

V O L V O



Volvo Excavators 8.6-10.0 t 58 hp

**ECR88D**

Volvo Construction Equipment



# Welcome to our world

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Welcome to the world of Volvo Construction Equipment – we think you're going to like it here.

## Small machines, big results

With decades of experience in the design and manufacture of compact excavators and wheel loaders, our range of compact machinery is designed with customer success in mind. Built from the same DNA as large Volvo machinery, our compact range sets the standard for efficiency performance and uptime – complemented by an extensive range of Volvo attachments for maximum versatility.

Building on our proud history, the Volvo Concept Lab continues to create cutting-edge ideas and innovative concepts – such as our award-winning electric compact machines – to ensure we offer our customers machines which deliver big results long into the future.



## Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

### Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

### There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.

 <p><b>Fuel Efficiency Services</b></p>	 <p><b>Productivity Services</b></p>	 <p><b>Safety Services</b></p>
 <p><b>Financial Services</b></p>	 <p><b>Uptime Services</b></p>	 <p><b>Rental Services</b></p>
 <p><b>Volvo Attachments</b></p>	 <p><b>Genuine Volvo Parts</b></p>	 <p><b>New life Services</b></p>

# BUILDING TOMORROW

# Powered to perform

Volvo proudly introduces the new ECR88D compact short swing radius excavator. Featuring a powerful Volvo engine and perfectly matched hydraulic system, this machine delivers high performance, excellent control and low fuel consumption. Sustain optimum power and productivity with Volvo.

## Volvo engine

Volvo's premium Tier 4f / Stage V engine delivers superior performance and low fuel consumption. The engine features an Exhaust After Treatment System (EATS) to lower emissions and a regeneration process that does not interrupt operation, performance or productivity.



## Slew and boom offset

Slew and boom offset movements are controlled simultaneously for easy and fast positioning of the machine. Joystick control enables precise, smooth and effortless command of the slew and boom offset.



## Tractive force

High system pressure delivers impressive tractive force when climbing gradients or traveling over rough terrain. For improved performance, the ECR88D boasts a 16% improvement in tractive force compared to the previous model.





# ENHANCED HYDRAULICS

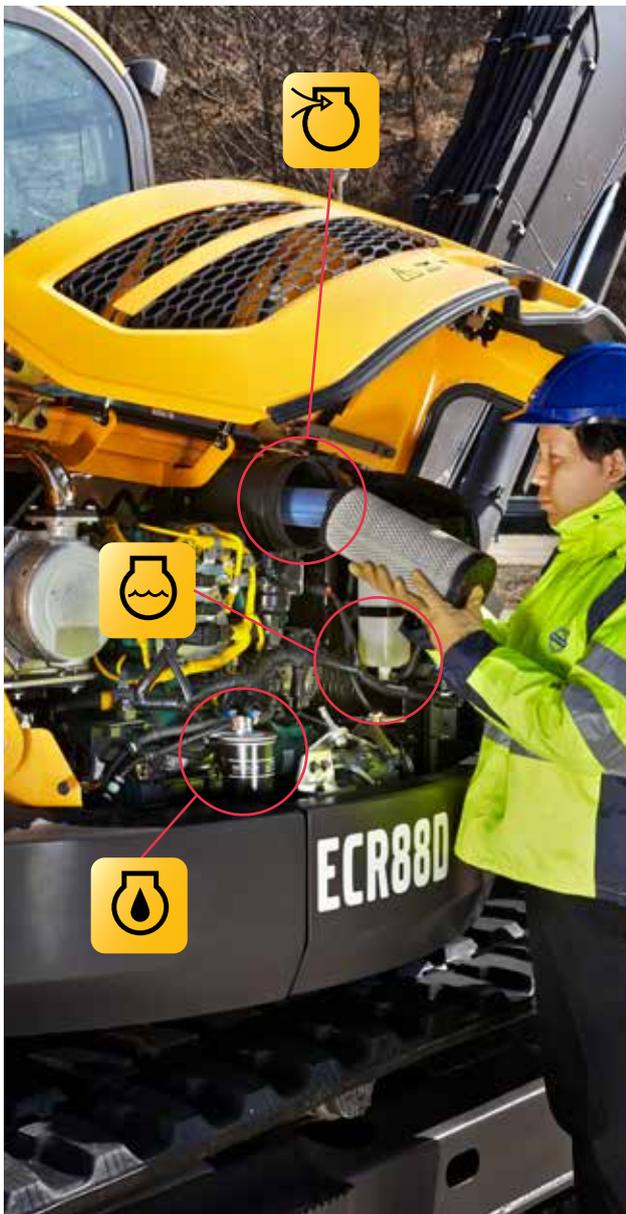
Volvo's state-of-the-art hydraulic system is perfectly matched to the Volvo engine and components – delivering high performance and improved fuel efficiency. The hydraulic system has been designed for fast response and smooth operation.

# Stability you can count on

Whether you're working in the road construction, utilities, landscaping or any other application, the ECR88D will give you access to more jobsites, where you can work closer to obstacles, safely. With a heavy counterweight and strong undercarriage, this machine delivers superior stability. And with easy service access you'll enjoy maintenance made easy with Volvo.

## Service access

For safe and easy access, all service check points are located under the wide-opening engine hood and are accessed from ground level. Grouped filters ensure regular maintenance is straightforward and uptime is maximized.



## Single pivot pin

Volvo uses a single pivot design that achieves maximum support between main frame and front equipment. This concept increases stability, durability and lifetime of the components.



