

ENGINE	
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)	●
Fan guard	●
Water separator	●
Pre-cleaner	●
Dust-Proof indoor net	●
Radiator reserve tank	●
50 A alternator	●

HYDRAULIC SYSTEM	
Control valve with main relief valve	●
Full-flow filter	●
Pilot filter	●
Power boost	●
Suction filter	●
One extra port for control valve	●
Work mode selector	●

CAB	
All-weather sound suppressed steel cab	●
AM-FM radio with 2 speakers	●
Auto control air conditioner	●
AUX. terminal and storage	○
H-Cab	●
Drink holder	●
Drink holder with hot & cool	●
Electric double horn	●
Engine shut-off lever	●
Evacuation hammer	●
Floor mat	●
Footrest	●
Front window washer	●
Front windows on upper, lower and left side can be opened	●
Lower cab front guard	●
Upper cab front guard	●
Glove compartment	●
Hot & cool box	●
Intermittent windshield wipers	●

guard Level II (ISO10262) compliant cab	●
Pilot control shut-off lever	●
Rear tray	●
Retractable seat belt	●
Rubber radio antenna	●
Seat : fabric seat	●
Seat : Air suspension seat	●
Seat : air suspension seat with heater	○
Seat adjustment part : backrest, armrest, height and angle, slide forward / back	●
Short wrist control levers	●
Twin wiper	●
4 fluid-filled elastic mounts	●

MONITOR SYSTEM	
Alarm buzzers: overheat, engine oil pressure, overload	●
Alarms: overheat, engine warning, engine oil pressure, alternator, minimum fuel level, hydraulic filter restriction, air filter restriction, work mode, overload, etc	●
Display of meters: water temperature, hour, clock	●
Other displays: work mode, auto-idle, glow, rearview monitor, operating conditions, etc	●

LIGHTS	
Additional cab roof front lights	○
Additional boom light with cover	○
2 working lights	●

UPPER STRUCTURE	
Electric fuel refilling pump	○
Fuel level float	●
Hydraulic oil level gauge	●
Rear view camera	●
Rear view mirror (right & left side)	●
Swing parking brake	●
Tool box	●
Undercover	●
Utility space	●

UNDERCARRIAGE	
Bolt-on sprocket	

Reinforced track links with pin seals	●
Travel parking brake	●
Track guard (each side) and hydraulic track adjuster	●
Upper and lower rollers	●
3 track guards	●
4 tie down hooks	●
600 mm triple grouser shoes	●

FRONT ATTACHMENTS	
Casted H link	●
Dirt seal on all bucket pins	●
Flanged pin	●

ATTACHMENTS	
Attachment basic piping	○
Breaker and crusher piping	○
High mesh full flow filter with restriction indicator	○
Parts for breaker and crusher	○
2 pump combined flow for attachment basic piping	○
Line filter	○

MISCELLANEOUS	
Lockable fuel refilling cap	●
Lockable machine covers	●
Onboard information controller	●
Skid-resistant tapes, plates and handrails	●
Standard tool kit	●
Travel direction mark on track frame	●
BT Radio	●
Floating Pin at arm bucket joint	○
Travel Alarm	●
Visual Alarm	●
Handrail on Counter Weight	●
CLS system with bucket point	●
Battery cut-off switch	●
Swing Lock	●
Operator Fatigue Sensor	○
AFDSS DGMS Phase II	●
Telematics- ConSite	●

- Standard
○ Optional



BUILT TO LAST.
ENGINEERED TO PERFORM.

Zaxis 670H



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OUR RANGE OF PRODUCTS

Mini Excavator

Construction Excavator

Backhoe Loader

Wheel Loader

Dump Truck

Mining Excavator

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/ZX670H/1BP / JUNE2023

Engine Rated Power :
295 kW (400 PS)

Operating Weight : Backhoe: 61,750 kg
Shovel : 63,500 kg

Bucket Backhoe : 3.3 m³ - 4.1 m³
SAE, PCSA Heaped : Shovel : 3.0 m³ - 4.0 m³

BUILT TO LAST. ENGINEERED TO PERFORM.

