

VOLVO EXCAVATORS

ECR58D, ECR88D

5.7-9.5 t (12,550 - 20,950 lbs) 49-58 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.

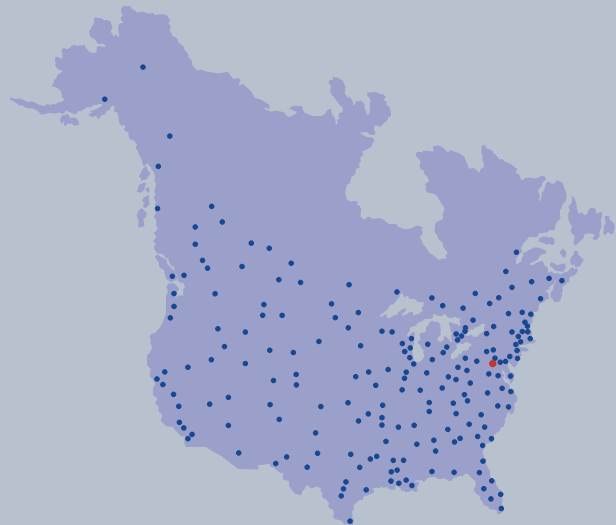
A strong, dedicated, capable dealer network.

Our dealers are strategically located throughout North America to provide the equipment you need and the parts and service support you demand for a productive and profitable operation.

The strength of our dealer network is enhanced with extensive individualized product and product support training at our state-of-the-art Technical Training Center in Asheville and through hands-on training. At our nearby 80-acre Product Demonstration Center, visitors operate equipment from our entire product line under a variety of simulated working conditions. Both facilities are in year-round use by our dealers and customers – more than 2,000 visit each year. **Building the best starts right here.**

The products designed and manufactured by Volvo Construction Equipment have their beginnings at the most advanced Research & Design centers in the industry. Volvo CE machines are designed in 11 R&D centers and produced in 15 manufacturing facilities across the world.

The major R&D center and manufacturing plant in the Americas is located in Shippensburg, Pennsylvania. This facility has been in operation for over 30 years and – with its recently added 200,000 sq. ft. expansion – now covers 570,000 sq. ft. on an 80 acre campus. Dedicated work teams and highly advanced technologies and techniques using the Volvo Production System ensure continuous quality improvements, labor savings and cost control to reach the high quality that our customers have come to expect from Volvo.





Mack Trucks



Volvo Construction Equipment



Volvo Penta



Volvo Trucks



Renault Trucks



UD Trucks



Volvo Buses



Volvo Financial Services

POWERED TO PERFORM.



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.

Volvo proudly introduces the new ECR58D and ECR88D compact short swing radius excavators. Featuring a powerful Volvo engine and perfectly matched hydraulic system, each machine delivers high performance, excellent control and low fuel consumption, whether working in road construction, utilities, landscaping or any other application.



Tier 4f engine

Volvo's premium Tier 4f 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

Change text to: Increased tractive effort through high system pressure delivers impressive performance when dozing or travelling over rough terrain

STABILITY YOU CAN COUNT ON.

If you're looking for the performance of a conventional excavator but need to work in confined areas, the Volvo ECR series has the machine for you. With a "new" wraparound counterweight and "re-designed" heavy duty undercarriage these ECRs have an impressive lift capacity, reducing the requirement for an expensive larger model. Volvo offers customers built-in serviceability with safe and convenient maintenance access for maximum uptime.

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.



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.



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 heavier wraparound 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.

CONTROL IN COMFORT.



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.

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.



Keypad

The majority of switches are integrated in one centralized keypad on the right-hand console. The operator can easily control the I-ECU monitor and audio system for increased comfort.



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 a storage box, side pocket, phone storage, cup holder and a pocket behind the seat.

INFINITE OPPORTUNITIES.



Hydraulic breakers

Volvo's durable hydraulic breakers have been designed for ultimate compatibility with Volvo excavators. The range has been built to break the most demanding materials and combines excellent performance with low noise and vibration levels.

