

COMPACT EXCAVATOR

**SWE90UF**

Engine Power: **62.8HP/46.2kw**

Machine Weight: **19,290 lbs/8 750–8 900 kg**



# OUR STANDARD FEATURES

## Presenting the SWE90UF

It gives me great pleasure to introduce to you our new **SWE90UF compact excavator**.

The SWE90UF – Sunward's first short-tail 9-ton excavator – has been developed especially for contractors, from demolition to the rental market, all will appreciate a compact machine that delivers heavy-duty performance.

This modern excavator features excellent performance, comfortable and safe operation, and convenient maintenance. It is a product of our company's innovative DNA, which creates value for our customers and improves the quality of life. In just over 20 years, Sunward has grown to become one of the world's top 50 construction machinery manufacturers and top 20 excavator companies. Today, our products are exported to more than 100 countries worldwide.

Thank you for sharing our pride!

*Professor He*  
Sunward Founder

## Main features

### RELIABILITY AND PERFORMANCE

We never compromise on reliability. So, all key components come from the world's top-notch premium brands. From the Yanmar Stage V engine to the German-made hydraulic system, all is set for reliability and enhanced performance.

### VERSATILITY AND OPTIMIZED OPERATIONS

Because operators need the utmost flexibility while fully concentrating on their task, the SWE90UF has 3 working modes, proportional joysticks, and 7 lines as standard to accommodate any working requirement and tool.

### SAFETY AND COMFORT

Peace of mind is key to focusing on the job. The SWE90UF keeps you safe and provides every comfort in all working conditions. The fully certified cab features ROPS, FOPS and TOPS, from reinforced undercarriage to boom and arm reinforced frames. And you stay safe day and night, thanks to the full visibility provided by 4 perfectly positioned LED lights as a standard feature.

### EASY MAINTENANCE AND SERVICE

All Sunward machines are designed, prototyped and then disassembled – in the spirit of reverse engineering – to test how easy they are to be serviced and maintained. And the SWE90UF is no exception. So, it's not surprising that trying out our machines is all an operator needs to do to be convinced. From ground-level access, to service components, to the availability of parts – maintaining the SWE90UF is easy and simple.

# ARE OPTIONS FOR OTHERS



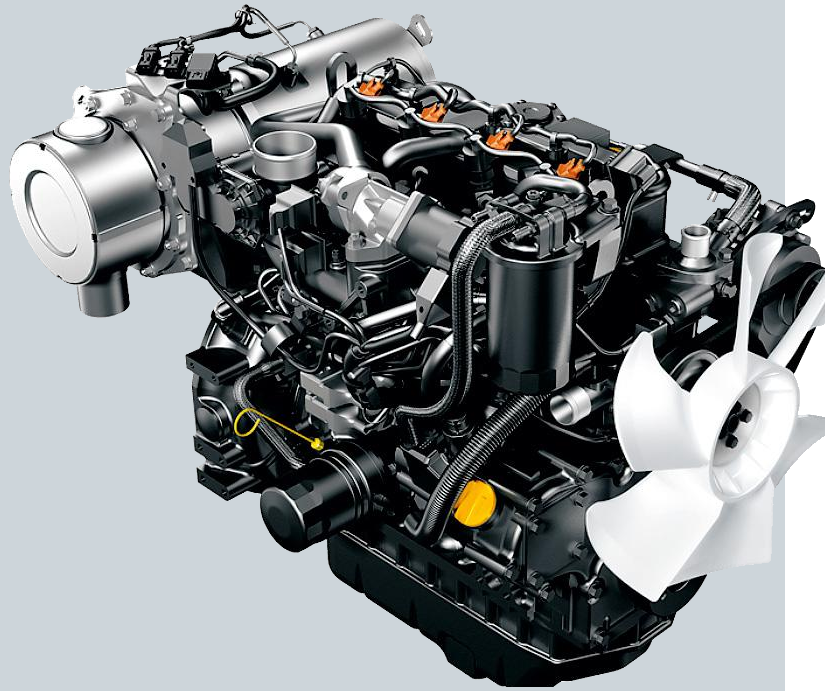
# Reliability and Performance

## All key components are carefully selected

The Yanmar 4TNV98C engine has the latest Stage V emission requirements and the EPA Tier 4 final emission requirements of North America. Common rail direct-injection assures more precise fuel delivery and control, increased fuel economy, superior exhaust treatment, reduced emissions, and improved performances.

Bosch Rexroth is the market leader in hydraulic pump innovation, design, and manufacture. So, it was natural for Sunward to select this premium brand to be our main pump supplier. Our Bosch Rexroth hydraulic pumps deliver greater precision and reliability – which naturally reflects on the reliability of the SWE90UF.

Rexroth is known for setting the highest standards in engineering excellence. And their experience in the construction sector made them Sunward's natural partner for the valves and the joysticks.



