CHALO DESH BANAYE

TATA HITACHI

Reliable solutions

ZAXIS 80

HYDRAULIC EXCAVATOR

Model Code	: ZX80
Engine Rated Power	: 56 PS (55 HP)
Operating Weight	: 7 300 - 7 650 kg
Backhoe Bucket	: ISO Heaped : 0.13 - 0.30 m^3

NEW ZAXIS *Now, with the Power of GI*

A ZAXIS hallmark - industry-leading hydraulic technology, and performance no other can beat. The New ZAXIS-GI Series Excavators provide reliable solutions: impressive fuel economy, swift front movements, and easy operation. Another highlight in the new Zaxis-GI series is the optimized hydraulic system and engine which is the result of Hitachi's technological prowess and expertise.

The New ZAXIS-GI Series features the key benefits of high power, high fuel efficiency and high durability, all of which serve to ensure best in class performance and low running costs.

More Production with Less Fuel
Page 4-5

- 5% less fuel consumption
- 4% more engine torque
- Improved heat balance
- Low-effort pilot lever

Operator Comfort
Page 7

- Comfortable operating environment
- Full-auto air conditioner (Standard)

Highest Criteria of Sturdiness and Durability
Page 8-9

- Reinforced bucket (Optional)
- Reinforced arm (Standard)
- Upperstructure undercover (Standard)
- WC thermal spraying at arm-bucket joint

Hitachi Heritage of High Maintainability
Page 10

- Fuel double-filters (Standard)
- Dust-proof indoor net
- Easy-to-clean big fuel tank
- Battery disconnect switch (Optional)

Global e-Service
Page 11

- Easy Access to On-Site Machines through the Internet
- Main Features of Global e-Service

More Production with Less Fuel
Meeting Two Competing Needs

New electronically-controlled engine

5% Less Fuel Consumption*

Hitachi's fuel-saving technology is more evolved than ever. The electronically controlled engine can curb fuel consumption behind the electronic governor, and isochronous control, which is one of the fuel-saving technologies that can automatically control engine rpm through the electronic governor. This can suppress wasteful engine speed increase when big output is not needed, leading to less fuel consumption.

*Tata Hitachi measurements in P mode under standard digging test conditions

Covers with higher cooling efficiency

4% More Engine Torque

The new engine is designed to increase its maximum torque to keep running without speed drop at high altitudes with thin air and in hot summer season. At its maximum torque, the speed is kept low to ensure stable performance even under heavy loads.

Improved Heat Balance

Even at high temperatures in summer or in continuous long hours operation, the ZX80 can lessen overheating, with improved cooling efficiency

Finger tip control pilot lever

Low-Effort Pilot Lever

The new fingertip-control pilot lever reduces operator fatigue in long hours operation.

Enhanced Operator Comfort with Refined Controls and Cab Interior

Monitor panel

Switch panel

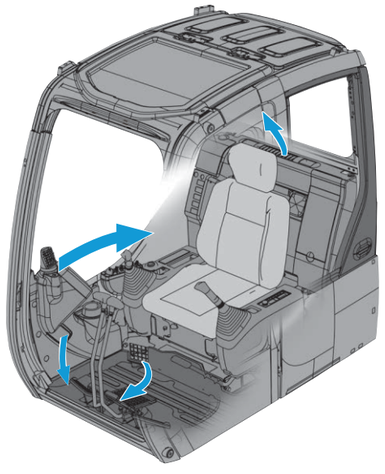
Comfortable Operating Environment

The cab is improved to enhance operator comfort and controllability. The monitor panel is positioned for easy reading from the operator seat Twin analog meters are easy to read. The simple-to-control switch panel is within easy reach when taking The comfortable operator hands off the control lever. seat is provided with a headrest and armrests, and is precisely adjustable to operator's build. It can be reclined and slid for pleasant positioning.

Monitor panel indicators are shown lit for demonstration. Auto Idle and Work Mode indicators disable.

