**VOLVO COMPACT EXCAVATOR EC55C**

- **Net horsepower:** 35.1 kW / 47 hp
- **Operational weight:** 5700 kg - 5790 kg
- **Bucket capacity:** 80 l - 235 l
- **Maximum dig depth:** 3750 mm - 4050 mm

- Spacious, ergonomically designed and quiet cab.
- Air conditioning as standard for more comfort.
- TOPS and ROPS cab for total operator safety.
- Direct injection diesel engine and low emissions for better environmental protection.
- Total Power Control hydraulic system providing independence of all movements and a high work rate.
- Long undercarriage for greater stability.

**MORE CARE. BUILT IN.**
**Engine**
Water-cooled Volvo 4-cylinder diesel engine. Compliant to EU Stage IIIA environmental regulations.

<table>
<thead>
<tr>
<th>Model</th>
<th>D31D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross power, rated (ISO 9249)</td>
<td>36.2 kW @ 2100 rpm</td>
</tr>
<tr>
<td>Power, installed (ISO 9249)</td>
<td>35.1 kW @ 2100 rpm</td>
</tr>
<tr>
<td>Displacement, total</td>
<td>3054 cc</td>
</tr>
<tr>
<td>Maximum torque</td>
<td>193-210 Nm @ 1400 rpm ± 100 rpm</td>
</tr>
<tr>
<td>Bore x stroke</td>
<td>94 mm x 110 mm</td>
</tr>
</tbody>
</table>

**Electrical system**
Rated voltage 12 V
Battery capacity 12 V - 100 Ah x 1EA
Alternator rating 12 V - 85 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

Variable displacement double pump for the equipment (boom, dipper and bucket) and travel circuits:

<table>
<thead>
<tr>
<th>Maximum flow</th>
<th>2 x 57.8 l/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum operating pressure</td>
<td>21.6 Mpa (216 bar)</td>
</tr>
</tbody>
</table>

Gear pump for the power assistance circuit:

<table>
<thead>
<tr>
<th>Maximum flow</th>
<th>13.7 l/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum operating pressure</td>
<td>3.2 Mpa (32 bar)</td>
</tr>
</tbody>
</table>

Double-acting hydraulic circuit for accessories:

<table>
<thead>
<tr>
<th>Maximum flow</th>
<th>57.8 l/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum operating pressure</td>
<td>21.6 Mpa (216 bar)</td>
</tr>
</tbody>
</table>

2nd accessory circuit:

<table>
<thead>
<tr>
<th>Maximum flow</th>
<th>19.6 l/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum operating pressure</td>
<td>21.6 Mpa (216 bar)</td>
</tr>
</tbody>
</table>

**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
- On 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.

**Slewling 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.

<table>
<thead>
<tr>
<th>Slewing speed</th>
<th>8.8 rpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turntable braking</td>
<td>automatic multi-disc brake</td>
</tr>
<tr>
<td>Absorption of hydraulic shocks</td>
<td>Shockless valve</td>
</tr>
</tbody>
</table>

**Bucket performance**

<table>
<thead>
<tr>
<th>Breakout force</th>
<th>4138 daN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tearout force</td>
<td>2844 daN</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Bottom/top rollers per side</th>
<th>5/1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track width</td>
<td>400 mm</td>
</tr>
<tr>
<td>Track tension</td>
<td>by grease piston</td>
</tr>
<tr>
<td>Blade (width x height)</td>
<td>1920 x 350 mm</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Travel speed (low / high)</th>
<th>2.4 / 4.5 km/h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. tractive force</td>
<td>4413 daN</td>
</tr>
</tbody>
</table>

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

**Service fill capacities**

<table>
<thead>
<tr>
<th>Fuel tank</th>
<th>110 l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic system, total</td>
<td>124 l</td>
</tr>
<tr>
<td>Hydraulic tank</td>
<td>84 l</td>
</tr>
<tr>
<td>Engine oil</td>
<td>11.5 l</td>
</tr>
<tr>
<td>Cooling system</td>
<td>16 l</td>
</tr>
</tbody>
</table>

**Weight**
Operational weight and ground pressure:

<table>
<thead>
<tr>
<th>Rubber Tracks (400 mm)</th>
<th>5700 kg - 0.36 kg/cm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel Tracks (380 mm)</td>
<td>5790 kg - 0.39 kg/cm²</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Noise level exterior (LeqA)</th>
<th>&lt; 97 dB(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise level in the cab (LpA)</td>
<td>&lt; 78 dB(A)</td>
</tr>
</tbody>
</table>

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

### Dipper

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600 mm</td>
<td>5680</td>
<td>4140</td>
<td>3750</td>
<td>2590</td>
<td>5960</td>
<td>6100</td>
</tr>
<tr>
<td>1900 mm</td>
<td>5870</td>
<td>4330</td>
<td>4050</td>
<td>2860</td>
<td>6250</td>
<td>6390</td>
</tr>
</tbody>
</table>

* Dig depth with the blade down.

<table>
<thead>
<tr>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>380</td>
<td>508</td>
<td>1950</td>
<td>2500</td>
<td>1747</td>
<td>1920</td>
<td>5872</td>
<td>1628</td>
<td>380</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>U</th>
<th>V</th>
<th>W</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>349</td>
<td>400</td>
<td>690</td>
<td>2480</td>
<td>-</td>
<td>2563</td>
<td>4362</td>
<td>1850</td>
<td>1650</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rubber Tracks</th>
<th>Horizontal Range</th>
<th>1 m</th>
<th>2 m</th>
<th>3 m</th>
<th>4 m</th>
<th>5 m</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600 mm</td>
<td>Z2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1070</td>
<td>-</td>
<td>760</td>
</tr>
<tr>
<td></td>
<td>Z1 *2430</td>
<td>2660</td>
<td>1380</td>
<td>920</td>
<td>690</td>
<td>650</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Z3 *4090</td>
<td>2710</td>
<td>1410</td>
<td>-</td>
<td>-</td>
<td>960</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Z2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1080</td>
<td>740</td>
<td>680</td>
</tr>
<tr>
<td></td>
<td>Z1 *2060</td>
<td>2660</td>
<td>1360</td>
<td>900</td>
<td>670</td>
<td>590</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Z3 *3380</td>
<td>2320</td>
<td>1360</td>
<td>-</td>
<td>-</td>
<td>820</td>
<td></td>
</tr>
</tbody>
</table>

* Hydraulic limit

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.
Telehne 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).

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.
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.

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

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.

4
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.