#### **EQUIPMENT**

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	0
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, USB, AUX, Bluetooth and Radio	•
Auto control air conditioner	•
AUX. terminal and storage	0
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 wiper	•

Key cylinder light	•
OPG top guard Level I (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	0
Seat adjustment part : backrest, armrest, height and angle, slide forward / back	0
Short wrist control levers	•
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, fuel level and hour	•
Other displays: work mode, auto-idle, glow, rearview monitor, operating conditions, etc	•
32 languages selection	•

LIGHTS	
Cab roof front light (2 nos)	•
Boom light without cover (2 nos)	•
1 working lights in tool box	•
Cab roof rear light	0
Counter weight lights (2 nos)	0

0
•
•
•
•
•
•
•
•

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	0
Breaker and crusher piping	0
High mesh full flow filter with restriction indicator	0
Parts for breaker and crusher	0
2 pump combined flow for attachment basic piping	0
Line filter	0

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	•
Floating Pin at arm bucket joint	0
Travel Alarm	•
Visual Alarm	•
Handrail on Counter Weight	•
CLS system with bucket point	•
Battery cut-off switch	•
Swing Lock	•
Operator Fatigue Sensor	0
AFDSS DGMS Phase II	•
Telematics - Global e-Service	•

#### Tata Hitachi Construction Machinery Company Private Limited

Registered Office: Jubilee Building, 45 Museum Road, Bangalore, India 560025 Telephone: +9180 66953301 / 02 / 03 / 04 / 05 | Email: info@tatahitachi.co.in



























Reliable solutions

# **BUILT TO LAST.** ENGINEERED TO PERFORM.

ZAXIS 670H



SAE, PCSA Heaped: Shovel: 3.0 m<sup>3</sup> - 4.0 m<sup>3</sup>



# 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

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



#### Maximize efficiency with larger buckets

Equipped with a wide range of buckets, varying from 3.3 m<sup>3</sup> to 4.1 m<sup>3</sup>, the all new ZAXIS 670H offers unmatched efficiency.

Backhoe Bucket

Shovel Bucket

• 3.3 m³ (H D)

• 3.0 m<sup>3</sup> 3.3 m³

• 3.5 m<sup>3</sup> (G P)

• 3.8 m³ (G P)

• 4.1 m³ (G P)

4.0 m³

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.



#### 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



ZAXIS

### **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 is 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.

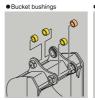


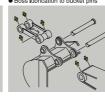
#### Elevate your work safety standards

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.

# System Phase II, Handrail on Counterweight, an optional Öperator Fatigue Sensor, Anti-Slip Pads, among several other safety features.

## **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

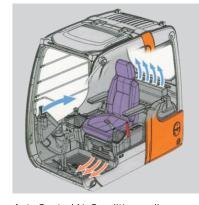




We believe that a comfortable and enjoyable workspace is key to maximizing productivity and comfort. To enhance operator experience, the ZAXIS 670H is equipped with a powerful AM/FM stereo radio and a USB port, allowing ease of playing your favourite music while working. The new music system also comes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



One-glance Monitor Panel Well-positioned Switch



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

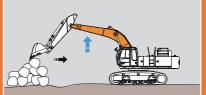
# Boom mode selector helps reduce body vibration during scraping operation



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.

# ON Comfortable mode There is a little lifting or pulling

There is a little lifting or pulling of the body so there is less vibration and shock.