The all new ZAXIS 670H excavator embraces Tata Hitachi's latest advancements in design while performing consistently to meet the tough demands of the mining industry.

Engineered from the ground up to strike a balance between productivity and reliability, the ZAXIS 670H sets a new standard. Designed with precision, Tata Hitachi's meticulous craftsmanship delivers robust and adaptable solution for all types of mining operations.



**Performance and
Productivity**

**Durability and
Safety**

**Maintenance and
Support**

**Operator
Comfort**

Telematics



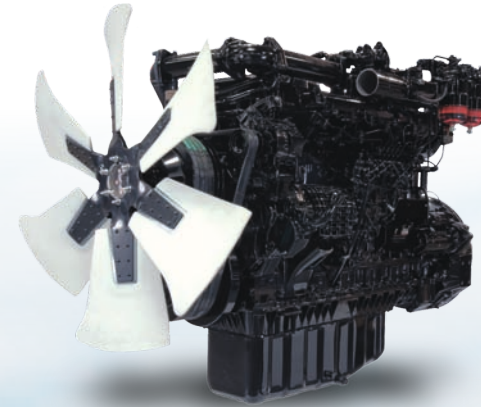
PERFORMANCE AND PRODUCTIVITY

Environment friendly EPA tier II engine

Introducing the powerful 295 kW (400 PS) engine with its rugged design, direct fuel injection system, and governor.

Designed to tackle the toughest jobs at any mining site with ease, this engine boasts an impressive track record of durability at countless job sites around the world. Thanks to its simple yet effective cooling system, featuring a radiator and oil cooler, it provides smooth airflow for improved cooling efficiency.

EPA Tier II engine can power through any challenge with its impressive reliability and strength.



Work modes for increased performance

There are four dynamic and distinct work modes which are suitable for a variety of applications

- General Purpose
- Trench Digging mode
- Attachment mode
- Precision mode



Maximize efficiency with larger buckets

Equipped with a wide range of buckets, varying from 3.3 m³ to 4.1 m³, the all new ZAXIS 670H offers unmatched efficiency.

Backhoe Bucket	Shovel Bucket
• 3.3 m ³ (H D)	• 3.0 m ³
• 3.5 m ³ (G P)	• 3.3 m ³
• 3.8 m ³ (G P)	• 4.0 m ³
• 4.1 m ³ (G P)	

These precisely matched buckets ensure optimal loading for haulers, leading to increased productivity for both the excavator and dumper. High-capacity buckets, significantly reduce waiting time for dumpers, improving overall efficiency. Upgrade to the ZAXIS 670H Hydraulic excavator for seamless performance and unparalleled productivity.

Strengthened undercarriage

A new and improved undercarriage system for our machinery. The undercarriage boasts of an integral construction, with welded track centre and side frames, for maximum strength and stability. This engineering also provides a lower centre of gravity, ensuring enhanced stability during operations.

We understand the stress that can be placed on idler brackets during transit, which is why Tata Hitachi has designed the undercarriage with box-structure, X-Beams and reinforced plates to limit deformation and enhance travel stability.

In addition, an enhanced two-step side step ladder, makes it easier to enter and exit the cabin. The ZAXIS 670H's cutting-edge undercarriage system ensures maximum stability and reliability in the toughest job sites.



DURABILITY AND SAFETY

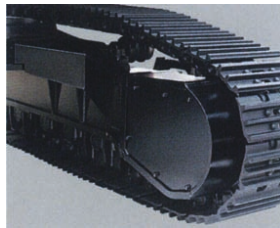
Rock solid front attachment

Built with the same heavy-duty boom and arm used in our conventional ZAXIS series standard models, this excavator boasts of increased strength to handle the continuous operations required in mining applications. With its adaptable bucket options, the ZAXIS 670H is perfect for both hard and soft strata applications.

Not only is the ZAXIS 670H built to withstand heavy workloads, but it also features advanced technology to improve the user experience. The arm, boom and bucket cylinders are equipped with retract side cushion shocks to reduce noise and extend service life.