## Premium brand critical components

### YANMAR

Stage V engine

### BOSCH REXROTH

Main pump

### BOSCH REXROTH

Mechanical Cartridge  
Valves and joystick

### FLUTEK

Traveling motor

### KYB

Swing motor



## Safety valves

Safety valves prevent uncontrolled movement of the cylinder, especially during the load lifting work. Moreover, the SWE90UF is equipped with safety valves as a standard feature. Reliability and performance are definitely part of the package.

## High-level configuration, safe and reliable

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Max. 24'5"



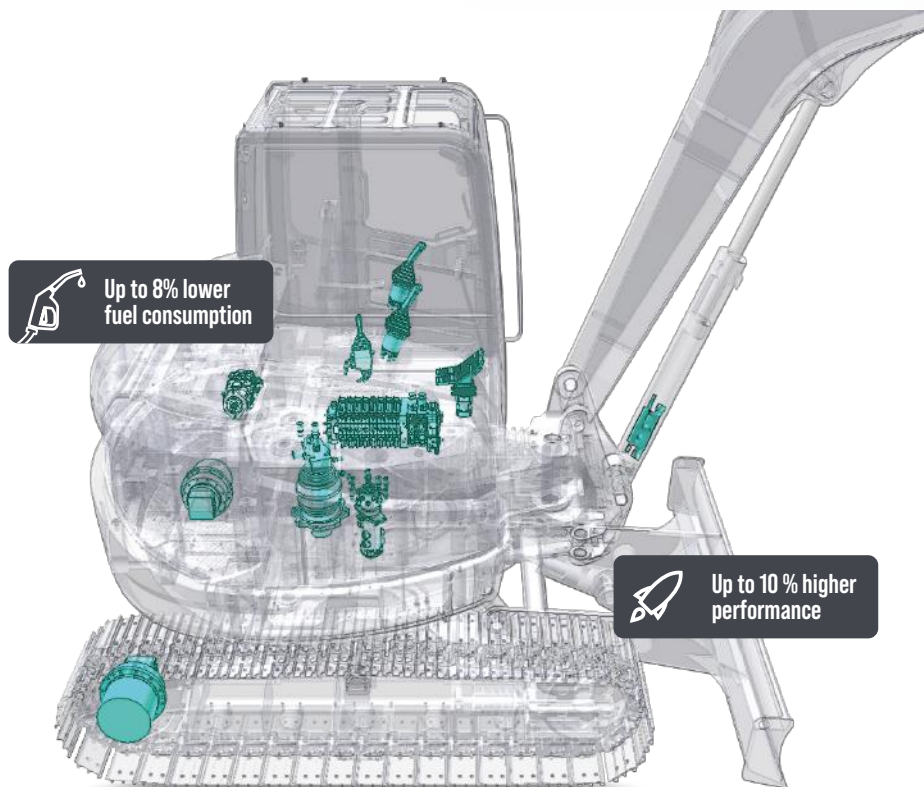
Max. 10471lb

## Real lifting capacity

The SWE90UF has exceptional lifting capacities up to 10,471 Lb and stretched reach up to 24'5" that easily rival the long-established 9-ton excavators on the market.

## Powerful digging force & long reach

With a digging force of 8,542.7 lbf (arm) and 14,275.4 lbf (bucket), the SWE90UF is certainly equal to – and even better than – the 9-ton references available on the market. And when it comes to its long-reach digging capacity, the SWE90UF is again very well positioned with its almost 24'5" long reach.



Up to 8% lower fuel consumption

Up to 10% higher performance

## Precise control

The SWE90UF enjoys very precise control thanks to the LUDV System (load independent flow control). The compact excavator flow-sharing system fully exploits the excavator's potential, enhancing fine control and precision performance.

The individual functions are assigned different speeds and directions of movement, improving workflows as a result. Moreover, with just one variable displacement pump, the number of components can be reduced, leading to: higher performance (up to 10% higher than that of a comparable machine), and lower fuel consumption (up to 8% lower).

## Protection plates for boom cylinders

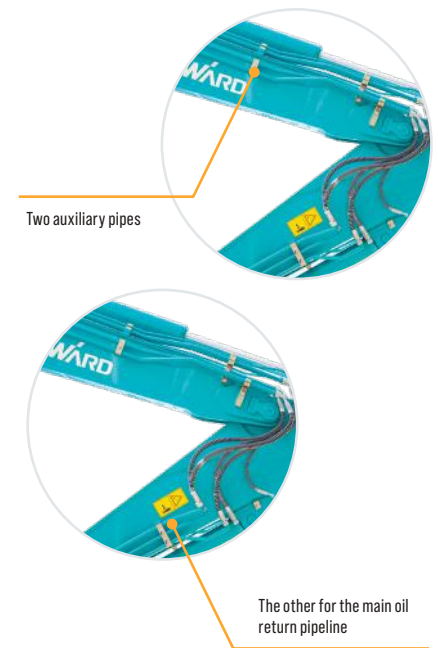
Several excavator components – especially the boom cylinders – are at risk of damage caused by flying stones when working in the field. Special care is taken to protect the boom cylinders with covering plates, so that the operator can focus fully on his job and not be over-cautious concerning the machine components.



