

VOLVO COMPACT EXCAVATOR

EC35C



• **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

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

Electrical system

Battery capacity	12 V - 65 Ah
Alternator rating	12 V - 55 A
Starter motor output	12 V - 2,3 kW

Hydraulic system

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

Control	power-assisted hydraulic controls
----------------	-----------------------------------

Variable displacement Load Sensing pump for all the equipment and travel circuits :

Maximum flow	100 l/m
Maximum operating pressure	24 MPa (240 bars)

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

Maximum adjustable flow	60 l/min
Maximum operating pressure	24 MPa (240 bars)

End-of-stroke cushions :

On boom ram	at the end of the rod extension
On dipper ram	at the end of the rod retraction

Bucket performance

Breakout force	3094 daN
Tearout force	2239 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 :

Slewing speed	9,5 rpm
Turntable braking	automatic multi-disc brake
Absorption of hydraulic shocks	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.

Bottom/top rollers per side	4 / 1
Track width	300 mm
Track tension	by grease piston
Blade (width x height)	1650 x 366 mm

Drivetrain

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

Max. speed (low speed/ high speed)	2.8 km/h / 4.8 km/h
Max. tractive force	2950 daN

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

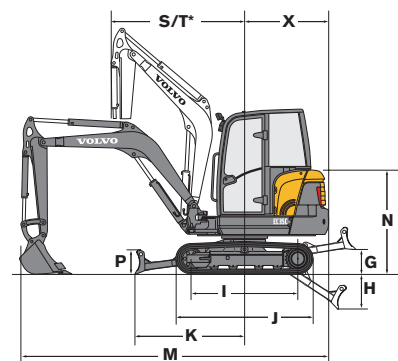
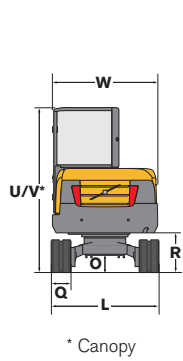
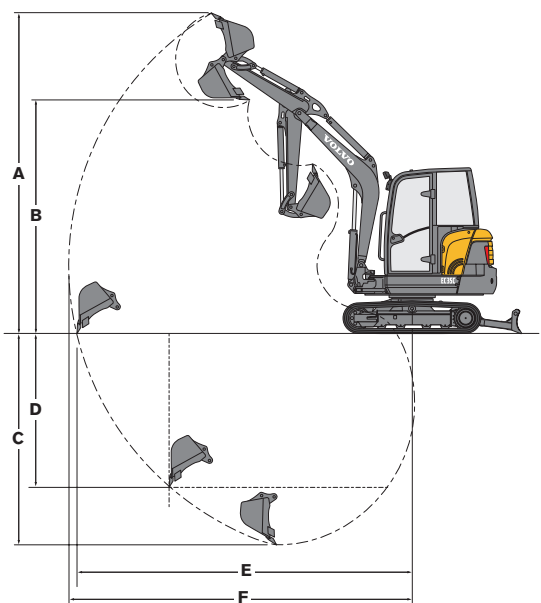
Service fill capacities

Fuel tank	60 l
Hydraulic tank	20 l
Hydraulic system, total	50 l
Engine oil	8,6 l
Cooling system	6 l

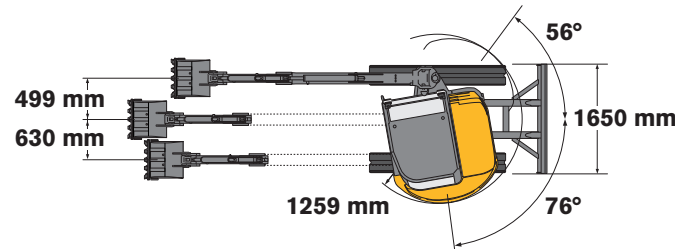
Weight

Weight and ground pressure with 300 mm rubber tracks and standard bucket :

	Operating	Ground pressure
Canopy version	3435 Kg	0,31 kg/cm ²
Cab version	3565 Kg	0,33 kg/cm ²



* front turning circle with max. offset



Buckets			
	Width	Weight	Capacity
Backhoe	300 mm	6,8 kg	49,7 l
	450 mm	76,8 kg	79,4 l
	600 mm	96,5 kg	110 l
	750 mm	111,5 kg	153 l
Ditch	1300 mm	125 kg	175 l

Dipper	A	B	C*	C	D	E	F
1400 mm	4800	3529	3426	3169	2290	5068	5187
1700 mm	4974	3705	3708	3469	2580	5357	5470

* Dig depth with the blade down.

G	H	I	J	K	L	M	N	O
368	521	1602	2057	1647	1620	4591	1563	257

P	Q	R	S	T*	U	V	W	X
366	300	590	2040	1603	2477	2427	1580	1259

mm

Lifting capacity

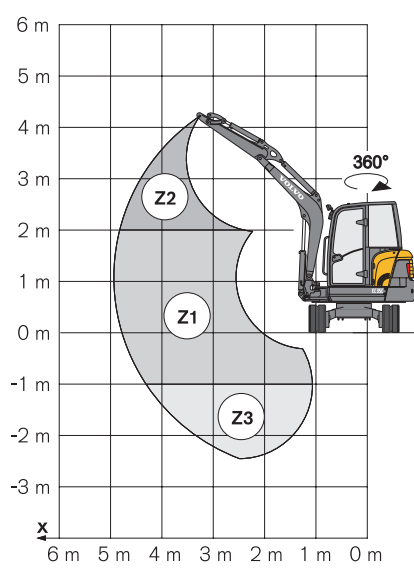
These capacities are given for a machine without a bucket or quick-release coupling and fitted with rubber tracks for a 360° total rotation lifted load.

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	Max	Xmax
1400 mm	Z2	-	-	-	-	768	654	529	-	495	4.15
	Z1	1497*	1709*	1168	924	717	583	488	-	430	4.45
	Z3	2131*	2136	1193	926	717	583	-	-	-	-
1700 mm	Z2	-	-	-	-	-	623	534	-	-	-
	Z1	-	1032*	1272	914	709	575	480	412	390	4.75
	Z3	-	2136	1275	911	705	572	479	-	-	-

* 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

2450 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 (1700 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 : 300 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.**



All products are not available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

VOLVO

Construction Equipment

www.volvoce.com

Ref. No. 21 2 432 1195
Printed in PDF
Volvo, Belley

English
2008.01
CEX