Travel device

A compact travel device reduces the potential damage from external hit while travelling in rough terrains.

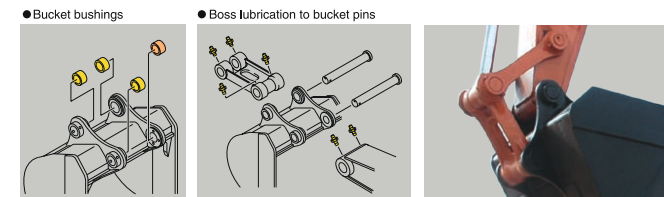


Elevate your work safety standards

Tata Hitachi's latest excavator model has been designed and equipped with all the necessary safety features to ensure compliance with DGMS regulations.

Our long list of safety features includes a Rear-View Camera, Lower and Upper Front Guard, Audio-Visual Travel Alarm, Swing Lock, Battery Cut-Off Switch, Automatic Fire Detection and Suppression System Phase II, Handrail on Counterweight, an optional Operator Fatigue Sensor, Anti-Slip Pads, among several other safety features.

Durable bucket joints



An innovative design with solid and large bucket pins, lubricated through bosses enhances the durability of the bucket joints. In addition, the use of bucket bushes reduces pin wear.

Unmatched durability and Efficiency guaranteed.

The reinforced boom and arm of the new ZAXIS 670H allow it to withstand extended hours of work in rugged environments, offering our customers a low-cost ownership experience.

Incorporating advanced technology, the ZAXIS 670H comes equipped with a filter-type high-performance water separator that effectively captures moisture in fuel, reducing impurities and minimizing fuel-related engine problems.

Additionally, dual fuel main filters and pre-filters are provided as standard, reducing the chances of fuel system failures. The fuel injector boasts a diamond-like carbon (DLC) coating that enhances its reliability and durability, while the twin-layer fuel main filter doubles filtration performance.

OPERATOR COMFORT

Smart, safe and comfortable cabin

One Glance Monitor Panel conveniently provides all relevant information to operators and engineers. Digital and analogue display enables easier control and access to information. Switches and controls are ergonomically placed for the operator to control the machine with ease without fatigue, enabling them to work stress free for longer durations.

FOPS CAB

FOPS Cabin: An ISO standard FOPS (Falling Object, Protective Structure) cabin used in the ZAXIS 670H ensures operator safety. An integrated, overhead guard helps provide protection from falling objects.

The rugged pressurised cabin with an integrated headrest greatly enhances operator comfort. Low noise and vibration inside the cabin reduce operator fatigue.



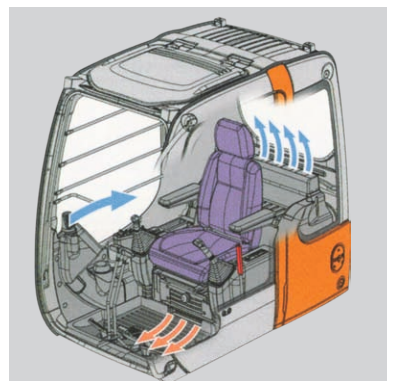
Enjoy your work



We believe that a comfortable and enjoyable workspace is key to maximizing productivity and comfort. To enhance operator experience, the ZAXIS 670H is equipped with a powerful AM/FM stereo radio and a USB port, allowing ease of playing your favourite music while working. The new music system also comes equipped with latest blue tooth connectivity, making it easier to stay focused and productive.



