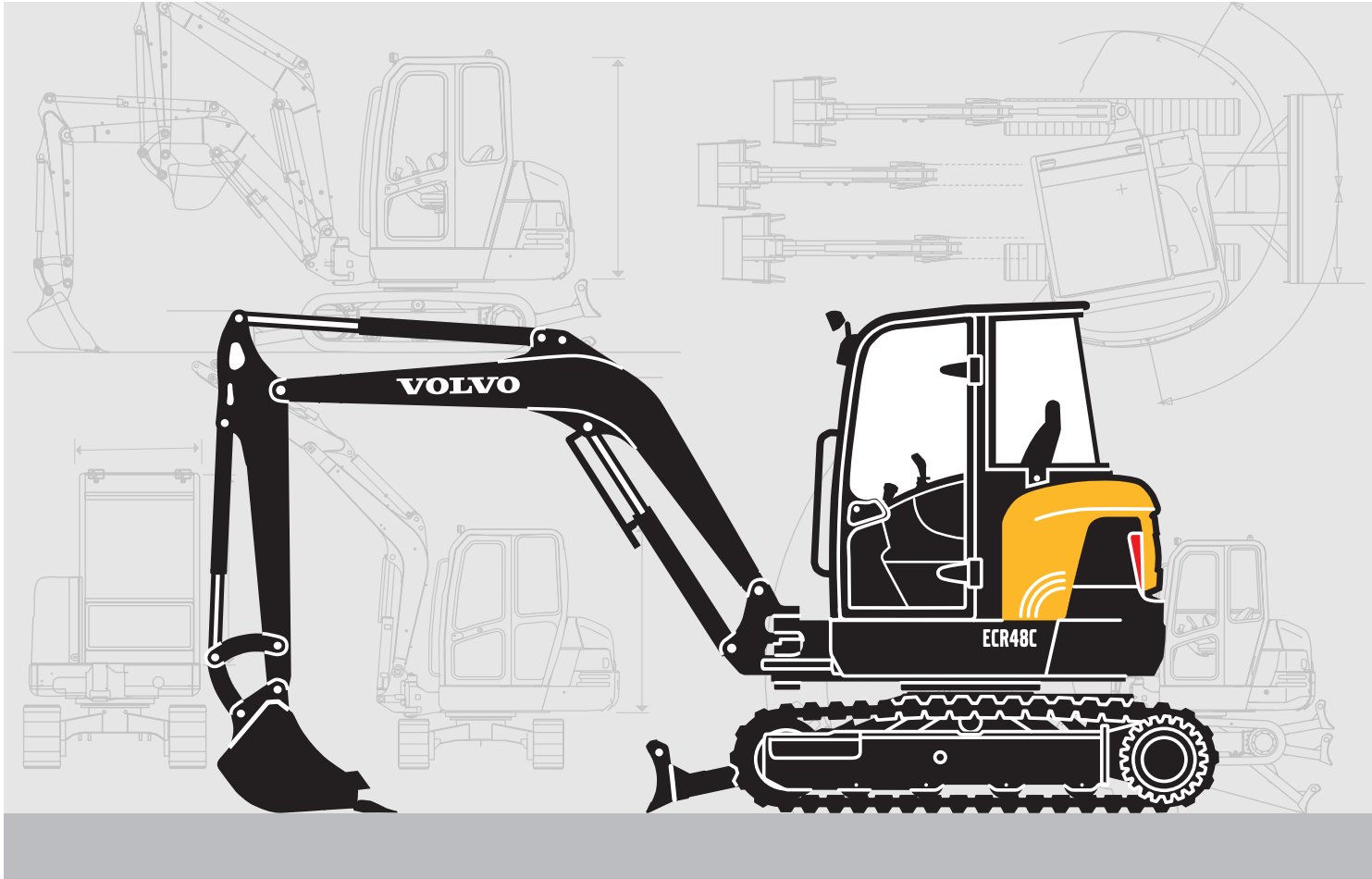


VOLVO COMPACT EXCAVATOR

# ECR48C



• **Power installed :**  
27.1 kW / 36.3 hp

• **Operating Weight :**  
3343 - 3437 kg

• **Maximum Digging Depth :**  
3060 - 3310 mm

• **Powerful Volvo engine** with low exhaust emission for more environmental care.

• **Spacious and comfortable cab** for all-day operator performance.

• **Excellent serviceability** thanks to **easy access** to the **side positioned** engine.

• **Combination** of both **compactness** and **performance**.

• **Optional air conditioning** enhances **operating performance** in all climates.

• **Load Sensing** hydraulic System for a total independence of the movements : better controllability.

