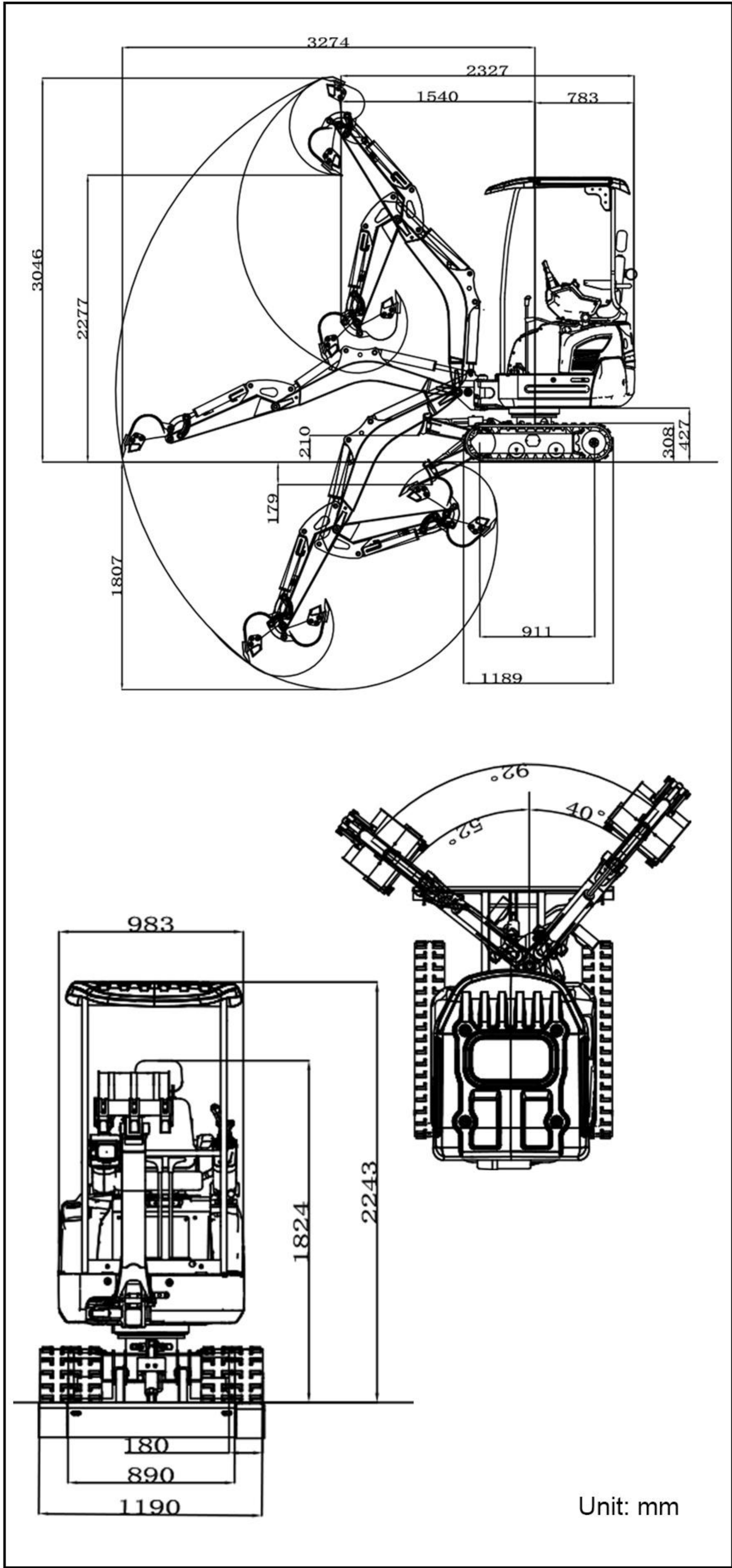


■ SCOPE OF WORK



■ HYDRAULIC SYSTEM

Main pump type/model	Gear pump/308-303	Maximum set pressure (Mpa)	18MPa
Main pump brand	Tianjin Walking/Shengjie	Travel hydraulic motor type	WDM-300
Main pump maximum flow (L/min)	21.6L/min	Travel motor brand	Paiyi
Multi-way valve	9-way pilot multi-way valve	Motor displacement	300ml/r
Multi-way valve brand	Tengfei/Shengjie	Slewing hydraulic motor type	BM2-315
Rated set pressure (Mpa)	17MPa	Displacement	315ml/r

- Please read the instruction manual carefully and use the machine correctly.
- Always wear a seat belt when working. (ROPS specifications only)
- If you are operating construction machinery with a machine mass of less than 3 tons, you must take the "Special Training for Vehicle-Mounted Construction Machinery Operation" course beforehand. If the machine mass is 3 tons or more, you must take the "Vehicle-Mounted Construction Machinery Operation Skills Course".
- To prevent breakdowns and accidents, be sure to inspect the machinery regularly.
- Specific voluntary inspections are required to be carried out by an inspection company registered with the Minister of Health, Labor and Welfare or the Director-General of the Labor Standards Inspection Bureau.