07

## **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

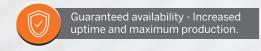
# **Full Maintenance Contract**



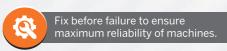


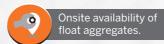


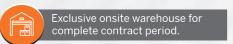


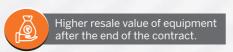


at site on 365 x 24 hours basis









# **TELEMATICS**

#### SITE EFFICIENCY PARAMETERS

Advises you on ways to fine tune everyday operations



Download the ConSite Pocket ann toda

- ✓ Minimise downtime
- Support your business

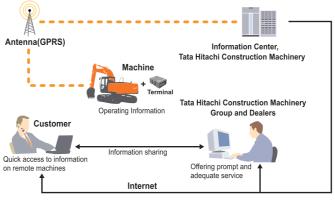


#### Remote Fleet Management with Global e-Service

# Easy access to On-Site Machines through the internet

Global e Service is a convenient and simple system designed to give you valuable information regarding the operations, maintenance, system parameters and alarms of your machines from the convenience of your office. This system can be configured to give you a customised dashboard of the vital parameters that you would like to monitor, to increase productivity and reduce the downtime of your fleet

The operating data and logs are sent to our servers for processing and then to customers and dealers around the world. This system is available 24 hours a day, all the year round and can be viewed on your laptops and mobile devices through the Internet.



Note: In Some Regions, Global e-Service may not be Available due to Local Regulations.

#### Main Features of Global e-Service

Global e Service provides easy access to a machine on site conveying operating information and log, including daily operating hours, operations, fuel levels, location, itemised maintenance scheduling, machine's technical parameters and alarm history.



Operation
Working site of customer machine can be determined.

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

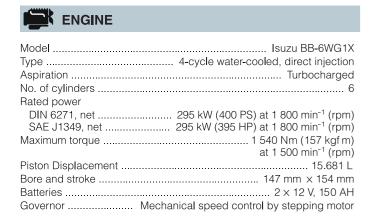
Daily machine operation hours and remaining fuel can be determined.



Operation information

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

#### **SPECIFICATIONS**





- Work mode selector
- General purpose mode Trench digging mode
- Attachment mode
- Precision mode

Engine speed sensing system

	. 2 variable displacement axia	
Maximum oil flow		2 x 475 L/mir
Pilot pump		1 gear pump

Maximum oil flow.

#### **Hydraulic Motors**

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

#### **Relief Valve Settings**

Implement circuit	30.9	MPa
Swing circuit		
Travel circuit		
Pilot circuit		
The check		

#### **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.



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
	Travel levers with pedals

#### WEIGHTS AND GROUND PRESSURE

Equipped with 6.6 m Boom, 2.9 m Arm and 4.1 m<sup>3</sup> (SAE, PCSA heaped) General Purpose Bucket

111				1 7 - 1
	Shoe type	Shoe width	Operating weight	Ground pressure
	Triple grouser	600 mm	61 750 kg	1.1 kgf/cm <sup>2</sup>

#### Shovel

Equipped with Loading Shovel Attachment and 3.5 m<sup>3</sup> (SAF, PCSA heaped) Bottom Dump Bucket

Shoe type Shoe width Operat		Operating weight	Ground pressure		
Triple grouser	600 mm	63 500 kg	1.14 kgf/cm <sup>2</sup>		

#### 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 speed ...... ......10.2 min<sup>-1</sup> (rpm)

#### Operator's Cab

Independent, spacions 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

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	
Track shoes	49
Track guard	2
H-track center guard (dual type)	1
Ground Pressure	1.1 kgf/cm <sup>2</sup>

#### **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	0%) continuous

#### **SERVICE REFILL CAPACITIES**

	liters
Fuel tank	740
Engine coolant	98
Engine oil	55
Pump drive	
Swing mechanism (each side)	
Travel final device (each side)	
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**