# Versatility and Optimized Operations

## Engineering and design produce versatile and optimized machines

In the spirit of Sunward's motto – 'Innovation Leads to Value' – all engineering and design are focused on generating optimal value for the machine buyer or owner. So, our machines can be used in a large variety of working conditions and applications.



## Complete auxiliary lines as standard

The SWE90UF can adapt to any job site, thanks to the complete auxiliary settings built-in as a standard feature – providing fully adjustable pressure and flow monitoring for all types of attachments.

This results in no less than 7 lines (while the market provides 5 lines at best). The SWE90UF's 7 standard auxiliary lines are distributed as follows:

- 2 lines at the front of the arm (AUX1), which is mainly used for the hydraulic quick coupler
- 2 lines for greater flow to satisfy requirements of attachments (AUX2)
- 2 lines with lower flow for breaker or other attachments (AUX3)
- 1 larger pipeline for hydraulic return with uni-flow-direction attachment such as a breaker

## 3 working modes

To balance between fuel consumption and the desired productivity, the SWE90UF offers 3 working modes:

### HEAVY WORK MODE

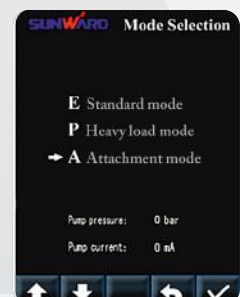
Dedicated to hard digging operations – where engine rpm and pump pressure are at the highest possible capacities, providing the optimal output for getting the job done.

### STANDARD WORK MODE

Saves fuel by lowering the engine's speed – rpm is as low as possible, while maintaining controllability.

### ATTACHMENT MODE

With this mode, the operator can set the flow rate according to the attachment, adapting to different types of working conditions and optimizing fuel-efficiency.





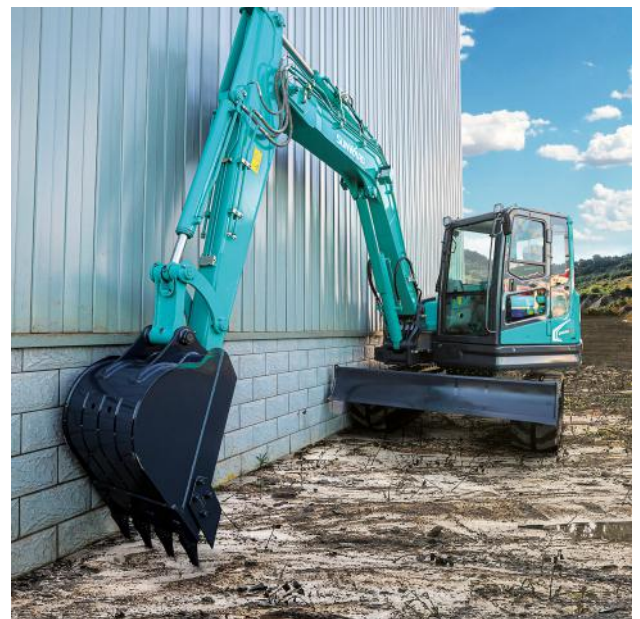
## Compactness within a 4'8" swing radius

The SWE90UF's unique design augments the performance of its premium components, as this extremely compact 9-ton excavator has the shortest swing radius (by almost 7.8ft) available in the market. These precious centimeters of its swing radius make all the difference between being transported on a regular truck rather than a specialized one. Then, on the job, the SWE90UF provides the stability required for long-reach digging and heavy-lifting duty.



## Load sensing system for optimized operations

One of the most important requirements for the hydraulic system in construction machinery is the engine's stable combustion, which optimizes fuel consumption and efficiency. The load sensing system is a Load Limiting Control (LLC) software solution for smart power management in hydraulic systems. The dynamic LLC ensures that the hydraulic pump output corresponds with the available engine output to prevent the diesel engine from being overloaded while making optimum use of the engine's power.



## Low consumption

The SWE90UF's optimized design enables exceptionally low fuel consumption.

# Safety and Comfort

## Precise control, comfortable and safe

Safety is the first priority. So, the SWE90UF's design ensures the operator's safety from the very first operation. No rear camera is needed, as the very short tail swing allows ideal positioning even in the tightest spaces.