## MATRIS and VCADS Pro

For increased uptime, Volvo's high-tech, computer-based MATRIS tool allows you to monitor machine usage and analyze machine operation. VCADS Pro analysis and programming software provides fast diagnostics.





# STABILITY

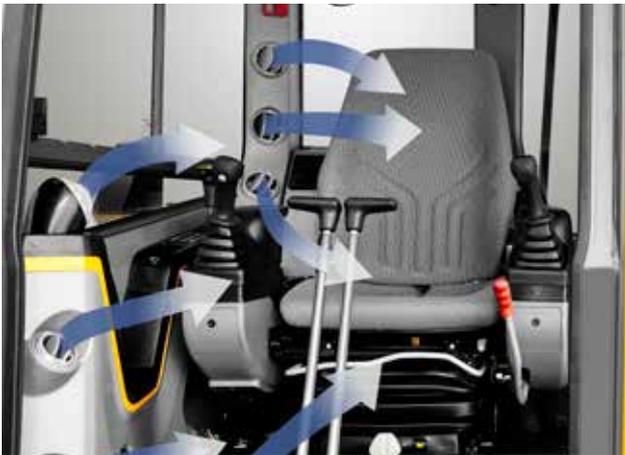
Design improvements including a counterweight have shifted the center of gravity towards the rear of the machine. Together with a strong undercarriage, this delivers superior stability while lifting bigger loads.

# Visibly better

At Volvo we know that when operators are comfortable they experience less fatigue and work more productively. That's why the premium, Volvo designed cab provides superior visibility, a safe and spacious working environment and easy to access controls. Step inside and see the results for yourself.

## Climate control

Control your climate with Volvo's powerful, industry-leading climate control system. With seven well-spaced vents quickly heating or cooling the cab, this air circulation and defrosting system increases comfort and productivity.



## Ease of control

Control your machine with minimal effort in order to get more done in less time. The keypad groups all controls on the right hand side and the 7" color LCD screen displays all machine information for access to functions through its easy to use menus. Through the hot keys, the operator can directly access pre-set functions for added convenience.



## Proportional joysticks

Via the joystick controls, the operator can easily adjust the direction and amount of hydraulic flow sent to the attachment. Benefit from the correct speed and power for optimal attachment operation.



## Storage

The Volvo cab features ample storage locations for personal belongings including an additional glove-box, side pocket, phone storage, cup holder and a pocket behind the seat.





# VOLVO CAB

All-around visibility from slim cab pillars and large expanses of glass is at the center of Volvo's cab design. The ROPS certified cab features vibration and noise isolation, ergonomic controls and an adjustable seat for increased comfort, reduced fatigue and increased productivity.

# One machine, many job sites

Volvo offers a wide range of durable attachments that are suitable for any job site, including utilities, building, agriculture, landscaping and forestry. Volvo attachments are an integrated part of the excavator for which they're intended – delivering maximum productivity and versatility.

## Quick coupler

Both the mechanical and the hydraulic quick couplers allow a complete range of buckets to be changed quickly and efficiently.



## Buckets

A complete range of buckets from general purpose reinforced buckets to ditching buckets, allow the ECR88D to work on many job sites for a wide range of applications. The durable buckets are built to work in loose gravel, crushed rock, dirt and soil.



## Breaker

Volvo's durable hydraulic breakers have been designed for ultimate compatibility with Volvo excavators. The wide range of breaker tools (or bits) has been built to break all kinds of materials and combines excellent performance with low noise and vibration levels.



## Steelwrist tiltrotator

A factory ready Volvo compact excavator together with a Steelwrist® tiltrotator delivers the ultimate combination of high productivity, safety, precision and control. Steelwrist tiltrotators provide a superior tilt angle and the compact design with low build height results in improved digging performance and higher fuel efficiency. Get more done with your machine, without changing attachment or machine position.





# ATTACHMENTS VERSATILITY

The machine's attachment can be easily changed to save time and costs. Its design, hydraulics, piping and in-cab controls combined with Volvo's attachments range allows the ECR88D to take on a variety of tasks. Volvo attachments work in harmony with the machine to deliver maximum productivity.

# Built to get the job done

## Enhanced hydraulics

The hydraulic system is perfectly matched to the engine and components for fast response and smooth operation.

## Stability

A heavy counterweight and a strong undercarriage deliver superior stability and the ability to lift bigger loads.

## Service access

All service check points are accessed from ground level. Grouped filters make regular maintenance easy.

## Single pivot pin

Volvo uses a single pivot design that achieves maximum support between main frame and front equipment. This concept increases stability, durability and lifetime of the components.

## Optional hydraulics

For increased versatility, auxiliary hydraulic systems are available to enable the operation of a wide range of attachments.

## MATRIS and VCADS Pro

The MATRIS tool monitors machine usage and operation. VCADS Pro analysis and programming software provides fast diagnostics.

## ECO mode

The ECO mode provides optimal working performance together with fuel saving.



## Optional dozer floating

The optional dozer blade float function 'floats' the dozer blade over the ground for improved leveling control and fuel efficiency.

## Undercarriage

Durable and strong X-shape undercarriage ensures superior stability and increases Single pivot pin machine lifetime.

## Auto engine shutdown

The auto engine shutdown provides lower fuel costs, less noise, much lower maintenance costs and a greater resale value.

## Auto idle

Engine speed is reduced to idle when the controls are inactive for more than five seconds or the left-hand console is raised – reducing fuel consumption and noise.

