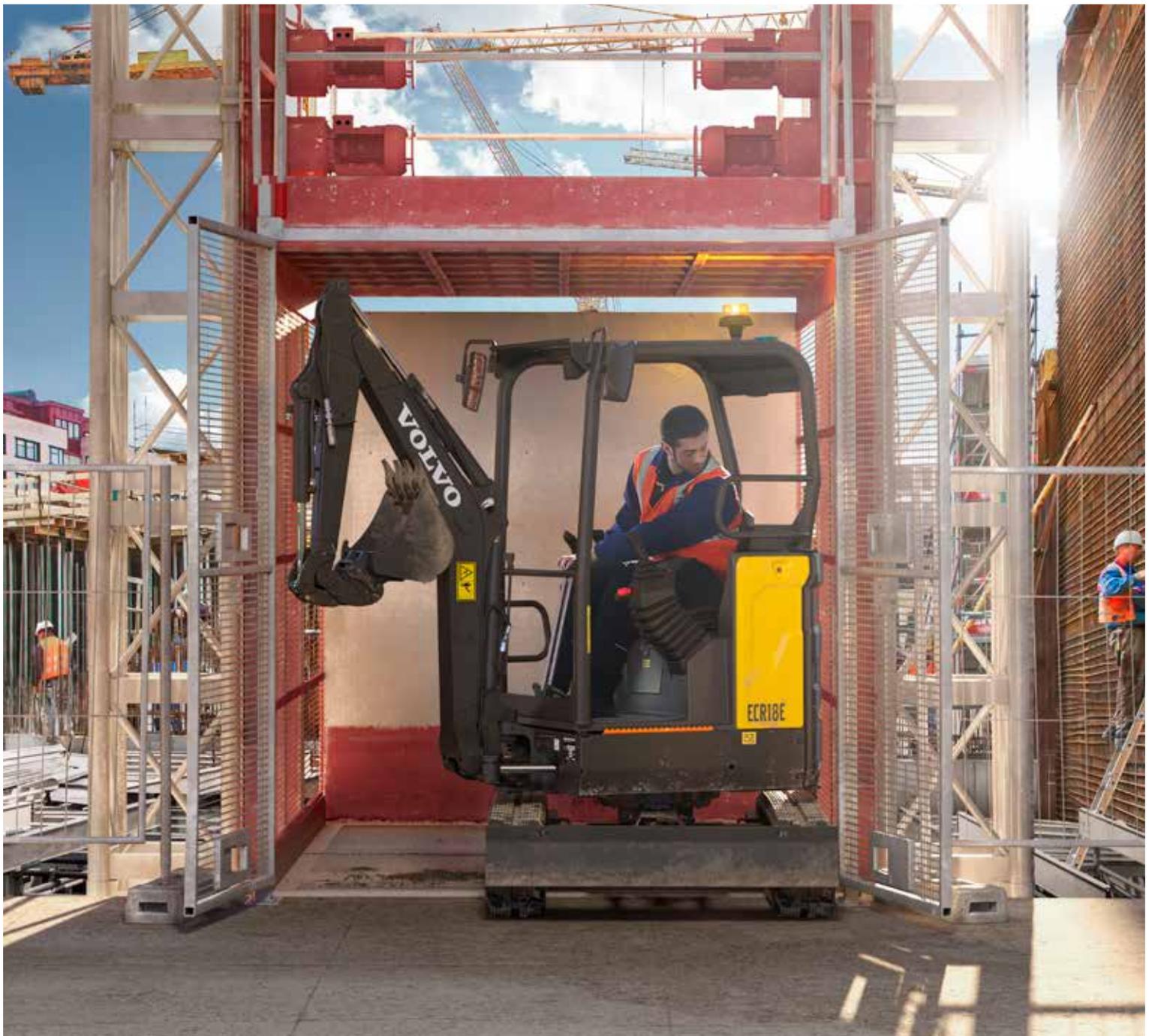


Volvo Construction Equipment
Building Tomorrow



ECR18E

Volvo Compact Excavators 1.7-1.98 t / 3,750-4,365 lb 16.1 hp



Ready for work

The ultra-short swing radius ECR18E is the perfect choice for working in tight conditions. Easy to transport and easy to operate, this 1.8t excavator will make light work of tough jobs. With a robust design, combined with best-in-class service access, you can be sure this is a machine designed to promote low operating costs.

