ZAXIS-2 series

HITACHI

ZAXIS 17U

HYDRAULIC EXCAVATOR

- **Model Code** : ZX17U-2
- **Engine Rated Power** : 11.0 kW (15.0 PS)
- **Operating Weight** : 1 850 kg
- **Backhoe Bucket** : 0.044 m³

Versatile excavator with adjustable width for efficient use in various applications—smooth movement in confined spaces, as well as powerful operation in open areas

- **Rear end Swing Radius: 675 mm**
- **Minimum Width: 980 mm**
- **Powerful Engine**

Minimum width: 980 mm

Rear end swing radius: 675 mm

Maximum foot extension: 1 280 mm

Compact Body with Short Rear End

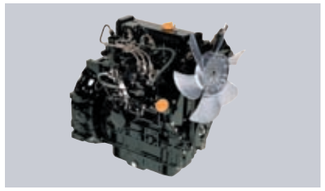
The compact short rear end design allows efficient operation even in confined spaces.

Adjustable Foot Crawler and Blade

The unit width is adjustable from 1 280 mm to 970 mm during jobs for travelling in narrow spaces, thanks to the adjustable foot crawler. Pin-detachable blade provides easier width adjustment.

Notes: Some of the pictures in this catalog show an unmanned machine with attachments in an operating position. These were taken for demonstration purposes only and the actions shown are not recommended under normal operating conditions.

Powerful Operation



Three-Cylinder Engine with More Powerful and Larger Exhaust Capacity
Two different travel speeds are available: high (4.3 km/h) and low (2.4 km/h)—making transport of the machine through the jobsite more efficient and smooth. A new tread pattern has been applied for the rubber shoe and operating vibration has been suppressed.

- Engine rated power: 11 kW
- Total piston displacement: 854 mL (cc)

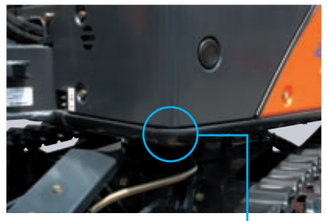
Hydraulic Pilot Control Levers
Hydraulic pilot operation levers provide smooth control and easy operation.

Two Travel Speeds Provided
Two different travel speeds are available, making transport of the machine through the jobsite more efficient and smooth.

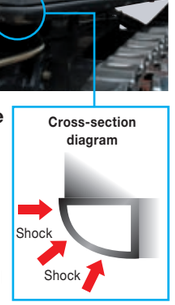
Additional Counterweight (Optional)
An additional counterweight is also available for increased stability.

- Additional counterweight: 80 kg

Comprehensive Durability Features



D-Shape Frame Protects The Body from Mechanical Shocks
D-shape cross section frame is attached all around the lower end of main body. This shock-proofing feature (patent pending) protects the body from unexpected shocks.



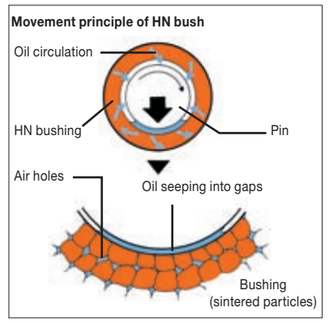
Enhanced Rubber Shoe
The new tread pattern applied for the enhanced rubber shoe delivers greater durability.

Strong Boom Cylinder Cover
Ribbed and reinforced boom cylinder cover provides higher impact resistance.

Large Single Pin for Swing Post
The vertical pin of the swing post employs a large single pin for reducing backlash.

HN Bushing

Reliable, job-proven HN bushings are used at all pin joints at the front and the blade. The lubrication intervals have been extended to 500 hours, contributing to reduced scraping and grinding of the pins and bushings.