## Volvo engine

Tier 4f / Stage V compliant Volvo Engine delivers superior performance with low fuel consumption.

## Volvo Cab

Volvo's purpose designed cab offers excellent all-round visibility, enhanced by the slim cab pillars and large windows.



# 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 ECR88D in detail

## Engine

The new Tier 4f / Stage V compliant diesel engine is equipped with in-line, turbocharged and water cooled.

Model	Volvo	D2.6H
Max. power at	r/min	2 000
Net (ISO 9249/SAEJ1349)	kW	41
	hp	56
Gross (SAE J1995)	kW	42.4
	hp	57
Max. torque	Nm	220
at engine speed	r/min	1 300
No. of cylinders		4
Displacement	l	2.62
Bore	mm	87
Stroke	mm	110

## Electrical system

Voltage	V	12
Batteries	V	1 x 12
Battery capacity	Ah	100
Alternator	V/Ah	12/70
Starter motor output	V - kW	12 - 2.5

## Hydraulic system

Open-center, negative hydraulic system providing accurate controllability

**Main pump: Variable-displacement pump**

Maximum flow	l/min	2 x 68 + 54
Pilot pump: Gear pump		
Maximum flow	l/min	13

**Relief valve setting pressure**

Implement	MPa	29.4
Travel circuit	MPa	29.4
Swing circuit	MPa	24.5
Pilot circuit	MPa	3.4

## Swing system

Direct drive swing with radial piston motor-maintenance free and automatic holding brake anti-rebound valve.

Max. swing speed	r/min	8.3
Max. swing torque	kNm	22.9

## Undercarriage

Robust X-shaped frame with sealed and greased track chains.

Track shoes		2 x 39
Link pitch	mm	154
Shoe width - steel	mm	450 / 600
Shoe width - rubber	mm	450
Bottom rollers		2 x 5
Top rollers		2 x 1

## 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.

Travel speed low	km/h	2.6
Travel speed high	km/h	5.2
Max. drawbar pull	kN	65
Gradeability	°	35

## Service Refill

Fuel tank	l	110
Hydraulic system, total	l	140
Hydraulic tank	l	84
Engine oil	l	10.2
Engine coolant	l	9.3
Travel reduction unit	l	2 x 1.6

## Cab

Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO<sub>2</sub>-eq

## Sound Level

Sound level in cab according to ISO 6396

L <sub>pA</sub>	dB	74
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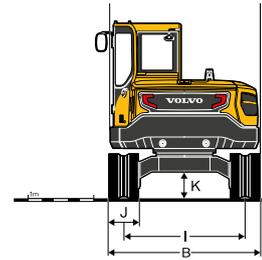
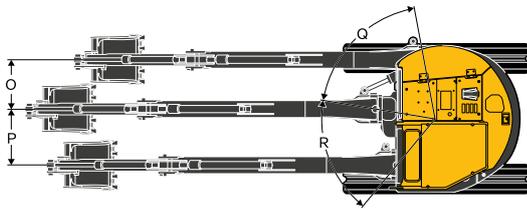
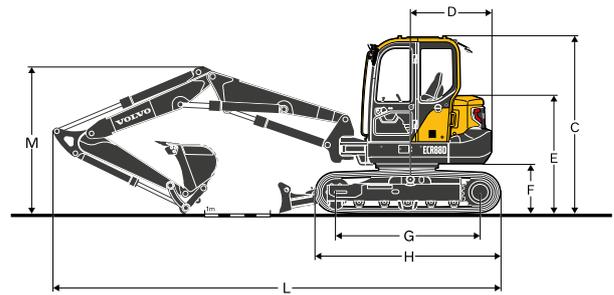
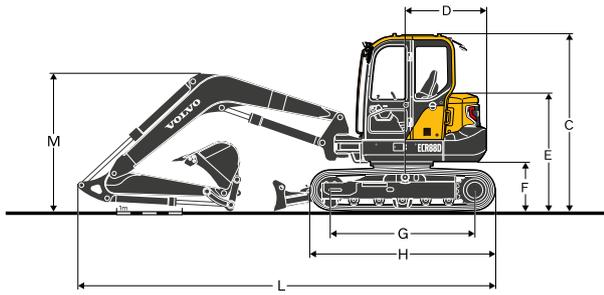
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC

L <sub>WA</sub>	dB	98
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## Buckets

	Width	Weight	Capacity
	mm	kg	l
Direct bucket	300	111	79
	450	139	143
	600	162	200
	750	182	266
	900	205	333
Quick coupler bucket	450	132	143
	600	156	200
	700	171	244
	850	191	310

# Specifications

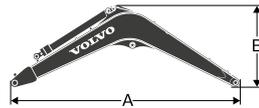


## DIMENSIONS

Machine		ECR88D				
Boom		3.55 (mono)		3.85 (2pcs)		
Arm		1.7	2.1	1.7	2.1	
A	Overall width of upper structure	mm	2 260	2 260	2 260	2 260
B	Overall width	mm	2 300 / 2 450	2 300 / 2 450	2 300 / 2 450	2 300 / 2 450
C	Overall height of cab	mm	2 715	2 715	2 715	2 715
D	Tail swing radius	mm	1 290	1 290	1 320	1 320
E	Overall height of engine hood	mm	1 810	1 810	1 810	1 810
F	Counterweight clearance *	mm	760	760	760	760
G	Tumbler length	mm	2 200	2 200	2 200	2 200
H	Track length	mm	2 830	2 830	2 830	2 830
I	Track gauge	mm	1 850	1 850	1 850	1 850
J	Shoe width	mm	450 / 600	450 / 600	450 / 600	450 / 600
K	Min. ground clearance *	mm	405	405	405	405
L	Overall length	mm	6 370	6 420	6 810	6 860
M	Overall height of boom	mm	2 115	2 230	2 247	2 455
O	Boom swing distance	mm	760	760	756	756
P	Boom swing distance	mm	860	860	863	863
Q	Boom swing angle	°	70		70	
R	Boom swing angle	°	60		60	