Small but tough

The unique high-profile counterweight design is made from three strong pieces of cast iron which wrap around the rear of the machine, protecting all vital components. All-around steel panels, recessed 10mm (0.4") from the counterweight, offer further protection.



Best-in-class serviceability

Complete maintenance tasks with speed thanks to the hinged fuel tank which enables an impressive ease of access to the engine compartment, and easy to locate daily check points. A 50-hour greasing interval further contributes towards the best-in-class serviceability of this machine.



Safe and easy operation

The roomy and uncluttered operator environment of the machine is designed to keep you safe and focused while at work, including simple layout of the controls, fingertip controls and large travel pedals. Safety is built-in to the machine with a ROPS/TOPS/FOPS canopy, a large entrance including high visibility step, and an orange seatbelt as standard for easy checks by site managers.



Transport with ease

Transportation of the machine is safe and secure, thanks to its light weight and convenient design. With automatic slew lock and four easily accessed large tie-down points on the upper frame, the machine can be safely transported on a small trailer with up to three buckets and a hydraulic breaker, while maintaining a total transport weight of less than 2t.





COMPACT BY DESIGN

For superior versatility when working in confined spaces, the ECR18E features an ultra-short tail radius. The machine design ensures that the frame corner, swing post and cylinder stay within the tracks when digging alongside obstacles. The result is maximum visibility and a reduced risk of machine damage when working in tight conditions.

Short swing, big potential

SAFETY FIRST

- High visibility entry step, orange seatbelt **A VOLVO EXCLUSIVE**
- Controls lock options (switch, seat operator presence or buckled seatbelt sensor) **A VOLVO EXCLUSIVE**
- 4 large easily accessible tie-down points on the upper frame **NEW**
- Outstanding all-around stability
- ROPS/TOPS/FOPS certified 4-pillar canopy

SMALL BUT TOUGH

- All-around steel panels **NEW**
- High-profile cast counterweight **A VOLVO EXCLUSIVE**
- Boom cylinder on top
- Protected hoses, routed inside the boom

OPERATE WITH EASE

- Fingertip controls **A VOLVO EXCLUSIVE**
- Simple controls layout
- Uncluttered floor, large travel pedals
- Automatic 2-speed travel
- Smooth combined movements





COMPACT BY DESIGN

- Ultra-short swing radius **NEW**
- Variable undercarriage width, less than 1-meter (39") wide
- In-track boom swing

MAXIMIZE PROFITABILITY

- Best-in-class access to engine compartment thanks to hinged fuel tank **A VOLVO EXCLUSIVE**
- Auto engine shutdown and auto-idle (options) **A VOLVO EXCLUSIVE**
- 50-hour greasing intervals

THE COMPLETE PACKAGE

- Genuine Volvo Parts: 2 years warranty, 24-hours delivery guaranteed
- Full range of matched Volvo Attachments