One-glance Monitor Panel Well-positioned Switches

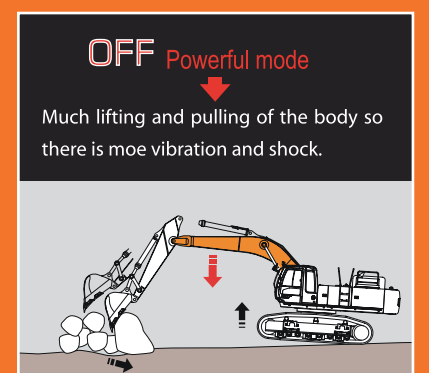
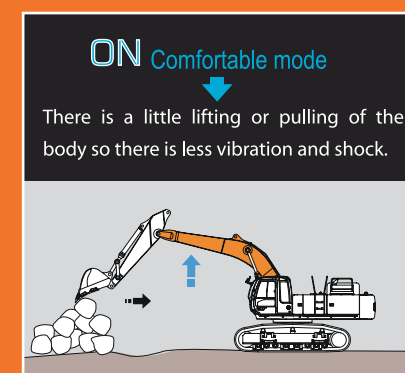


Auto Control Air Conditioner allows easy temperature adjustment. In addition, the AC ducts are positioned to promote even airflow throughout the cabin.

Boom mode selector helps reduce body vibration during scraping operation



The degree of lift or pull of the body during scraping applications can be controlled through a selector button. This helps in comfortable operations and contributes to longer component service life.



MAINTENANCE AND SUPPORT



Wide Centre Walkways for Easy Access



Centralized Filter System



Battery Access



Radiator and Oil Cooler



Easy Access for Daily Upkeep and Major Component Inspections



Easy access to engine and pump compartments

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.

TELEMATICS

SMART REMOTE MACHINE MANAGEMENT



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SPECIFICATIONS



ENGINE

Model Isuzu BB-6WG1X
Type 4-cycle water-cooled, direct injection
Aspiration Turbocharged
No. of cylinders 6
Rated power
DIN 6271, net 295 kW (400 PS) at 1 800 min⁻¹ (rpm)
SAE J1349, net 295 kW (395 HP) at 1 800 min⁻¹ (rpm)
Maximum torque 1 540 Nm (157 kgf·m)
at 1 500 min⁻¹ (rpm)
Piston Displacement 15.681 L
Bore and stroke 147 mm x 154 mm
Batteries 2 x 12 V, 170 AH
Governor Mechanical speed control by stepping motor



HYDRAULIC SYSTEM

- Work mode selector
 - General purpose mode
 - Trench digging mode
 - Attachment mode
 - Precision mode
 - Engine speed sensing system
- Main pumps 2 variable displacement axial piston pumps
Maximum oil flow 2 x 475 L/min
- Pilot pump 1 gear pump
Maximum oil flow 30 L/min

Hydraulic Motors

Travel 2 axial piston motors with parking brake
Swing 2 axial piston motors

Relief Valve Settings

Implement circuit 30.9 MPa
Swing circuit 29.4 MPa
Travel circuit 34.3 MPa
Pilot circuit 3.9 MPa

Hydraulic Filters

Hydraulic circuits use high-quality hydraulic filters. A suction filter is incorporated in the suction line, and full-flow filters in the return line and swing/ travel motor drain lines.



CONTROLS

Pilot controls. Hitachi's original shockless valve and quick warm-up system built in the pilot circuit. Hydraulic warm-up control system for hydraulic oil.
Implement levers 2
Travel levers with pedals 2



WEIGHTS AND GROUND PRESSURE

Backhoe Equipped with 6.6 m Boom, 2.9 m Arm and 4.1 m ³ (SAE, PCSA heaped) General Purpose Bucket			
Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	600 mm	61 750 kg	1.1 kgf/cm ²

Shovel Equipped with Loading Shovel Attachment and 3.5 m ³ (SAE, PCSA heaped) Bottom Dump Bucket			
Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	600 mm	63 500 kg	1.14 kgf/cm ²



UPPERSTRUCTURE

Revolving Frame

Welded, sturdy box construction, using heavy-gauge steel plates for ruggedness. D-section frame for resistance to deformation.

