

ZAXIS 470H TATA Excavator Specification

ENGINE

Model	Isuzu AA-8WG1TQA
Type	4-cycle water-cooled, direct injection
Aspiration	Turbocharged
No. of cylinders	6
Rated power	power
ISO 9249, net	H/P mode:
	(With Fan) 235 kW (315 HP) at 1 800 min ⁻¹ (rpm)
SAE J1349, net	H/P mode:
	(With Fan) 231 kW (310 HP) at 1 800 min ⁻¹ (rpm)
Maximum torque	1 275 Nm (130 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

HYDRAULIC SYSTEM

Hydraulic Pumps	
Main pumps	2 variable displacement axial piston pumps
Maximum oil flow	2 x 360 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	31.9 MPa (325 kgf/cm ²)
Swing circuit	28.4 MPa (290 kgf/cm ²)
Travel circuit	35.3 MPa (360 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)
Power boost	35.3 MPa (360 kgf/cm ²)

Hydraulic Cylinders			
	Quantity	Bore Rod	Diameter
Boom	2	170 mm	115 mm
Arm	1	190 mm	130 mm
Bucket	1	170 mm	120 mm

UPPERSTRUCTURE

Revolving Frame
D-section frame for resistance to deformation.

WEIGHTS AND GROUND PRESSURE

Equipped with 3.1m³ GP bucket, 6.3m boom and 2.5m arm

Model	Operating weight	Ground pressure	
Zx470H Backhoe	47 100 kg	0.894 kgf/sq cm ²	87.7 kPa
Zx470H Shovel	47 500 kg	0.902 kgf/sq cm ²	88.5 kPa

BUCKET AND ARM DIGGING FORCE

Boom length	6.3 m BE-boom	
	2.5 m BE-arm	2.9 m BE-arm
Bucket digging force* ISO	285 kN (29 130 kgf)	285 kN (29 130 kgf)
Bucket digging force* SAE : PCSA	257 kN (26 240 kgf)	257 kN (26 240 kgf)
Arm crowd force* ISO	294 kN (30 050 kgf)	256 kN (26 140 kgf)
Arm crowd force* SAE : PCSA	285 kN (29 130 kgf)	249 kN (25 420 kgf)

* At power boost

Swing Device

Axial piston motor with planetary reduction gear is bathed in oil. Swing parking brake is spring-set/hydraulic-released disc type. Swing speed 9.0 min⁻¹ (rpm)

Operator's Cab

Independent spacious cab, 1 025 mm wide by 1 675 mm high, conforming to ISO* 3445 line level I Standard.
* International Organization for Standardization

UNDERCARRIAGE

Tracks

Track shoes with triple grousers made of induction-hardened rolled alloy.
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 rollers	2
Lower rollers	8
Track shoes	49
Track guard	Standard
Full guard optional	

Travel Device

Each track driven by axial piston motor through reduction gear for counterrotation of the tracks. Parking brake is spring-set/hydraulic-released disc type.

Automatic transmission system: High-Low.
Travel speeds High : 0 to 5.1 km/h
Low : 0 to 3.8 km/h

Maximum traction force 329 kN (33 600 kgf)
Gradeability 70% (35 degree) continuous-

SOUND LEVEL

Sound level in cab according to ISO 6396 LpA 75 dB(A)

SERVICE REFILL CAPACITIES

Fuel tank	705.0 L
Engine coolant	61.0 L
Engine oil	55.0 L
Swing device (each side)	6.5 L
Travel device (each side)	11.0 L
Hydraulic system	510.0 L
Hydraulic oil tank	310.0 L

BACKHOE BUCKETS

Sl. No.	Capacity	Width		No. of teeth	Weight	Recommended maximum material density	Recommendation	
		Without side cutter	With side cutter				6.3 m Boom	
							2.5 m Arm	2.9 m Arm
1	3.1m ³	1722 mm	1852 mm	5	2310 kg	1800 kg/m ³	✓	✗
2	3.0m ³	1762 mm	1902 mm	5	2055 kg	1800 kg/m ³	✓	✗
3	2.8m ³	1682 mm	1822 mm	5	1920 kg	1800 kg/m ³	○	✓
4	2.5m ³	1760 mm	1826 mm	5	2560 kg	2000 kg/m ³	✓	✓
5	1.9m ³	1400 mm	1466 mm	5	2083 kg	Boulders	✓	✓

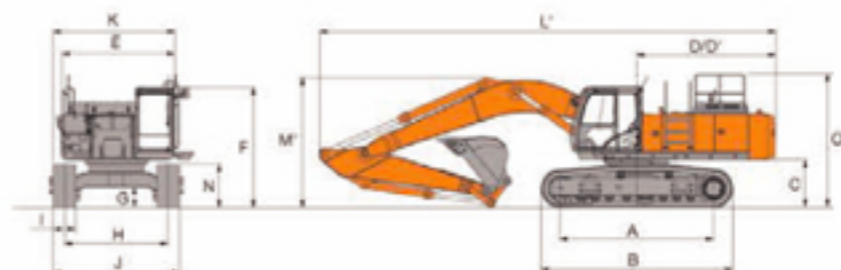
✓ Option is available ○ Option is technically feasible but generally not offered * ISO heat

LOADING SHOVEL BUCKET

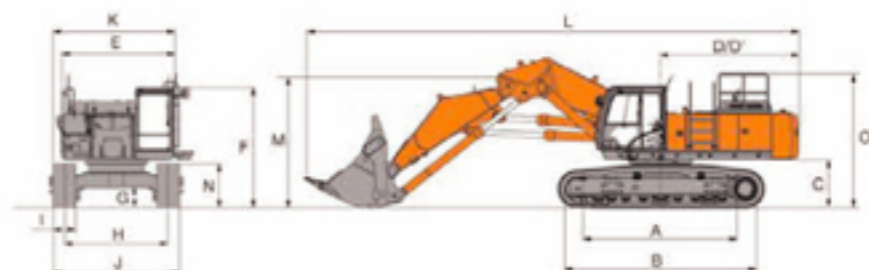
Sl. No.	Type	Capacity	Maximum width	No. of teeth	Weight
1	Bottom dump type general purpose bucket	2.6 m ³	2030 mm	6	3050 kg
2	Bottom dump type slag handling bucket	2.6 m ³	1943 mm	6	3170 kg

DIMENSIONS

Backhoe



Loading Shovel



Symbol	Description	Value	Symbol	Description	Value
A	Distance between tumblers	4 040	I	Track shoe width	G 600
B	Under carriage length	5 040	J	Undercarriage width	3 340
*IC	Counter weight clearance	1 230	K	Overall width	3 820
D	Rear-end swing radius	3 670	L	Overall length	12 110
D'	Rear-end length	3 660	M	Overall height of boom	4 000
E	Overall width of upperstructure	3 310	L'	Overall length	12 010
F	Overall height of cab	3 170	M'	Overall height of boom	3 480
*IG	Min. ground clearance	495	N	Track height	1 150
H	Track gauge	2 740	O	Overall height of base machine	3 540

*Excluding track shoe lug G: Triple grouser shoe

Unit: mm