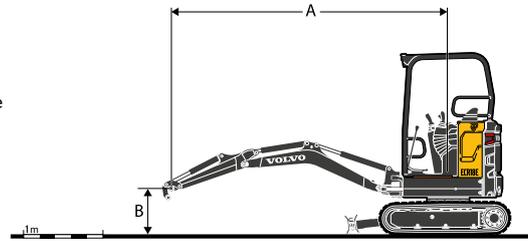
Volvo ECR18E in detail

Engine		
Engine		D0.9A
Max. power at	r/min (r/s)	2,300 (38.3)
Gross	kW (hp)	12 (16.1)
According to ISO 2534 / SAE J1995		
Max. torque	Nm (ft lbf)	52 (38.4)
at engine speed	r/min	1,800
No. of cylinders		3
Displacement	cm ³ (in ³)	898 (54.8)
Bore	mm (in)	72 (2.83)
Stroke	mm (in)	73.6 (2.9)
Compression ratio		24
Electrical system		
Battery	V	1 x 12
Battery capacity	Ah	42 - 70
Alternator	V/Ah	12/40
Swing system		
Max. slew speed	r/min	9.5
Max. slew torque	daNm (ft lbf)	243 (1,792)
Undercarriage		
Bottom/top rollers per side		3 / 0
Track tension		By grease piston
Blade (width x height)	mm (in)	1,340 x 230 (52.8 x 9.1)
Digging Performances		
Standard bucket width (blade, W/O side cutter)	mm (in)	450 (17.7)
Standard bucket mass	kg (lb)	33 (72.8)
Standard bucket rated capacity	l (ft ³)	36 (1.27)
Bucket rotation		196
Bucket breakout force (ISO)	daN (lbf)	1,290 (2,900)
Short arm tearout force (ISO)	daN (lbf)	795 (1,787)
Long arm tearout force (ISO)	daN (lbf)	695 (1,562)

Weight and Ground Pressure		
Operating weight according to ISO 6016	kg (lb)	1,700 (3,748)
Ground pressure (canopy)	kPa (psi)	28.4 (4.1)
Transport weight	kg (lb)	1,625 (3,583)
With rubber tracks	mm (in)	230 (9.1)
With short arm	mm (in)	950 (37.4)
With fuel tank capacity	%	100
With long arm and heavy counterweight	+kg (+lb)	42 (92.6)
With steel tracks	+kg (+lb)	78 (172)
Hydraulic system		
Maximum system flow	l/min (gal/min)	34 (9)
Maximum flow for accessories	l/min (gal/min)	30 (7.9)
Maximum operating pressure	MPa (psi)	17 (2,466)
Travel System		
Max. drawbar pull	daN (lbf)	1,300 (2,923)
Max. travel speed low	km/h (mi/h)	1.8 (1.1)
Max. travel speed high	km/h (mi/h)	3.5 (2.2)
Gradeability		30
Service Refill		
Fuel tank	l (gal)	21 (5.55)
Hydraulic system, total	l (gal)	21 (5.55)
Hydraulic tank	l (gal)	15 (4)
Sound Level		
Interior sound level according to ISO 6396		
LpA	dB(A)	78
External sound level according to ISO 6395 and EU Noise Directive (2000/14/EC) and 474-1:2006 +A1:200		
LwA	dB(A)	93

LIFTING CAPACITY ECR18E

These capacities are given for a machine equipped with a canopy, rubber tracks and without a bucket or quick coupler. The below values are in compliance with ISO standard 10567. They do not exceed 75% of the tipping load or 87% of the hydraulic limit with the machine on firm level ground. Loads marked with an asterisk (*) are limited by machine's hydraulic lifting capacity rather than tipping load. Caution: In accordance with EN 474-5, the machine must be equipped to carry out handling operations. It is the operator's obligation to know and follow the applicable national and local safety regulations.