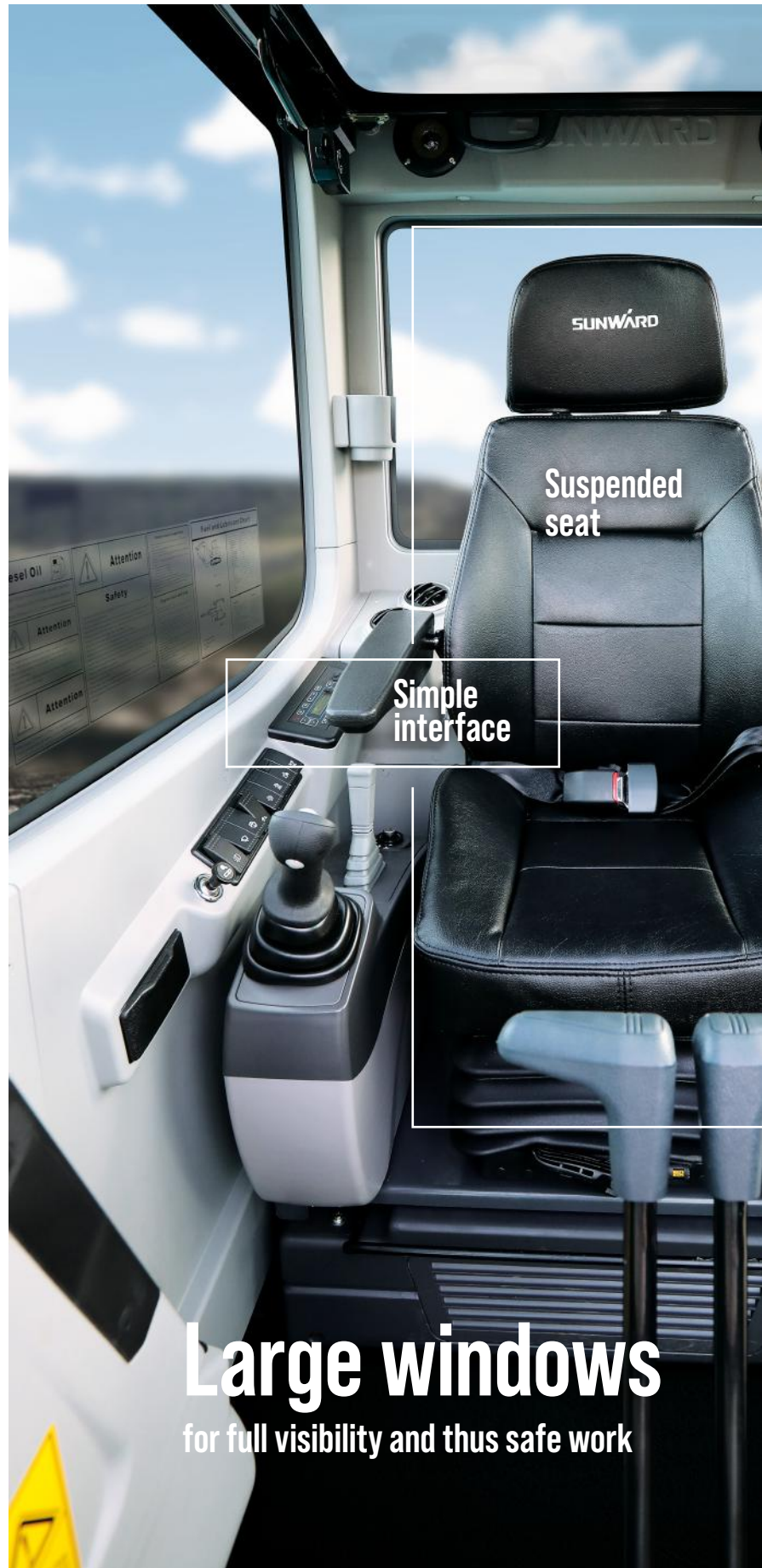
ROPS, FOPS and optional FOPS II cab tops make work safe and comfortable – again in all application environments. The undercarriage, boom and arm are carefully protected with plates to prevent any inconvenience when working around rock projections.

The cab provides optimized comfort in all applications: ranging from the suspension seat and joystick drives to the USB radio and air-conditioning as standard equipment.



## Robust undercarriage for stability

The large undercarriage frame provides robust stability enhanced by 5 lower rollers and 1 top roller. This concept ensures safety, comfort and maintainability.



**Large windows**  
for full visibility and thus safe work





Simple operation



## Protected with ROPS, FOPS structure and more

Operators are well-protected with the ROPS FOPS standard structure, or with a ROPS FOPS II option for applications in the demolition or forestry environments. Fire extinguisher, safety hammer, and safety belt are in the standard configuration.