Get the most out of your compact short swing radius excavator and access more segments and applications with Volvo's comprehensive range of attachments – designed to work in perfect harmony with Volvo machines. Increase your versatility, effectively perform a variety of tasks and experience new levels of productivity with the right attachment for your specific requirements.

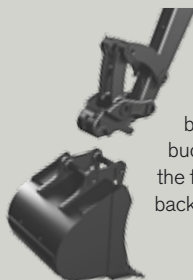
Interfaces

Direct fit



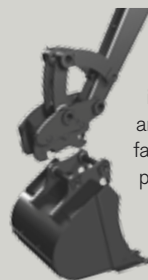
For maximum productivity when only operating in one application, Volvo's direct fit attachments provide the best performance and shortest tip radius.

Volvo mechanical attachment carrier



Volvo's dedicated attachment carrier pick up Volvo hydraulic attachments including breakers, thumbs and buckets for use in both the face shovel and normal backhoe position.

Volvo hydraulic attachment carrier



Volvo's universal pin grabber attachment carrier picks up Volvo hydraulic attachments including breakers, thumbs and buckets for use in both the face shovel and normal backhoe position.

Buckets

General purpose buckets

The perfect tool for trenching and handling in a variety of soil conditions. Available in different widths.



Fixed ditching buckets

Ideal for ditch cleaning, grading, landscaping and backfilling.



Tiltable ditching bucket

This bucket can be tilted 45° to each side making it a flexible and versatile solution for grading, landscaping, ditch cleaning and backfilling.



Volvo hydraulic thumb

Designed to work with both Volvo direct fit buckets and with quick coupler in various materials. Used for piling, placing, loading, lifting and carrying.



Volvo Tooth System and wear parts



General purpose

Self-sharpening, general purpose tooth with good penetration and long service life.



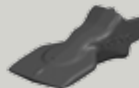
Twin pick

Twin pick point with sharp, dual point profile. Ideal for compact or frozen ground.



Pick point

Intended for use in extremely compact materials.



Spade nose

Designed for finishing work such as leveling, grading, cleaning and backfilling.



Bottom leg adapter

A long (one and a half) bottom leg adapter for welding to both sides of the cutting edge.



Side cutter

Side cutters ensure longer bucket life by protecting the side plates and corner welds.

TAKE A CLOSER LOOK AT THE ECR58D.

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.



Hydraulics

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

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.

Dozer Blade with Float Function

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



**Cab**

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

**Service access**

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

**Volvo engine**

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

**Stability**

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

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

Undercarriage

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

ECR88D – BUILT TO GET THE JOB DONE.

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ECR88D

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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 maximizing uptime.



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.



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 the 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.



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.

VOLVO ECR58D IN DETAIL.

Engine

The new, Tier 4f compliant diesel engine is equipped with four-cylinder, vertical, in-line, turbocharged, air to air intercooler, and water cooled.

Model	Volvo	D2.6H	
Max. power at	r/s / r/min	33.3 / 2,000	
Net (ISO 9249/SAEJ1349)	kW / hp	35 / 47	
Gross (SAE J1995)	kW / hp	36.5 / 49	
Max. torque	Nm/r/min	210/1,300	
	lb.ft/r/min	155/1,300	
No. of cylinders		4	
Displacement	l	2,615	160
	cu.in		
Bore	mm	87	3.43
	in		
Stroke	mm	110	4.33
	in		

Electrical system

Voltage	V	12	
Battery capacity	V / Ah	1 x 12 / 100	
Alternator	V / Ah	12 / 70	
Starter motor output	V / kW	12 / 3	

Hydraulic system

Closed-Center Load-Sensing (CCLS) system with load independent functions.

Main pump: Variable-displacement pump

Maximum flow	l/min	gpm	1 x 126	1 x 33
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Pilot pump: Gear pump

Maximum flow	l/min	gpm	1 x 14	1 x 4
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Relief valve setting

Implement	Mpa	psi	23.5	3,410
Travel circuit	Mpa	psi	23.5	3,410
Swing circuit	Mpa	psi	20.6	2,990
Pilot circuit	Mpa	psi	3.4	500

Swing system

Direct drive swing with radial piston motor-maintenance free type (no reduction gear) and automatic holding brake anti-rebound valve.