Swing Mechanism

Axial piston motor with planetary gear is bathed in oil. Swing circle is single-row, shear type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type. Swing cushion valve built in swing motor absorbs shocks when stopping swing.
Swing speed 10.2 min⁻¹ (rpm)

Operator's Cab

Independent, spacious cab, 1 005 mm wide by 1 820 mm high, conforming to ISO* Standards. Reinforced glass windows on 4 sides for visibility. Openable front windows (upper and lower). Adjustable, reclining seat with armrests; movable with or without control levers and monitor panel.
* International Standard Organisation



UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame, using carefully selected materials for tough jobs. Side frame bolted to track frame. Lubricated track rollers, idlers, and sprockets with floating seals. track shoes with triple grouser made of induction-hardened rolled alloy. Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

Upper rollers 3
Lower rollers 8
Track shoes 49
Track guard 2
H-track center guard (dual type) 1
Ground Pressure..... 1.1 kgf/cm²

Traction Device

Each track driven by axial piston motor through reduction gears for counter-rotation of the tracks. Sprockets are replaceable. Parking brake is spring-set/hydraulic-released disc type. Travel shockless relief valve built in travel motor absorbs shocks when stopping travel, ensuring smooth stops.

Travel speeds High: 0 to 5.0 km/h
Low: 0 to 3.5 km/h
Maximum traction force 415 kN (42 300 kgf)
Gradeability 35° (70%) continuous



SERVICE REFILL CAPACITIES

liters
Fuel tank 740
Engine coolant 98
Engine oil 55
Pump drive 7
Swing mechanism (each side) 10.5
Travel final device (each side) 14
Hydraulic system 618
Hydraulic tank 310

SPECIFICATIONS



BACKHOE ATTACHMENT

Boom and arms of all-welded, box-section design. Bucket is all welded, high-strength steel structure. Side clearance adjust mechanism provided on the bucket joint bracket.



