



Volvo Construction Equipment

# EC170D

Volvo Excavators 16.9-19.6 t 124 hp



# A passion for performance

At Volvo Construction Equipment, we're not just coming along for the ride. Developing products and services that raise productivity – we are confident we can lower costs and increase profits for industry experts. Part of the Volvo Group, we are passionate about innovative solutions to help you work smarter – not harder.

## Helping you to do more

Doing more with less is a trademark of Volvo Construction Equipment. High productivity has long been married to low energy consumption, ease of use and durability. When it comes to lowering life-cycle costs, Volvo is in a class of its own.

## Designed to fit your needs

There is a lot riding on creating solutions that are suited to the particular needs of different industry applications. Innovation often involves high technology – but it doesn't always have to. Some of our best ideas have been simple, based on a clear and deep understanding of our customers' working lives.



## You learn a lot in 180 years

Over the years, Volvo has advanced solutions that have revolutionized the use of construction equipment. No other name speaks Safety louder than Volvo. Protecting operators, those around them and minimizing our environmental impact are traditional values that continue to shape our product design philosophy.

## We're on your side

We back the Volvo brand with the best people. Volvo is truly a global enterprise, one that is on standby to support customers quickly and efficiently – wherever they are.

**We have a passion for performance.**



Volvo Trucks



Renault Trucks



Mack Trucks



UD Trucks



Volvo Buses



Volvo Construction Equipment



Volvo Penta



Volvo Financial Services

# Optimized performance

Volvo Construction Equipment proudly introduces the EC170D crawler excavator, a new machine designed to deliver superior performance and high fuel efficiency. Powered by a premium D4 Volvo engine, this machine is built to work on a range of jobs from construction to quarrying and site preparation. Experience fast cycle times together with excellent digging and lifting capabilities with Volvo.

## ECO mode

Volvo's unique ECO mode increases fuel efficiency by reducing engine rpm without any loss of performance in most operating conditions.



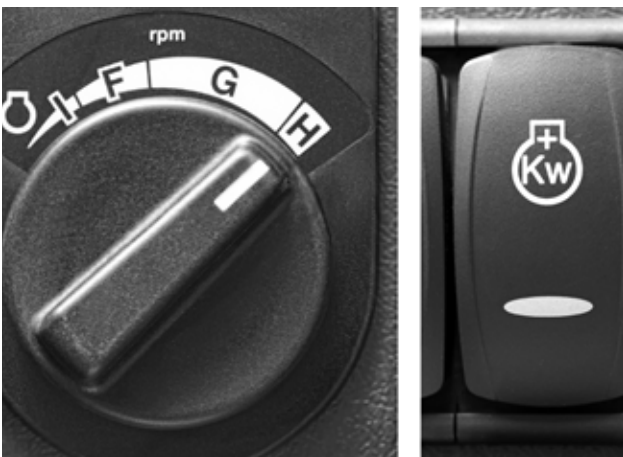
## Digging force

The optimized boom, arm and linkage geometry together with engine power and hydraulic pressure provides superior digging force – delivering large lifting capacities and fast cycle times in tough applications.



## Work modes

Select the best work mode for the task at hand to ensure optimum performance and fuel efficiency. Choose the correct mode according to your working conditions for added versatility and increased performance.



## Hydraulic system

The Volvo hydraulic system is perfectly matched to the premium Volvo engine and components – delivering high digging force, fast cycle times and optimized fuel efficiency. The state-of-the-art system delivers fast response and smooth operation.



# VOLVO ENGINE

Volvo's premium D4 engine is built with proven, advanced technology and on decades of experience. The state-of-the-art four cylinder engine delivers the ultimate combination of high performance and low fuel consumption.



# IDEAL WEIGHT AND SIZE

Fully compliant with all national on-road weight and size regulations, the EC170D has been designed for easy transportation

# Built to meet your needs

The EC170D has been designed with mobility in mind. With an ideal transport configuration and a range of customizable features – including two undercarriage options and five track shoe widths – this crawler excavator has been engineered for easy transportation.

## Five track shoe sizes

With five track shoe width options available, this excavator can be customized to meet specific on-road width restrictions. Wider track shoes increase stability and reduce ground pressure.



## Two undercarriage options

Choose from two different undercarriage sizes to suit your specific needs. Select either the standard option or a longer, wider undercarriage for maximum stability when lifting heavy loads or working in difficult terrain.

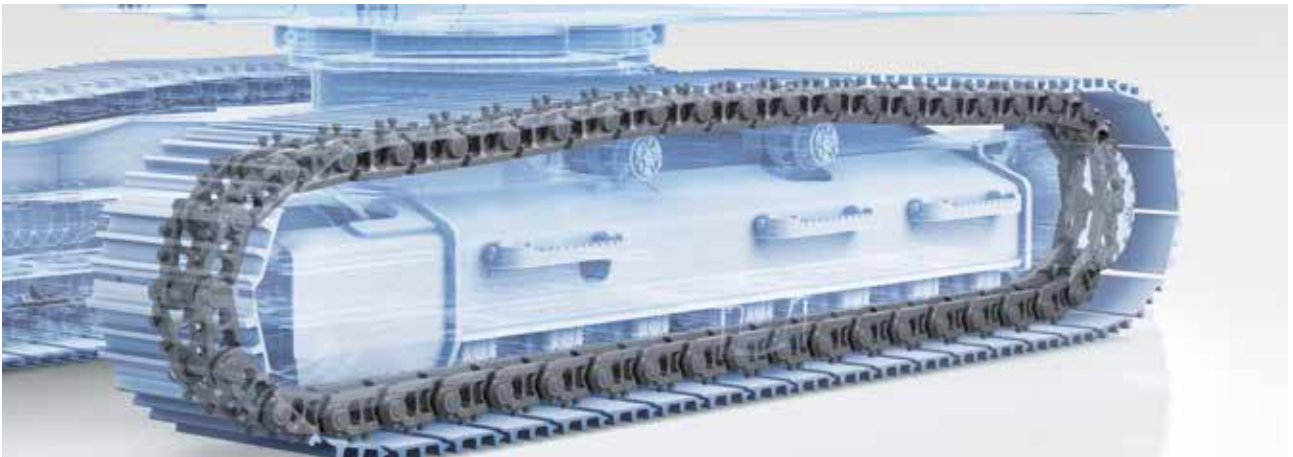


# Durable by design

If you're looking for a strong and durable machine then look no further – the EC170D has been built to last. Featuring reinforced welding and heavy-duty protection, no job is too tough for this reliable machine.