Full-Auto Air Conditioner (Standard)

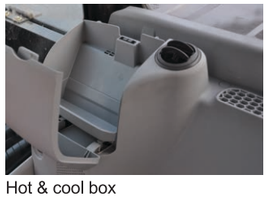
The full-auto air conditioner can keep preset in-cab temperatures by blowing fresh air. Air flow and outlets are adjusted automatically. Bi-level air flow makes it possible to warm leg space and cool head space simultaneously.



Full-auto air conditioner air outlets

Robust Cab

The robust cab, meeting the OPG (Top Guard Level 1), protects the operator from falling objects. The pilot control shut-off lever is provided with a neutral engine start system that permits engine starting only when the pilot control shut-off lever is in Lock position.



Hot & cool box

Drink holder

Emergency engine stop switch

Emergency evacuation hammer

Large overhead window

Right cab guard

Lever locking

One-Touch Front Window Lock

Speaker

Fan

Highest Criteria of Sturdiness and Durability Gives Higher Productivity

1 Reinforced arm
2 WC thermal spraying at arm-bucket joint
3 New HN bushings at front joints
4 Upperstructure undercover

Reinforced Arm (Standard)

The arm top and bottom is strengthened with reinforcing plates to withstand high loads.

Track Frame Undercover

The track frame bottom is protected with a full-length undercover against obstacles.

WC Thermal Spraying at Arm-Bucket Joint

WC (Tungsten-Carbide) thermal spraying is applied on surfaces of the arm-bucket joint to form hardening layers to reduce wear and jerking significantly.


New HN bushing


WC thermal spraying


Bucket with side cutter


Reinforced arm

Low Life Cycle Costs

Service intervals are long enough to slash maintenance costs.

Hydraulic Oil : 5 000 h
Fuel Filter : 250 h
Hydraulic Oil Filter : 1 000 h

Consumables

Note: Periodic inspection is required to check oil contamination.

Hitachi Heritage of High Maintainability to Reduce Downtime

Fuel Double-Filters (Standard)

Fuel double-filters are utilized in a fuel line from fuel tank to engine to avoid plugging.

Dust-Proof Indoor Net

The radiator is provided with a detachable dust protective net at its front to avoid dust entry.

Easy-to-Clean Big Fuel Tank

The fuel tank has the ample capacity of 135 liters. Its inlet is sealed with lockable cap to prevent water entry. At the bottom of the fuel tank is a drain cock, which serves to discharge contaminants inside, and a bolted cleaning port for easy opening and cleaning.


Fuel double-filters


Dust-proof indoor net

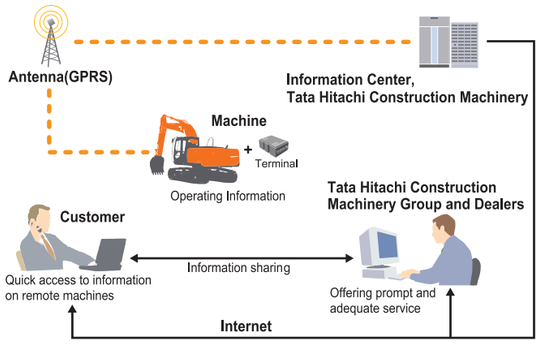

Large fuel tank


Drain cook & cleaning port

Remote Fleet Management with Global e-Service

Easy Access to On-Site Machines through the Internet

This on-line fleet management system allows you to access each on-site machine from a PC in your office. You can get its operating information and location to increase productivity of the fleet and reduce downtime. Operating data and log are sent to a Hitachi server for processing, and then to customer and dealers around the world. This system is available 24 hours a day, all the year around.



Note: In Some Regions, Global e-Service Is Not Available by Local Regulations.

Main Features of Global e-Service

Functions

Global e-Service provides easy access to a machine on site, conveying operating information and log, including daily operating hours, fuel level, temperatures, pressures, and likes.