WORKING RANGES

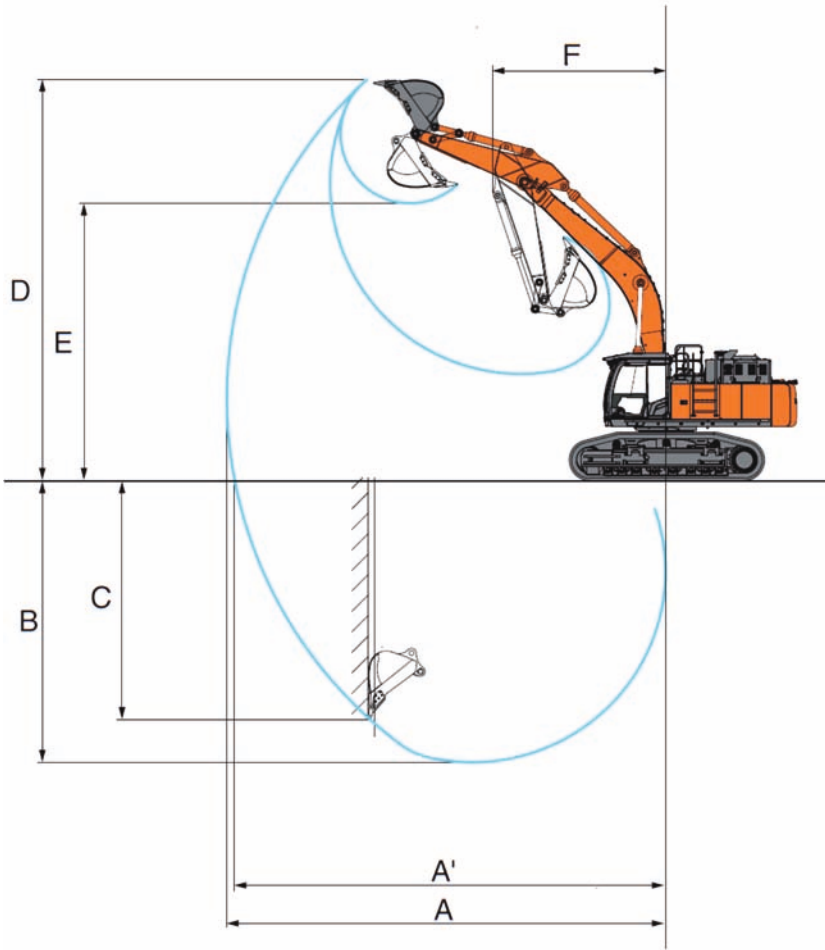


Figure not to scale
Unit : mm

	Boom Length	6 600
	Arm Length	2 900
A	Max. Digging Reach	11 645
A'	Max. Digging Reach on Ground	11 370
B	Max. Digging Depth	7 046
C	Max. Vertical Wall Depth	4 346
D	Max. Cutting Height	10 867
E	Max. Dumping Height	6 886
F	Min. Swing Radius	4 952
	Bucket Digging Force* ISO	308 kN (31400 Kgf)
	Arm Crowding Force* ISO	258 kN (26300 Kgf)
	Power Boost Arm Crowding Force* ISO	322 kN (32900 Kgf)
	Power Boost Arm Crowding Force* ISO	270 kN (27600 Kgf)

SPECIFICATIONS

Backhoe Buckets

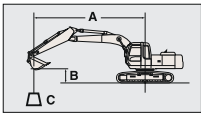
Capacity	Width		No. of Teeth	Weight	Boom 6.6 m Arm 2.9 m
SAE, PCSA Heaped	Without Side Cutters	With Side Cutters			
3.3 m³	1 910 mm	1 744 mm	5	3 078 kg	●
3.5 m³	1 850 mm	1 990 mm	5	3 160 kg	●
3.8 m³	1 850 mm	1 990 mm	5	3 020 kg	●
4.1 m³	1 885 mm	2 058 mm	5	3 364 kg	●

Backhoe Buckets

Capacity	Width		No. of Teeth	Weight	Boom 9.2 m	
SAE, PCSA Heaped	Without Side Cutters	With Side Cutters			Arm 7.0 m	Arm 9.0 m
1.0 m³	860	NA	5	1 127 kg	○	●
1.6 m³	1 190	NA	5	1 523 kg	●	○















- Suitable for materials with density of 1 800 kg/m³
- Heavy-duty service
- Not Suitable

Lifting Capacities



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

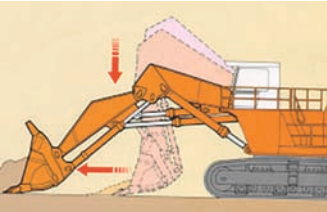
Unit: 1 000 kg

Conditions	Load point height	Load radius												Unit	kg	Meter
		4 m		5 m		6 m		7 m		8 m		9 m		At max. reach		
																
Boom 6.6 m Long arm 2.9 m HD counterweight Shoe 600 mm	7							*13.1	*13.1	*12.8	*12.8			*12.8	*12.8	8.2
	6					*14.8	*14.8	*13.7	*13.7	*12.9	*12.9			*12.7	*12.5	8.7
	4			*21.0	*21.0	*17.5	*17.5	*15.3	*15.3	*13.9	13.7	*12.9	11.5	*12.7	11.0	9.3
	2					*19.9	19.7	*16.9	15.9	*14.9	13.2	*13.4	11.2	*12.9	10.6	9.4
	0			*25.0	*25.0	*20.7	19.1	*17.6	15.4	*15.2	12.8	*13.3	11.2	*12.9	10.6	9.0
	-2	*27.4	*27.4	*23.0	*23.0	*19.4	19.0	*16.5	15.3	*13.9	12.9					
-4	*21.0	*21.0	*18.0	*18.0	*15.0	*15.0										
-5																

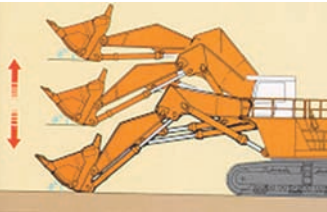
- Notes:
1. Ratings are based on ISO 10567.
 2. The lifting capacity does not exceed 75% of tipping load with the machine on firm level ground or 87% full hydraulic capacity.
 3. The lifting load has been calculated without bucket.
 4. For lift load with bucket, subtract bucket weight from given lift load.
 5. The load point is arm-bucket joint center point.
 6. * Limited by hydraulic capacity
 7. Load mentioned in 1000 kg
 8. 0 m = Ground
 9. Lifting load are for ZX670H machine with 6.6 m boom, 2.9 m arm & with HD counterweight (13.2 ton).