• **Efficient combination** of **slew** and **offset** movements.

• Retracting **seat belt** with **visual indicator** for **safety** and comfort.

• **Control pattern** switch access is **easy from the cab**.

• **Optional factory fitted thumb**.

**MORE CARE. BUILT IN.**



# SPECIFICATIONS

## Engine

Low emission, water-cooled, direct injection Volvo 4-cylinder diesel engine, meeting Tier III / STAGE IIIA environmental regulations and equipped with optional automatic return to idling system

<b>Model</b>	D2.2DCAE2
<b>Gross power, rated (ISO 9249)</b>	27.1 kW (36.3 hp) at 2200 r/min
<b>Power, installed (ISO 9249)</b>	26 kW (34.9 hp) at 2200 r/min
<b>Displacement, total</b>	2190 cc
<b>Maximum torque</b>	138 Nm at 1320 r/min
<b>Bore x stroke</b>	88 mm x 90 mm
<b>Gas emission</b>	PM: 0.3 g/kwh NOx + HC : 7.5 g/kwh CO: 5.5 g/kwh

## Electrical system

<b>Battery capacity</b>	12 V - 65 Ah
<b>Alternator rating</b>	12 V - 55 A
<b>Starter motor output</b>	12 V - 2.3 kW

## Hydraulic system

Closed centre Load Sensing hydraulic system providing total independence of each movement.

<b>Control</b>	power-assisted hydraulic controls
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Variable displacement Load Sensing pump for all the equipment and travel circuits :

<b>Maximum flow</b>	100 l/m
<b>Maximum operating pressure</b>	26 MPa (260 bars)

Finger-tip controlled double-acting hydraulic circuit for accessories :

<b>Maximum adjustable flow</b>	60 l/min
<b>Maximum operating pressure</b>	26 MPa (260 bars)

End-of-stroke cushions :

<b>On boom ram</b>	at the end of the rod extension
<b>On dipper ram</b>	at the end of the rod retraction

## Bucket performance

<b>Breakout force</b>	3421 daN
<b>Tearout force</b>	2546 daN

## Slewing system

Turntable slewing is provided by a radial piston hydraulic motor which drives directly (without a reduction gear) a ball internal crown wheel with remote lubrication :

<b>Slewing speed</b>	9,5 rpm
<b>Turntable braking</b>	automatic multi-disc brake
<b>Absorption of hydraulic shocks</b>	Shockless valve

## Undercarriage

The undercarriage is made up of an "X" box centre part for more rigidity and of sloping side members for a better clearance of materials. The rollers and the tensioning wheels are lubricated for life.

<b>Bottom/top rollers per side</b>	4/1
<b>Track width</b>	400 mm
<b>Track tension</b>	by grease piston
<b>Blade (width x height)</b>	1960 x 395 mm

## Drivetrain

Each track is driven by an axial piston hydraulic motor equipped with two speeds and an epicyclic reduction gear.

<b>Max. speed (low speed/ high speed)</b>	2,9 / 5,0 km/h
<b>Max. tractive force</b>	3040 daN

The travel control is automatically locked when the operator raises the left console.

