

**ZAXIS-2 series**

**HITACHI**

**ZAXIS**  
**8**



## **HYDRAULIC EXCAVATOR**

**Model Code :** ZX8-2

**Engine Rated Power :** 9.5 kW (12.9 PS)

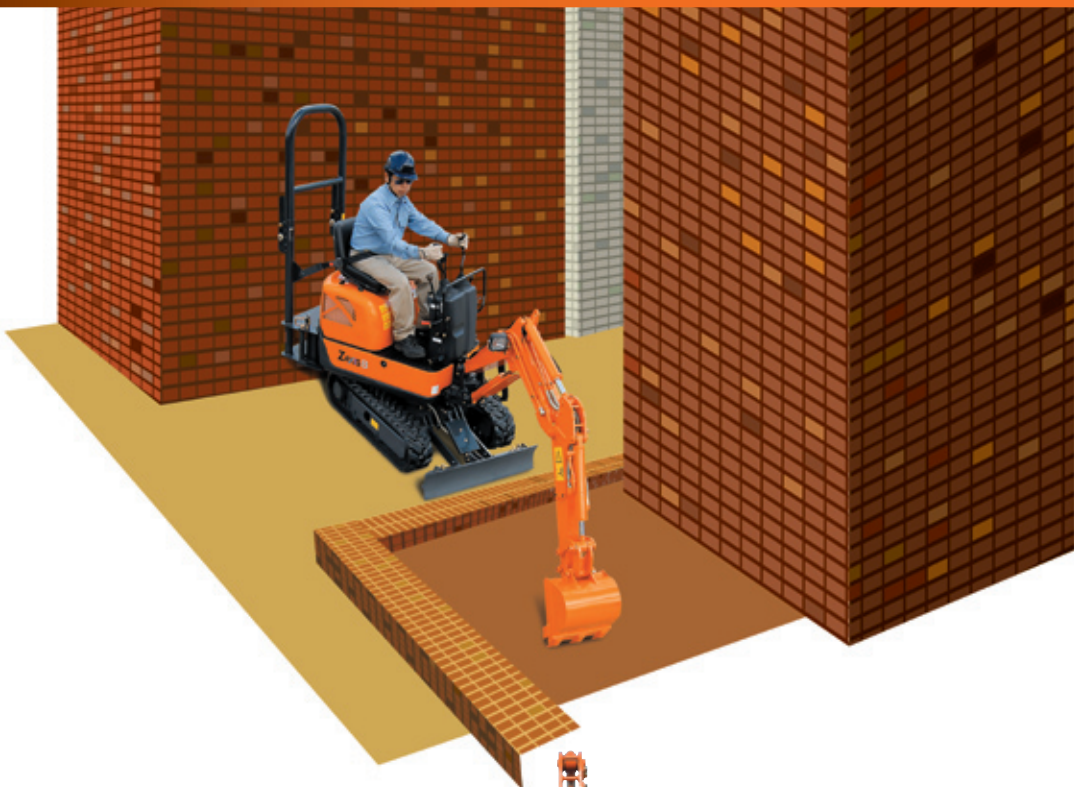
**Operating Weight :** 1 100 kg

**Backhoe Bucket :** 0.022 m<sup>3</sup>

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

■ Minimum Width: 740 mm

■ Powerful Engine: 9.5 kW



### Adjustable Foot Crawler and Blade

The unit can extend up to 910 mm during jobs, thanks to the adjustable foot crawler. It also features an additional counterweight for increased stability.



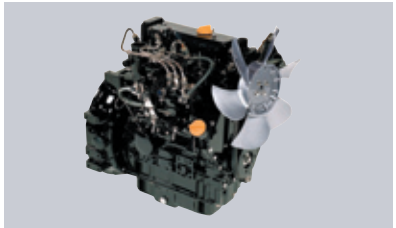
### Powerful Operation



**Two Travel Speeds Provided**  
Two different travel speeds are available: high (4.0 km/h) and low (2.0 km/h)—making transport of the machine through the jobsite more efficient and smooth. A new tread pattern is adopted for the rubber shoe and operating vibration suppressed.

- Travel speeds: High 0 to 4.0 km/h  
Low 0 to 2.0 km/h

\* The values here apply when the rubber shoe is installed.



**Three-Cylinder Engine with More Powerful and Larger Exhaust Capacity**  
Packing substantial power for tough excavating jobs.

- Engine rated power: 9.5 kW
- Total piston displacement: 854 mL (cc)
- Bucket digging force: 10.3 kN



**Outside Flange Type Low Roller**  
Riding comfort is enhanced due to the increased horizontal stability.

### Comprehensive Safety Features



#### Lock Lever Allows Lock/Neutral Engine Starting

A lock lever lets you shut off not only Front & Swing but also traveling operation. A neutral engine start feature is also provided, allowing engine start only when the lock lever is at the lock position.