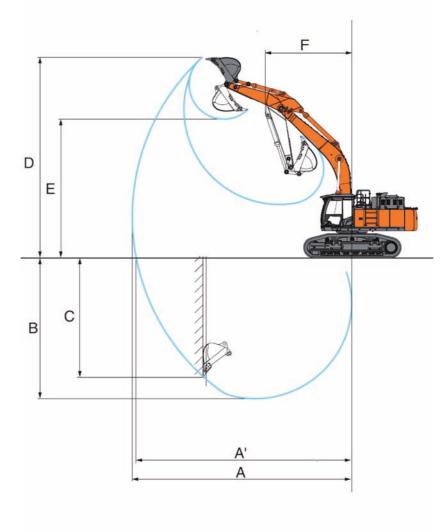


Figure not to scale

Unit: mm

		Onit : min
	Boom Length	6 600
	Arm Length	2 900
Α	Max. Digging Reach	11 645
A'	Max. Digging Reach on Ground	11 370
В	Max. Digging Depth	7 046
С	Max. Vertical Wall Depth	4 346
D	Max. Cutting Height	10 867
Е	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 Bucket Crowding Force* ISO	322 kN (32900 Kgf)
	Power Boost Arm Crowding Force* ISO	270 kN (27600 Kgf)

10 11

#### **SPECIFICATIONS**

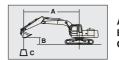
#### **Backhoe Buckets**

Capacity	Width				D
SAE, PCSA Heaped	Without Side Cutters	With Side Cutters	No. of Teeth	Weight	Boom 6.6 m Arm 2.9 m
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 m <sup>3</sup>	1 885 mm	2 058 mm	5	3 364 kg	•

#### **Backhoe Buckets**

	Capacity	Width	1	No.		Boom	n 9.2 m
	SAE, PCSA Heaped	Without Side Cutters	With Side Cutters	of Teeth	Weight	Arm 7.0 m	Arm 9.0 m
-	1.0 m <sup>3</sup>	860	NA	5	1 127 kg	0	•
_	1.6 m³	1 190	NA	5	1 523 kg	•	0

- Suitable for materials with density of 1 800 kg/m<sup>3</sup>
- Heavy-duty service
- O Not Suitable



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

#### Lifting Capacities

Unit: 1 000 kg Load radius Unit At max, reach Load point Conditions height Щ ľ Щ Щ ľ ľ \*13.1 \*13.1 \*12.8 \*12.8 \*12.8 \*12.8 \*14.8 \*14.8 \*13.7 \*13.7 \*12.9 \*12.7 \*12.5 \*12.9 \*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 \*19.9 19.7 \*16.9 15.9 \*14.9 13.2 \*13.4 11.2 \*12.9 10.6 9.4 \*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 \*13.9 12.9 \*21.0 \*21.0 \*18.0 \*18.0 \*15.0 \*15.0 -5

Notes: 1. Ratings are based on ISO 10567.

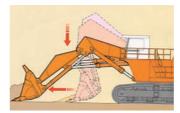
2. The lifting capacity does not exceed 75% of tipping load with the machine on firm level ground or 87% full hydraulic capacity.

12

- 3. The lifting load has been calculated without bucket.
- 4. For lift load with bucket, substract 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

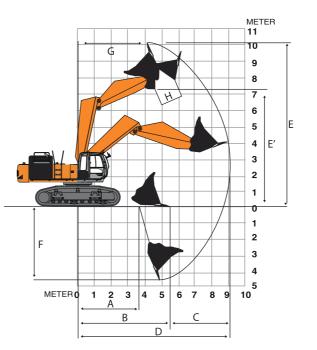


Auto Bucket level raise system

#### **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
Α	min. Digging reach	3 794
В	min. Level crowding distance	5 487
С	Level crowding distance	3 302
D	max. Digging reach	9 216
Е	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
Н	max, Bucket Opening Width	1 420

All dimension are in mm

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

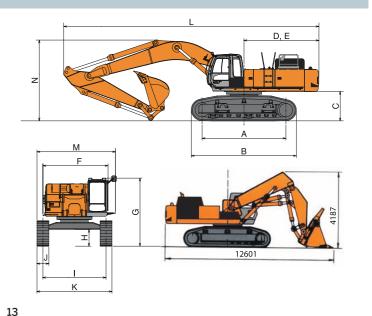
\* As per ISO standards.