■ SPECIFICATION

	Model	US	R15 ECO
Basic parameters	Machine working weight	3179 lb	1445kg
	Bucket capacity	0.64ft³	0.018m³
	Travel speed low/high speed	0-0.93/0-1.6mph	0-1.5/0-2.5km/h
	Gradeability	30%	30%
	Ground pressure	4.6psi	31.4kpa
	Maximum digging force	2338lbf	10.4KN
	Maximum digging radius	128.9in	3274mm
	Maximum digging depth	71.1in	1807mm
	Maximum digging height	119.9in	3046mm
	Maximum unloading height	89.6in	2277mm
	Maximum deflection angle	92°	92°
	Track extension range	35.4-47.2in	900-1200mm
Engine	Engine brand	Kubota	Kubota
	Engine model	D722	D722
	Maximum horsepower	13.7hp	13.9ps
	Maximum power	10.2kw	10.2kw
	Maximum speed	2500rpm	2500rpm
	Displacement	0.19gal	0.719L
	Number of cylinders	3	3
	Cooling method	Water-cooled	Water-cooled
	Engine oil change amount	0.66gal	3.5L
	Fuel form	Diesel	Diesel
	Fuel grade	0/-10	0/-10
	Theoretical fuel consumption	1.1-1.5L/h	1.1-1.5L/h
Body	Transport length	91.6in	2327mm
	Transport width	38.7in	983mm
	Transport height	88.3in	2243mm
	Counterweight ground clearance	16.7in	427mm
	Bucket width	15.7in	400mm
	Boom length	58.1in	1477mm
	Arm length	31.5in	800mm
	Bulldozer blade width	40.3in	1024mm