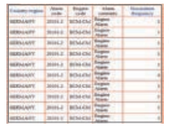
Maintenance

Maintenance data and log are displayed on a easy-to-read monitor screen, suggesting recommended maintenance for efficient fleet management.

Operation

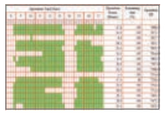
- Working site of customer machine can be determined.
- Route to working site of customer machine can be determined also.

Alarm function



Information of alarms as causes of machine failures can be received in real time.

Hour meter / Daily report



Daily machine operation hours and remaining fuel can be determined.

Operation information

Hydraulic oil temperature, swing hours and other data are determined.

SPECIFICATIONS

ENGINE

Model ..... MHI S4S
Type ..... 4-cycle water-cooled, Inline diesel engine
No. of cylinders 4
Rated power
JISD0006 ..... 41 kW (55 HP) @ 2000 rpm
Maximum torque ..... 200 Nm (20.3 kgfm) @ 1 600 min^{-1}(rpm)
Piston displacement ..... 3.331 L
Bore and stroke ..... 94 mm x 120 mm
Batteries ..... 2 x 12 V / 65 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps ..... 3 variable displacement axial piston pumps
Maximum oil flow ..... 2 x 60 L/min
1 x 50 L/min
Pilot pump ..... 1 gear pump
Maximum oil flow ..... 20 L/min

Hydraulic Motors

Travel ..... 2 variable displacement axial piston motors
Swing ..... 1 axial piston motor

Relief Valve Settings

Implement circuit ..... 26.0 MPa (265 kgf/cm^2)
Swing circuit ..... 22.6 MPa (230 kgf/cm^2)
Travel circuit ..... 31.4 MPa (320 kgf/cm^2)
Pilot circuit ..... 3.9 MPa (40 kgf/cm^2)

Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Boom	1	115 mm	65 mm
Arm	1	95 mm	60 mm
Bucket	1	85 mm	55 mm
Blade	1	120 mm	70 mm

UPPERSTRUCTURE

Revolving Frame

D-section frame skirt for resistance to deformation.

Swing Device

Axial piston motor with planetary reduction gear is bathed in oil.
Swing circle is single-row. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed ..... 10.4 min^{-1} (rpm)
Swing torque ..... 12.9 kNm (1 320 kgfm)

Operator's Cab

Independent spacious cab, 1 042 mm wide by 1 675 mm high, conforming to ISO* Standards.
* International Organization for Standardization

WEIGHTS AND GROUND PRESSURE

Operating weight and Ground pressure

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	450 mm (Standard)	7 300 - 7 650 kg	0.32 - 0.26 kgf / cm^2

UNDERCARRIAGE

Tracks

Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

Numbers of Rollers and Shoes on Each Side

Upper roller 1
Lower rollers 5
Track shoes 38

Travel Device

Each track driven by 2-speed axial piston motor.
Parking brake is spring-set/hydraulic-released disc type.
Automatic transmission system: High-Low.

Travel speeds ..... High : 0 to 5.0 km/h
Low : 0 to 3.4 km/h

Maximum traction force ..... 47.8 kN (4 870 kgf)

Gradeability ..... 30^0 (Continuous)

SERVICE REFILL CAPACITIES

Fuel tank ..... 135.0 L
Engine coolant ..... 12.0 L
Engine oil ..... 10.0 L
Travel device (each side) ..... 2.5 L
Hydraulic system ..... 100.0 L
Hydraulic oil tank ..... 60.0 L

BUCKET AND ARM DIGGING FORCES

Arm length	1.62 m	2.12 m
Bucket digging force* ISO	55.0 kN (5 600 kgf)	55.0 kN (5 600 kgf)
Bucket digging force* SAE : PCSA	47.0 kN (4 800 kgf)	47.0 kN (4 800 kgf)
Arm crowd force* ISO	38.0 kN (3 900 kgf)	32.0 kN (3 300 kgf)
Arm crowd force* SAE : PCSA	36.0 kN (3 700 kgf)	31.0 kN (3 200 kgf)

