

VOLVO COMPACT EXCAVATOR

EC20B XT, XTV



MORE CARE. BUILT IN.



DIG IN TO SOLID PERFORMANCE.

When you want a strong and reliable compact excavator to meet your toughest demands - look to the Volvo EC20B. Its compact design is big on versatility, comfort and performance. Built for easy operation and maintenance, it's the most cost-effective business investment you'll ever make.

Move with precision

The Volvo EC20B is also built for precision work. Utilizing the best technology available, the closed-centre load-sensing hydraulic system delivers precise control under any condition. Hydraulic speed relies only on the position of the control lever, regardless of the load or number of movements. This quality allows you to combine all machine movements for fine precision and more productive work.

Increase your speed and productivity

The units also feature two travel speeds for fast cycle times that save both time and money. The exclusive quick coupling system lets you easily connect an attachment or bucket right from the cab for increased speed and efficiency.

Compact by design

The hydraulic offset of the boom reduces the overall excavator dimensions, helping you work in tight spaces and alongside walls. In addition, the wrap-around shape of the counterweight provides protection against rear impact.

Built strong

The EC20B features a double-yoke pivot that doubles the bearing surface on the chassis. There is also a long pin that distributes the stress, for reduced wear and longer life. The boom and dipper structures incorporate cast steel parts on heavily stressed areas. Sturdy steel plates protect all hydraulic connectors. For reduced operating costs, a hydraulic motor drives the crown gear directly, without a reduction gear, offering no wear or play. Heavy-duty towing and anchor points make craning jobs easier. An optional anti-theft keypad locks the machine's starting and hydraulic function for added safety.

Jobsite flexibility

The variable-width chassis offers the choice of two cost-effective production options. Choose the exceptional stability of an extra-wide chassis or the versatility of a machine that can fit through small spaces, with an overall width reduced to less than 3.3 ft (1 m). The 250 mm wide tracks offer excellent stability, traction and long life. For increased flexibility, the blade system offers two side extensions. Each blade can be fitted or removed without tools to save time and money.



- Extendible track and blade.



- Two-speed travel for greater mobility.



- Quick coupler for fast, easy changes.



- Comfortable ergonomic armrests.
- Optimum load-sensing efficiency.
- Versatile and powerful performance.



EXPECT THE BEST FROM VOLVO.

At Volvo, we know that safety and comfort are important to your productivity. That's why the EC20B offers you all of the above and more: a productive, reliable machine that's easy to keep running. Get the most out of each day in the machine designed for you and your work.

Comfort built in

Quiet operation is key to operator comfort and environmental control. That's why the Volvo EC20B has a quiet, low emission engine with plenty of power. Superior soundproofing helps reduce operator fatigue. Short, responsive drive controls avoid excessive movements for easier operation. Gauges are in front of the operator to keep track of key functions. Well-positioned armrests make long shifts more comfortable while ensuring precision control. The vinyl covered adjustable suspension seat offers comfortable all day operation.

More room inside

While the Volvo EC20B is compact, the cab is large and roomy for a more efficient work environment. The large flat floor provides plenty of legroom and storage space. Even tall operators will feel at ease in the ergonomic cab. In addition, the hydraulic attachment control pedal folds away when not in use and can be positioned to the right for easy access and optimal operating space.

A new view on safety

You'll have 360° of visibility for excellent jobsite command. The round, compact engine cover has improved rear visibility for better safety on narrow or congested sites. Non-slip steps and floor provide safe, easy entry and exit. The cab door opens wide and the console swings up and out of the way for a safer exit. The gas strut assisted window opens easily and the right side window slide open wide for greater visibility and comfort. There's a standard seatbelt for added safety and FOPS 1, ROPS and TOPS certified cabs and canopies for maximum protection.

Maintenance made easy

The EC20B is easy to maintain for maximum uptime. Unlike many other compact excavators, its unique tilting counterweight and wrap-around shape provide total engine access and optimum rear protection. The hydraulic oil cooler is mounted on a sliding support allowing better access to cleaning cooler fins. The fuel supply circuit has a transparent at-a-glance pre-filter and features a self-priming electric pump. When working in confined areas, the two consoles on the canopy version lift for access from the right or left. All boom supply hoses are loose fitted and connect on the outside of the machine for less wear and damage.



- Perfect accessibility of the hydraulics compartment.



- Spacious and comfortable cab.



- The EC20B and its accessories can be easily transported on a trailer.
- Easy access for maintenance and service.



- Large floor for comfort and storage.

SPECIFICATIONS

Engine

Water-cooled low emissions Mitsubishi L3E diesel engine.