## All-around visibility

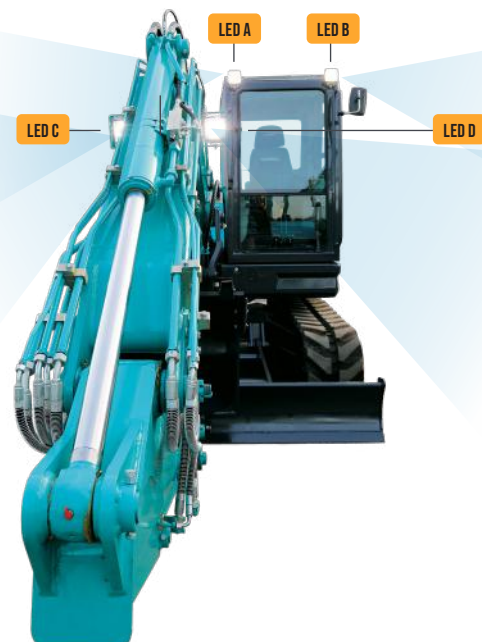
The cab's wide view and slim frame, enhanced by mirrors on both sides, make it easy to operate in full awareness (all-around visibility) of the machine's surrounding environment. Plus, for utmost comfort, the cab is sealed to prevent dust from entering.

## Daylight conditions 24/7

Short winter days and dark environments are no problem for the SWE 90UF, thanks to the powerful LED lights mounted on 4 places: 2 on the boom and 2 on the front of the cab. Providing full visibility and keeping work safe.

## Digital monitoring screen

The easy-to-read 5.7" digital monitoring color screen, with centralized functions and simple interface for easy operation, displays machine status and operations, attachment modes, and diagnostic readings or routine maintenance alerts. All key information – such as engine rpm, engine temperature, fuel level, and machine hours – is readily accessible.



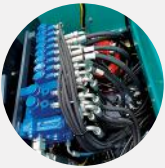
# Easy Maintenance and Service

## Easy access to covers

Full-opening cover, detachable platform enclosures – all maintenance parts can be easily accessed from the ground for convenient maintenance and replacement (without removing excessive or irrelevant parts).