## Greased and sealed track chains

Track chain pins and bushings are greased and sealed for long life, reduced maintenance and increased durability.



## Robust X-frame

The EC170D has a robot-welded, high tensile steel X-shaped frame. For increased durability, the lower frame is protected by general purpose undercover plates. Optional heavy-duty undercover plates provide additional protection in the most demanding applications.



## Superstructure

The strong and durable superstructure absorbs external forces transferred through the frame during machine operation – protecting internal components and preventing cracking or torsional distortion. Reinforced welding between the center frame and side frames as well as the boom and boom cylinder mounts provides further durability.

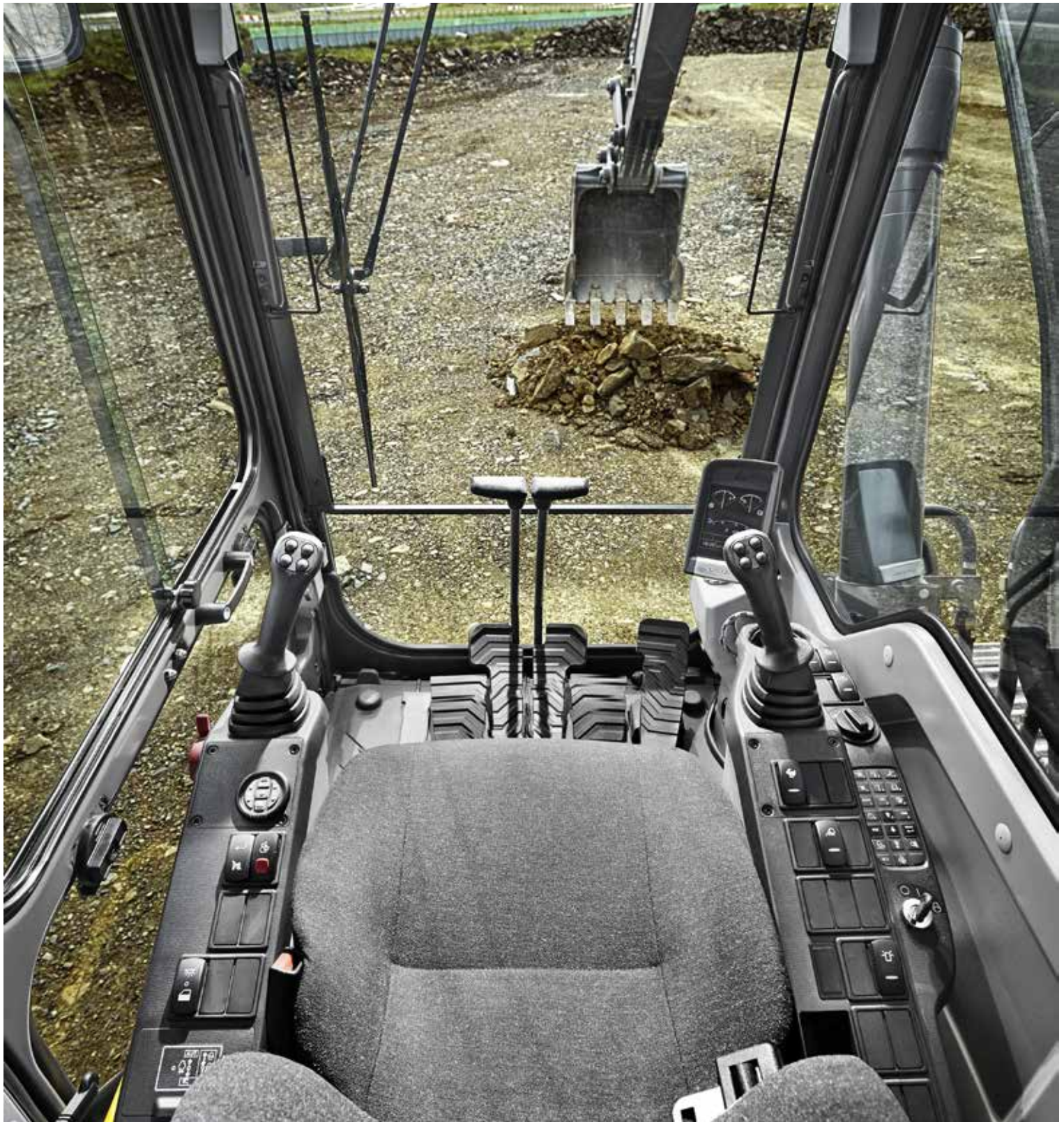






# HEAVY-DUTY BOOM AND ARM

The reinforced, heavy-duty boom and arm are built from high tensile steel for maximum strength, durability and reliability. Wear strips are welded to the underside of the arm for added protection in severe applications.



# VOLVO CAB

With slim cab pillars and large expanses of glass, the Volvo cab offers superior visibility. The spacious cab features new Volvo styling, ample storage and leg room and ergonomically placed controls for increased comfort and productivity.