BACKHOE ATTACHMENTS

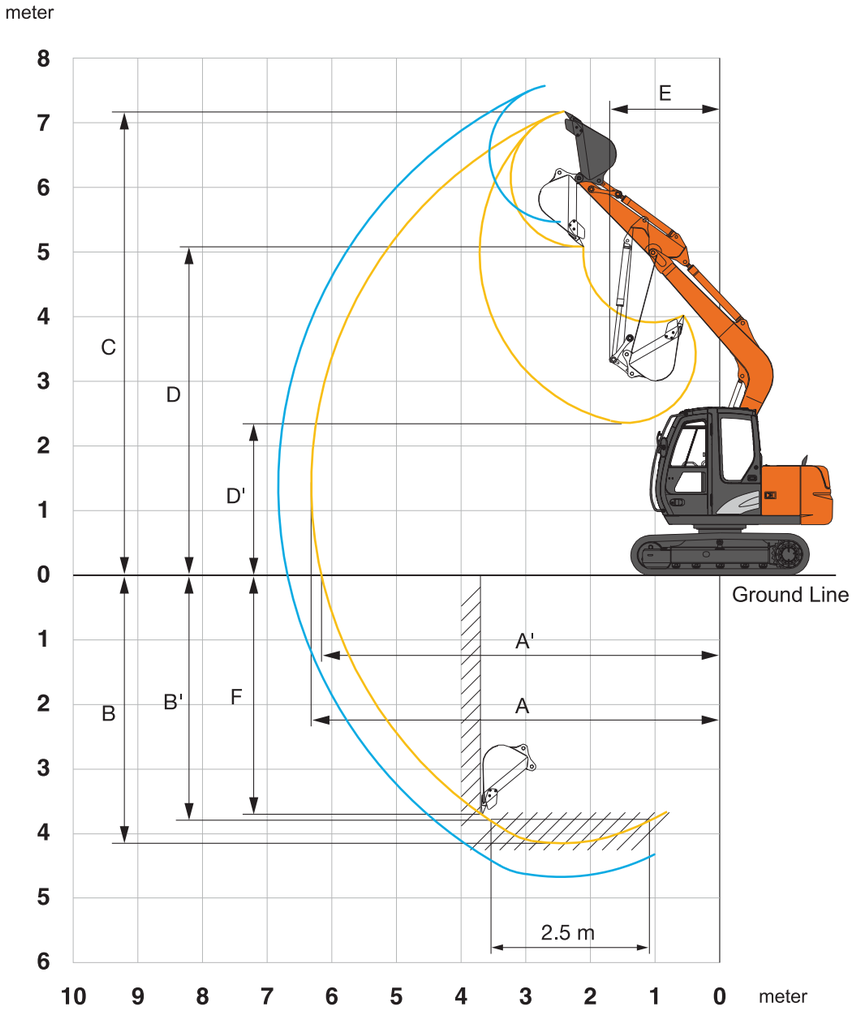
Buckets

Boom and arms are of welded, box-section design. 3.72m boom and 1.62m and 2.12m arms are available.
Bucket is of welded steel structure. Side clearance adjust mechanism provided on the bucket joint bracket.