Max. swing speed	r/min	9.22		
Max. swing torque	kNm	lb.ft	13.2	9,710

Undercarriage

Robust X-shaped frame with track chains.

Track shoes		2 x 39		
Link pitch	mm	in	135	5.3
Shoe width - steel	mm	in	380/500	15/20
Shoe width - rubber	mm	in	400	16
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 / high)	km/h	mph	2.1 / 4.2	1.3 / 2.6
Max. drawbar pull	kN	lb	49	10,970
Gradeability		°	35	

Service refill capacities

Fuel tank	l	gal	65	17
Hydraulic system, total	l	gal	90	24
Hydraulic tank	l	gal	52	14
Engine oil	l	gal	11.9	3.1
Engine coolant	l	gal	8	2.1
Travel reduction unit	l	gal	2 x 1.6	2 x 0.4

Sound Level

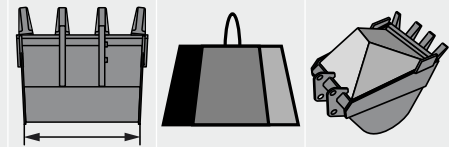
Sound level in cab according to ISO 6396

LpA (standard)	dB(A)	73
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External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC

LpA (standard)	dB(A)	97
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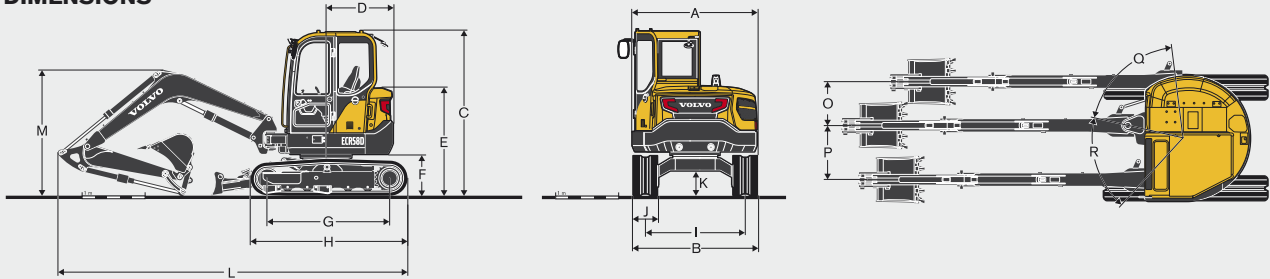
Buckets



	Width		Weight		Capacity	
	mm	in	kg	lb	l	cu.in
Direct bucket	355	14	97	210	70	4,270
	450	18	93	210	99	6,040
	600	24	116	260	144	8,970
	750	30	131	290	190	11,590
	900	35	149	330	235	14,340
Quick coupler bucket	450	18	105	230	99	6,040
	600	24	132	290	144	8,970
	750	30	151	330	190	11,590

SPECIFICATIONS.

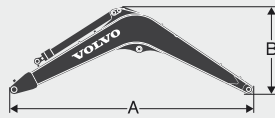
DIMENSIONS



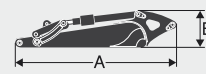
Machine							
Boom		m	ft-in	2.9	9' 6"	2.9	9' 6"
Arm		m	ft-in	1.54	5' 1"	1.94	6' 4"
A	Overall width of upper structure	mm	ft-in	2 000	6' 7"	2 000	6' 7"
B	Overall width	mm	ft-in	2 000	6' 7"	2 000	6' 7"
C	Overall height of cab	mm	ft-in	2 615	8' 7"	2 615	8' 7"
D	Tail swing radius	mm	ft-in	1 060	3' 6"	1 060	3' 6"
E	Overall height of engine hood	mm	ft-in	1 710	5' 7"	1 710	5' 7"
F	Counterweight clearance *	mm	ft-in	670	2' 2"	670	2' 2"
G	Tumbler length	mm	ft-in	1 950	6' 5"	1 950	6' 5"
H	Track length	mm	ft-in	2 495	8' 2"	2 495	8' 2"
I	Track gauge	mm	ft-in	1 600	5' 3"	1 600	5' 3"
J	Shoe width	mm	ft-in	400	1' 4"	400	1' 4"
K	Min. ground clearance *	mm	ft-in	360	1' 2"	360	1' 2"
L	Overall length	mm	ft-in	5 550	18' 3"	5 580	18' 4"
M	Overall height of boom	mm	ft-in	2 000	6' 7"	2 200	7' 2"
O	Boom swing distance	mm	ft-in	695	2' 3"	695	2' 3"
P	Boom swing distance	mm	ft-in	860	2' 10"	860	2' 10"
Q	Boom swing angle	°		70		70	
R	Boom swing angle	°		60		60	

