

SPECIFICATIONS

Engine

Water-cooled Volvo 4-cylinder diesel engine. Compliant to EU Stage IIIA environmental regulations.

Model	D3.1D
Gross power, rated (ISO 9249)	36.2 kW @ 2100 rpm
Power, installed (ISO 9249)	35.1 kW @ 2100 rpm
Displacement, total	3054 cc
Maximum torque	193~210 Nm @ 1400 rpm ± 100 rpm
Bore x stroke	94 mm x 110 mm

Electrical system

Rated voltage	12 V
Battery capacity	12 V - 100 Ah x 1EA
Alternator rating	12 V - 55 Ah
Starter motor output	12 V - 3.0 kW

Hydraulic system

Variable displacement Total Power Control hydraulic system providing total independence of all movements and of travel.

Control	Power-assisted hydraulic controls
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Variable displacement double pump for the equipment (boom, dipper and bucket) and travel circuits:

Maximum flow	2 x 57.8 l/min
Maximum operating pressure	21.6 Mpa (216 bar)

Gear pump for the power assistance circuit:

Maximum flow	13.7 l/min
Maximum operating pressure	3.2 Mpa (32 bar)

Double-acting hydraulic circuit for accessories:

Maximum flow	57.8 l/min
Maximum operating pressure	21.6 Mpa (216 bar)

2nd accessory circuit:

Maximum flow	19.6 l/min
Maximum operating pressure	21.6 pa (216 bar)

End-of-stroke cushion:

On boom ram	at the end of the rod extension
On dipper ram	on both sides
On offset ram	on both sides
Offset ram lock	on both sides

The equipment's offset ram is equipped with a balancing valve which holds the boom offset angle in the position chosen by the operator in all working conditions.

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	8.8 rpm
Turntable braking	automatic multi-disc brake
Absorption of hydraulic shocks	Shockless valve

Bucket performance

Breakout force	4138 daN
Tearout force	2844 daN

Undercarriage

The undercarriage is made up of an "X" box fabricated 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	5/1
Track width	400 mm
Track tension	by grease piston
Blade (width x height)	1920 x 350 mm

Travel system

Each track is driven by an axial piston hydraulic motor equipped with two gears and an epicyclic reduction gear. Braking is provided automatically by a multiple disc brake.

Travel speed (low / high)	2.4 / 4.5 km/h
Max. tractive force	4413 daN

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

Service fill capacities

Fuel tank	110 l
Hydraulic system, total	134 l
Hydraulic tank	84 l
Engine oil	11.5 l
Cooling system	16 l

Weight

Operational weight and ground pressure:

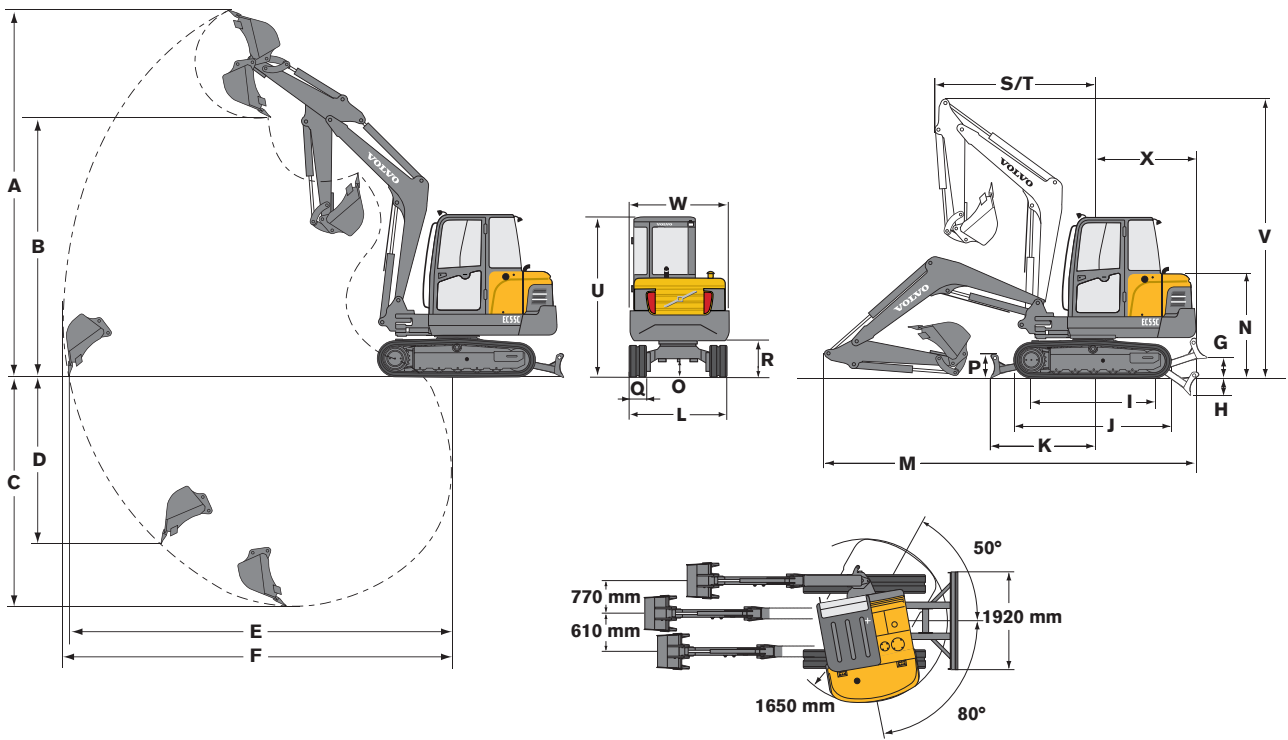
Rubber Tracks (400 mm)	5700 kg - 0.36 kg/cm ³
Steel Tracks (380 mm)	5790 kg - 0.39 kg/cm ³