Capacity	Width without side cutter	Width with side cutter	Weight	Tooth points
0.3 m^3 (GP)	695 mm	796 mm	230 kg	4
0.3 m^3 (HD)	672 mm	-	263 kg	4
0.13 m^3 (Narrow Bucket)	360 mm	461 mm	153 kg	3

SPECIFICATIONS

WORKING RANGES



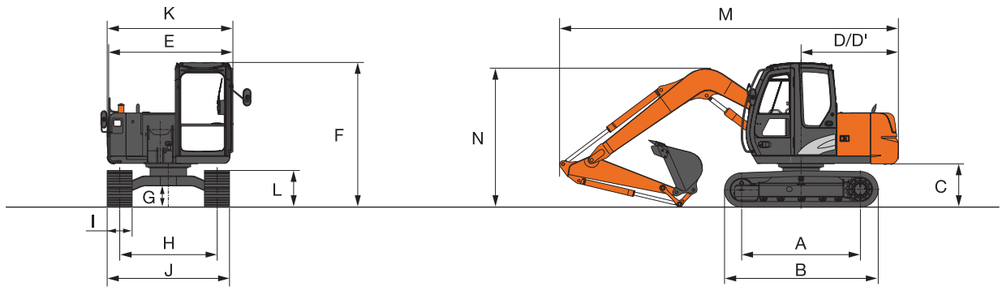
Unit: mm

Arm length	1.62m	2.12m
A Max. digging reach	6 320	6 810
A' Max. digging reach (on ground)	6 170	6 670
B Max. digging depth	4 170	4 670
B' Max. digging depth for 2.5 m level	3 820	4 320
C Max. cutting height	7 150	7 550
D Max. dumping height	5 060	5 450
D' Min. dumping height	2 340	1 920
E Min. swing radius	1 720	2 080
F Max. vertical wall digging depth	3 730	4 280

Excluding track shoe lug

SPECIFICATIONS

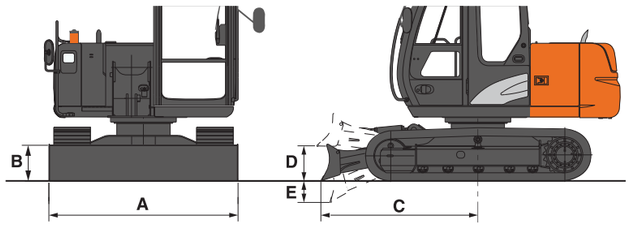
DIMENSIONS



Unit: mm

	ZX80-GI
A Distance between tumblers	2 140
B Undercarriage length	2 765
C Counterweight clearance	760
D Rear-end swing radius	1 750
D' Rear-end length	1 750
E Overall width of upperstructure	2 260
F Overall height of cab	2 600
* G Min. ground clearance	360
H Track gauge	1 700
I Track shoe width	450
J Undercarriage width	2 150
K Overall width	2 260
L Track height with triple grouser shoes	655
M Overall length	
With 1.62 m arm	6 080
With 2.12 m arm	6 120
N Overall height of boom	
With 1.62 m arm	2 550
With 2.12 m arm	2 880

BLADE



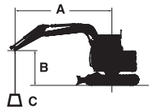
A Overall width of blade	2 320 mm
B Overall height of blade	435 mm
C Blade distance	1 910 mm
D Max. rasing height above ground	400 mm
E Max. lowering depth from ground	280 mm

Equipped with 450 mm triple grouser shoe.

LIFTING CAPACITIES (Without Bucket)

Notes: 1. Ratings are based on ISO 10567.
2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
3. The load point is the center-line of the bucket pivot mounting pin on the arm.
4. *Indicates load limited by hydraulic capacity.
5. 0 m = Ground.

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.



A: Load radius
B: Load point height
C: Lifting capacity

Blade on Ground

Rating over-front | Rating over-side or 360 degrees | Unit : kg

Conditions	Load point height m	Load radius 1.5 m		3.0 m		4.5 m		Max. reach		
		over-front	over-side	over-front	over-side	over-front	over-side	over-front	over-side	meter
Boom 3.72 Arm 1.62 m Counter weight 800 kg Grouser shoe 450 mm	4.5			1 594*	1 594*			1 530*	1 530*	4.22
	3.0			2 163*	2 163*	1 796*	1 437	1 462*	1 211	5.01
	1.5			3 070*	2 447	2 074*	1 371	1 553*	1 089	5.27
	0.0			3 503*	2 328	2 278*	1 319	1 832*	1 119	5.08
	-1.5	4 398*	4 398*	3 336*	2 321			2 170*	1 364	4.39