# Comfort increases productivity

It's a fact that when operators are comfortable they work more efficiently. By putting the operator at the center of the cab design process, Volvo has created an environment optimized for productivity. With superior visibility, ergonomic controls and an I-ECU monitor for simple machine operation, operators will experience a comfortable and productive work shift in the EC170D.

## Volvo seat

The adjustable seat has been designed to suit individual operator needs and enhance comfort during long work shifts.



## Controls and switches

The ergonomic design and position of controls and switches allows the operator to easily control machine functions – increasing comfort and productivity.

## Climate control system

The operator can set the temperature via the I-ECU with Volvo's powerful climate control system. The industry-leading air circulation and defrosting system quickly heats or cools the cab using 14 wellspaced vents for increased comfort and productivity.



## I-ECU monitor

The 7" color LCD monitor clearly displays machine status information including fuel consumption data and service interval alerts in one of 30 languages. The anti-glare, tilttable screen enables easier machine operation and puts the operator in control – providing high performance and productivity.



# Your uptime = our priority

Every machine requires service and maintenance. At Volvo we believe this essential work should be quick and easy to perform. With grouped filters and our CareTrack telematics system which allows you to plan service and maintenance requirements in advance, you'll spend more time working and earning with Volvo.

## CareTrack

CareTrack is the state-of-the-art Volvo telematics system that provides access to a wide range of machine monitoring information designed to save machine owners time and money. Proactively manage service and maintenance schedules, optimize machine and operator performance and reduce fuel costs with CareTrack.



## Anti-slip plates

Heavy-duty, punched anti-slip plates in the main service and maintenance areas provide safe access even in wet and icy conditions.



## Service interval alerts

To enhance serviceability, the I-ECU monitor features a built in service interval display for easy monitoring of engine oil/filter, fuel filter/water separator, hydraulic oil and hydraulic oil filter.



## Grouped filters

Grouped filters in the pump compartment are quick and easy to access from ground level via one door – enabling fast servicing and increased uptime.





# REAR ACCESS

Steps and handrails behind the cab provide safe and convenient rear access to the main hydraulic components and engine

# Volvo gives you more

## Climate control system

Volvo's industry-leading, powerful climate control system quickly heats or cools the cab using 14 well-spaced vents for increased comfort and productivity.

## ECO mode

Volvo's unique ECO mode increases fuel efficiency by reducing engine rpm without any loss of performance in most operating conditions.

## HEAVY-DUTY BOOM AND ARM

The reinforced, heavyduty boom and arm are built from high tensile steel for maximum strength, durability and reliability.

## Digging force

The optimized boom, arm and linkage geometry together with engine power and hydraulic pressure provides superior digging force.

## FULL RANGE OF ATTACHMENTS

Volvo's durable attachments have been purpose-built to work in perfect harmony with Volvo excavators, forming one solid, reliable unit.

## Two undercarriage options

Select either the standard undercarriage or a longer and wider undercarriage for maximum stability when lifting heavy loads or working in difficult terrain.





### **I-ECU monitor**

The 7" color LCD monitor clearly displays machine status information including fuel consumption data and service interval alerts – enabling easier machine operation.

### **VOLVO CAB**

Spacious cab with new Volvo styling features slim cab pillars and large expanses of glass for superior visibility. Ergonomic controls increase comfort and productivity.

### **VOLVO ENGINE**

Volvo's premium D4 engine delivers the ultimate combination of high performance and low fuel consumption.

### **REAR ACCESS**

Steps and handrails behind the cab provide safe and convenient rear access to the main hydraulic components and engine.

### **Service interval alerts**

The I-ECU monitor features a built in service interval display for easy monitoring of engine oil/ filter, fuel filter/water separator, hydraulic oil and hydraulic oil filter.

### **IDEAL WEIGHT AND SIZE**

Fully compliant with all national on-road weight and size regulations, the EC170D has been designed for easy transportation.

### **Five track shoe sizes**

With five track shoe width options available, this excavator can be customized to meet specific on-road width restrictions

# Get the most from your excavator

Maximize your excavator's productivity and profitability with Volvo's comprehensive range of attachments – designed to work in perfect harmony with Volvo machines. Access more applications and effectively perform a variety of tasks while experiencing reduced fuel consumption and reduced cycle times.

## Attachment management system

The system allows storage of up to 20 different attachment settings and enables hydraulic flow to be adjusted according to requirements. Operators can change attachments quickly without manual set-up.



## Volvo buckets

Volvo offers a range of high quality buckets designed to perform in a variety of materials. Featuring exceptional design and built in durability, Volvo buckets efficiently handle the toughest of jobs.



## Hydraulic breaker HB15

Volvo's HB15 hydraulic breaker has been built to break the most demanding material. With consistent power and high breaking force you'll benefit from maximum impact and durability. Set your Volvo breaker at the right frequency to suit your application needs.





## INTERFACES



### Direct fit

For maximum productivity when only operating in one application, Volvo's direct fit attachments provide the best performance and shortest tip radius for high breakout force.

## BUCKETS & GROUND ENGAGING TOOLS



### General purpose bucket (GP)

The perfect tool for digging and re-handling soft to medium material such as dirt, sand and loose clay soils.



### Heavy-duty bucket (HD)

This bucket excels at digging materials including loose rock, hard clay and gravel. It can be used in applications such as quarrying or mining.

### Wear parts

Volvo offers side cutters as wear parts.



### Endurance teeth

Volvo offers a range of economic, wear-resistant teeth and adapters that combine strength and durability. The proven teeth and adapters are engineered for high strength and impact absorption.



## HYDRAULIC BREAKERS



### Breaker package

The all-in-one HB15 hydraulic breaker package includes everything you need to start using your breaker. Depending on the machine, it contains a breaker, hydraulic hoses, a breaker bracket and tool.