RYNO

HEAVY DUTY MACHINERY

VENDA – ALUGUER



RYNO.PT



282 357 229

924 961 110



R15-ECO

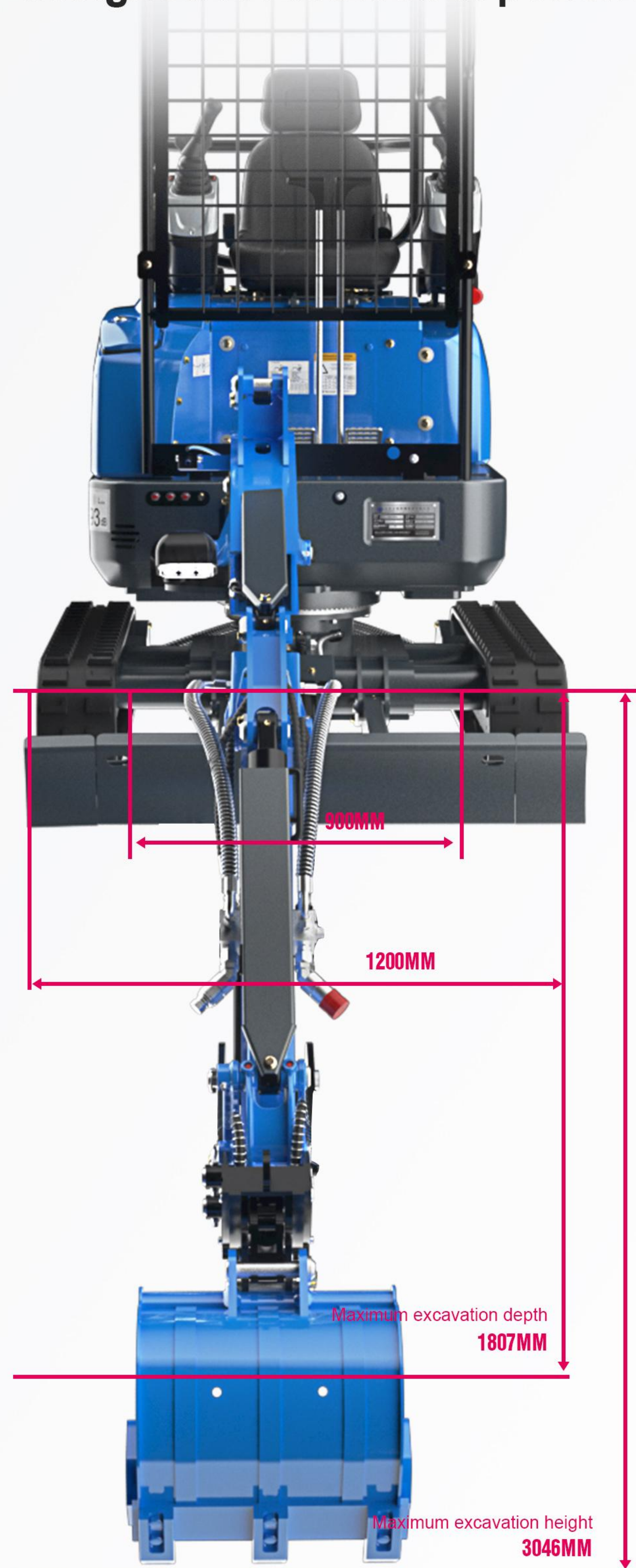


Note: The hydraulic thumb clamp and hydraulic quick change in the figure are optional models. The standard model does not have hydraulic thumb clamp and hydraulic quick change



# PERFORMANCE / SAFETY

From an adjustable track width and two-speed travel pedal to a safety engine start and a new boom-mounted LED work light, this ultra-compact excavator is designed for maximum performance and safety.



## 1 Adjustable track width

With a single, easy-to-operate lever, the hydraulically adjustable R15 Eco excavator reduces the track width in seconds (up to 900 mm) to allow navigation in tight spaces. Conversely, it can widen the track width up to 1200 mm. With the simple pull of a pin, its quick-folding blade adjusts in size instantly. When set down, these ultra-compact excavators can easily fit through most doorways, allowing access to the interior of buildings.



## 2 ISO or SAE control mode

In order to meet the different operating habits of users around the world, it is equipped with a switchable left and right operating mode function, which can be quickly switched with just a light touch.



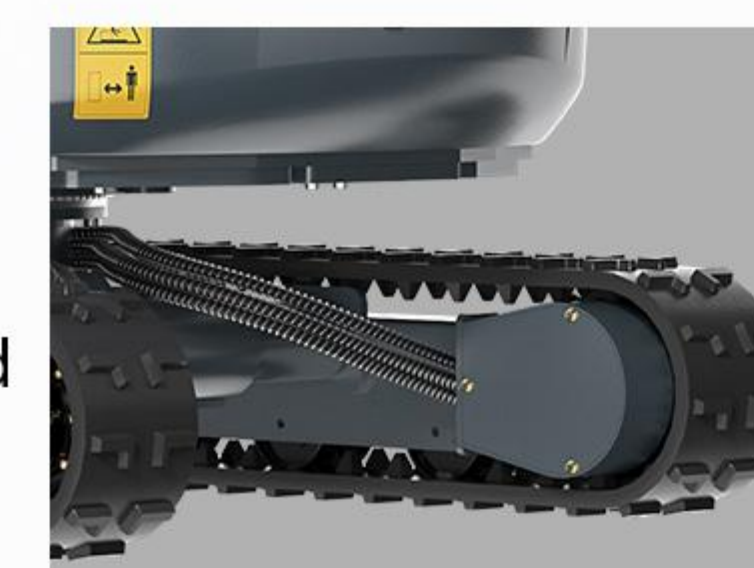
## 3 Boom cylinder protection design

The boom has a clean, hose-free appearance. All hydraulic hoses are uniquely hidden and protected inside the boom. Additionally, the boom cylinders are located on top of the boom and are well protected with cylinder guards.