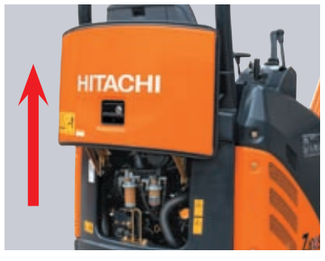


* Oil is shown seeping in this photograph, for purposes of illustration

Wealth of convenient design features

- **Full-Open Type Side Cover**
- **Fuel Tank Capacity of 19.5 Litres**
- **Neutral Engine Start Feature**

Simple, Time-Saving Maintenance



Vertical Sliding Engine Cover
Vertical sliding engine cover enables easy maintenance even in confined spaces. When opened, the cover does not interfere with inspection or operation and provides easy access. (Patent pending)

Full-Open Type Side Cover
Full-open type side cover is provided for easier maintenance

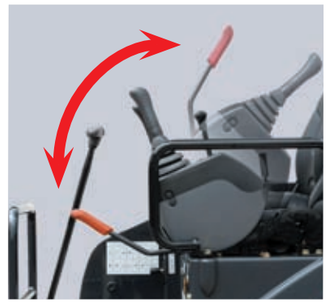
Splitting Front Hose for Easy Maintenance
Front hose can be separated on the back of the boom. If the hose is damaged, this allows for easier replacement.

Huge Capacity Fuel Tank with Wide Inlet
The operating time between refueling has been extended.

External Fuel Gauge
For ease in checking fuel levels, an external fuel gauge is provided at the front.

Bucket Hose Stored in Arm
Bucket hose is stored in the arm to prevent damage.

Comprehensive Safety Features



Lock Lever Allows Lock/Neutral Engine Starting
A convenient lock lever lets you shut off all operations—not only forward motion and turning, but also traveling, blade and swing operations. It also prevents inadvertent operation errors.

Note: Adjustable lever of crawler cannot be locked

Neutral Engine Start
Neutral engine start feature allows engine starting only when the lock lever is in the lock position.

Easy-View Monitor

Enhanced Theft Protection
For higher security, a numerical key lock system is optionally available.

ROPS/OPG (Top guard) Canopy
The 3-pillars canopy with top guard is designed to be fully compliant with worldwide safety standards. It complies with OPG specifications and also ROPS specifications.

ROPS: Roll-Over Protective Structures Prevents injury in tipping accidents
OPG (Top guard): Operator Protective guard from falling objects

Various Eqipment

- Seat back box

- Seat belt

- Slip-free step

ENGINE

Model ..... Yanmar 3TNV70
Type ..... Water-cooled, 4-cycle, 3-cylinder swirl combustion chamber injection type diesel engine
Rated power
ISO 9249, net..... 11.0 kW (15.0 PS) at 2 400 min^{-1} (rpm)
Maximum torque ..... 50.2 N·m (5.1 kgf·m) at 1 850 min^{-1} (rpm)
Piston displacement .. 0.854 L (854 cc)
Bore and stroke ..... 70 mm x 74 mm
Batteries ..... 1 x 12 V/36 Ah

HYDRAULIC SYSTEM

The proven 3-pump system and arm regenerative circuit have been improved to make combined operations and fine control easier and smoother.

Main pumps ..... 2 variable displacement axial piston pumps
Maximum oil flow ..... 2 x 19.2 L/min
Third pumps ..... 1 gear pump
Maximum oil flow ..... 12.5 L/min
Pilot pump ..... 1 gear pump
Maximum oil flow ..... 6.5 L/min

Relief Valve Settings

Main pumps circuit ..... 20.6 MPa (210 kgf/cm^2)
Third pumps..... 20.6 MPa (210 kgf/cm^2)
Pilot circuit ..... 3.9 MPa (40 kgf/cm^2)

Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom raise circuits to absorb shocks at stroke ends.

Dimensions

	Quantity	Bore	Rod diameter	Stroke
Boom	1	60 mm	35 mm	435 mm
Arm	1	60 mm	35 mm	406 mm
Bucket	1	55 mm	30 mm	311 mm
Boom swing	1	60 mm	30 mm	391 mm
Blade	1	65 mm	35 mm	94 mm

CONTROLS

Hydraulic pilot control levers for all operations.
Mechanical linkage control levers only for variable legs.

SWING MECHANISM

Hight-torque, orbit motor. Swing circle is single-row, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion are immersed in lubricant..

Swing speed ..... 8.9 min^{-1} (8.9 rpm)

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Welded track frame using carefully selected materials. Side frame extended by cylinder span.