Blade above Ground

Rating over-front | Rating over-side or 360 degrees | Unit : kg

Conditions	Load point height m	Load radius 1.5 m		3.0 m		4.5 m		Max. reach		
		over-front	over-side	over-front	over-side	over-front	over-side	over-front	over-side	meter
Boom 3.72 Arm 1.62 m Counter weight 800 kg Grouser shoe 450 mm	4.5			1 594*	1 594*			1 530*	1 530*	4.22
	3.0			2 163*	2 163*	1 652	1 437	1 388	1 211	5.01
	1.5			2 916	2 447	1 582	1 371	1 250	1 089	5.27
	0.0			2 788	2 328	1 528	1 319	1 289	1 119	5.08
	-1.5	4 398*	4 398*	2 779	2 321			1 582	1 364	4.39

EQUIPMENT

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

● : Standard equipment ○ : Optional equipment

ENGINE

Air cleaner	●
Air cleaner double filters	●
Auto idle system	●
Cartridge-type engine oil filter	●
Cartridge-type fuel pre-filter	●
Cartridge-type fuel main filter	●
Dry-type air filter with evacuator valve (with air filter restriction indicator)	●
Dust-Proof indoor net	●
E/P mode control	●
Fan guard	●
Pre-cleaner	●
Radiator reserve tank	●
Water separator	●
35 A alternator	●

HYDRAULIC SYSTEM

Boom anti-drift valve	●
Control valve with main relief valve	●
E-P control system	●
Full-flow filter	●
One extra port for control valve	●
Pilot filter	●
Shockless valve in pilot circuit	●
Suction filter	●

CAB

All-weather sound suppressed steel cab	●
AM-FM radio with digital clock	●
Auto control air conditioner	●
Drink holder	●
Electric horn	●
Engine shut-off switch	●
Evacuation hammer	●
Floor mat	●
Footrest	●
Front window washer	●
Front windows on upper, lower and left side can be opened	●
Glove compartment	●
Intermittent windshield wipers	●
Lower cab front guard	○
Pilot control shut-off lever	●
Seat : fabric seat	●
Seat : mechanical suspension seat	●
Seat adjustment part : backrest, slide forward / back	●
Upper cab front guard	○
4 fluid-filled elastic mounts	●

MONITOR SYSTEM

Alarm buzzers: Engine oil pressure and engine overheat	●
Meters: Hourmeter, engine coolant temperature gauge and fuel gauge	●
Pilot lamps: Engine preheat, work light, auto-idle	●
Warning lamps: Alternator charge, engine oil pressure, engine overheat, air filter restriction and minimum fuel level coolant level, engine oil level, engine warning	●

LIGHTS

4 working lights	●

UPPERSTRUCTURE

Fuel level float	●
Hydraulic oil level gauge	●
Rear view mirror (right & left side)	●
Swing parking brake	●
Tool box	●
Undercover	●
2 x 65 Ah batteries	●
800 kg counterweight	●