### 01 FIXED CENTRAL COVER

Inspection and maintenance of main valve, swivel joint, swing motor



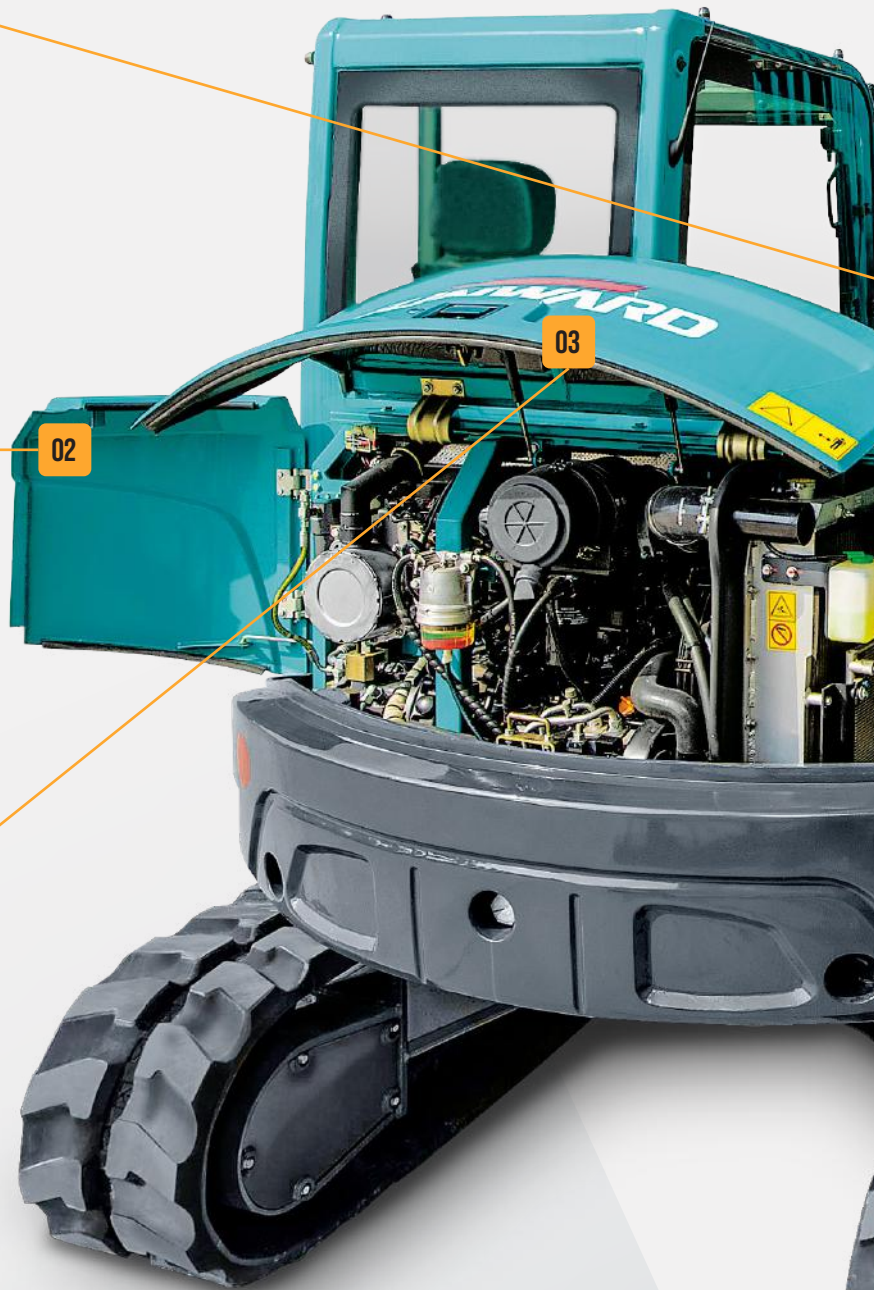
### 02 FLAT-OPENING RIGHT TAIL HOOD

Maintenance of main pump, pilot filter



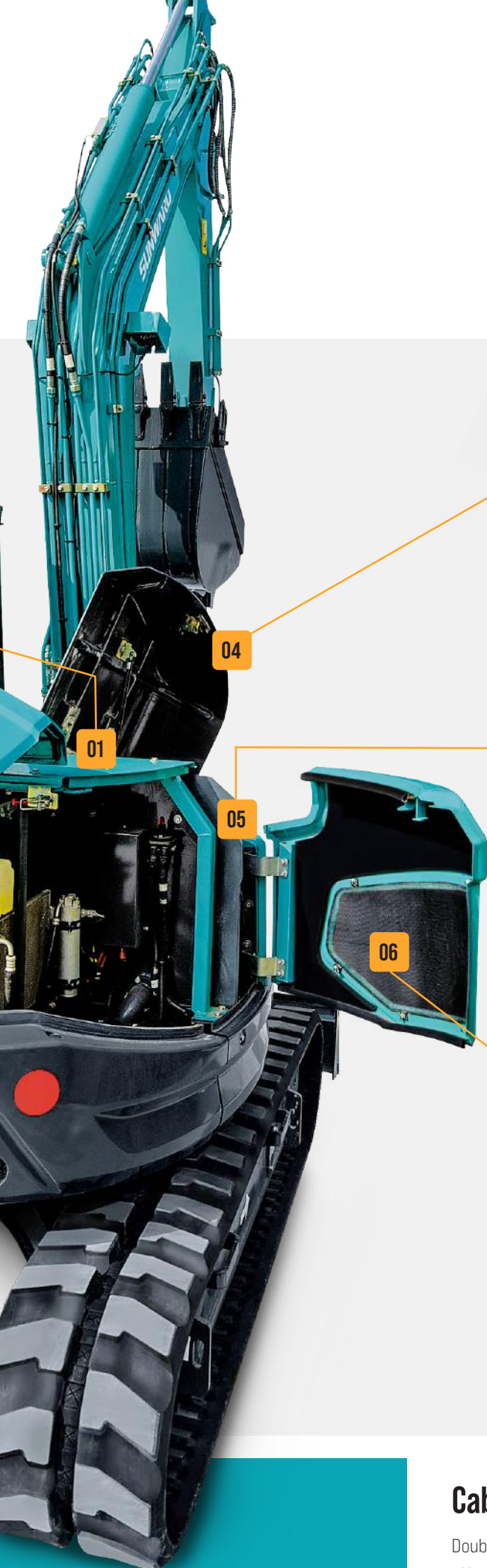
### 03 UP-TURNING MIDDLE TAIL HOOD

Maintenance of engine, compressor, air filter, oil filter, fuel filter



## Did you know?

Operators and maintenance teams can enjoy a machine that has been designed, prototyped and then disassembled – in the spirit of **reverse engineering** – to facilitate all service and maintenance operations



## 04 LATERAL-OPENING RIGHT UPPER COVER

Refueling, maintenance of filter element of hydraulic oil tank, battery disconnect switch



## 05 FIXED RIGHT FRONT WALL

Refueling pump, grease gun



## 06 FLAT-OPENING LEFT TAIL HOOD

Maintenance of expansion tank, electric devices, radiator condenser, drier



## Cab monitoring

Double electro-hydraulic proportional joysticks as standard configuration – to operate various attachments flexibly, conveniently and quickly.