Numbers of Rollers on Each Side

Lower rollers 3

Travel Device

Each track driven by a high-torque, 2-speed axial piston motor through planetary reduction gear, allowing counter-rotation of the tracks.

Travel speeds ..... High : 0 to 4.3 km/h
(with rubber shoes) Low : 0 to 2.4 km/h
Gradeability ..... 58 % (30 degree) continuous

WEIGHTS AND GROUND PRESSURE

Equipped with 0.93 m arm and 0.044 m^3 (ISO 7451 capacity) bucket.

	Operating weight	Ground pressure
230 mm rubber shoes	1 850 kg	28 kPa (0.28 kgf/cm^2)

SERVICE REFILL CAPACITIES

Fuel tank ..... 19.5 L
Engine coolant ..... 2.7 L
Engine oil ..... 3.1 L
Travel device (each side) ..... 0.25 L
Hydraulic system ..... 30.0 L
Hydraulic oil tank (Reference oil level) ..... 15.7 L

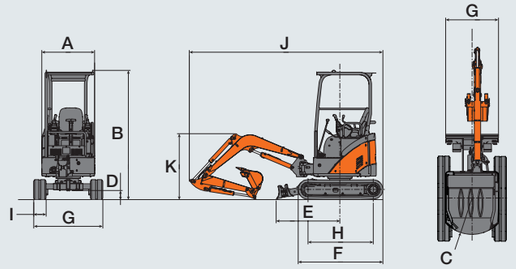
BACKHOE ATTACHMENTS

BUCKETS

ISO 7451 capacity	Width		No. of teeth	Weight	Front Attachment	
	Without side cutters	With side cutters			0.93 m arm	1.13 m arm
0.020 m^3	250 mm	300 mm	3	32.0 kg	A	A
0.035 m^3	300 mm	350 mm	3	34.6 kg	A	A
0.040 m^3	350 mm	400 mm	3	36.6 kg	A	A
0.044 m^3	400 mm	450 mm	3	38.6 kg	A	B
0.050 m^3	450 mm	500 mm	3	40.9 kg	B	C
Arm crowd force					10.3 kN (1 050 kgf)	9.1 kN (930 kgf)
Bucket digging force					16.0 kN (1 630 kgf)	16.0 kN (1 630 kgf)

A : General digging B : Light-duty digging C : Loading

DIMENSIONS



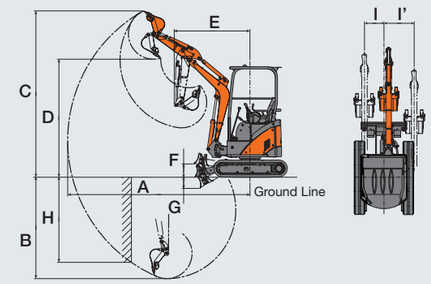
Note:
The illustration shows the ZX17U-2 equipped with 0.93 m arm and 230 mm rubber shoes.
The canopy and cabin conform to ROPS (ISO 3471) and OPG (Top guard) (ISO 10262, Level 1) requirements.

Unit: mm

		ZX17U-2
A	Overall width	980
B	Overall height	2 400
C	Rear-end swing radius (Add. counterweight)	675 (755)
D	Minimum ground clearance	165
E	Horizontal distance of blade installation	1 180
F	Undercarriage length	1 570
G	Undercarriage (Blade) width (Extend / Retract)	1 280 / 970
H	Distance between tumblers	1 210
I	Track shoe width	230
J	Maximum transport length (Folding roll bar)	3 590
K	Overall height of boom	1 220

Sizes shown in parentheses apply when the crawler and blade are contracted.

WORKING RANGES



Note:
The illustration shows the ZX17U-2 equipped with 0.044 m^3 bucket, 0.93 m arm and 230 mm rubber shoes.