#### Easy-Access Ignition Switch, Easy-View Monitor

Simple, easy-to-understand status indicators.



#### Protection from Accidents in Tipping and Falling

Roll bar compatible with TOPS\* is optionally available. The collapsible roll bar makes the unit more compact for greater ease in transporting.

\* TOPS: Tip-Over Protection Structure (for preventing injury in tipping accidents)

Notes: Some of the pictures in this brochure 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.



## Wealth of convenient design features

### ■ Folding/Retractable Seat Mount

### ■ Fuel tank Capacity of 16 Litres

### ■ Neutral Engine Start Feature



## Simple, Time-Saving Maintenance



### Folding/Retractable Seat

Since the seat can be folded up, it can be used immediately after rainy weather, without the need for cleaning.



### Huge Capacity Fuel Tank with Wide Inlet

Thanks to the high-capacity fuel tank, operating time between refueling has been extended.

- Tank capacity: 16 L



### Wide-Opening Cover

The machine cover opens wide for easy maintenance and cleaning of the radiator.

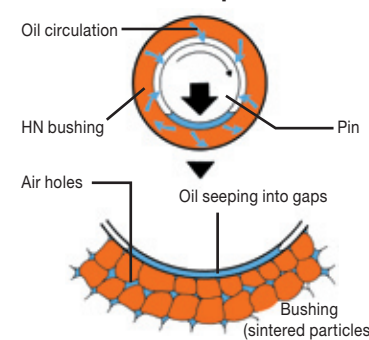
## Rugged Construction and High Durability Throughout



### Main Frame Protects The Body from Shocks

Single-unit counterweighted main frame effectively protects the body from unexpected shocks.

### Movement Principle of HN Bush



### 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.

# SPECIFICATIONS

## ENGINE

Model .....	Yanmar 3TNV70
Type .....	Water-cooled, 4-cycle, 3-cylinder swirl combustion chamber injection type diesel engine
Rated power	
ISO 9249, net.....	9.5 kW (12.9 PS) at 2 100 min <sup>-1</sup> (rpm)
Maximum torque .....	50.5 N·m (5.1 kgf·m) at 1 500 min <sup>-1</sup> (rpm)
Piston displacement ..	0.854 L
Bore and stroke .....	70 mm x 74 mm
Batteries .....	1 x 12 V/36 Ah

## HYDRAULIC SYSTEM

The proven 2-pump sysytem has been improved to make combined operations and fine control easier and smoother.

Main pumps .....	2 gear pumps
Maximum oil flow .....	2 x 10.6 L/min
Pilot pump .....	1 gear pump
Maximum oil flow .....	5.3 L/min

### Relief Valve Settings

Main pumps circuit .....	17.7 MPa (180 kgf/cm <sup>2</sup> )
Pilot circuit .....	3.9 MPa (40 kgf/cm <sup>2</sup> )

### Hydraulic Cylinders

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

### Dimensions

	Quantity	Bore	Rod diameter	Stroke
Boom	1	50 mm	30 mm	361 mm
Arm	1	50 mm	30 mm	311 mm
Bucket	1	50 mm	25 mm	243 mm
Boom swing	1	50 mm	25 mm	260 mm
Blade	1	50 mm	25 mm	83 mm

## CONTROLS

Control is all mechanical.

## SWING MECHANISM

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

Swing speed .....	8.5 min <sup>-1</sup> (8.5 rpm)
-------------------	---------------------------------

## UNDERCARRIAGE

### Tracks

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

### Numbers of Rollers on Each Side

Lower rollers .....	2
---------------------	---

### 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 4.0 km/h
(with rubber shoes)	Low : 0 to 2.0 km/h
Gradeability .....	58 % (30 degree) continuous

## WEIGHTS AND GROUND PRESSURE

Equipped with 0.70 m arm and 0.022 m<sup>3</sup> (ISO 7451 capacity) bucket.