* Without shoe grouser

Boom and Arm



Boom

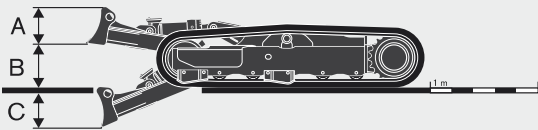


Arm

	m	ft-in	2.9	9' 6"	1.54	5' 1"	1.94	6' 4"
A Length	mm	ft-in	3 008	9' 10"	2 023	6' 8"	2 423	7' 11"
B Height	mm	ft-in	1 024	3' 4"	459	1' 6"	473	1' 7"
Width	mm	ft-in	300	1' 0"	295	1' 0"	295	1' 0"
Weight	kg	lb	300	660	180	400	225	500

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

Arm: Includes cylinder, linkage and pin.



Dozer blade

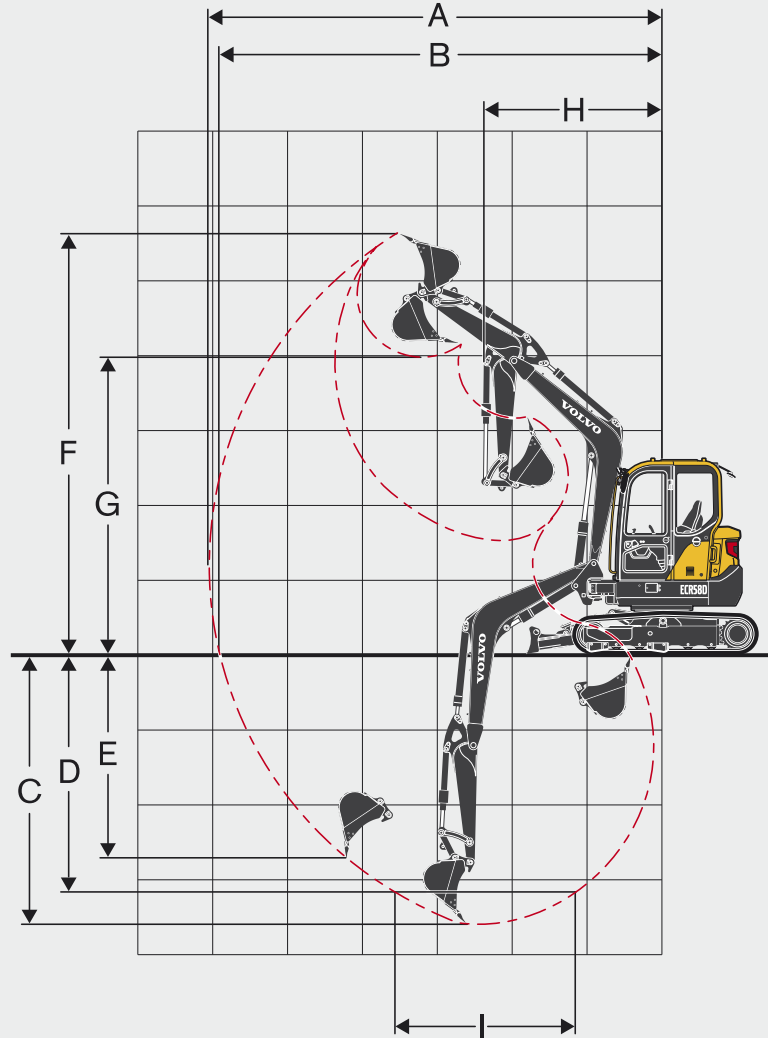
A	Height	mm	ft-in	373	1' 3"
B	Width	mm	ft-in	2 000	6' 7"
C	Lifting height	mm	ft-in	442	1' 5"
C	Digging depth	mm	ft-in	457	1' 6"