#### Shovel Buckets

Type	Bottom Dump	Bottom Dump	Bottom Dump
Capacity	3.0 m <sup>3</sup>	3.3 m³	4.0 m <sup>3</sup>
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
В	Undercarriage length	5 330
С	Counterweight clearance	1 450
D	Rear-end swing radius	3 800
Е	Rear-end length	3 800
F	Overall width of upperstructure	3 310
G	Overall height of cab	3 500
Н	Min. ground clearance	810
	Track gauge	3 200
J	Track shoe width	600
K	Undercarriage width	3 800
L	Overall length	13 030
М	Overall width	3 990
N	Overall height of boom	4 270



#### **SPECIFICATIONS**

# A B

#### **Backhoe Boom**

	А	В	Overall width	Weight
6.6 m	6 880 mm	2 320 mm	1 180 mm	5 250 kg

#### **Backhoe Long Boom**

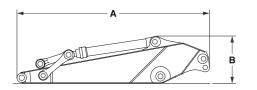
	А	В	Overall width	Weight
9.2 m	9 490 mm	2 150 mm	1 185 mm	5 300 kg

# ·B e m

**SPECIFICATIONS** 

#### Upperstructure

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

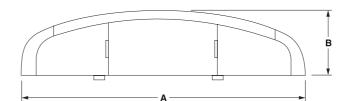


#### **Backhoe Arm**

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

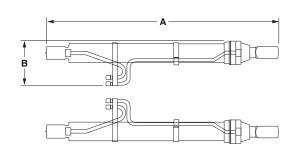


		A B Overall width		Weight	
	9.0 m	10 385 mm	1 270 mm	700 mm	4 391 kg
	7.0 m	8 380 mm	1 340 mm	700 mm	3 965 kg



#### Counterweight

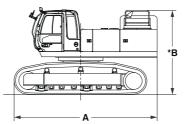
	А	В	Overall height	Weight
STD.	3 210 mm	790 mm	1 250 mm	10 500 kg
HD	3 210 mm	790 mm	1 250 mm	13 195 kg



#### Boom cylinders

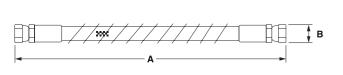
#### $520 \text{ kg} \times 2$

5_5 Ng // _					
A	В	Overall height			
2 660 mm	520 mm	360 mm			



#### Basic machine (without counterweight)

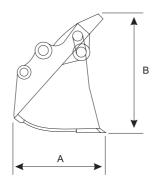
	Shoe width	А	В	Overall width	Weight
ZAXIS 670H	600 mm	5 730 mm	3 500 mm	3 300 mm	34 500 kg



#### Hose of boom cylinders

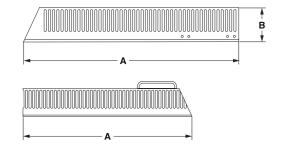
#### 6 kg x

А	В			
1 120 mm	41 mm			



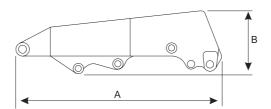
#### **Shovel Bucket**

А	В	Overall width	Weight
1 616 mm	2 090 mm	2 010 mm	4 724 kg



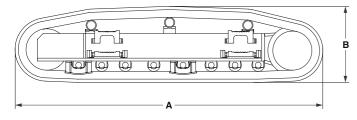
#### Left sidewalk

		A	В	Overall width	Weight
Fron	nt	1 920 mm	430 mm	130 mm	40 kg
Rev	erse	2 410 mm	340 mm	130 mm	40 kg



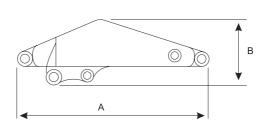
#### **Shovel Boom**

А	В	Overall width	Weight
4 710 mm	1 441 mm	1 218 mm	3 461 kg



#### Side frame

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



#### Shovel Arm

onever Arm							
А	В	Overall width	Weight				
3 579 mm	1 222 mm	966 mm	2 123 kg				