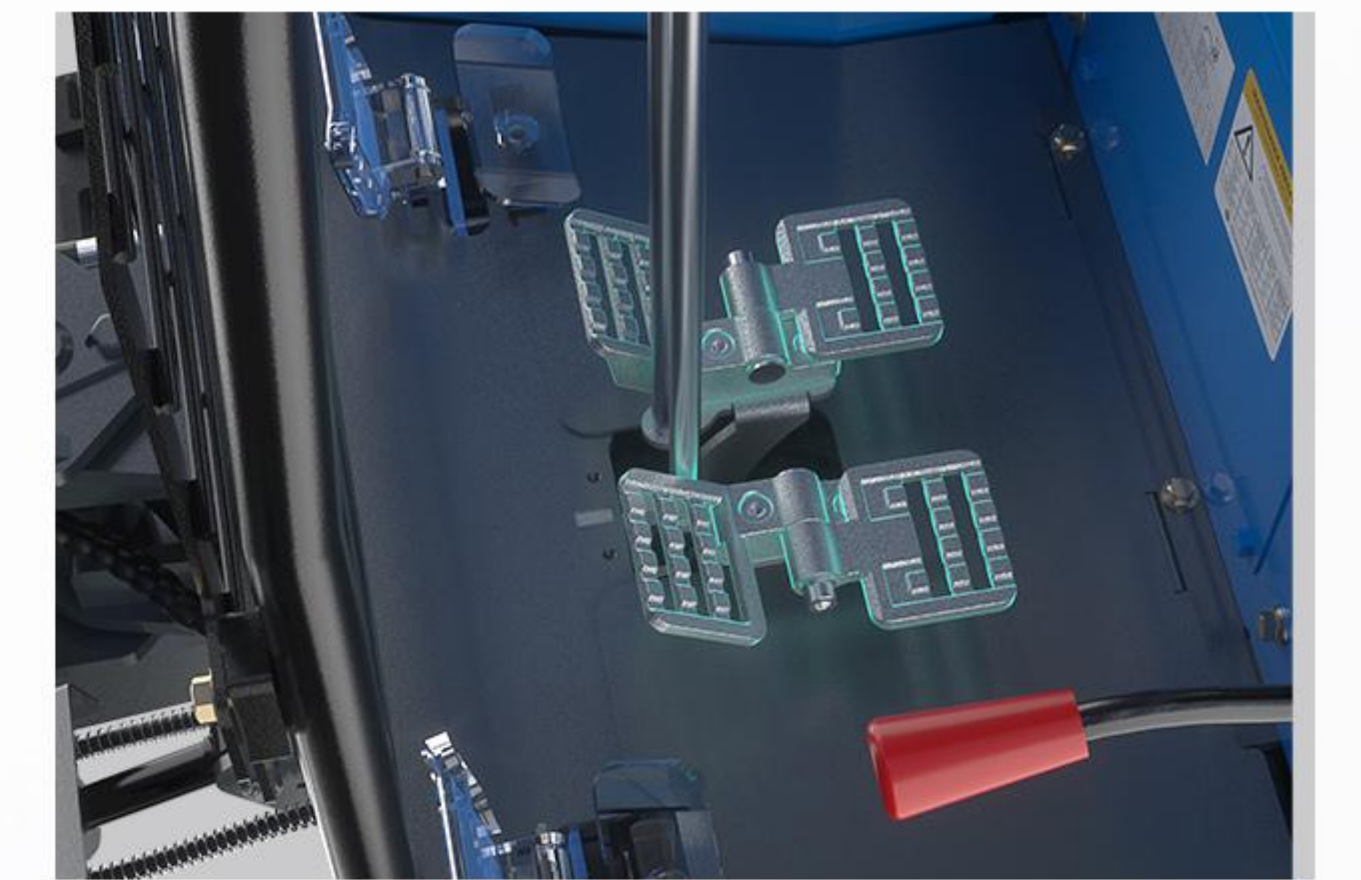
## 4 Built-in motor

It reduces noise and effectively protects the engine from collision, thus improving the durability and reliability of the excavator.



## 6 Dual-purpose shift lever

This bar lets you use your hands and feet at the same time, so you can work at your own pace. Simply press the pedals or push with your hands to move, turn, etc. The foot pedals can also be stepped forward and backward to walk



## 7 LED work light

Bright LED work lights provide optimal illumination for night work.



## 8 Four-way broken oil pipe with quick connector

Four-way crusher oil pipe, so that the hydraulic thumb clamp (optional), hydraulic quick change (optional) and accessories have separate oil circuits and are equipped with quick connectors to improve the connection efficiency and operation convenience.



## 5 Roof upgrade

- a** Add a protective net: This helps improve the safety of the roof and prevent falling objects or other accidental injuries.
- b** Install a reflector: It helps to widen the field of vision, avoid blind spots, and further improve safety.
- c** Replace the roof with a plastic one: It has a more beautiful appearance and stronger waterproofing.
- d** Add a warning light: In low-light environments, it can improve the visibility of the roof and prevent accidents.