MACHINE WEIGHTS AND GROUND PRESSURE

	Shoe width		Operating weight		Ground pressure	
	mm	in	kg	lb	kPa	psi
Mono boom 2.9 m 9' 6", Arm 1.54 m 5' 1", Bucket 129 kg (142 l) 280 lb, Counterweight 580 kg 1,280 lb						
Steel track	380	15	5 940	13,100	35.7	5.2
	500	20	6 040	13,320	27.6	4.0
Rubber track	400	16	5 820	12,830	33.2	4.8
Rubber pad	400	16	5 975	13,170	33.8	4.9
Mono boom 2.9 m 9' 6", Arm 1.94 m 6' 4", Bucket 129 kg (142 l) 280 lb, Counterweight 580 kg 1,280 lb						
Steel track	380	15	6 000	13,230	36.0	5.2
	500	20	6 100	13,450	27.9	4.0
Rubber track	400	16	5 880	12,960	33.6	4.9
Rubber pad	400	16	6 035	13,310	34.1	4.9

ECR58D SPECIFICATIONS.

WORKING RANGES



Description	Unit						
Boom	m	ft-in	2.9	9' 6"	2.9	9' 6"	
Arm	m	ft-in	1.54	5' 1"	1.94	6' 4"	
A Max. digging reach	mm	ft-in	6 000	19' 8"	6 370	20' 11"	
B Max. digging reach on ground	mm	ft-in	5 850	19' 2"	6 230	20' 5"	
C Max. digging depth	mm	ft-in	3 540	11' 7"	3 940	12' 11"	
D Max. digging depth (l=2.44 m / 8' level)	mm	ft-in	3 100	10' 2"	3 550	11' 8"	
E Max. vertical wall digging depth	mm	ft-in	2 310	7' 7"	2 680	8' 10"	
F Max. cutting height	mm	ft-in	5 570	18' 3"	5 810	19' 1"	
G Max. dumping height	mm	ft-in	4 040	13' 3"	4 280	14' 1"	
H Min. front swing radius	mm	ft-in	2 410	7' 11"	2 450	8' 0"	
Digging forces with direct fit bucket							
Breakout force (bucket)	SAE J1179	kN	lb	34.6	7,780	34.6	7,780
	ISO 6015	kN	lb	39.8	8,950	39.8	8,950
Tearout force (arm)	SAE J1179	kN	lb	26.1	5,870	22.1	4,970
	ISO 6015	kN	lb	26.6	5,980	22.5	5,060
Rotation angle, bucket			°	195		195	