### Breaker tools

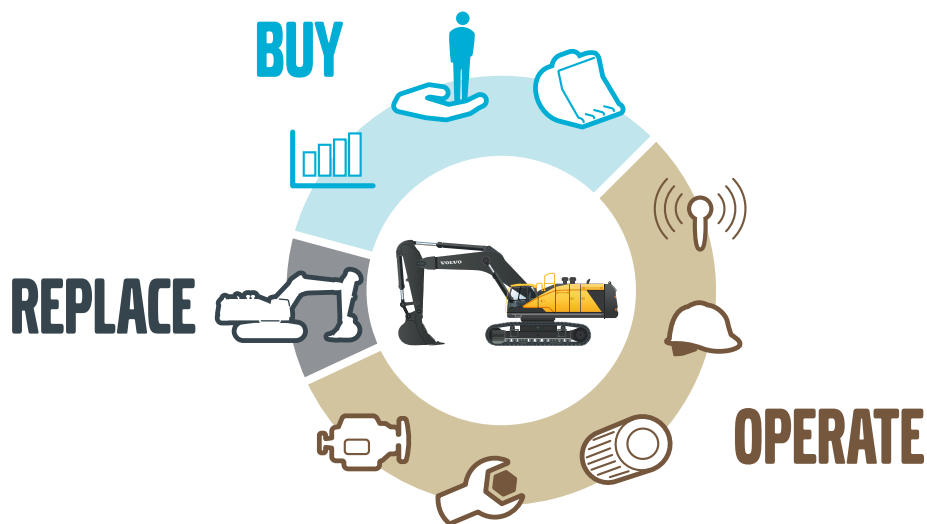
Volvo hydraulic breakers can be used in a variety of applications. To ensure optimum performance in your application select the right breaker tool from the range.

# Adding value to your business

Being a Volvo customer means having a complete set of services at your fingertips. Volvo can offer you a long-term partnership, protect your revenue and provide a full range of customer solutions using high quality parts, delivered by passionate people. Volvo is committed to increasing the positive return on your investment and maximising uptime.

## Complete Solutions

Volvo has the right solution for you. So why not let us provide all your needs throughout the whole life cycle of your machine? By listening to your requirements, we can reduce your total cost of ownership and increase your revenue.



## Genuine Volvo Parts

Our attention to detail is what makes us stand out. This proven concept acts as a solid investment in your machine's future. Parts are extensively tested and approved because every part is vital for uptime and performance. Only by using Genuine Volvo Parts, can you be sure that your machine retains the renowned Volvo quality.

## Service Network

In order to respond to your needs faster, a Volvo expert is on their way to your job site from one of our Volvo facilities. With our extensive infrastructure of technicians, workshops and dealers, Volvo has a comprehensive network to fully support you using local knowledge and global experience.





# CUSTOMER SUPPORT AGREEMENTS

The range of Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services. Volvo uses the latest technology to monitor machine operation and status, giving you advice to increase your profitability. By having a Customer Support Agreement you are in control of your service costs.

# Volvo EC170D in detail

## Engine

The engine, which provide excellent performance, is equipped with four cylinders, vertical, electronic-controlled high pressure fuel injectors, cooled external EGR, turbo charger with waste gate, air-to-air intercooler and water cooled diesel type.

Engine	Volvo	D4E
Max power at	r/min	2 200
Net, ISO 9249/SAE J1349	kW	90
	hp	122
Gross, ISO 14396/SAE J1995	kW	91
	hp	124
Max torque	Nm	495
at engine speed	r/min	1 600
No. of cylinders		4
Displacement	l	4.04
Bore	mm	101
Stroke	mm	126

## Electrical system

Well protected high-capacity electrical system. Waterproof double-lock connectors are used to ensure corrosion-free connection. Main relays and fuses are located in a shielded electrical distribution box. The master switch is standard. Advanced monitoring of machine functions and important diagnostic information is displayed on the I-ECU.

Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	100
Alternator	V/A	28/100
Start motor	V - kW	24 - 5.5

## Swing system

The swing system uses an axial piston motors, driving a planetary gearbox for maximum torque. An automatic holding brake and anti-rebound valve are standard.

Max. slew speed	r/min	12
Max. slew torque	kNm	51.7

## Travel System

Each track is powered by an automatic two-speed shift travel motor. The track brakes are multi-disc, spring-applied and hydraulic released. The travel motor, brake and planetary gears are well protected within the track frame.

Max. drawbar pull	kN	145
Max. travel speed (low)	km/h	3.1
Max. travel speed (high)	km/h	5.6
Gradeability	°	35

## Undercarriage

Robust X-shaped frame with greased and sealed track chains as standard

Track shoes		2 x 46
Link pitch	mm	190
Shoe width, triple grouser	mm	500 / 600 / 700 / 800 / 900
Bottom rollers		2 x 7
Top rollers		2 x 5.8

## Service Refill

Fuel tank	l	258
Hydraulic system, total	l	255
Hydraulic tank	l	11
Engine oil	l	16.5
Engine coolant	l	23.7
Slew reduction unit	l	2.6
Travel reduction unit	l	2 x 5.8

## Hydraulic system

The electro-hydraulic system and MCV (main control valve) use intelligent technology to control on-demand flow for high productivity, high-digging capacity and excellent fuel economy. The summation system, boom, arm and swing priority along with boom, arm and bucket regeneration provides optimum performance.

**The following important functions are included in the system:**

**Summation system:** Combines the flow of both hydraulic pumps to ensure quick cycle times and high productivity.

**Boom priority:** Gives priority to the boom operation for faster raising when loading or performing deep excavations.

**Arm priority:** Gives priority to the arm operation for faster cycle times in leveling and for increased bucket filling when digging.