## EQUIPMENT

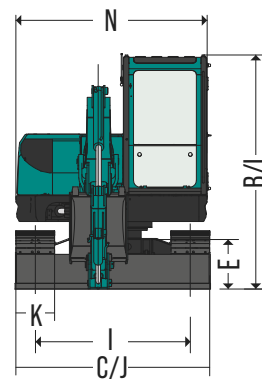
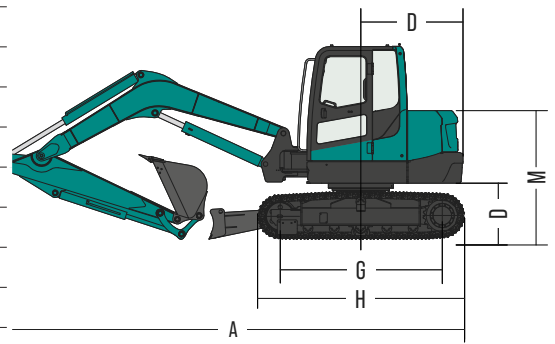
The standard and optional equipment varies from country to country. For more information, please contact us.

		STANDARD EQUIPMENT	OPTIONAL EQUIPMENT
CAB	AM/FM radio	•	
	Cup holder	•	
	Seat with shock absorber.	•	
	Air conditioner	•	
	Engine meso-position start system	•	
	Retractable harness	•	
	FOPS/TOPS cab	•	
	Windscreen washer and wiper	•	
	Rearview mirror	•	
	12 Volt Accessory Power Outlet		•
	Safety device of front windscreen		•
FRONT WORKING DEVICES	26.77 inch bucket	•	
	66.14 Inch arm		•
	82.68 inch arm	•	
	Crushing piping	•	
	Attachment piping	•	
	Hydraulic quick coupler	•	
TRACK	17.72 inch rubber track	•	
	17.72 inch steel track		•
ENGINE	Oil filter	•	
	Fuel filter	•	
	Fuel-water separator	•	
	Air filter	•	
	Radiator	•	
	Alternator	•	
	Expansion tank	•	
	Electronic fuel pump	•	
	Muffler	•	
HYDRAULIC SYSTEM	Hydraulic pilot control	•	
	Parking-upon-swing brake	•	
	Parking-upon-traveling brake	•	
	Dual-speed traveling system	•	
	Automated gear shift system	•	
	Left and right electro-hydraulic proportional joystick	•	
	Boom safety valve	•	
	Arm safety valve	•	
	Dozer blade safety valve		•
	Operating mode switching valve		•
	7 auxiliary lines	•	
LIGHTS	Boom light	•	
	Front cab light	•	
	Warning light	•	

# TECHNICAL PARAMETERS

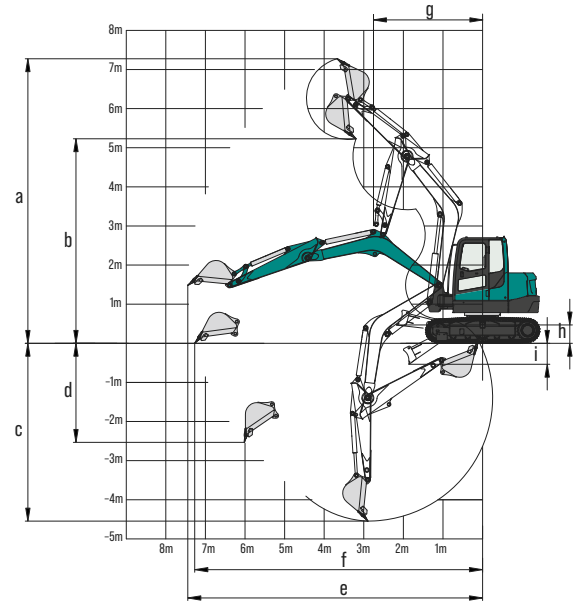
# DIMENSIONS

		Imperial	Metric
<b>DIMENSIONS</b>	Overall dimension [L x W x H]	21'5" x 9' x 7'5" in	6535x2270x2735 mm
	A Total length	21' 5"	6535 mm
	B Total height	7' 5"	2270 mm
	C Total with	9'	2735 mm
	D Ground clearance of counter weight	2' 7"	800 mm
	E Minimum ground clearance	15.6"	400 mm
	F Tail swing radius	4' 8"	1430 mm
<b>MACHINE WEIGHT</b>	G Track length on the ground	7' 5"	2270 mm
	H Track length	9' 6"	2900 mm
<b>PERFORMANCE</b>	I Track gauge	5' 11"	1800 mm
	J Undercarriage width	7' 5"	2250 mm
	K Track shoe width	17.5"	450 mm
	L Cab height	9'	2735 mm
	M Height of engine hood	5' 11"	1800 mm
	N Width of turntable	7' 3"	2220 mm
	First Boom length	6' 5"	1950 mm
	Second Boom length	6' 9"	2050 mm
Arm length	6' 11"	2100 mm	
<b>ENGINE</b>	Brand	Yanmar	Yanmar
	Model	4TNV98C-SSU	4TNV98C-SSU
	Type	Inline, 4 cylinders, 4 strokes, water cooled, mechanical pump	Inline, 4 cylinders, 4 strokes, water cooled, mechanical pump
	Emission rating	Tier 4 Final	Tier 4 Final
	Displacement	0.88 gal	3.319 L
	Output	62.8/2,200 Hp/rpm	46.2/2200 kW/rpm
	Max torque	178/1,430 lbf.ft/rpm	241/1430 N*m/rpm
<b>HYDRAULIC</b>	Type	Rubber track	Rubber track
	Rubber shoe width	17.55"	450 mm
	Track length	9' 6"	2900 mm
	Traveling speed (High/Low)	2.92/1.68 mph	4.7/2.7 km/h
	Gradeability	35 deg	35 deg
		11.2 rpm	11.2 rpm
		5.1 psi	35.4 kpa
	Hydraulic pump type	1 variable plunger pumps	1 variable plunger pumps
	Max displacement of hydraulic pump	42.2 gal/min	160 L/min
	Hydraulic pressure of hydraulic pump	4061 psi	28 Mpa
	Pilot pump	Gear pump	Gear pump
	Max displacement of pilot pump	4 gal/min	15 L/min
	Hydraulic pressure of pilot pump	507.6 psi	3.5 Mpa
		Plunger motor	Plunger motor
		2-speed plunger motor	2-speed plunger motor
	33 gal	125 L	
	21.1 gal	80 L	