Noise level

The EC55C conforms to the 2006 European Machine Directive Noise Level (2000/14/CE) of 97 dB(A) for this class of machine.

Noise level exterior (LwA)	< 97 dB(A)
Noise level in the cab (LpA)	< 78 dB(A)

The noise levels conform to directive n°1/4 86/662 EEC and its amendments.



Dipper	A	B	C	D	E	F
1600 mm	5680	4140	3750	2590	5960	6100
1900 mm	5870	4330	4050	2860	6250	6390

* Dig depth with the blade down.

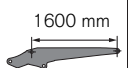
G	H	I	J	K	L	M	N	O
380	508	1950	2500	1747	1920	5872	1628	380

P	Q	R	S	T	U	V	W	X
349	400	690	2480	-	2563	4362	1850	1650

In mm

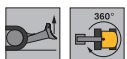
These capacities are given for a machine without a bucket or quick-release coupling and fitted with rubber tracks. The handling capacity is 75% of the tipping load or 87% of the hydraulic limit.

Caution: In accordance with standard EN 474-5, the machine must be fitted with a safety valve on the boom ram and with an overload indicator for handling operations.

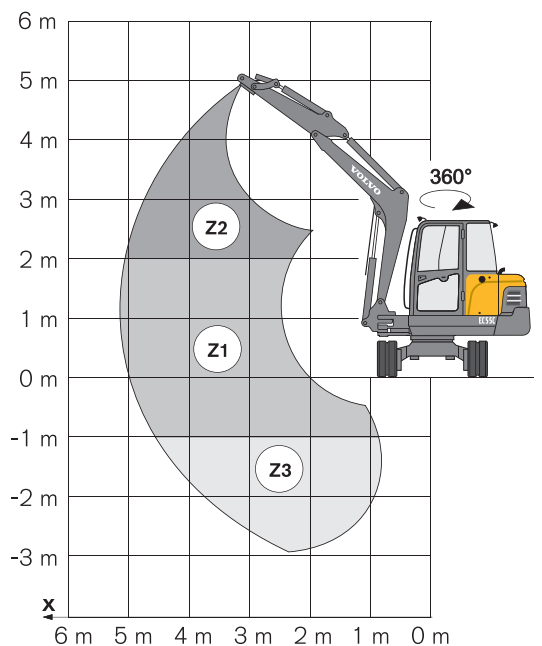
Horizontal Range		1 m	2 m	3 m	4 m	5 m	Max
Rubber Tracks  	Z2	-	-	-	1070	-	760
	Z1	*2430	2660	1380	920	690	650
	Z3	*4090	2710	1410	-	-	960
	Z2	-	-	-	1080	740	680
	Z1	*2060	2600	1360	900	670	590
	Z3	*3380	*2320	*1360	-	-	820

* hydraulic limit

In kg



Lifting capacity in total rotation over 360° with the blade raised.