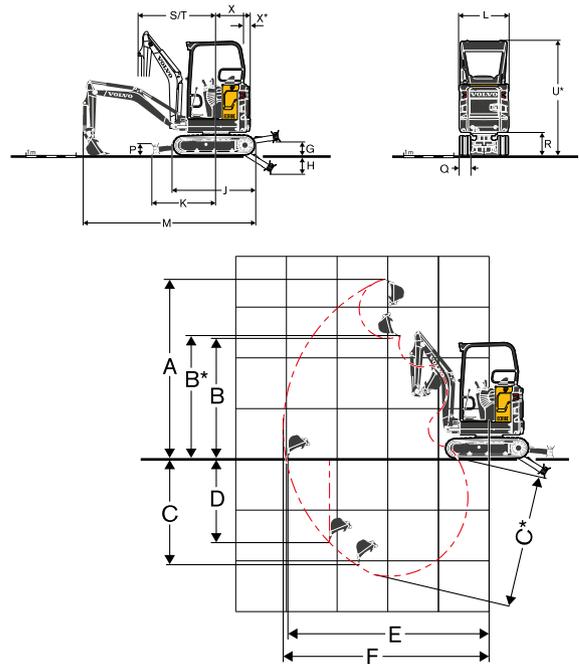


	Lifting point height (B) m (ft)		Lifting point radius (A)						Max. m (ft in)
			2.0 m (6.5 ft)		3.0 m (9.8 ft)		Max reach		
Arm: 950mm (3'1") + Dozer blade up	2 (6.5)	kg (lb)	-	-	-	259 (571)	-	251 (553)	3.06 (10'0")
	1 (3.3)	kg (lb)	484* (1,067*)	458 (1,010)	270* (595*)	254 (560)	265 (584)	209 (461)	3.44 (11'3")
	0 (0)	kg (lb)	469 (1,034)	434 (957)	269 (593)	248 (547)	220 (485)	210 (463)	3.40 (11'2")
	-1 (-3.3)	kg (lb)	465* (1,025*)	440 (970)	262 (578)	-	221 (487)	243* (536*)	2.93 (9'7")
Arm: 950mm (3'1") + Dozer blade down	2 (6.5)	kg (lb)	-	-	270* (595*)	259 (571)	274* (604*)	251 (553)	3.06 (10'0")
	1 (3.3)	kg (lb)	484* (1,067*)	458 (1,010)	300* (661*)	254 (560)	261* (575*)	209 (461)	3.44 (11'3")
	0 (0)	kg (lb)	593* (1,307*)	434 (957)	313* (690*)	248 (547)	248* (547*)	210 (463)	3.40 (11'2")
	-1 (-3.3)	kg (lb)	465* (1,025*)	440 (970)	-	-	243* (536*)	243* (536*)	2.93 (9'7")
Arm: 950mm (3'1") + Dozer blade down + Heavy counterweight	2 (6.5)	kg (lb)	-	-	270* (595*)	271* (597*)	274* (604*)	266 (586)	3.06 (10'0")
	1 (3.3)	kg (lb)	484* (1,067*)	484 (1,067)	300* (661*)	270 (595)	261* (575*)	222 (489)	3.44 (11'3")
	0 (0)	kg (lb)	593* (1,307*)	461 (1,016)	313* (690*)	364 (802)	248* (547*)	224 (494)	3.40 (11'2")
	-1 (-3.3)	kg (lb)	465* (1,025*)	467* (1,030*)	-	-	243* (536*)	244* (538*)	2.93 (9'7")
Arm: 1,150mm (3'9") + Dozer blade up + Heavy counterweight	2 (6.5)	kg (lb)	-	-	228* (503*)	228* (503*)	244* (538*)	239 (527)	3.29 (10'10")
	1 (3.3)	kg (lb)	390* (860*)	390* (860*)	280* (617*)	270 (595)	215 (474)	204 (450)	3.63 (11'11")
	0 (0)	kg (lb)	496 (1,093)	457 (1,008)	277 (611)	261 (575)	216 (476)	205 (452)	3.60 (11'10")
	-1 (-3.3)	kg (lb)	497* (1,096*)	459 (1,012)	257* (567*)	257* (567*)	225* (496*)	225* (496*)	3.16 (10'4")
Arm: 1,150mm (3'9") + Dozer blade down + Heavy counterweight	2 (6.5)	kg (lb)	-	-	228* (503*)	228* (503*)	244* (538*)	239 (527)	3.29 (10'10")
	1 (3.3)	kg (lb)	390* (860*)	390* (860*)	280* (617*)	270 (595)	239* (527*)	204 (450)	3.63 (11'11")
	0 (0)	kg (lb)	603* (1,329*)	457 (1,008)	314* (692*)	261 (575)	229* (505*)	205 (452)	3.60 (11'10")
	-1 (-3.3)	kg (lb)	497* (1,096*)	459 (1,012)	257* (567*)	257* (567*)	225* (496*)	225* (496*)	3.16 (10'4")