Unit: mm

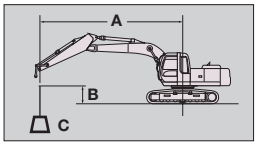
		ZX17U-2
A	Maximum digging reach	3 900
B	Maximum digging depth	2 170
C	Maximum cutting height	3 560
D	Maximum dumping height	2 530
E	Minimum swing radius (At maximum boom left swing)	1 610 (1 540)
F	Blade bottom highest position above ground	285
G	Blade bottom lowest position above ground	240
H	Maximum vertical wall	1 830
I / I'	Offset distance (Maximum boom-swing angle)	420 (50) / 650 (70)

Sizes shown in parentheses apply when the crawler and blade are contracted.

LIFTING CAPACITIES

Metric measure

Notes: 1. Ratings are based on ISO 10567.
2. Lifting capacity of the ZAXIS Series 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 centre-line of the bucket pivot mounting pin on the arm.
4. *Indicates load limited by hydraulic capacity.
5. 0 m = Ground.



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

ZX17U-2 BLADE ABOVE GROUND

Unit : 1 000 kg

Conditions	Load point height	Load radius 1.0 m		2.0 m		3.0 m		At max. reach		
										meter
Arm 0.93 m Rubber shoes 230 mm	2.0 m					0.28	0.27	0.27	0.26	3.07
	1.0 m			0.48	0.47	0.27	0.27	0.23	0.23	3.36
	0 (Ground)			0.46	0.45	0.26	0.26	0.24	0.23	3.24
	-1.0 m	*1.30	*1.30	0.46	0.45			0.31	0.30	2.66

ZX17U-2 BLADE ON GROUND

Unit : 1 000 kg

Conditions	Load point height	Load radius 1.0 m		2.0 m		3.0 m		At max. reach		
										meter
Arm 0.93 m Rubber shoes 230 mm	2.0 m					*0.40	0.27	*0.41	0.26	3.07
	1.0 m			*0.76	0.47	*0.45	0.27	*0.41	0.23	3.36
	0 (Ground)			*0.87	0.45	*0.48	0.26	*0.43	0.23	3.24
	-1.0 m	*1.30	*1.30	*0.67	0.45			*0.42	0.30	2.66

ZX17U-2 BLADE ABOVE GROUND, LONG ARM

Unit : 1 000 kg

Conditions	Load point height	Load radius 1.0 m		2.0 m		3.0 m		At max. reach		
										meter
Arm 1.13 m Rubber shoes 230 mm	2.0 m					0.28	0.27	0.24	0.24	3.27
	1.0 m			0.49	0.47	0.27	0.26	0.21	0.21	3.53
	0 (Ground)			0.45	0.44	0.26	0.25	0.22	0.21	3.43
	-1.0 m	*1.08	*1.08	0.45	0.44			0.27	0.27	2.90

ZX17U-2 BLADE ON GROUND, LONG ARM

Unit : 1 000 kg

Conditions	Load point height	Load radius 1.0 m		2.0 m		3.0 m		At max. reach		
										meter
Arm 1.13 m Rubber shoes 230 mm	2.0 m					*0.36	0.27	*0.37	0.24	3.27
	1.0 m			*0.69	0.47	*0.43	0.26	*0.38	0.21	3.53
	0 (Ground)			*0.87	0.44	*0.48	0.25	*0.39	0.21	3.43
	-1.0 m	*1.08	*1.08	*0.73	0.44			*0.41	0.27	2.90

STANDARD EQUIPMENT

ENGINE
- Neutral engine start system

HYDRAULIC SYSTEM
- Hydraulic pilot type control levers
- Pilot control shut-off levers
- Two-speed travel system
- Piping for attachments

OPERATOR'S ROOM
- ROPS 3-pillars canopy
- Seat belt
- 12 V outlet
- Work light

UNDERCARRIAGE
- 230 mm rubber shoes
- Blade

FRONT ATTACHMENTS
- O-ring type pin-seals for hoe bucket
- HN bushing
- 1.82 m boom
- 0.93 m arm

OPTIONAL EQUIPMENT

UNDERCARRIAGE
- 230 mm steel shoes

FRONT ATTACHMENTS
- 1.13 m arm
- Backhoe buckets

COUNTERWEIGHT
- Additional counterweight : 80 kg

*Equipment may vary by country, so please consult your Hitachi dealer for details.

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