SPECIFICATIONS

LOADER ATTACHMENT



Auto-Leveling Crowd Mechanism

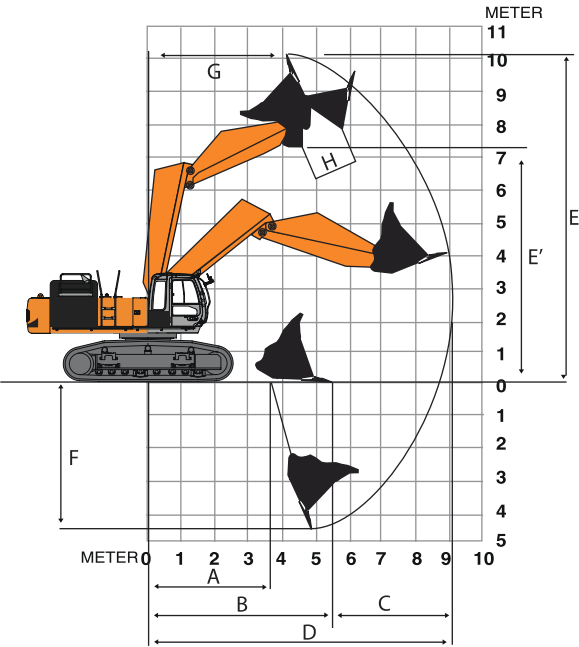


Auto Bucket level raise system

Patented Auto Level Crowd Mechanism

TATA Hitachi's unique patented auto level crowd mechanism on the ZX670H shovel version gives exceptional job efficiency, loading capability and operating ease. The level crowding operations are greatly simplified with just one control lever needed, the result is dramatically shorter cycle time and greatly increased productivity. This design also enables the crowd force to become strongest around the maximum reach point where the force is most required.

The parallel link mechanism keeps the bucket digging angle constant, and level cylinder circuit maintains the bucket height constant. Due to this feature the need for additional clean-up equipment is also eliminated as it ensures a level mine floor contributing to increased tyre life of the haul equipment. It also facilitates Auto-Bucket level raise avoiding spillage of the material apart from contributing greatly to the increased productivity. Patents registered in USA, Germany and Japan.



Working Ranges

	Boom Length	4 300
	Arm Length	3 300
A	min. Digging reach	3 794
B	min. Level crowding distance	5 487
C	Level crowding distance	3 302
D	max. Digging reach	9 216
E	max. Cutting height	10 147
E'	max. Dumping height	7 388
F	max. Digging depth	4 602
G	Working Radius at max. Dumping Height	4 768
H	max. Bucket Opening Width	1 420

All dimension are in mm

Arm Crowding Force (kgf)*	38 140
Bucket Breakout Force (kgf)*	38 600

* As per ISO standards.

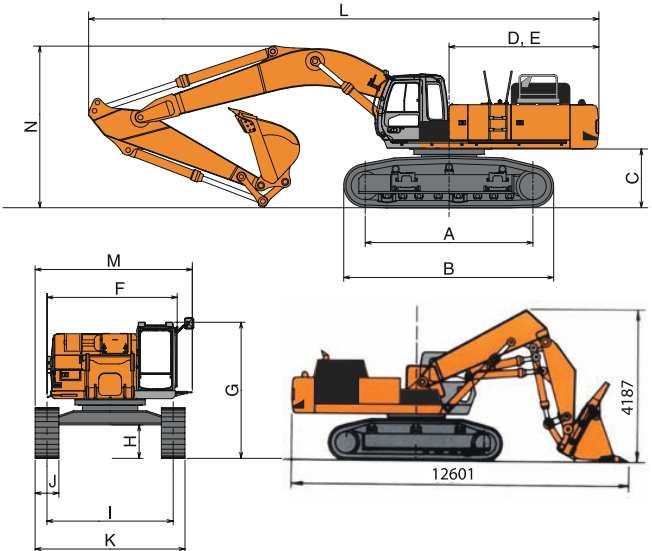
Shovel Buckets

Type	Bottom Dump	Bottom Dump	Bottom Dump
Capacity	3.0 m³	3.3 m³	4.0 m³
Width	1832 mm	1910 mm	2160 mm
Weight	4840 kg	4880 kg	4953 kg
No. of tooth points	6	6	6