DIMENSIONS

Description	Unit	ECR18E	
		950 (3'1")	1,150 (3'9")
Arm			
A Maximum cutting height	mm (ft.in)	3,442 (11'4")	3,582 (11'9")
B Maximum dump height	mm (ft.in)	2,444 (8'0")	2,588 (8'6")
B* Maximum bucket clearance	mm (ft.in)	2,482 (8'2")	2,625 (8'7")
C Digging depth	mm (ft.in)	2,234 (7'4")	2,434 (8'0")
C* Maximum digging depth	mm (ft.in)	2,528 (8'4")	2,727 (8'11")
D Maximum vertical wall digging depth	mm (ft.in)	1,898 (6'3")	2,091 (6'10")
E Maximum digging reach at ground level	mm (ft.in)	3,921 (12'10")	4,113 (13'6")
G Highest position dozer blade	Short blade	mm (ft.in)	225 (0'9")
	Long blade	mm (ft.in)	267 (0'11")
H Lowest position dozer blade	Short blade	mm (ft.in)	267 (0'11")
	Long blade	mm (ft.in)	386 (1'3")
J Track length	mm (ft.in)	1,620 (5'4")	
K Dozer blade, maximum reach at ground level	Short blade	mm (ft.in)	1,082 (3'7")
	Long blade	mm (ft.in)	1,272 (4'2")
L Overall width with 230 mm (0'9") tracks	Min	mm (ft.in)	995 (3'3")
	Max	mm (ft.in)	1,352 (4'5")
M Overall length	mm (ft.in)	3,431 (11'3")	3,309 (10'10")
M* Transport length (arm lowered)	Short blade	mm (ft.in)	3,932 (12'11")
	Long blade	mm (ft.in)	4,122 (13'6")
P Dozer blade height	mm (ft.in)	231 (0'9")	
Q Shoe width (rubber)	mm (ft.in)	230 (0'9")	
Q(1) Shoe width (steel)	mm (ft.in)	230 (0'9")	
R Ground clearance to superstructure	mm (ft.in)	456 (1'6")	
S Front slew radius	mm (ft.in)	1,575 (5'2")	1,568 (5'2")
T Front slew radius with maximum offset	mm (ft.in)	1,269 (4'2")	1,287 (4'3")
U* Overall height canopy	mm (ft.in)	2,298 (7'6")	
X Tail slew radius	mm (ft.in)	688 (2'3")	
X* Rear overhang (across tracks)	mm (ft.in)	12 (0'1/2")	
β1 Maximum boom offset to the right	mm (ft.in)	516 (1'8")	
β2 Maximum boom offset to the left	mm (ft.in)	640 (2'1")	