STANDARD EQUIPMENT

Engine

Low-emission Volvo engine meeting EU Stage IIIA environmental regulations.
Two-stage air filter with blinding indicators.
Electric heating device.
Diesel filter and sediment chamber.
Electric fuel tank filling pump (35 l/min).
Automatic return to idling.
Telene engine hood.
Oil sump sheet metal.
Smooth sound dual case muffler.

Electrical system

Maintenance-free 12 V - 100 AH battery.
Starter motor 12 V - 2.3 kW.
Halogen working lights (2 on the turret and 1 on the boom).
Water-resistant electrical connectors (IP67).
Horn.

Undercarriage

(400 mm) width rubber tracks.
Float blade.
Remote lubrication of the slew ring.

Hydraulic system

ISO power-assisted hydraulic control.
Cylinder cushions with contamination seals.
Total Power Control system.
Boom anti-lowering device.
Multiple filtration system (30 µm).
Double-acting hydraulic circuit for accessories fitted on the boom.
Accessory circuit and the boom offset are controlled by an electroproportional control on the right joystick.
Progressive finger-tip control of the accessory circuit & offset.
Control of forward and backward movement by two levers coupled to pedals.

Cab

Heating and air conditioning.
8 air vents.
Tinted windows.
Non-slip floor and grab handle for access to the driver's cab.
Multi-adjustable, full suspension, high-back, console/ seat assembly.
"Deluxe" fabric-covered superior comfort seat (cab).
Hinged front window.
Removable bottom front window.
Sliding right side window.
Rear Mirror in Cabin.
Rubber mounting.
Radio/cassette player with 2 speakers.
Flexible aerial.
Interior lighting.
Heavy-duty travel pedals.
Intermittent windscreen wiper and windscreen washer on the front window.
Power socket.

Instrumentation and monitoring

Monitoring and warning light for the following functions: pre-heating, engine oil pressure, water temperature, battery charge, air filter clogging.
Internal and external fuel gauges.
Hour meter.
Hydraulic flow adjustment of the accessory circuits on the instrument panel.

Handling and earthwork equipment

(3000 mm) long monobloc boom.
(1600 mm) dipper arm.
Remote lubrication of the offset and dipper arm cylinders.

Safety

Device for locking the earthwork equipments controls and the travel levers when the left console is raised to gain access to driver's cab.
Engine starting safety device: the left console must be raised to operate the starter.
FOPS 2 (Falling Objects Protective Structure).
ROPS 2 (Roll-Over Protective Structure)
TOPS (Tilt-Over Protective Structure)
Safety valve on the blade cylinder.
Pressure accumulator on the power assistance circuit in order to be able to put the equipment on the ground if the engine is switched off.
Window-breaker hammer (cab).
Seatbelt with visual indicator system.
Anti-theft system integrated in the instrument panel.

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.
ROPS conforming to ISO standard 3471/SAE J 1040.
FOPS 2 conforming to ISO 3449:2005 standard.
TOPS conforming to ISO 12117 and EN 13531 standards.
Electromagnetic compatibility (EMC) conforming to European directive 89/336/EC and its amendments.
Hand Arm Vibrations - Whole body Vibrations: compliant with directive 2002/44/EC:
HAV < 0.5 ms² - WBV < 2.5 ms².

OPTIONAL EQUIPMENT

Handling and earthwork equipment

(1900 mm) Dipper arm.
Safety valve piloted by the power assistance circuit on the boom arm cylinder with overload indicator.
Safety valve on the dipper arm cylinder.
Quick-release accessories coupling.
2nd accessory circuit operated by electroproportional control on left joystick.
Heavy-duty dipper arm.

Undercarriage

Steel tracks: 380 mm or 500 mm.
Angle blade.
Wide blade: 2020 mm.

Lighting

Additional front and rear working light.
Rotating beacon.

Environmental protection

Bio-degradable hydraulic oil: 46.

Service and maintenance

Toolkit.

Safety

Care Track.
Retracting seatbelt with visual indicator (2" or 3").
FOPS 2/FOG windscreen guard.
Right and left rear sides view mirrors.

Miscellaneous

Special customised paint (RAL specifications).
Pilot control change valve.
Cold weather hydraulic oil: 32.

ATTACHMENT OFFER

Volvo Hydraulic Breaker HB300
Low Noise with a wide range of additional work tools.

New Volvo pin on Attachment Bracket (VAB)

- Mechanical
- Hydraulic.

Volvo hydraulic Thumb

Complete range of Volvo genuine buckets

- Trenching
- Ditching.