\* Without shoe grouser

# Specifications



## Boom and Arm

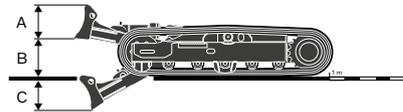
			Boom		Arm	
			3.55 m (mono)	3.85 m (2pcs)	1.7 m	2.1 m
A	Length	mm	3 700	4 030	2 283	2 684
B	Height	mm	1 244	983	518	562
	Width	mm	335	340	305	305
	Weight	kg	530	774	280	340

Boom: Includes cylinder, piping and pin, excludes boom cyl. Pin.

Arm: Includes cylinder, linkage and pin.

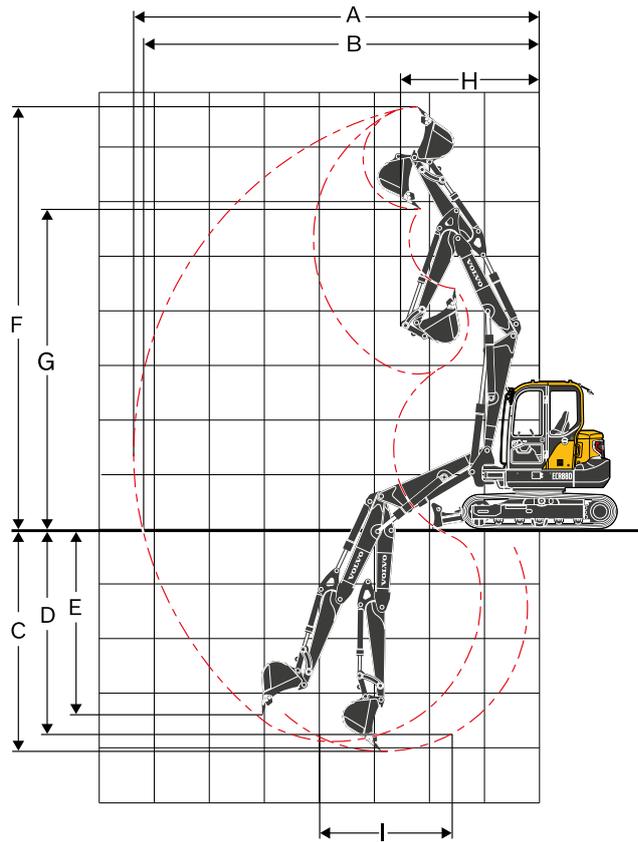
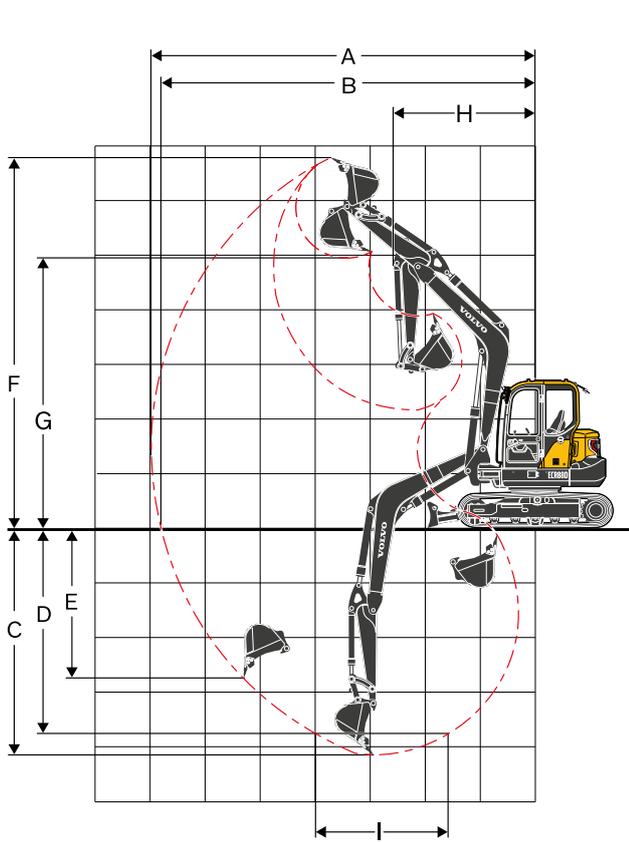
## Dozer blade