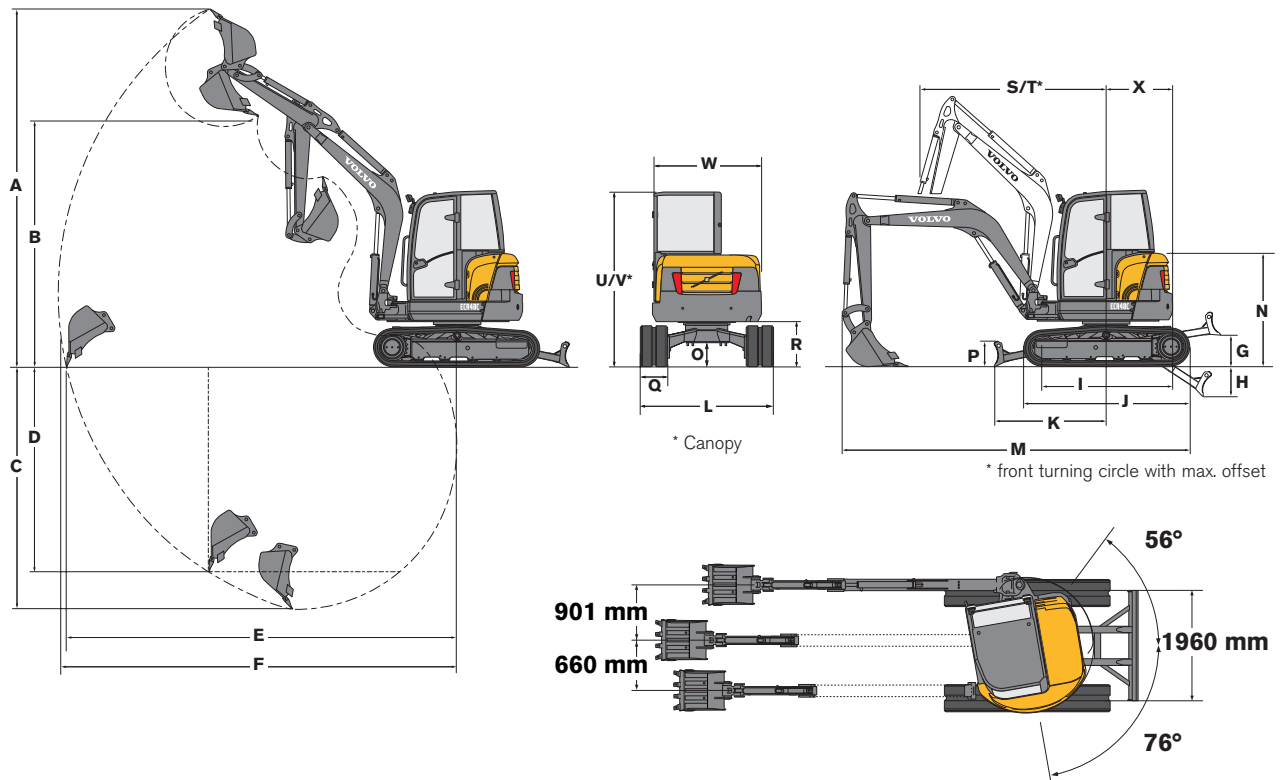
## Service fill capacities

<b>Fuel tank</b>	60 l
<b>Hydraulic tank</b>	20 l
<b>Hydraulic system, total</b>	50 l
<b>Engine oil</b>	8,6 l
<b>Cooling system</b>	6 l

## Weight

Weight and ground pressure with 400 mm rubber tracks and standard bucket :

	Operating	Ground pressure
<b>Canopy version</b>	4720 Kg	0,24 kg/cm <sup>2</sup>
<b>Cab version</b>	4850 Kg	0,24 kg/cm <sup>2</sup>



Buckets			
	Width	Weight	Capacity
Backhoe	350 mm	87 kg	70 l
	450 mm	100 kg	98 l
	600 mm	122 kg	142 l
	750 mm	143 kg	187 l
Ditch	1300 mm	185 kg	265 l

Dipper	A	B	C	C*	D	E	F
1400	5134	<b>3593</b>	<b>3407</b>	<b>3660</b>	2829	5559	5804
1800	5365	<b>3824</b>	<b>3807</b>	<b>4030</b>	3207	5939	6181

\* Dig depth with the blade down.

G	H	I	J	K	L	M	N	O
424	576	1870	2412	1800	1950	4939	1657	353

P	Q	R	S	T*	U	V	W	X
396	400	667	2715	2168	2569	2519	1610	974

mm

### Lifting capacity

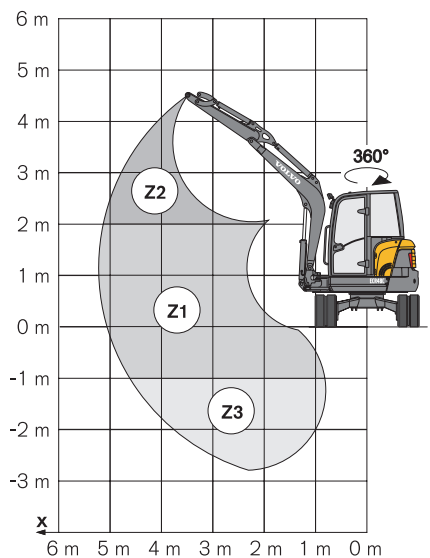
These capacities are given for a machine without a bucket or quick-release coupling and fitted with rubber tracks for a 360° total rotation lifted load.

The handling capacity is 75% of the tipping load or 87% of the hydraulic limit.

Caution : In accordance with standard EN 474-5, the machine must be equipped with a safety valve on the boom ram and an overload indicator (available as options) to carry out handling operations.