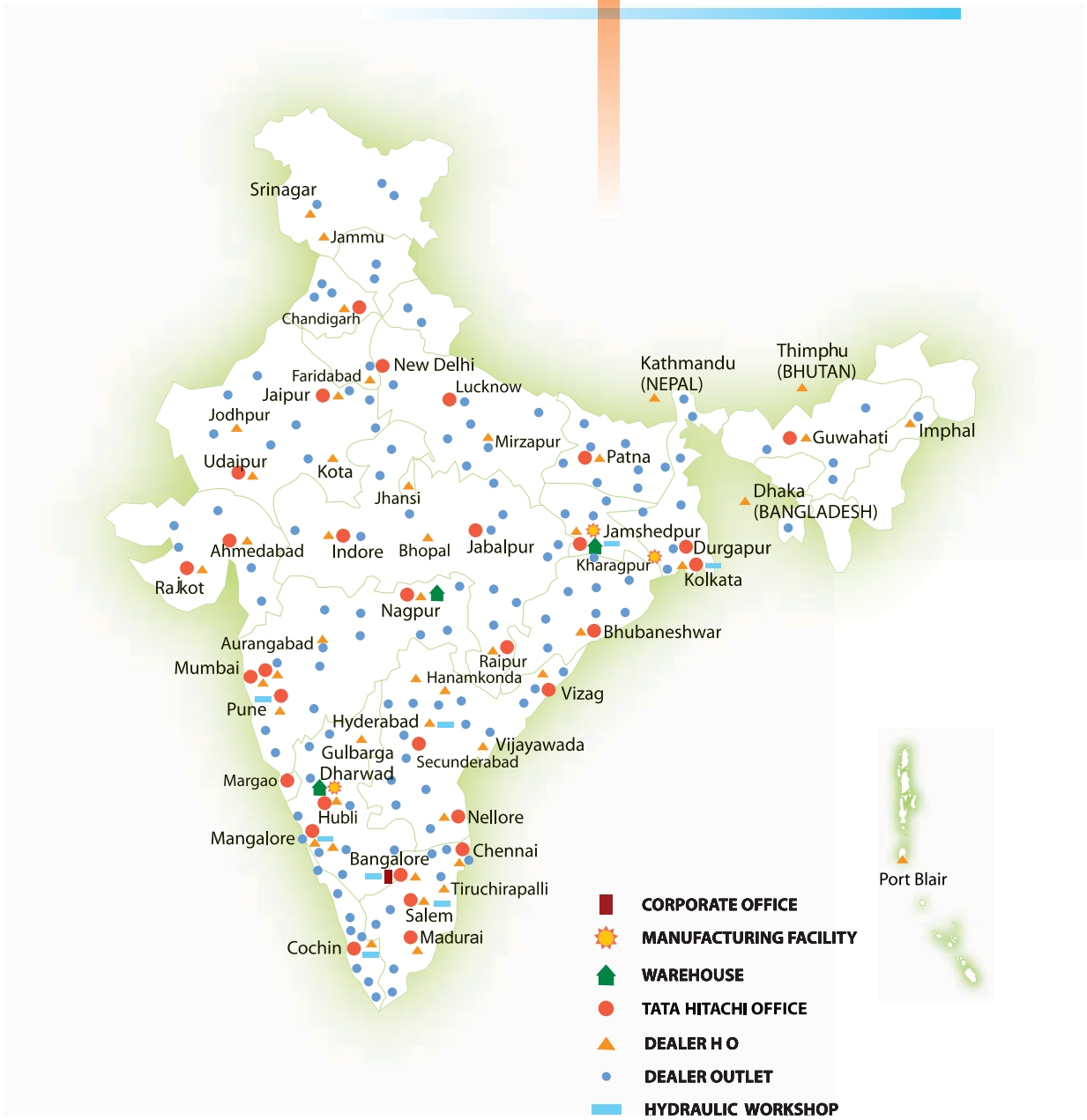
UNDERCARRIAGE

Blade	●
Bolt-on sprocket	●
Hydraulic track adjuster	●
Reinforced track links with pin seals	●
Travel motor covers	●
Travel parking brake	●
Upper and lower rollers	●
450 mm triple grouser shoe	●

FRONT ATTACHMENTS

Bucket clearance adjust mechanism	●
Centralized lubrication system	●
Dirt seal on all bucket pins	●
HN bushing	●
Monolithically cast bucket link A	●
Reinforced resin thrust plate	●
WC (tungsten-carbide) thermal spraying	●
0.3 m^3 bucket (ISO heaped)	●
1.62 m arm	●
3.72 m boom	●

OUR NETWORK



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