A	Height	mm	470
	Width	mm	2 300
B	Lifting height	mm	518
C	Digging depth	mm	433



## MACHINE WEIGHTS AND GROUND PRESSURE

	Shoe width	Operating weight	Ground pressure
	mm	kg	kPa
<b>Mono boom 3.55 m, Arm 1.7 m, Bucket 188 kg (266 l), Counterweight 1 400 / 1 610 kg</b>			
Steel track	450	8 939 / 9 149	40.2 / 41.1
	600	9 108 / 9 318	30.7 / 31.4
Rubber track	450	8 752 / 8 962	39.4 / 40.3
Rubber pad	450	8 988 / 9 198	40.2 / 41.2
<b>Mono boom 3.55 m, Arm 2.1 m, Bucket 188 kg (266 l), Counterweight 1 400 / 1 610 kg</b>			
Steel track	450	8 997 / 9 207	40.5 / 41.4
	600	9 166 / 9 376	30.7 / 31.6
Rubber track	450	8 810 / 9 020	39.6 / 40.6
Rubber pad	450	9 046 / 9 256	40.5 / 41.4
<b>2pcs boom 3.85 m, Arm 1.7 m, Bucket 188 kg (266 l), Counterweight 1 610 kg</b>			
Steel track	450	9 488	42.7
	600	9 656	32.6
Rubber track	450	9 301	41.8
Rubber pad	450	9 537	42.7
<b>2pcs boom 3.85 m, Arm 2.1 m, Bucket 188 kg (266 l), Counterweight 1 610 kg</b>			
Steel track	450	9 546	42.9
	600	9 714	32.8
Rubber track	450	9 359	42.1
Rubber pad	450	9 595	43.0



### WORKING RANGES

Description		Unit	3.55 (mono)		3.85 (2pcs)	
Boom		m				
Arm		m	1.7	2.1	1.7	2.1
A	Max. digging reach	mm	6 970	7 350	7 380	7 790
B	Max. digging reach on ground	mm	6 800	7 180	7 220	7 640
C	Max. digging depth	mm	4 130	4 530	4 090	4 480
D	Max. digging depth (l=2 440mm level)	mm	3 750	4 200	3 790	4 220
E	Max. vertical wall digging depth	mm	2 820	3 200	3 430	3 870
F	Max. cutting height	mm	6 790	7 050	7 720	8 240
G	Max. dumping height	mm	4 960	5 220	5 840	6 380
H	Min. front swing radius	mm	2 560	2 640	2 530	2 700
<b>Digging forces with direct fit bucket</b>						
Breakout force (bucket)	SAE J1179	kN	50.7	50.4	50.7	50.4
	ISO 6015	kN	57.2	56.8	57.2	56.8
Tearout force (arm)	SAE J1179	kN	38.9	33.8	38.9	33.8
	ISO 6015	kN	39.8	34.4	39.8	34.4
Rotation angle, bucket		°	190		190	