**Swing priority:** Gives priority to swing functions for faster simultaneous operations.

**Regeneration system:** Prevents cavitation and provides flow to other movements during simultaneous operations for maximum productivity.

**Power boost:** All digging and lifting forces are increased.

**Holding valves:** Boom and arm holding valves prevent the digging equipment from creeping.

### Main pump, Type 2 x variable displacement axial piston pumps

Maximum flow	l/min	2 x 150
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### Pilot pump, Type Gear pump

Maximum flow	l/min	1 x 22
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### Relief valve setting pressure

Implement	MPa	34.3/36.3
Travel circuit	MPa	34.3
Slew circuit	MPa	26.5
Pilot circuit	MPa	3.9

## Hydraulic Cylinders

Mono boom		2
Bore x Stroke	ø x mm	115 x 1 165
Arm		1
Bore x Stroke	ø x mm	120 x 1 345
Bucket		1
Bore x Stroke	ø x mm	105 x 1 000

## Cab

The operator's cab has easy access via a wide door opening. The cab is supported on hydraulic dampening mounts to reduce shock and vibration levels. These along with sound absorbing lining provide low noise levels. The cab has excellent all-round visibility. The front windshield can easily slide up into the ceiling, and the lower front glass can be removed and stored in the side door.

### Integrated air-conditioning and heating system:

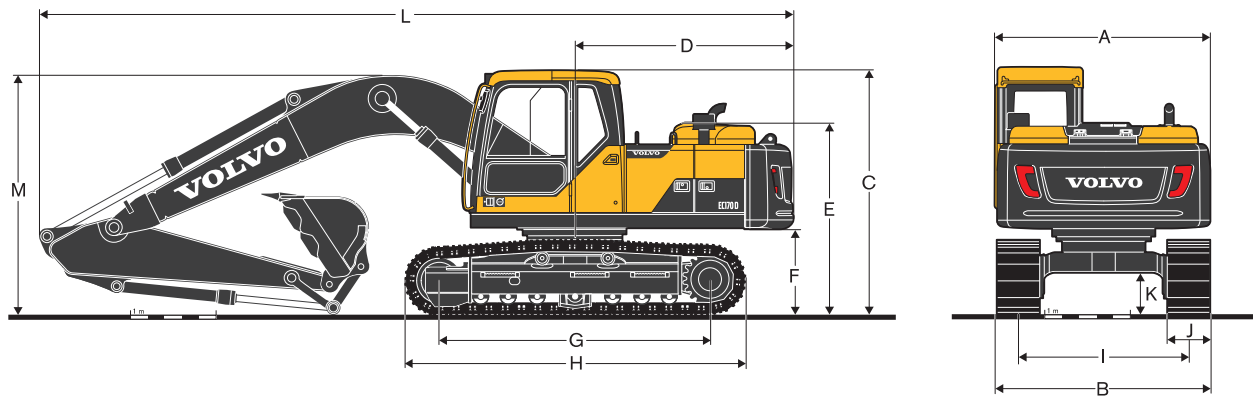
The pressurized and filtered cab air is supplied by an automatically controlled fan. The air is distributed throughout the cab from 14 vents.

**Ergonomic operator's seat:** The adjustable seat and joystick console move independently to accommodate the operator. The seat has nine different adjustments plus a seat belt for the operator's comfort and safety.

## Sound Level

Sound level in cab according to ISO 6396		
LpA (standard)	dB(A)	68
LpA (tropical)	dB(A)	69
External sound level according to ISO 6395 and EU Noise Directive (2000/14/EC) and 474-1:2006 +A1:2009		
LwA (standard)	dB(A)	100
LwA (tropical)	dB(A)	101

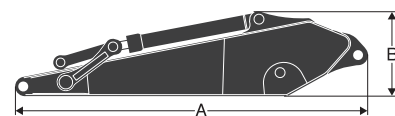
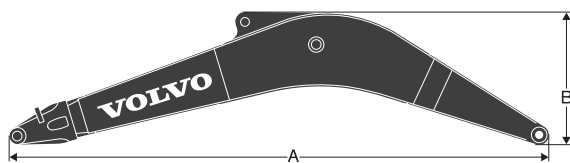
# Specifications



## DIMENSIONS

Description	Unit	EC170DL		
<b>Boom</b>	<b>m</b>	<b>5.2</b>		
<b>Arm</b>	<b>m</b>	<b>2.3</b>	<b>2.6</b>	<b>3.0</b>
A Overall width of upper structure	mm	2 490	2 490	2 490
B Overall width	mm	2 800	2 800	2 800
C Overall height of cab	mm	2 900	2 900	2 900
D Tail slew radius	mm	2 550	2 550	2 550
E Overall height of engine hood	mm	2 235	2 235	2 235
F Counterweight clearance *	mm	1 010	1 010	1 010
G Tumbler length	mm	3 370	3 370	3 370
H Track length	mm	4 170	4 170	4 170
I Track gauge	mm	2 200	2 200	2 200
J Shoe width	mm	600	600	600
K Min. ground clearance *	mm	460	460	460
L Overall length	mm	8 880	8 770	8 810
M Overall height of boom	mm	2 980	2 900	3 020