LIFTING CAPACITY ECR58D

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, 3.3 ft		2.0 m, 6.6 ft		3.0 m, 9.9 ft		4.0 m, 13.2 ft		5.0 m, 16.5 ft		Max. reach				
	m	ft	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	Max.
Boom 2.9 m, 9' 6" Arm 1.54 m, 5' 1" Shoe 400 mm, 16" CWT 580 kg / 1,280 lb Dozer blade down	4.0		kg	-	-	-	-	-	*1 110	1 000	-	-	*1 130	930	4.2 m		
		13.2	lb	-	-	-	-	-	*2,470	2,190	-	-	*2,500	2,080	13.6 ft		
	3.0		kg	-	-	-	-	-	*1 130	990	-	-	*1 100	720	4.8 m		
		9.9	lb	-	-	-	-	-	*2,490	2,170	-	-	*2,440	1,600	15.7 ft		
	2.0		kg	-	-	-	-	*1 790	1 490	*1 310	950	*1 120	660	*1 110	630	5.1 m	
		6.6	lb	-	-	-	-	*3,900	3,270	*2,880	2,080	*2,470	1,440	*2,460	1,400	16.8 ft	
	1.0		kg	-	-	-	-	*2 320	1 380	*1 520	900	*1 180	640	*1 130	600	5.2 m	
		3.3	lb	-	-	-	-	*5,060	3,020	*3,330	1,970	*2,590	1,400	*2,510	1,330	17.0 ft	
	0.0		kg	-	-	-	-	*2 450	1 330	*1 620	870	*1 170	630	*1 160	620	5.0 m	
		0.0	lb	-	-	-	-	*5,360	2,900	*3,540	1,900	-	-	*2,570	1,380	16.5 ft	
Boom 2.9 m, 9' 6" Arm 1.54 m, 5' 1" Shoe 400 mm, 16" CWT 580 kg / 1,280 lb Dozer blade up	-1.0		kg	*2 460	*2 460	*3 140	2 670	*2 250	1 320	*1 520	860	-	-	*1 180	710	4.6 m	
		-3.3	lb	*5,440	*5,440	*7,000	5,830	*4,930	2,900	*3,310	1,890	-	-	*2,610	1,580	15.0 ft	
	-2.0		kg	-	-	*2 590	2 590	*1 680	1 360	-	-	-	-	*1 140	970	3.8 m	
		-6.6	lb	-	-	*5,650	5,650	*3,660	2,970	-	-	-	-	*2,520	2,170	12.3 ft	
	4.0		kg	-	-	-	-	-	-	*1 110	940	-	-	*1 130	880	4.2 m	
		13.2	lb	-	-	-	-	-	-	*2,470	2,060	-	-	*2,500	1,960	13.6 ft	
	3.0		kg	-	-	-	-	-	-	*1 130	930	-	-	930	680	4.8 m	
		9.9	lb	-	-	-	-	-	-	*2,490	2,040	-	-	2,050	1,500	15.7 ft	
	2.0		kg	-	-	-	-	*1 790	1 400	1 220	890	850	620	820	590	5.1 m	
		6.6	lb	-	-	-	-	*3,900	3,070	2,670	1,950	1,860	1,350	1,810	1,310	16.8 ft	
Boom 2.9 m, 9' 6" Arm 1.94 m, 6' 4" Shoe 400 mm, 16" CWT 580 kg / 1,280 lb Dozer blade down	1.0		kg	-	-	-	-	1 810	1 290	1 170	840	830	600	780	560	5.2 m	
		3.3	lb	-	-	-	-	3,960	2,820	2,560	1,850	1,820	1,310	1,740	1,250	17.0 ft	
	0.0		kg	-	-	-	-	1 760	1 240	1 130	810	820	590	810	580	5.0 m	
		0.0	lb	-	-	-	-	3,840	2,710	2,480	1,780	-	-	1,800	1,290	16.5 ft	
	-1.0		kg	*2 460	*2 460	*3 140	2 460	1 750	1 230	1 130	800	-	-	930	670	4.6 m	
		-3.3	lb	*5,440	*5,440	*7,000	5,380	3,840	2,700	2,470	1,760	-	-	2,060	1,470	15 ft	
	-2.0		kg	-	-	*2 590	2 520	*1 680	1 270	-	-	-	-	*1 140	910	3.8 m	
		-6.6	lb	-	-	*5,650	5,510	*3,660	2,780	-	-	-	-	*2,520	2,030	12.3 ft	
	5.0		kg	-	-	-	-	-	-	-	-	-	-	*1 050	*1 050	3.6 m	
		16.5	lb	-	-	-	-	-	-	-	-	-	-	*2,340	*2,340	11.7 ft	
Boom 2.9 m, 9' 6" Arm 1.94 m, 6' 4" Shoe 400 mm, 16" CWT 580 kg / 1,280 lb Dozer blade up	4.0		kg	-	-	-	-	-	-	*910	*910	-	-	*960	780	4.6 m	
		13.2	lb	-	-	-	-	-	-	*2,030	*2,030	-	-	*2,120	1,730	15.2 ft	
	3.0		kg	-	-	-	-	-	-	*970	*970	*960	680	*910	620	5.2 m	
		9.9	lb	-	-	-	-	-	-	*2,150	*2,150	*2,130	1,480	*2,000	1,380	17.1 ft	
	2.0		kg	-	-	-	-	*1 490	*1 490	*1 170	960	*1 020	660	*910	550	5.5 m	
		6.6	lb	-	-	-	-	*3,260	*3,260	*2,570	2,090	*2,250	1,440	*2,020	1,220	18.0 ft	
	1.0		kg	-	-	-	-	*2 090	1 370	*1 400	890	*1 110	630	*970	530	5.6 m	
		3.3	lb	-	-	-	-	*4,560	3,010	*3,080	1,950	*2,440	1,380	*2,150	1,170	18.3 ft	
	0.0		kg	-	-	*1 500	*1 500	*2 370	1 280	*1 560	840	*1 160	610	*1 040	540	5.4 m	
		0.0	lb	-	-	*3,350	*3,350	*5,190	2,810	*3,410	1,850	*2,550	1,330	*2,290	1,190	17.8 ft	