# Specifications

## LIFTING CAPACITY ECR88D

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 point	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m		Max. reach		
		Along	Across	Along	Across	mm										
Boom 3.55 m	5.0 m kg							*1 540	*1 540					*1 620	*1 620	4 585
Arm 1.7 m	4.0 m kg							*1 600	*1 600	*1 560	1 450			*1 580	1 290	5 345
Shoe Rubber 450 mm	3.0 m kg					*2 510	*2 510	*1 920	*1 920	*1 660	1 420			*1 550	1 110	5 789
CWT 1400 kg	2.0 m kg					*3 740	2 940	*2 360	1 920	*1 850	1 370	*1 610	1 030	*1 600	1 030	6 003
Dozer blade down	1.0 m kg							*2 720	1 830	*2 030	1 330	*1 650	1 010	*1 650	1 010	6 014
	0.0 m kg							*3 810	2 750	*2 850	1 780	*2 100	1 290	*1 690	1 040	5 825
	-1.0 m kg			*3 570	*3 570	*3 890	2 760	*2 730	1 770	*2 000	1 290			*1 730	1 160	5 410
	-2.0 m kg			*4 870	*4 870	*3 240	2 800	*2 310	1 790					*1 740	1 430	4 695
	-3.0 m kg					*1 930	*1 930							*1 540	*1 540	3 433
Boom 3.55 m	5.0 m kg							*1 540	*1 540					*1 620	1 580	4 585
Arm 1.7 m	4.0 m kg							*1 600	*1 600	*1 560	1 370			1 540	1 220	5 345
Shoe Rubber 450 mm	3.0 m kg					*2 510	*2 510	*1 920	1 910	*1 660	1 340			1 340	1 050	5 789
CWT 1400 kg	2.0 m kg					3 580	2 750	2 310	1 810	1 650	1 290	1 240	970	1 240	970	6 003
Dozer blade up	1.0 m kg							2 220	1 720	1 600	1 250	1 220	950	1 220	950	6 014
	0.0 m kg					3 390	2 580	2 170	1 670	1 570	1 220			1 260	980	5 825
	-1.0 m kg			*3 570	*3 570	3 400	2 580	2 160	1 660	1 560	1 210			1 400	1 090	5 410
	-2.0 m kg			*4 870	*4 870	*3 240	2 620	2 180	1 690					*1 740	1 350	4 695
	-3.0 m kg					*1 930	*1 930							*1 540	*1 540	3 433
Boom 3.55 m	6.0 m kg													*1 520	*1 520	3 965
Arm 2.1 m	5.0 m kg									*1 400	*1 400			*1 330	*1 330	5 095
Shoe Rubber 450 mm	4.0 m kg									*1 360	*1 360			*1 230	1 120	5 776
CWT 1400 kg	3.0 m kg							*1 660	*1 660	*1 490	1 420	*1 410	1 040	*1 210	980	6 184
Dozer blade down	2.0 m kg					*3 190	3 000	*2 120	1 920	*1 700	1 360	*1 490	1 020	*1 250	910	6 382
	1.0 m kg					*3 640	2 770	*2 540	1 810	*1 910	1 310	*1 580	990	*1 330	890	6 393
	0.0 m kg					*3 950	2 690	*2 770	1 750	*2 040	1 260	*1 610	970	*1 490	920	6 217
	-1.0 m kg	*2 670	*2 670	*3 090	*3 090	*4 040	2 680	*2 750	1 720	*2 020	1 250			*1 570	1 000	5 835
	-2.0 m kg	*3 990	*3 990	*4 950	*4 950	*3 540	2 720	*2 470	1 730	*1 750	1 260			*1 600	1 200	5 192
	-3.0 m kg			*3 940	*3 940	*2 550	*2 550	*1 690	*1 690					*1 560	*1 560	4 133
Boom 3.55 m	6.0 m kg													*1 520	*1 520	3 965
Arm 2.1 m	5.0 m kg									*1 400	1 370			*1 330	1 330	5 095
Shoe Rubber 450 mm	4.0 m kg									*1 360	*1 360			*1 230	1 060	5 776
CWT 1400 kg	3.0 m kg							*1 660	*1 660	*1 490	1 340	1 250	980	1 190	930	6 184
Dozer blade up	2.0 m kg					*3 190	2 810	*2 120	1 810	1 640	1 280	1 230	960	1 110	860	6 382
	1.0 m kg					3 410	2 590	2 200	1 710	1 580	1 230	1 200	930	1 090	840	6 393
	0.0 m kg					3 330	2 510	2 130	1 640	1 540	1 190	1 180	910	1 120	860	6 217
	-1.0 m kg	*2 670	*2 670	*3 090	*3 090	3 320	2 510	2 110	1 610	1 520	1 170			1 230	940	5 835
	-2.0 m kg	*3 990	*3 990	*4 950	*4 950	3 350	2 540	2 120	1 620	1 540	1 180			1 460	1 130	5 192
	-3.0 m kg			*3 940	*3 940	*2 550	*2 550	*1 690	*1 690					*1 560	*1 560	4 133
Boom 3.55 m	5.0 m kg							*1 540	*1 540					*1 620	*1 620	4 585
Arm 1.7 m	4.0 m kg							*1 600	*1 600	*1 560	1 530			*1 580	1 360	5 345
Shoe Rubber 450 mm	3.0 m kg					*2 510	*2 510	*1 920	*1 920	*1 660	1 500			*1 550	1 180	5 789
CWT 1610 kg	2.0 m kg					*3 740	3 110	*2 360	2 030	*1 850	1 460	*1 610	1 100	*1 600	1 090	6 003
Dozer blade down	1.0 m kg							*2 720	1 940	*2 030	1 410	*1 650	1 080	*1 650	1 070	6 014
	0.0 m kg							*3 810	2 930	*2 850	1 900	*2 100	1 380	*1 690	1 110	5 825
	-1.0 m kg			*3 570	*3 570	*3 890	2 940	*2 730	1 890	*2 000	1 370			*1 730	1 230	5 410
	-2.0 m kg			*4 870	*4 870	*3 240	2 980	*2 310	1 910					*1 740	1 530	4 695
	-3.0 m kg					*1 930	*1 930							*1 540	*1 540	3 433
Boom 3.55 m	5.0 m kg							*1 540	*1 540					*1 620	*1 620	4 585
Arm 1.7 m	4.0 m kg							*1 600	*1 600	*1 560	1 450			*1 580	1 290	5 345
Shoe Rubber 450 mm	3.0 m kg					*2 510	*2 510	*1 920	*1 920	*1 660	1 420			1 410	1 120	5 789
CWT 1610 kg	2.0 m kg					*3 740	2 920	*2 360	1 920	1 740	1 380	1 320	1 030	1 310	1 030	6 003
Dozer blade up	1.0 m kg							2 340	1 830	1 690	1 330	1 300	1 020	1 290	1 010	6 014
	0.0 m kg					3 580	2 740	2 290	1 780	1 660	1 300			1 340	1 050	5 825
	-1.0 m kg			*3 570	*3 570	3 590	2 750	2 280	1 770	1 650	1 290			1 490	1 160	5 410
	-2.0 m kg			*4 870	*4 870	*3 240	2 790	2 300	1 800					*1 740	1 440	4 695
	-3.0 m kg					*1 930	*1 930							*1 540	*1 540	3 433