\* Without shoe grouser

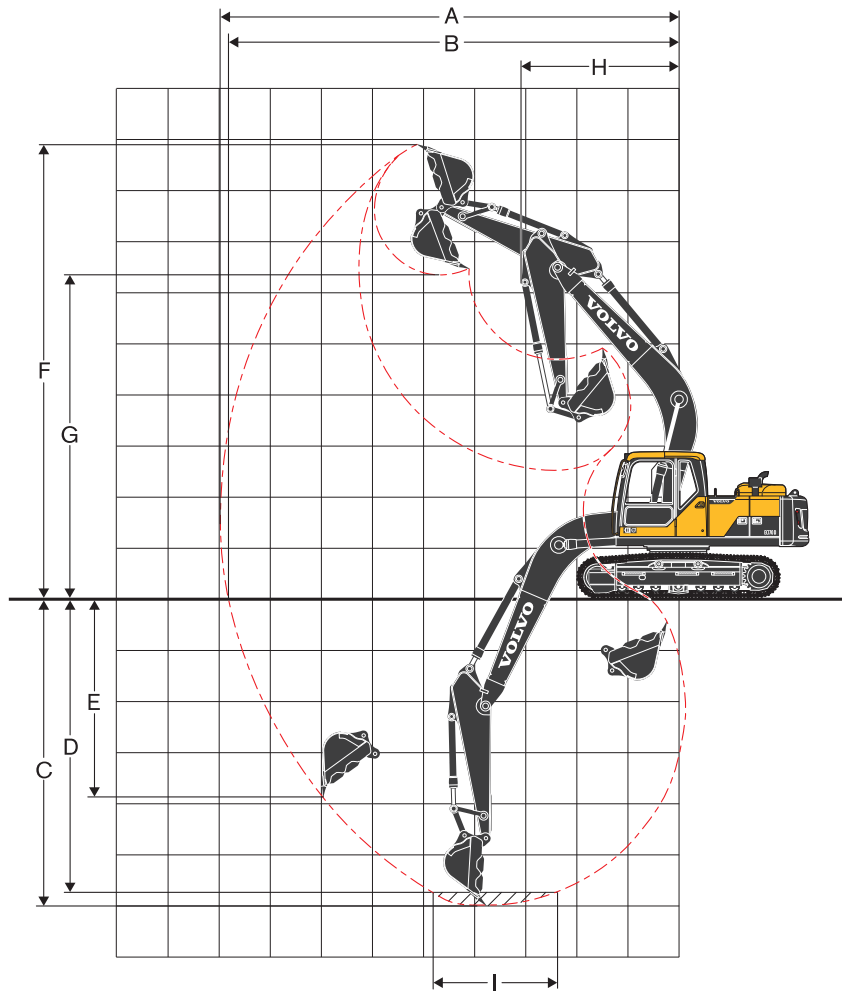


## DIMENSIONS

Boom				Arm					
EC170DL									
Description	Unit	HD		Description	Unit	HD		HD	
Boom	m	5.2	5.2	Arm	m	2.3	2.6	2.6	3.0
Length (A)	mm	5 397	5 397	Length (A)	mm	3 241	3 500	3 500	3 900
Height (B)	mm	1 404	1 404	Height (B)	mm	871	866	866	838
Width	mm	712	712	Width	mm	434	434	434	434
Weight	kg	1 350	1 509	Weight	kg	794	768	833	826

\* Includes cylinder, piping and pin, excludes boom cyl. Pin

\* Includes cylinder, linkage and pin



## WORKING RANGES

Description		Unit	EC170DL		
<b>Boom</b>		<b>m</b>	<b>5.2</b>		
<b>Arm</b>		<b>m</b>	<b>2.3</b>	<b>2.6</b>	<b>3.0</b>
A	Max. digging reach	mm	8 650	8 975	9 344
B	Max. digging reach on ground	mm	8 491	8 812	9 188
C	Max. digging depth	mm	5 740	6 040	6 440
D	Max. digging depth (I = 2 440 mm level)	mm	5 434	5 777	6 205
E	Max. vertical wall digging depth	mm	4 480	4 950	5 380
F	Max. cutting height	mm	8 638	8 888	9 095
G	Max. dumping height	mm	6 110	6 340	6 540
H	Min. front swing radius	mm	3 071	3 070	3 060

## Digging forces with direct fit bucket

Bucket radius		mm	1 321	1 321	1 321	
Breakout force - bucket	Normal	SAE	kN	101.3	101.3	101.3
	Power boost	SAE	kN	107.1	107.1	107.1
	Normal	ISO	kN	116.7	116.7	116.7
	Power boost	ISO	kN	123.4	123.4	123.4
Tearout force - dipper arm	Normal	SAE	kN	89.2	79.3	71.9
	Power boost	SAE	kN	94.3	83.9	76.0
	Normal	ISO	kN	92.9	82.3	74.3
	Power boost	ISO	kN	98.2	87.0	78.6
Rotation angle, bucket		°		183	183	183

# Specifications

## BUCKET SELECTION GUIDE

Bucket type		Capacity	Cutting width	Weight	Teeth	EC170DL					
						5.2m Boom					
						600mm shoe, 2 750kg counterweight			600mm shoe, 3 200kg counterweight		
						L	mm	kg	EA	2.3m	2.6m
Direct fit Buckets	General purpose	630	1080	621	5	C	C	C	C	C	C
		630	1080	628	5	C	C	C	C	C	C
		700	1170	651	5	C	C	C	C	C	C
		700	1170	658	5	C	C	C	C	C	C
	Heavy duty	630	1080	664	5	D	D	D	D	D	D
		630	1080	671	5	D	D	D	D	D	D
		700	1170	696	5	D	D	D	D	D	D
		700	1170	703	5	D	D	D	D	D	D
		750	1240	719	5	D	D	D	D	D	D
		750	1240	725	5	D	D	D	D	D	D

Please consult with your Volvo dealer for the proper match of buckets and attachments to suit the application.  
The recommendations are given as a guide only, based on typical operation conditions.  
Bucket capacity based on ISO 7451, heaped material with a 1:1 angle of repose.