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.

VOLVO ECR88D IN DETAIL.

Engine

The new, Tier 4f compliant diesel engine is equipped with four-cylinder, vertical, in-line, turbocharged, air to air intercooler, and water cooled.

Model	Volvo	D2.6H	
Max. power at	r/s / r/min	33.3 / 2,000	
Net (ISO 9249/SAEJ1349)	kW / hp	41 / 55	
Gross (SAE J1995)	kW / hp	43 / 58	
Max. torque	Nm/r/min	220/1 300	
	lb. ft/r/min	162/1,300	
No. of cylinders		4	
Displacement	l	cu. in	2,615 160
	mm	in	87 3.43
Stroke	mm	in	110 4.33

Electrical system

Voltage	V	12	
Battery capacity	V / Ah	1 x 12 / 100	
Alternator	V / Ah	12 / 70	
Starter motor output	V / kW	12 / 3	

Hydraulic system

Closed-Center Load-Sensing (CCLS) system with load independent functions.

Main pump: Variable-displacement pump

Maximum flow	l/min	gpm	1 x 169	1 x 45
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Pilot pump: Gear pump

Maximum flow	l/min	gpm	1 x 14	1 x 4
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Relief valve setting

Implement	Mpa	psi	29.4	4,270
Travel circuit	Mpa	psi	29.4	4,270
Swing circuit	Mpa	psi	24.5	3,560
Pilot circuit	Mpa	psi	3.4	500

Swing system

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

Max. swing speed	r/min	9,28	
Max. swing torque	kNm	lb/ft	22.9 16,910

Undercarriage

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

Track shoes	2 x 39		
Link pitch	mm	in	154 6.1
	mm	in	450 / 600 18 / 24
Shoe width - steel	mm	in	450 18
Shoe width - rubber	mm	in	450 18
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 / high)	km/h	mph	2.6 / 4.9	1.6 / 3.0
Max. drawbar pull	kN	lb	65	14,610
Gradeability			° 35	

Service refill capacities

Fuel tank	l	gal	110	29
Hydraulic system, total	l	gal	140	37
Hydraulic tank	l	gal	84	22
Engine oil	l	gal	11.9	3.1
Engine coolant	l	gal	9.3	2.5
Travel reduction unit	l	gal	2 x 1.6	2 x 0.4

Sound Level

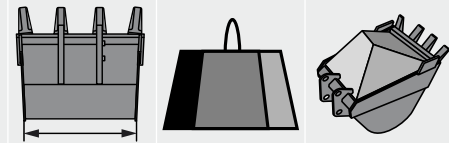
Sound level in cab according to ISO 6396

LpA (standard)	dB(A)	73
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External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC