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

**LIFTING CAPACITY ECR88D**

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 point	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m		Max. reach		
		Along	Across	Along	Across	mm										
Boom 3.55 m	6.0 m kg													*1 520	*1 520	3 965
Arm 2.1 m	5.0 m kg									*1 400	*1 400			*1 330	*1 330	5 095
Shoe Rubber 450 mm	4.0 m kg									*1 360	*1 360			*1 230	1 190	5 776
CWT 1 610 kg	3.0 m kg							*1 660	*1 660	*1 490	*1 490	*1 410	1 110	*1 210	1 050	6 184
Dozer blade down	2.0 m kg					*3 190	3 170	*2 120	2 040	*1 700	1 450	*1 490	1 080	*1 250	980	6 382
	1.0 m kg					*3 640	2 950	*2 540	1 930	*1 910	1 390	*1 580	1 060	*1 330	960	6 393
	0.0 m kg					*3 950	2 870	*2 770	1 860	*2 040	1 350	*1 610	1 040	*1 490	980	6 217
	-1.0 m kg	*2 670	*2 670	*3 090	*3 090	*4 040	2 860	*2 750	1 840	*2 020	1 330			*1 570	1 070	5 835
	-2.0 m kg	*3 990	*3 990	*4 950	*4 950	*3 540	2 890	*2 470	1 850	*1 750	1 340			*1 600	1 280	5 192
	-3.0 m kg			*3 940	*3 940	*2 550	*2 550	*1 690	*1 690					*1 560	*1 560	4 133
Boom 3.55 m	6.0 m kg													*1 520	*1 520	3 965
Arm 2.1 m	5.0 m kg									*1 400	*1 400			*1 330	*1 330	5 095
Shoe Rubber 450 mm	4.0 m kg									*1 360	*1 360			*1 230	1 130	5 776
CWT 1 610 kg	3.0 m kg							*1 660	*1 660	*1 490	1 420	1 330	1 050	*1 210	990	6 184
Dozer blade up	2.0 m kg					*3 190	2 980	*2 120	1 920	*1 700	1 370	1 300	1 020	*1 180	920	6 382
	1.0 m kg					3 600	2 760	2 330	1 820	1 670	1 310	1 270	990	*1 160	900	6 393
	0.0 m kg					3 520	2 680	2 260	1 750	1 630	1 270	1 250	970	*1 190	930	6 217
	-1.0 m kg	*2 670	*2 670	*3 090	*3 090	3 510	2 670	2 230	1 720	1 610	1 250			1 300	1 010	5 835
	-2.0 m kg	*3 990	*3 990	*4 950	*4 950	*3 540	2 700	2 240	1 740	1 630	1 270			1 550	1 210	5 192
	-3.0 m kg			*3 940	*3 940	*2 550	*2 550	*1 690	*1 690					*1 560	*1 560	4 133
Boom 3.85 m 2-piece	6.0 m kg							*2 070	*2 070					*2 070	*2 070	4 029
Arm 1.7 m	5.0 m kg							*1 880	*1 880	*1 730	1 490			*1 700	1 410	5 142
Shoe Rubber 450 mm	4.0 m kg					*2 540	*2 540	*2 000	*2 000	*1 710	1 490			*1 550	1 120	5 816
CWT 1 610 kg	3.0 m kg							*2 290	2 050	*1 820	1 440	*1 540	1 050	*1 500	980	6 221
Dozer blade down	2.0 m kg							*2 590	1 900	*1 940	1 370	*1 570	1 030	*1 440	910	6 418
	1.0 m kg							*2 710	1 790	*2 000	1 310	*1 560	1 000	*1 380	890	6 428
	0.0 m kg							*2 590	1 740	*1 940	1 270	*1 450	980	*1 300	920	6 254
	-1.0 m kg					*2 840	2 730	*2 260	1 730	*1 710	1 260			*1 190	1 010	5 875
	-2.0 m kg					*2 080	*2 080	*1 700	*1 700	*1 180	*1 180			*970	*970	5 238
Boom 3.85 m 2-piece	6.0 m kg							*2 070	2 040					*2 070	2 010	4 029
Arm 1.7 m	5.0 m kg							*1 880	*1 880	*1 730	1 410			1 680	1 330	5 142
Shoe Rubber 450 mm	4.0 m kg					*2 540	*2 540	*2 000	*2 000	*1 710	1 400			1 360	1 060	5 816
CWT 1 610 kg	3.0 m kg							*2 290	1 930	1 720	1 350	1 280	990	*1 190	920	6 221
Dozer blade up	2.0 m kg							2 300	1 790	1 650	1 290	1 250	960	*1 110	860	6 418
	1.0 m kg							2 190	1 680	1 590	1 230	1 220	930	1 090	840	6 428
	0.0 m kg							2 140	1 630	1 550	1 190	1 200	910	*1 130	860	6 254
	-1.0 m kg					*2 840	2 540	2 130	1 620	1 540	1 180			*1 190	950	5 875
	-2.0 m kg					*2 080	*2 080	*1 700	1 650	*1 180	*1 180			*970	*970	5 238
Boom 3.85 m 2-piece	7.0 m kg													*2 380	*2 380	2 906
Arm 2.1 m	6.0 m kg							*1 760	*1 760					*1 540	*1 540	4 679
Shoe Rubber 450 mm	5.0 m kg							*1 680	*1 680	*1 540	1 520			*1 310	1 190	5 640
CWT 1 610 kg	4.0 m kg							*1 810	*1 810	*1 570	1 500	*1 430	1 070	*1 210	980	6 251
Dozer blade down	3.0 m kg					*2 910	*2 910	*2 090	2 070	*1 690	1 440	*1 450	1 050	*1 180	870	6 625
	2.0 m kg							*2 430	1 920	*1 840	1 360	*1 500	1 010	*1 180	810	6 809
	1.0 m kg							*2 640	1 780	*1 940	1 290	*1 530	970	*1 230	790	6 818
	0.0 m kg					*2 150	*2 150	*2 610	1 700	*1 930	1 240	*1 480	950	*1 180	810	6 656
	-1.0 m kg			*2 060	*2 060	*3 190	2 630	*2 370	1 680	*1 770	1 210	*1 290	940	*1 100	880	6 305
	-2.0 m kg			*3 010	*3 010	*2 480	*2 480	*1 910	1 690	*1 410	1 220			*940	*940	5 726
	-3.0 m kg					*1 420	*1 420	*1 110	*1 110					*610	*610	4 816
Boom 3.85 m 2-piece	7.0 m kg													*2 380	*2 380	2 906
Arm 2.1 m	6.0 m kg							*1 760	*1 760					*1 540	*1 540	4 679
Shoe Rubber 450 mm	5.0 m kg							*1 680	*1 680	*1 540	1 440			*1 310	1 130	5 640
CWT 1 610 kg	4.0 m kg							*1 810	*1 810	*1 570	1 420	1 300	1 010	*1 190	920	6 251
Dozer blade up	3.0 m kg					*2 910	*2 910	*2 090	1 960	*1 690	1 360	1 270	990	1 060	810	6 625
	2.0 m kg							2 320	1 800	1 650	1 280	1 240	950	1 000	760	6 809
	1.0 m kg							2 180	1 670	1 570	1 210	1 200	910	980	740	6 818
	0.0 m kg					*2 150	*2 150	2 100	1 590	1 520	1 160	1 170	880	1 000	760	6 656
	-1.0 m kg			*2 060	*2 060	*3 190	2 450	2 070	1 570	1 500	1 130	1 160	870	1 080	820	6 305
	-2.0 m kg			*3 010	*3 010	*2 480	*2 480	*1 910	1 580	*1 410	1 140			*940	*940	5 726
	-3.0 m kg					*1 420	*1 420	*1 110	*1 110					*610	*610	4 816