**Maximum material density**  
A 1200 ~ 1300 kg/m<sup>3</sup> Coal, Caliche, Shale  
B 1400 ~ 1600 kg/m<sup>3</sup> Wet earth and clay, Limestone, Sandstone  
C 1700 ~ 1800 kg/m<sup>3</sup> Granite, Wet sand, Well blasted rock  
D 1900 kg/m<sup>3</sup> ~ Wet mud, Iron ore

## MACHINE WEIGHTS AND GROUND PRESSURE

Boom 5.2m, Arm 2.6m, Bucket 658kg, 0.7m <sup>3</sup>							
Description	Shoe width	Counterweight 2 750kg			Counterweight 3 200kg		
		Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width
Units	mm	kg	kPa	mm	kg	kPa	mm
Triple grouser	500	17 035	42.3	2 700	17 485	43.4	2 700
	600	17 280	35.8	2 800	17 730	36.7	2 800
	700	17 710	29.3	2 900	18 160	30.0	2 900
	800	17 980	26.0	3 000	18 430	26.7	3 000
	900	18 260	23.5	3 100	18 710	24.1	3 100



## LIFTING CAPACITY EC170DL

Lifting capacity at the arm end without bucket. For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

		Lifting hookrelated togroundlevel	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach		
			Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	m
Boom:	5.2m	6.0 m kg											*4 410	3 640	5.9
Arm :	2.3m	4.5 m kg					*4 920	*4 920	*4 590	3 490			4 470	2 850	6.8
Shoe :	600mm	3.0 m kg					*6 510	5 130	*5 240	3 340			3 950	2 500	7.2
CWT :	2 750kg	1.5 m kg					8 020	4 770	5 120	3 180			3 780	2 370	7.3
		0 m kg					7 790	4 570	4 990	3 070			3 880	2 410	7.1
		-1.5 m kg			*10 950	8 630	7 750	4 530	4 960	3 030			4 350	2 690	6.6
		-3.0 m kg			*12 760	8 810	7 840	4 610					5 630	3 440	5.6
Boom:	5.2m	7.5 m kg											*4 040	*4 040	4.9
Arm :	2.6m	6.0 m kg							*4 060	3 590			*3 700	3 300	6.3
Shoe :	600mm	4.5 m kg					*4 510	*4 510	*4 310	3 520			*3 630	2 640	7.1
CWT :	2 750kg	3.0 m kg			*9 680	*9 680	*6 110	5 180	*5 000	3 360	3 730	2 360	3 690	2 330	7.5
		1.5 m kg					*7 810	4 790	5 130	3 180	3 650	2 290	3 540	2 210	7.7
		0 m kg			*5 670	*5 670	7 790	4 570	4 980	3 050			3 620	2 250	7.5
		-1.5 m kg	*5 850	*5 850	*9 990	8 550	7 710	4 500	4 920	3 000			4 010	2 470	6.9
		-3.0 m kg	*10 410	*10 410	*13 180	8 700	7 770	4 550					5 010	3 070	6.0
		-4.5 m kg			*10 510	9 050								*7 290	5 090
Boom:	5.2m	7.5 m kg											*3 430	*3 430	5.5
Arm :	3.0m	6.0 m kg							*3 620	*3 620			*3 140	2 980	6.7
Shoe :	600mm	4.5 m kg							*3 950	3 580	*3 130	2 450	*3 080	2 440	7.5
CWT :	2 750kg	3.0 m kg			*8 230	*8 230	*5 580	5 290	*4 680	3 410	3 770	2 390	*3 170	2 180	7.9
		1.5 m kg			*5 600	*5 600	*7 380	4 870	5 170	3 220	3 670	2 300	3 310	2 070	8.0
		0 m kg			*6 180	*6 180	7 830	4 600	5 000	3 070	3 590	2 230	3 370	2 090	7.8
		-1.5 m kg	*5 360	*5 360	*9 360	8 490	7 700	4 490	4 910	2 990			3 680	2 270	7.3
		-3.0 m kg	*9 070	*9 070	*13 680	8 610	7 720	4 510	4 930	3 010			4 460	2 740	6.4
		-4.5 m kg			*11 540	8 900	*7 740	4 680					6 800	4 090	5.0
Boom:	5.2m	6.0 m kg											*4 410	3 910	5.9
Arm :	2.3m	4.5 m kg					*4 920	*4 920	*4 590	3 760			*4 620	3 080	6.8
Shoe :	600mm	3.0 m kg					*6 510	5 510	*5 240	3 610			4 210	2 710	7.2
CWT :	3 200kg	1.5 m kg					*8 140	5 150	5 450	3 440			4 030	2 570	7.3
		0 m kg					8 300	4 960	5 330	3 330			4 140	2 630	7.1
		-1.5 m kg			*10 950	9 330	8 250	4 920	5 290	3 300			4 640	2 920	6.6
		-3.0 m kg			*12 760	9 510	8 350	5 000					6 000	3 730	5.6
Boom:	5.2m	7.5 m kg											*4 040	*4 040	4.9
Arm :	2.6m	6.0 m kg							*4 060	3 860			*3 700	3 550	6.3
Shoe :	600mm	4.5 m kg					*4 510	*4 510	*4 310	3 780			*3 630	2 850	7.1
CWT :	3 200kg	3.0 m kg			*9 680	*9 680	*6 110	5 560	*5 000	3 620	3 980	2 560	*3 750	2 530	7.5
		1.5 m kg					*7 810	5 180	5 460	3 450	3 900	2 490	3 780	2 410	7.7
		0 m kg			*5 670	*5 670	8 300	4 950	5 310	3 320			3 870	2 450	7.5
		-1.5 m kg	*5 850	*5 850	*9 990	9 250	8 220	4 880	5 260	3 260			4 280	2 690	6.9
		-3.0 m kg	*10 410	*10 410	*13 180	9 400	8 280	4 930					5 350	3 340	6.0
		-4.5 m kg			*10 510	9 750								*7 290	5 500
Boom:	5.2m	7.5 m kg											*3 430	*3 430	5.5
Arm :	3.0m	6.0 m kg							*3 620	*3 620			*3 140	*3 140	6.7
Shoe :	600mm	4.5 m kg							*3 950	3 840	*3 130	2 650	*3 080	2 640	7.5
CWT :	3 200kg	3.0 m kg			*8 230	*8 230	*5 580	*5 580	*4 680	3 670	4 010	2 590	*3 170	2 370	7.9
		1.5 m kg			*5 600	*5 600	*7 380	5 250	5 500	3 480	3 920	2 510	*3 410	2 260	8.0
		0 m kg			*6 180	*6 180	8 340	4 980	5 330	3 330	3 840	2 430	3 600	2 280	7.8
		-1.5 m kg	*5 360	*5 360	*9 360	9 190	8 210	4 870	5 250	3 260			3 930	2 480	7.3
		-3.0 m kg	*9 070	*9 070	*13 680	9 310	8 230	4 890	5 270	3 270			4 760	2 980	6.4
		-4.5 m kg			*11 540	9 600	*7740	5 060						*6 850	4 430