(1) Option



STANDARD EQUIPMENT

Engine	
Low emission, water-cooled, Volvo 3-cylinder diesel engine, meeting EPA Tier 4 and EU Stage V environmental regulations	
Starter motor protected against ignition when engine is already running	
Automatic engine cut-off in case of overheating or low oil level	
Engine starting safety device: the left console must be raised to operate the starter	
Drivetrain	
Automatic two-speed travel hydraulic motors with reduction gears	
Inner flange bottom rollers lubricated for life	
Electric / Electronic control system	
Maintenance-free battery	
IP67 protected electrical system and high quality connectors	
Battery disconnect connector	
Working light on the canopy frame	
12V power socket in cab with cellular phone storage	
Swing system	
Radial piston hydraulic motor with integrated shockless valve	
Automatic multi-disc spring applied hydraulic released slew brake	
Superstructure	
Stamped steel panels all-around, recessed 10 to 15mm (0.4" to 0.6")	
4 integrated tie-down points on upper structure	
Undercarriage	
Box welded fabricated frame	
Box section highly rigid dozer blade structure	
Hydraulic system	
High performance Volvo Hydraulic System	
Flow-Sharing and Load Sensing main control valve	
Boom cylinder cushioning at end stroke (up)	
Patented filtering and filling element	
Large side by side oil cooler and radiator	
Double-acting hydraulic circuit for accessories	
Hydraulic hoses routed inside the boom for increased protection	
Canopy	
Robust 4-pillar structure canopy	
Cushioned operator station	
Highly visible orange footstep	
Highly visible orange seatbelt with warning indicator on display	
Toolbox with integrated storage for operator's manual and lockable door	
Digging equipment	
Casted end and structural parts on arm, pivot, undercarriage and upper structure nose	
Monoblock box welded fabricated boom and arm	
Long-life steel bushings & hardened, pre-lubricated and corrosion resistant pins	
50-hours intervals on all grease points	
Machine controls	
Automatic locking device for pilot controls and travel levers when the left console is raised	
Proportional and adjustable fingertip control for boom offset and auxiliary circuit	
Pressure accumulator to lower the equipment on the ground	
Instrumentation and monitoring	
Permanent digital hour meter visible from outside cab	
Engine temperature and fuel level gauges	
Official approval	
Machine conforming to European directive 2006/42/EC	
Noise emissions in the environment conforming to directive 2000/14/EC	
Hand Arm Vibrations - Whole Body Vibrations compliant with directive 2002/44/EC	
Electromagnetic compatibility (EMC) conforming to European directive 2004/108/EC and its amendments	
Object handling device conforming to EN 474-1 and EN 474-5 standards	
ROPS (Roll-Over Protective Structure) conforming to ISO 3471-1 and SAE J1040 standards	
TOPS (Tip-Over Protective Structure) conforming to ISO 12117 and EN 13531 standards	
OPG 1 (Operator Protective Guard on top) conforming to ISO 10262 standard (when equipped)	

OPTIONAL EQUIPMENT

Engine	
Auto idling system	
Engine auto shut-down with time adjustment	
Operator environment	
Vinyl seat with mechanical suspension, low back and 2" orange seatbelt	
Vinyl seat with mechanical suspension, extended back with lumbar adjustment and 2" orange retractable seatbelt	
Vinyl seat with mechanical suspension, extended back with lumbar adjustment and 3" retractable seatbelt	
Additional lockable storage box (behind the seat)	
Electrical switch for ISO/SAE control pattern change	
Travel alarm	
Anti-theft, code lock	
Anti-theft, coded key	
Controls lock, switch	
Controls lock, seat operator presence and switch	
Controls lock, seatbelt sensor	
Rear wind protection canopy	
Tool kit	
Machine exterior	
Left/Right rearview mirror	
One protected worklight on the boom	
One rear worklight	
Rotating beacon	
One protected worklight on the boom LED	
One rear worklight LED	
LED worklights package	
Warning beacon, flashing LED	
Green beacon link to safety belt	
Heavy counterweight	
Several level of customisation (RAL specifications) to match with your corporate identity	
Undercarriage	
230mm (0'9") rubber tracks	
230mm (0'9") steel tracks	
Short dozer blade	
Long dozer blade	
Hydraulics	
Relief valve for auxiliaries	
Kit 2 flat face hydraulic couplings	
Double acting circuit for hydraulic quick couplers	
Boom and arm safety lifting valves	
Boom, arm and dozer blade safety lifting valves	
Several grades of mineral and bio hydraulic oil	
Digging equipment	
Short arm	
Long arm with heavy counterweight	
Machine controls	
On/Off fingertip control for boom offset and auxiliary circuit	
Attachments	
Volvo mechanical quick coupler (pin-on)	
Lehnhoff® mechanical quick coupler	
Symmetrical type mechanical quick coupler (S30)	
General Purpose buckets	
Fixed Ditching buckets	
Tiltable Ditching buckets	
Hydraulic breaker HB02LN	

Not all products are 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

Volvo Construction Equipment

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