# OPTIONAL CAB

Windproof, rainproof and dustproof can effectively resist bad weather and construction dust, ensuring a cleaner and more comfortable working environment. The cab is sturdy and durable, and the ROPS/FOPS protection structure improves the safety factor of the operation.



## 1 DRIVING SPACE

The 1.8-meter-tall dome-shaped cockpit has a lateral knee clearance of 15 cm. The joysticks and pedals form a golden triangle control area, so you don't need to crouch down to get tools from the rear window when turning around.



### a FAN

Enhance the air circulation in the cab, reduce the stuffiness, keep the air fresh, bring coolness to the driver in high temperature environment, improve operating comfort and work efficiency



### b HEATER

Rapidly heats the cab in cold conditions to keep the operator warm and reduce operator fatigue, and effectively removes fog and frost from the windshield to ensure visibility



### c WINDOW BREAKER

In case of emergency, if the doors and windows of the cab cannot be opened normally, you can use a window breaker hammer to quickly break the glass to help the operator escape quickly.



### d FIRE EXTINGUISHER

Provide safety protection for drivers, so that they can quickly save themselves in case of sudden fire, reducing casualties and property losses



## 2 FLIP UP WINDSHIELD

The windshield can be flipped up, and it is easy to switch between closed and open modes according to weather and working conditions. In hot weather, the flip-up design provides natural ventilation, improves air circulation inside the cab, and enhances comfort. The front windshield is easy to clean, making maintenance easier.

## 3 WIPERS

Keep the windshield clear to ensure the driver's good vision in rainy, snowy or muddy weather, improve work safety, avoid operating errors caused by obstructed vision, improve work efficiency in bad weather, and reduce downtime



## 4 PROTECTIVE NET

It can effectively block flying stones, branches and other debris, significantly reduce the impact damage to the cab glass and internal equipment, and protect the driver's personal safety.



## 5 REARVIEW MIRROR

The external rearview mirror can significantly expand the driver's rear and side rear field of vision, reduce visual blind spots during operation, prevent collision accidents, and improve safety.



## 6 ROPS/FOPS FRAME

ROPS/FOPS dual-certified frame, strong compressive strength of the ceiling, front window mesh wire can resist flying rocks; magnetic safety hammer integrated into the back of the chair, break the window and escape in 3 seconds.



## 7 LED LIGHT

LED work lights have high brightness and uniform light, which can effectively cover the working area and improve the safety of work at night or in dim environments.





#### 1 Dash board

The right armrest box is equipped with a vehicle instrument —an integrated multi-function instrument, which can display various parameters such as speed, oil volume, oil pressure, voltage, and water temperature alarm. It is convenient to observe the status of the whole vehicle, and can maintain and manage the condition of the whole vehicle in time.



#### 4 PILOT OPERATION ON BOTH SIDES

The two-side pilot operation provides the excavator with higher operating precision and efficiency, while improving the operator's comfort and safety, allowing the excavator to perform well in various working conditions.

#### 2 COMFORTABLE SEATS

Adjustable seat, ergonomically designed to support the operator's back, waist and neck, reducing fatigue caused by long-term operation

#### 3 HIGH AND LOW SPEED WALKING

The walking speed can be flexibly adjusted according to different working conditions to cope with various working environments



#### 5 COMFORTABLE ARMRESTS

To improve the comfort of operation, arm supports are installed on both sides of the work box to improve operability and reduce fatigue caused by long-term operation.