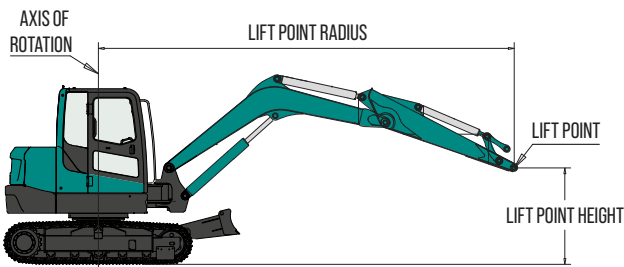
## WORKING RANGE

WORKING RANGE			Imperial	Metric
	a	Max. cutting height	27'	8240 mm
	b	Max. loading height	20' 1"	6135 mm
	c	Max. digging depth	15' 6"	4735 mm
	d	Max. vertical digging depth	13' 7"	4140 mm
	e	Max. digging reach	26' 4"	8035 mm
	f	Max. reach on ground	25' 10"	7875 mm
	g	Min. front swing radius	9' 4"	2840 mm
	h	Max dozer lifting height	17.5"	450 mm
	i	Max dozer cutting depth	18.9"	485 mm
		Max digging force (Bucket)	14,275.4 lbf	63.5 kN
		Max digging force (Arm)	8,542.7 lbf	38 kN
		Boom swing angle (Left/Right)	63/52 °	63/52 °



## LIFTING CAPACITY

Lift Point Height	Lift Point radius (MIN)				Lift Point radius (9.8ft/3.0m)				Lift Point radius (13.1ft/4.0m)				Lift Point radius (16.4ft/5.0m)			
	Over-front (lbs/kg)		Over-side (lbs/kg)		Over-front (lbs/kg)		Over-side (lbs/kg)		Over-front (lbs/kg)		Over-side (lbs/kg)		Over-front (lbs/kg)		Over-side (lbs/kg)	
13.1ft 4.0	415.0*	915.0*	832.5*	377.6*	/	/	/	/	/	/	/	/	/	/	/	/
9.8ft 3.0	347.0*	765.0*	675.0*	306.1*	/	/	/	/	1,080.0*	489.8*	937.5*	425.2*	/	/	/	/
6.6ft 2.0	319.7*	705.0*	577.5*	261.9*	753.8*	341.9*	637.5*	289.1*	1,125.0*	510.2*	930.0*	421.8*	1,590.0*	721.1*	1,402.0*	635.8*
3.3ft 1.0	306*	675.0*	547.5*	248.3*	682.5*	309.5*	607.5*	275.5*	855.0*	387.8*	847.5*	384.4*	1,290.0*	585.0*	1,290.0*	585.0*
0.0 0.0	282.3*	622.5*	540.0*	245.0*	630.0*	285.7*	577.5*	261.9*	907.5*	411.6*	780.0*	353.7*	1,350.0*	612.2*	1,125.0*	510.2*
-3.3ft -1.0	309.5*	682.5*	600.0*	272.1*	/	/	/	/	862.5*	391.2*	735.0*	333.3*	1,267.5*	574.8*	1,065.0*	483.0*
-6.6ft -2.0	360.5*	795.0*	727.5*	329.9*	/	/	/	/	855.0*	387.8*	750.0*	340.1*	1,140.0*	517*	990.0*	449.0*



**Notes:**

1. Load with \* is limited by hydraulic capacity and based on ISO 10567. Rated loads do not exceed 87% of hydraulic capacity.
2. Load without \* is limited by tipping load and based on ISO 10567. Rated loads do not exceed 75% of tipping capacity.
3. A: distance from center of rotation to perpendicular of weight; B: distance between bucket hinge pin and ground level.