite	●
Lift arm	
Standard lift arm	●
High lift arm	○
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	●

OPERATOR'S STATION

Adjustable steering column	●
AM/FM radio with AUX for digital audio player	●
Auto control air conditioner with single intake filter	●
Auto idle	●
Coat hook	●
Glove compartment	●
Rear view camera & monitor	○
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	●
Seat	
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

Air intake	
Pre-cleaner (Turbo II)	●
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	●
Radiator	
Standard fin pitch radiator	●

ELECTRICAL SYSTEM

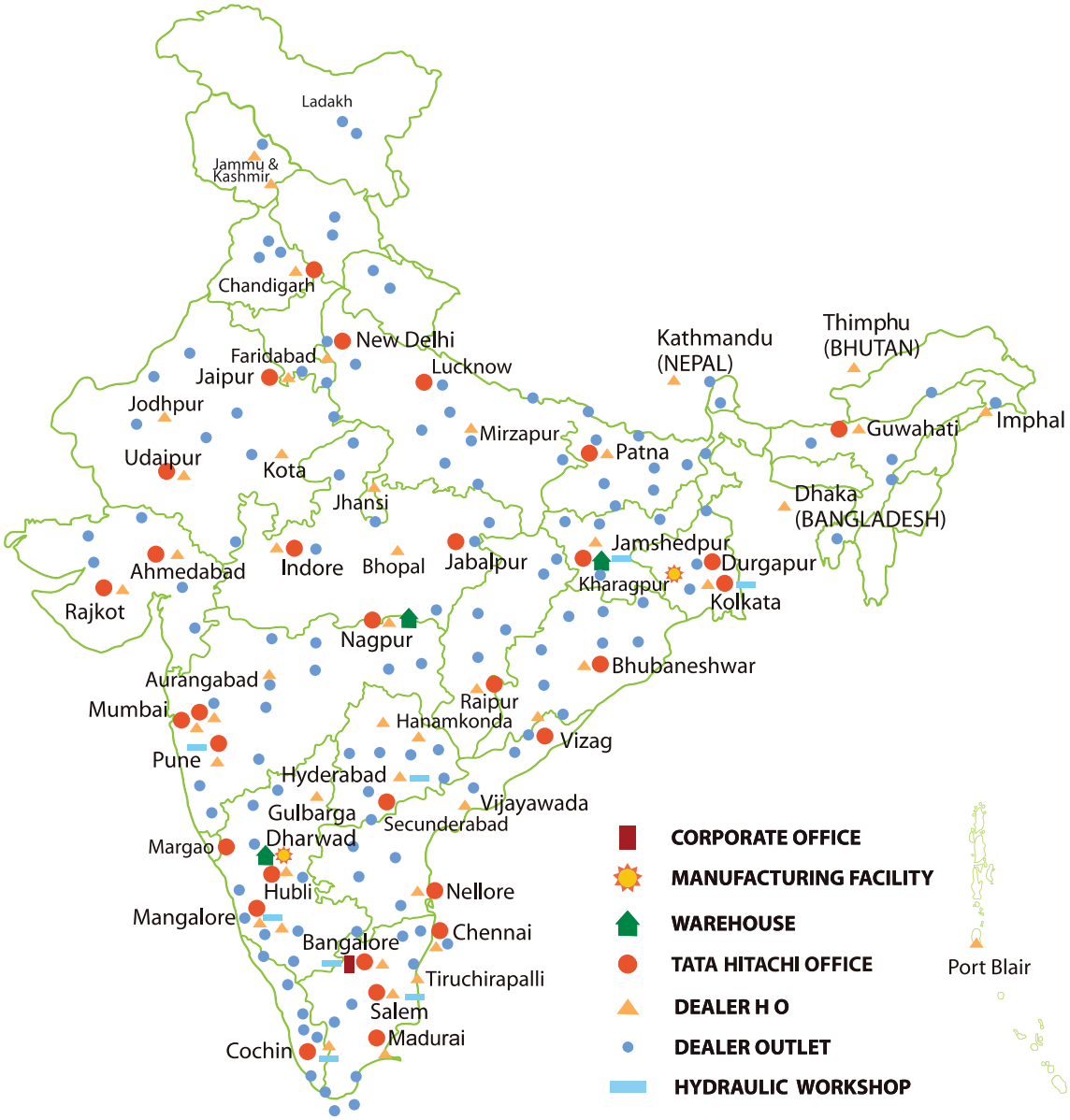
Backup alarm	●
Batteries	
Standard batteries (130AH-720CCA)	●
Battery disconnect switch	●

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

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	●

● ..... Standard equipment ○ ..... Optional equipment

Our Network



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