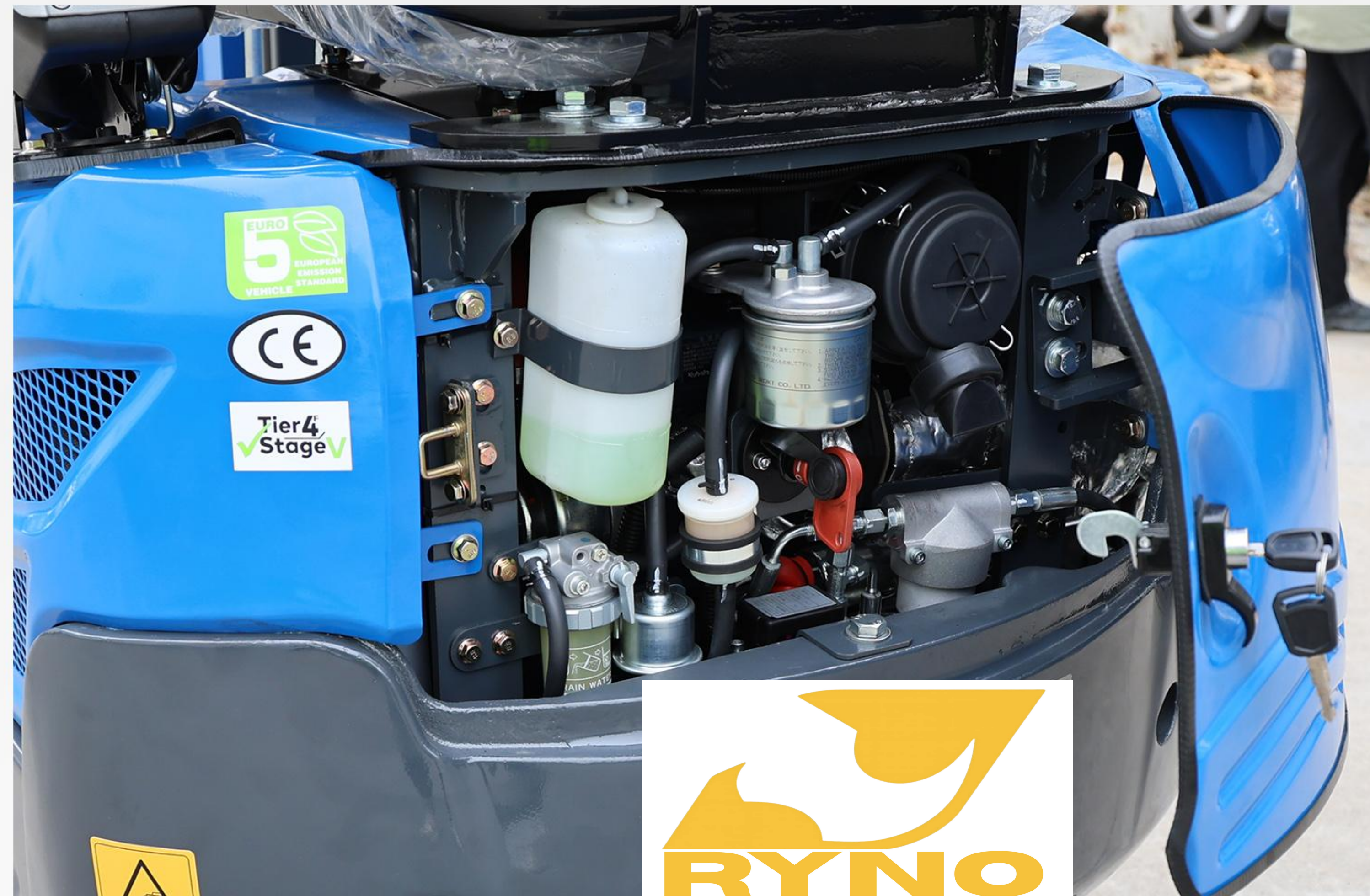
The feature of **R15 ECO**

# SERVICE

The rear opening hood provides easy access to the engine, and maintenance is simple with the hydraulic service port plumbing conveniently located and protected.

#### Engine Cover

The rear-opening operator seat on the hood can be flipped up to reveal a large portion of the engine, allowing easier access to components.



#### Protected Hydraulic Service Port Pipes

With the R15 ECO, you'll never need to replace the hydraulic service port pipes again. To reduce the risk of damaging the hydraulic piping, the service port pipes are hidden inside the boom, and its service ports are conveniently located at the end of the boom.



#### Adding thermal insulation to the cabin

The 3M strong adhesive makes the adhesion more secure, and the 5mm thickness of the thermal insulation cotton is moderate in thickness, beautiful and has good thermal insulation effect. It effectively reduces the body temperature when driving the excavator, reduces the risk of burns, and improves the driving quality.



#### Openable footrest cover

The cover at the footrest is designed to be openable, which facilitates inspection of the oil circuit and lines, significantly improving the convenience of maintenance and inspection.



#### CABLE PROTECTION FOR OIL PIPELINES

To improve reliability and extend service life, RIPPA excavators are now equipped with steel spring guards on the undercarriage hydraulic hoses. This improvement ensures optimum protection against wear caused by friction, sharp objects and rough terrain.



#### CABLE PROTECTION FOR OIL PIPELINES

Effectively prevent water, mud, acid and alkali corrosion, enhance surface hardness, prevent high-pressure oil filling grease nozzle deformation, and make maintenance more convenient