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards. 3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 4. Rated loads marked with an asterisk (\*) are limited by hydraulic capacity rather than tipping load.

# Equipment

## STANDARD EQUIPMENT

### Engine

Turbocharged, 4 stroke diesel engine with water cooling, direct injection and charged air cooler

Air filter with indicator

Air intake heater

Cyclone pre-cleaner

Fuel filter and water separator

Extra water separator

Alternator, 100 A

### Electric / Electronic control system

Contronics

Advanced mode control system

Self-diagnostic system

GSM/GPS Caretrack and 3yr-Caretrack subscription

Machine status indication

Engine speed sensing power control

Automatic idling system

One-touch power boost

Power max mode (P)

Safety stop/start function

Adjustable LCD color monitor

Master electrical disconnect switch

Engine restart prevention circuit

Highcapacity halogen lights:

Frame-mounted 2

Boom-mounted 1

Batteries, 2 x 12 V / 100 Ah

Start motor, 24 V / 5.5 kW

### Superstructure

Counterweight: 3 200kg

Access way with handrail

Tool storage area

Punched metal anti-slip plates

Undercovers

### Undercarriage

Undercovers

Hydraulic track adjusters

Greased and sealed track link

Track Guard

### Hydraulic system

Automatic sensing hydraulic system

Summation system

Boom priority

Arm priority

Swing priority

ECO mode fuel saving technology

Boom and arm regeneration valves

Swing anti-rebound valves

Boom and arm holding valves

Multi-stage filtering system

Cylinder cushioning

Cylinder contamination seals

Automatic two-speed travel motors

Hydraulic oil, ISO VG 46

## STANDARD EQUIPMENT

### Cab and interior

Cab with hatch

Control lock out lever

Travel pedals and hand levers

Adjustable operator seat and joystick control console

Control joysticks

Heater & air-conditioner, automatic

Flexible antenna

AM/FM stereo with MP3 and USB input

Cab, all-weather sound suppressed, includes:

Cup holders

Door locks

Tinted and safety glass

Floor mat

Horn

Pull-up type front window

Removable lower windshield

Seat belt

Windshield wiper with intermittent feature

Master key

### Track shoes

600 mm with triple grousers

### Digging Equipment

Boom: 5.2m

Arm: 2.6m

Linkage

### Service

Tool kit, full scale

Spare parts kit

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**OPTIONAL EQUIPMENT**

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**Engine**

- Fuel filler pump: 35 lpm
- Water separator with heater
- Block heater: 240 V
- Diesel coolant heater, 5 kW
- Auto engine shutdown

**Electric**

- Extra work lights:
  - Boom-mounted 1
  - Cab-mounted 3 (front 2, rear 1)
  - Counterweight-mounted 1
- Travel alarm
- Anti-theft with code lock system
- Rotating warning beacon
- Rearview camera

**Superstructure**

- Rear view mirror on counterweight
- Counterweight: 2 750kg

**Hydraulic system**

- Boom hose rupture valve with overload warning device
- Boom float function with HRV
- Boom float function without HRV
- Hydraulic piping:
  - Work tool management system (up to 20 programmable memories)
  - Breaker & shear, 1 or 2 pump flow
- Slope/Rotator
  - Extra for slope/rotator
- Oil leak (drain) line on base machine and boom
- Quick coupler
- Additional return filter
  - Volvo hydraulic quick coupler S6
- Hydraulic oil, ISO VG 32,42, 68
  - Hydraulic oil, longlife oil 32, 46, 68

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**OPTIONAL EQUIPMENT**

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**Cab and interior**

- Electric pedal
- Control joysticks (Semi-long, 4 switch, 3 switch & proportional)
- Cab-mounted falling object guard (FOG)
- Cab-mounted falling object protective structure (FOPS)
- Safety net for front window
- Lower net for front lower window
- Smoker kit (ashtray and lighter)
- Front rain shield
- Lower wiper with intermittent control
- Sun screens, front, roof, rear
- Specific key

**Track shoes**

- 500/600/700/800/900 mm with triple grousers

**Digging Equipment**

- Arm: 2.3 m, 3.0 m
- Linkage with lifting eye

**Service**

- Tool kit, daily maintenance
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**SELECTION OF VOLVO OPTIONAL EQUIPMENT**

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**Breaker / Shear piping****Fuel filling pump****Quick coupler****Diesel coolant heater****Tropical cooling****Breaker / Shear electric pedal**

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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