	Operating weight	Ground pressure
180 mm rubber shoes	1 100 kg	26 kPa (0.27 kgf/cm <sup>2</sup> )

## SERVICE REFILL CAPACITIES

Fuel tank .....	16.0 L
Engine coolant .....	3.3 L
Engine oil .....	2.8 L
Travel device (each side) .....	0.33 L
Hydraulic system .....	18.0 L
Hydraulic oil tank (Reference oil level) .....	12.0 L

## BACKHOE ATTACHMENTS

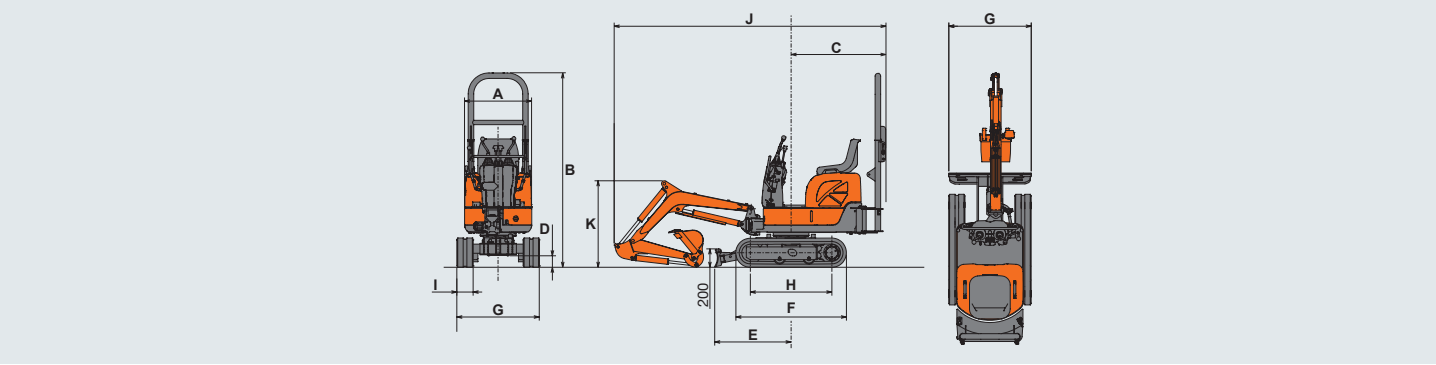
### BUCKETS

Capacity (ISO 7451)	Width		No. of teeth	Weight	Front Attachment	
	Without side cutters	With side cutters			0.70 m arm	0.90 m arm
0.016 m <sup>3</sup>	230 mm	250 mm	3	13.2 kg	A	A
0.020 m <sup>3</sup>	280 mm	300 mm	3	14.4 kg	A	A
0.022 m <sup>3</sup>	320 mm	350 mm	3	15.6 kg	A	B
Arm crowd force					6.1 kN (622 kgf)	5.2 kN (530 kgf)
Bucket digging force					10.3 kN (1 050 kgf)	10.3 kN (1 050 kgf)

A: General digging

B: Light-duty digging

DIMENSIONS

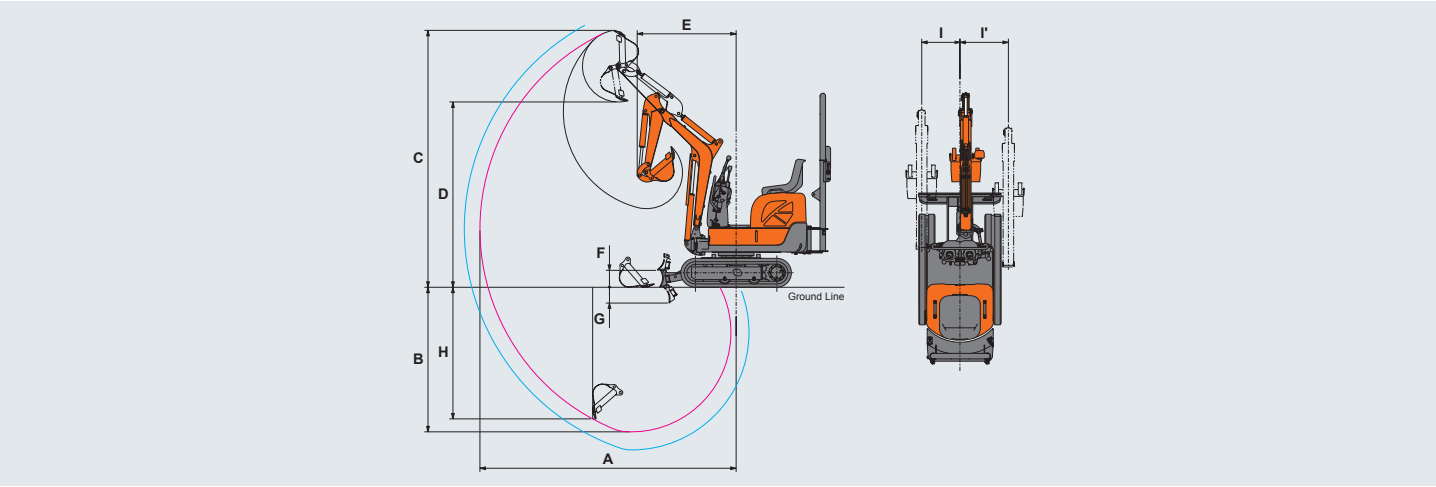


Note:  
The illustration shows the ZX8-2 equipped with 0.70 m arm and 180 mm rubber shoes.