Displacement, total	952 cc
Gross power, rated	14.0 kW (19.0 hp) at 2800 r/min
Power, installed (ISO 9249)	11.3 kW (15.5 hp) at 2200 r/min
Maximum torque (ISO 9249)	54 Nm at 1850 rpm
Bore x stroke	76 mm x 70 mm

Electrical system

Rated voltage	12 V
Battery capacity	12 V - 45 Ah
Alternator rating	12 V - 40 A
Starter motor output	12 V - 1.6 kW

Hydraulic system

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

Control	power-assisted hydraulic controls
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Variable displacement pump for all the equipment, travel and power-assisted circuits:

Maximum delivery	44 l/min.
Maximum operating pressure	21 MPa (210 bars)

Double-acting hydraulic circuit for accessories:

Maximum delivery	40 l/min
Maximum operating pressure	21 MPa (210 bars)

Cushions:

On the boom ram	at the rod end
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Bucket performance

Breakout force	1850 daN
Tearout force	1250 daN

Slewing system

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

Slewing speed	9 r/min
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Undercarriage

EC20B XT

Track width	250 mm
Track tension	by grease piston
Blade height	240 mm
Width of the blade	1200 mm

EC20B XTV

Track width	250 mm
Track tension	by grease piston
Blade height	240 mm
Width of the blade	980 mm and 1350 mm

Drivetrain

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

Max. speed (low/high speed)	2.7 - 4.7 km/h
Max. tractive force	1770 daN

Service fill capacities

Fuel tank	21 l
Hydraulic system, total	33 l
Engine oil	3.6 l
Cooling system	4.5 l

Weight

EC20B XT

Ground pressure	Rubber Tracks	Steel Tracks
Cab version	0.29 kg/cm ²	0.30 kg/cm ²
Canopy version	0.27 kg/cm ²	0.28 kg/cm ²

Operating mass	Rubber Tracks	Steel Tracks
Cab version	1809 kg	1865 kg
Canopy version	1685 kg	1741 kg

Transport mass	Rubber Tracks	Steel Tracks
Cab version	1666 kg	1722 kg
Canopy version	1542 kg	1598 kg

EC20B XTV

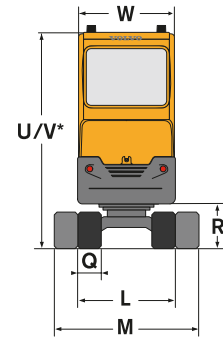
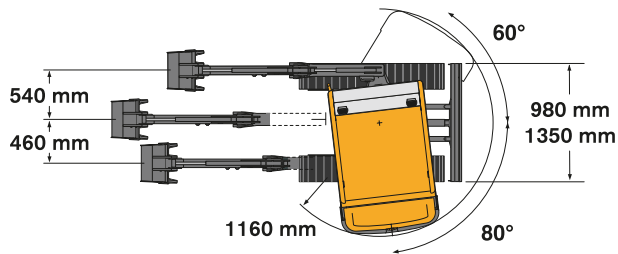
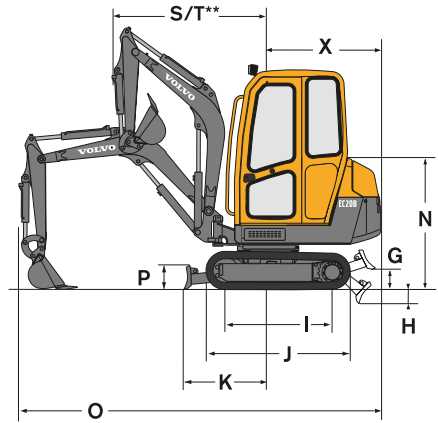
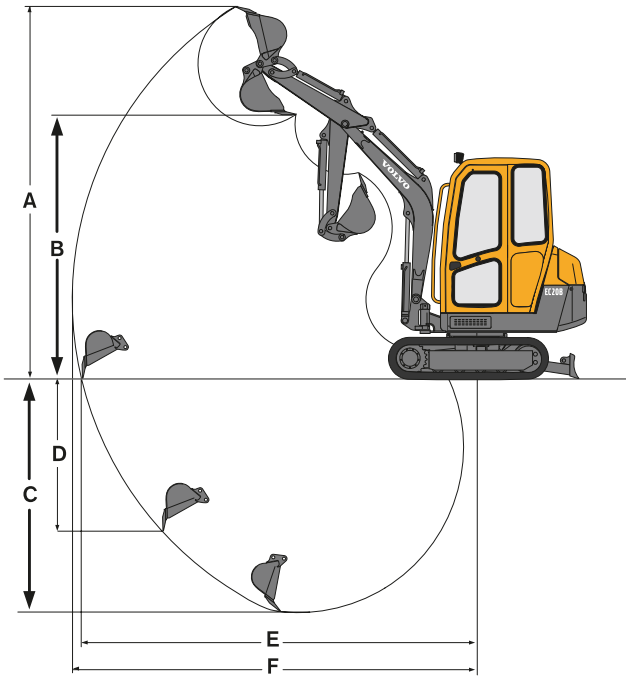
Ground pressure	Rubber Tracks	Steel Tracks
Cab version	0.30 kg/cm ²	0.31 kg/cm ²
Canopy version	0.28 kg/cm ²	0.29 kg/cm ²




Operating mass	Rubber Tracks	Steel Tracks
Cab version	1901 kg	1957 kg
Canopy version	1777 kg	1833 kg

Transport mass	Rubber Tracks	Steel Tracks
Cab version	1758 kg	1814 kg
Canopy version	1634 kg	1690 kg

Noise levels

The EC20B conforms to the 2006 European Machine Directive Noise Level (2000/14/CE) of 93 dB(A) for this class of machine.