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

# Equipment

## STANDARD EQUIPMENT

### Engine

Low-emission Tier 4f / Stage V compliant diesel engine
Standard cooling system
Two-stage air filter
Fuel filter and water separator
Alternator, 70 A
Full auto regeneration
ECO mode

### Electric / Electronic control system

Safe engine start function
Automatic idling system
Halogen working lights:
2ea on Cab front top LH/RH each
Battery, 12 V / 100 Ah
Start motor, 12 V / 2.5 kW
Monitor and keypad
Master electrical disconnect switch

### Frame

1 400kg counterweight
Under cover
Dozer blade

### Undercarriage

Greased and sealed track link
450mm rubber track

### Hydraulic system

Automatic two speed travel motors
Cylinder cushioning
Hydraulic fluid mineral 46

### Cab and interior

Glasses
Cup holder
Storage area
Door locks
Floor mat
Horn
Seat belt, 2 inch retractable
Seat belt alarm
Heater and air-conditioner
Fabric operator seat without heater
Control joystick
Travel pedals and hand levers
Master key
Hour meter (non analog)

### Digging equipment

Boom: 3.55m, Arm: 1.7m
Linkage

### Service

Tool kit-daily maintenance
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### 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 EN474-1 and EN474-5 standards (when equipped)
FOPS Level 2 conforming to ISO3449 standard (when equipped)
ROPS conforming to ISO12117-2 standards
TOPS conforming to ISO12117 and EN 13531 standards
FOG Level 2 conforming to ISO10262 standard and SAE J1356 standard (when equipped)

## OPTIONAL EQUIPMENT

### Electric / Electronic control system

Fuel filler pump: 35 l/min, with automatic shut-off
Auto engine shutdown
LED light
Extra working lights:
1ea on Cab rear
1ea on boom LH
1ea on boom LH (1st boom) for 2-piece boom
Caretrack
Travel alarm
Anti theft, code-lock
Rotating warning beacon

### Frame

Rearview mirror
Rearview Camera
Dozer blade with floating function
1 610kg Heavy counterweight
Wide dozer blade for 600mm shoe

### Undercarriage

450mm, 600mm steel track
450mm rubber pad

### Hydraulic system

Hydraulic piping:
Breaker & shear
- Max. flow: 118 l/min (X1 single)   68 l/min (X1 double)
- Pressure: 21.6 MPa (X1 single)   29.4 MPa (X1 double)
Slope & rotator
- Max. flow: 28 l/min
- Pressure: 14.7 Mpa

### Grapple

Quick coupler
ISO/SAE pilot control pattern change
Hose rupture valve for boom and arm
Overload warning device
Hydraulic oil, ISO VG 32, 68
Hydraulic oil, biodegradable 46
Hydraulic oil, longlife oil 46
Arm cyl Pipe with HRV 2 piece boom

### Cab and interior

Carecab
Canopy
Fabric operator seat with heater
PVC operator seat without heater
PVC operator seat with heater
Fabric operator seat with heater with Air suspension
PVC operator seat with heater with Air suspension
Headrest

Control joystick, X3 proportional
Seat belt, 3 inch retractable
Radio with MP3/AUX
Boom swing pedal
Rain visor
Digital hour meter
Cab mounted FOG (Falling Object Guard)
FOPS (Falling Object Protection Structure)
Sun screen, front/roof
Safety net

### Digging equipment

2-piece boom: 3.85m
Arm: 2.1m

### Service

Tool kit, full scale
Spare parts

## SELECTION OF VOLVO OPTIONAL EQUIPMENT

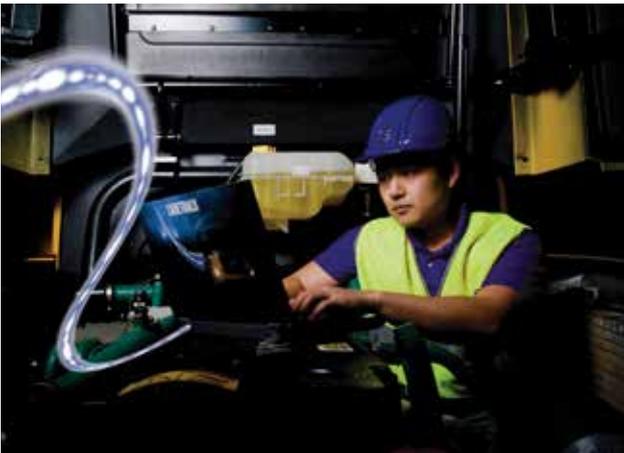
Slope and rotator piping



Dozer float



Caretrack



Fuel filler pump



Digital hour meter



Rearview Camera



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.

**V O L V O**