	ZX8-2
A Overall width	740
B Overall height	2 150
C Rear-end swing radius	1 090
D Min. ground clearance	130
E Horizontal distance of blade installation	845
F Undercarriage length	1 220
G Undercarriage width (Extend / Retract)	910 / 720
H Distance between tumblers	900
I Track shoe width	180
J Max. transport length (With long arm)	2 970 (3 030)
K Overall height of boom (With long arm)	955 (1 200)

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

WORKING RANGES



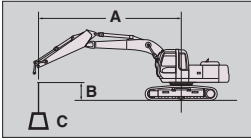
Note:  
The illustration shows the ZX8-2 equipped with 0.022 m³ bucket, 0.70 m arm and 180 mm rubber shoes.

	ZX8-2	
Arm length	0.70 m	0.90 m
A Max. digging reach	2 830	3 000
B Max. digging depth	1 600	1 800
C Max. cutting height	2 840	2 940
D Max. dumping height	2 050	2 150
E Min. swing radius (At max. boom left swing)	1 100 (920)	1 250 (1 060)
F Blade bottom highest position above ground	185	185
G Blade bottom lowest position above ground	175	175
H Max. vertical wall	1 450	1 600
I / I' Offset distance (Max. boom-swing angle)	280 (65) / 380 (55)	280 (65) / 380 (55)

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

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

ZX8-2 ROLL BAR VERSION, BLADE ABOVE GROUND

Rating over-front Rating over-side or 360 degrees Unit : 1 000 kg

Conditions	Load point height	Load radius				At max. reach		
		1.0 m		2.0 m				
								meter
Arm 0.70 m	1.0 m			*0.28	0.26	0.21	0.20	2.41
Rubber shoes 180 mm	0 (Ground)	*0.39	*0.39	0.27	0.25	0.22	0.20	2.33
	-1.0 m	*0.47	*0.47			0.39	0.36	1.57

ZX8-2 ROLL BAR VERSION, BLADE ON GROUND

Unit : 1 000 kg

Conditions	Load point height	Load radius				At max. reach		
		1.0 m		2.0 m				
								meter
Arm 0.70 m	1.0 m			*0.28	0.26	0.47	0.20	2.41
Rubber shoes 180 mm	0 (Ground)	*0.39	*0.39	*0.33	0.25	0.50	0.20	2.33
	-1.0 m	*0.47	*0.47			1.05	0.36	1.57

ZX8-2 ROLL BAR VERSION, BLADE ABOVE GROUND, LONG ARM

Unit : 1 000 kg

Conditions	Load point height	Load radius				At max. reach		
		1.0 m		2.0 m				
								meter
Arm 0.90 m	1.0 m			*0.25	*0.25	0.19	0.18	2.58
Rubber shoes 180 mm	0 (Ground)	*0.40	*0.40	0.27	0.25	0.20	0.18	2.51
	-1.0 m	*0.62	*0.62			0.30	0.28	1.85

ZX8-2 ROLL BAR VERSION, BLADE ON GROUND, LONG ARM

Unit : 1 000 kg

Conditions	Load point height	Load radius				At max. reach		
		1.0 m		2.0 m				
								meter
Arm 0.90 m	1.0 m			*0.25	*0.25	0.43	0.18	2.58
Rubber shoes 180 mm	0 (Ground)	*0.40	*0.40	*0.33	0.25	0.44	0.18	2.51
	-1.0 m	*0.62	*0.62			0.74	0.28	1.85

STANDARD EQUIPMENT

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

ENGINE

- Neutral engine start system

HYDRAULIC SYSTEM

- Mechanical linkage type levers for all operations
- Shut-off levers for boom, arm, bucket, swing and travels
- Two-speed travel system
- Piping for attachments

OPERATOR'S ROOM

- TOPS roll bar
- Seat belt
- 12 V outlet
- Work light

UNDERCARRIAGE

- 180 mm rubber shoes
- Blade

FRONT ATTACHMENTS

- HN bushing
- 1.35 m boom
- 0.70 m arm

OPTIONAL EQUIPMENT

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

FRONT ATTACHMENTS

- 0.90 m arm
- Backhoe buckets

Note:  
It's impossible to mount the TOPS and the additional counterweight on ZX8-2 at same time.

These specifications are subject to change without notice.  
Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in colour and features.  
Before use, read and understand the Operator's Manual for proper operation.

--