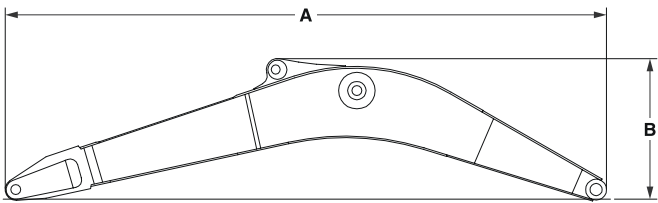
DIMENSIONS

Unit: mm

A	Distance between tumblers	4 250
B	Undercarriage length	5 330
C	Counterweight clearance	1 450
D	Rear-end swing radius	3 800
E	Rear-end length	3 800
F	Overall width of upperstructure	3 310
G	Overall height of cab	3 500
H	Min. ground clearance	810
I	Track gauge	3 200
J	Track shoe width	600
K	Undercarriage width	3 800
L	Overall length	13 030
M	Overall width	3 990
N	Overall height of boom	4 270



SPECIFICATIONS



Backhoe Boom

	A	B	Overall width	Weight
6.6 m	6 880 mm	2 320 mm	1 180 mm	5 250 kg

Backhoe Long Boom

	A	B	Overall width	Weight
9.2 m	9 490 mm	2 150 mm	1 185 mm	5 300 kg

Backhoe Arm

	A	B	Overall width	Weight
2.9 m	4 290 mm	1 440 mm	790 mm	3 210 kg

Backhoe Long Arm

	A	B	Overall width	Weight
9.0 m	10 385 mm	1 270 mm	700 mm	4 391 kg
7.0 m	8 380 mm	1 340 mm	700 mm	3 965 kg

Boom cylinders

520 kg × 2

A	B	Overall height
2 660 mm	520 mm	360 mm

Hose of boom cylinders

6 kg × 4

A	B
1 120 mm	41 mm

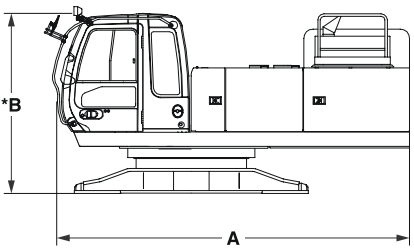
Left sidewalk

	A	B	Overall width	Weight
Front	1 920 mm	430 mm	130 mm	40 kg
Reverse	2 410 mm	340 mm	130 mm	40 kg

Side frame

	Shoe width	A	B	Overall width	Weight
ZAXIS 670H	600 mm	5 330 mm	1 310 mm	720 mm	7 900 kg

SPECIFICATIONS



Upperstructure

	A	B	Overall width	Weight
ZAXIS 670H	5 000 mm	2 650 mm	3 290 mm	18 800 kg

Counterweight

	A	B	Overall height	Weight
STD.	3 210 mm	790 mm	1 250 mm	10 500 kg
HD	3 210 mm	790 mm	1 250 mm	13 195 kg

Basic machine (without counterweight)

	Shoe width	A	B	Overall width	Weight
ZAXIS 670H	600 mm	5 730 mm	3 500 mm	3 300 mm	34 500 kg

Shovel Bucket

A	B	Overall width	Weight
1 616 mm	2 090 mm	2 010 mm	4 724 kg

Shovel Boom

A	B	Overall width	Weight
4 710 mm	1 441 mm	1 218 mm	3 461 kg

Shovel Arm

A	B	Overall width	Weight
3 579 mm	1 222 mm	966 mm	2 123 kg