Outreach	(Kg)	1,00 m	1,50 m	2,00 m	2,50 m	3,00 m	3,50 m	4,00 m	4,50 m	5,00 m	Max	Xmax(m)
1400 mm	Z2				1312*	1064*	680*	691	580		497	4.95
	Z1		1642*	1741	1226	946	768	643	551		477	5.05
	Z3	2129*	2417*	1751	1233	948	768	644				
1800 mm	Z2						741*	545*	571	482	429	5.34
	Z1	1233*	1382*	1799*	1181	911	738	617	526	457	412	5.43
	Z3	1673*	1929*	1678	1182	908	735	614	525			

\* hydraulic limit



## STANDARD EQUIPMENT

### Engine

Low-emission Volvo diesel engine.  
Dry-type air filter.  
Electric heating device.  
Fuel filter + transparent sediment chamber.  
Purge plug under the diesel oil tank.  
Oil sump sheet metal guard.  
Automatic return to idling system.

### Electrical system

Water-resistant electrical connectors (IP67).  
Two working lights on cab version.  
Working light on the canopy frame.

### Hydraulic system

Load-sensing system.  
ISO power-assisted hydraulic controls.  
Accessory circuit and the boom offset are controlled by an electroproportional control on the right joystick.  
Control of forward and backward movement by two levers coupled to pedals.  
Double-acting hydraulic circuit for accessories.  
Progressive finger-tip control of the accessory circuit.

### Seat

"Deluxe" fabric or vinyl-covered superior comfort multi-adjustable sprung seat with a high back and fully-suspended consoles.

### Cab (cab version)

Cab mounted on rubber mountings.  
In cab heating and ventilation adjustment.  
Front window with opening system power-assisted by a gas ram.  
Provision for a radio (location for a radio and two speakers, aerial and electric wiring already fitted).  
Anti-corrosion protection of the cab by electrophoresis.  
Windscreen wiper and washer (front).

### Instrumentation and monitoring

Warning lights for hydraulic filter and air filter restriction.  
Gauges : water temperature, fuel level.  
Hour meter.  
Warning lights, coupled to an audible signal, in the event of overheating or drop in oil pressure.

### Earthwork equipment

2600 mm long monobloc boom.  
1400 mm dipper.  
Float blade.

### Safety

Cab and canopy versions are:  
Level 1 FOPS (Falling Objects Protective Structure).  
TOPS (Tip-Over Protective Structure).  
ROPS I (Roll-Over Protective Structure).  
All-around visibility.

Device for locking the earthwork equipment's controls and the travel levers when the left console is raised to gain access to the driver's cab.  
Engine starting safety device : the left console must be raised to operate the starter.  
Pressure accumulator in order to be able to put the equipment on the ground if the engine is switched off.  
Retracting seat belt with visual indicator.

### Official approval

Machine conforming to European directive 98/37/EC.  
Noise emissions in the environment conforming to directive 2000/14/EC.  
Object handling device conforming to EN 474-5 standard.  
FOPS 1 conforming to ISO 3449 standard.  
TOPS conforming to ISO 12117 and EN 13531 standards.  
Electromagnetic compatibility (EMC) conforming to European directive 89/336/EC and its amendments.

## OPTIONAL EQUIPMENT

### Handling and earthwork equipment

Long dipper (1800 mm).  
The long arm is recommended only for special applications with long reach and low density materials.  
Safety valve piloted by the power assistance circuit on the boom & dipper rams with overload indicator.  
Thumb.  
New mechanically or hydraulically-controlled quick-change attachment coupling.  
Single-acting or double-acting hydraulic circuit for quick-coupling.

### Hydraulic circuits for attachments

Hydraulic circuit for operating a clam-shell bucket (opening/closing and rotation).  
2 or 4 Push pull hydraulic couplings.  
2 or 4 Push pull FLAT FACE hydraulic couplings.  
Additional adjustment roller of max. delivery available on the accessory circuit.  
2nd accessory circuit operated by electroproportional control on left joystick.

### Undercarriage

Steel tracks : 380 mm wide.  
Angle blade.

### Lighting

Additional working light on the boom.  
Additional rear working light & rotating beacon.

### Environmental protection

Bio-degradable hydraulic oil.  
Bio-degradable cold weather hydraulic oil.

### Comfort

Air conditioning + tinted glasses.  
Radio (cab).  
CD radio (cab).  
Canopy.  
Suspended de luxe vinyle seat.  
ISO / SAE pattern selector.

### Safety

Left and right rear side view mirrors.  
Anti-theft system (2 programmable codes).  
Front guar protection (FOG).

### Service and maintenance

Tool kit.  
Dual stage air-filter.

### Miscellaneous

Special customised paint (RAL specifications).



Volvo Construction Equipment is different. It's designed, built and supported in a different way. That difference comes from an engineering heritage of over 170 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different – **More care. Built in.**



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