Buckets EC20B XT/XTV			
	Width	Weight	Capacity
Excavator bucket	250 mm	33 kg	30 l
	300 mm	36 kg	32 l
	400 mm	42 kg	47 l
	450 mm	46 kg	55 l
	500 mm	50 kg	62 l
	600 mm	55 kg	77 l
Ditch bucket	1000 mm	102 kg	115 l

Dipper	A	B	C*	C	D	E	F
1050 mm	3750	2670	2570	2350	2350	4010	4100
1300 mm	3900	2820	2810	2600	2600	4250	4250

* Dig depth with blade down.

	G	H	I	J	K	L	M	N	O
EC20B XT	250	275	1240	1630	1075	1200	-	1360	3780
EC20B XTV	240	230	1240	1630	975	1000	1350	1360	3780

	P	Q	R	S	T	U	V	W	X
EC20B XT	260	250	470	1620	1310	-	2210	980	1120
EC20B XTV	260	250	470	1620	1310	-	2210	980	1120

STANDARD EQUIPMENT

Engine

Dry-type air filter.
Electric pre-heating device.
Transparent diesel oil filter, pre-filter and sediment bowl.
Oil sump sheet metal guard.
Hand throttle.

Electrical system

12 V - 45 Ah maintenance-free battery.
Horn.
12 V power socket for inspection lamp.

Undercarriage

250 mm wide rubber tracks.
Fixed or variable width undercarriage according to version.
Dozer blade.
Blade extensions with supports on the blade (variable width undercarriage).
Towing and anchoring points.
Remote lubrication of the slewing crown ring.

Hydraulic system

Additional double-acting hydraulic control valve for an attachment circuit with folding control pedal and circuit for direct return of oil to the hydraulic tank.
Attachment circuit piping (double-acting) as far as the bottom of the boom.
Power-assisted control of the hydraulic offset of the boom by the left control lever.
Control of forward movement by two levers.
Hydraulic oil cooler.

Cab (cab version)

Level 1 FOPS (Falling Objects Protective Structure).
TOPS (Tip-Over Protective Structure).
ROPS (Roll-Over Protective Structure).

Vinyl-covered multi-adjustable sprung seat.
Non-slip floor and grab handles for access to the driver's cab.
Seatbelt.
Cab mounted on rubber mountings.
Two working lights.
Two-speed heating and ventilation.
Cab heat adjustment.
Front window with opening system power-assisted by two gas rams.
Sliding window (right).
Door stops.
Provision for a radio (location for a radio and two speakers, aerial and electric wiring already fitted).
Interior lighting.
Anti-corrosion protection of the cab.
Windscreen wiper and washer (front).
Emergency exit via the rear window.

Canopy (Canopy version)

Level 1 FOPS (Falling Objects Protective Structure).
TOPS (Tip-Over Protective Structure).
ROPS (Roll-Over Protective Structure).
Vinyl-covered all weather-multiadjustable sprung seat.
Non-slip floor and grab handle for access to the driver's cab.
Seat belt.
Working light on the canopy frame.

Instrumentation and monitoring

Monitoring and warning light for: pre-heating, engine oil pressure, water temperature, battery charging, air filter restriction.
Fuel gauge.
Hour meter.
Shut down for automatic switching off engine in the event of overheating or drop in oil pressure.

Working equipment

1900 mm long monobloc boom.
1050 mm dipper.
140° hydraulic boom offset.
Cushion on the boom ram.
Handling equipment for loads inferior to 1000 kg (lifting hook on the bucket with load chart displayed in the driver's cab).
Remote lubrication of the bottom of the offset ram.

Safety

Engine safety start device: the left console must be raised to operate the starter.
Nitrogen 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).
Key-lockable toolbox.

Official approval

Machine conforming to directive n° 98/37 EEC and its amendments.
Sources emissions in the environment conforming to directive 2000/14/CE.
Handling device conforming to EN standard 474-5.
FOPS 1 conforming to ISO standard 3449.
TOPS conforming to ISO standard 12117.
Electromagnetic compatibility (EMC) conforming to directive n° 89/336 EEC and its amendments.

OPTIONAL EQUIPMENT

Working equipment

Long dipper (1150 mm).
Mechanically-controlled quickrelease attachment bracket.

Hydraulic circuits for attachments

Hydraulic circuit for single or double-acting attachments (Auger...).
Hydraulic circuit for operating a clam-shell bucket (opening/closing and rotation of the bucket).
Push-pull connectors for attachment line.

Undercarriage

Steel tracks (230 mm wide).

Lighting

Additional working light on the boom.
Additional rear working light.
Rotating beacon.

Environmental protection

Bio-degradable hydraulic oil.
Catalytic exhaust.

Comfort and safety

Radio (cab).
Anti-theft system (2 programmable codes).

Rear wind-deflector on canopy.
Battery isolator switch.
Fabric seat (cab).
Translation pedals.
Retractable seatbelt.
Safety valve on boom and dipper ram.
Dual stage air filter.
Audible travel warning.
Document storage.

Miscellaneous

Tool kit.
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.

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