LpA (standard)	dB(A)	97
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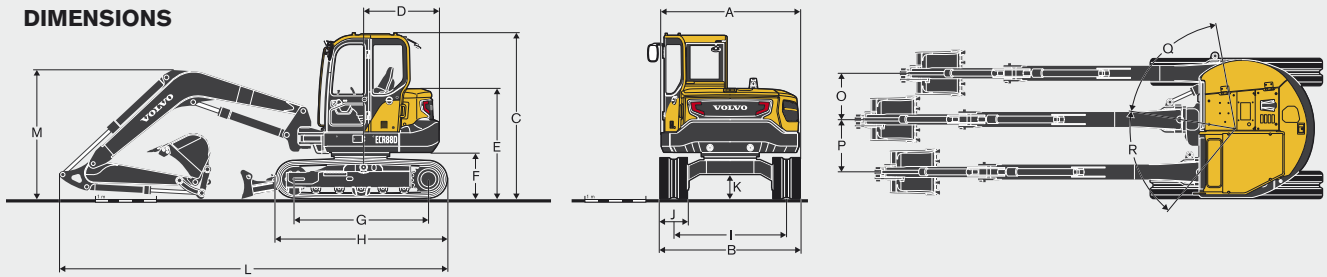
Buckets



	Width		Weight		Capacity	
	mm	in	kg	lb	l	cu. in
Direct bucket	300	12	111	250	79	4,820
	450	18	139	310	143	8,730
	600	24	162	360	200	12,200
	750	30	182	400	266	16,230
	900	35	205	450	333	20,320
Quick coupler bucket	450	18	132	290	143	8,730
	600	24	156	340	200	12,200
	700	28	171	380	244	14,890
	850	33	191	420	310	18,920

SPECIFICATIONS.

DIMENSIONS

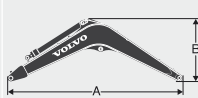


Machine

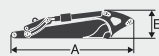
Machine	m	ft-in	3.55	11' 8"	3.55	11' 8"
Boom	m	ft-in	3.55	11' 8"	3.55	11' 8"
Arm	m	ft-in	1.7	5' 7"	2.1	6' 11"
A Overall width of upper structure	mm	ft-in	2 210	7' 3"	2 210	7' 3"
B Overall width	mm	ft-in	2 300	7' 7"	2 300	7' 7"
C Overall height of cab	mm	ft-in	2 715	8' 11"	2 715	8' 11"
D Tail swing radius	mm	ft-in	1 290	4' 3"	1 290	4' 3"
E Overall height of engine hood	mm	ft-in	1 180	3' 10"	1 180	3' 10"
F Counterweight clearance *	mm	ft-in	760	2' 6"	760	2' 6"
G Tumbler length	mm	ft-in	2 200	7' 3"	2 200	7' 3"
H Track length	mm	ft-in	2 830	9' 3"	2 830	9' 3"
I Track gauge	mm	ft-in	1 850	6' 1"	1 850	6' 1"
J Shoe width	mm	ft-in	450	1' 6"	450	1' 6"
K Min. ground clearance *	mm	ft-in	405	1' 4"	405	1' 4"
L Overall length	mm	ft-in	6 370	20' 11"	6 420	21' 1"
M Overall height of boom	mm	ft-in	2 115	6' 11"	2 230	7' 4"
O Boom swing distance	mm	ft-in	760	2' 6"	760	2' 6"
P Boom swing distance	mm	ft-in	860	2' 10"	860	2' 10"
Q Boom swing angle	°			70		70
R Boom swing angle	°			60		60

* Without shoe grouser

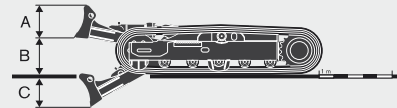
Boom and Arm



Boom



Arm



Dozer blade

	m	ft-in	3.55	11' 8"	1.7	5' 7"	2.1	6' 11"
A Length	mm	ft-in	3 690	12' 1"	2 283	7' 6"	2 684	8' 10"
B Height	mm	ft-in	1 244	4' 1"	518	1' 8"	562	1' 10"
Width	mm	ft-in	335	1' 1"	305	1' 0"	305	1' 0"
Weight	kg	lb	530	1,170	280	620	340	750

A Height	mm	ft-in	470	1' 7"
Width	mm	ft-in	2 300	7' 7"
B Lifting height	mm	ft-in	518	1' 8"
C Digging depth	mm	ft-in	433	1' 5"

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

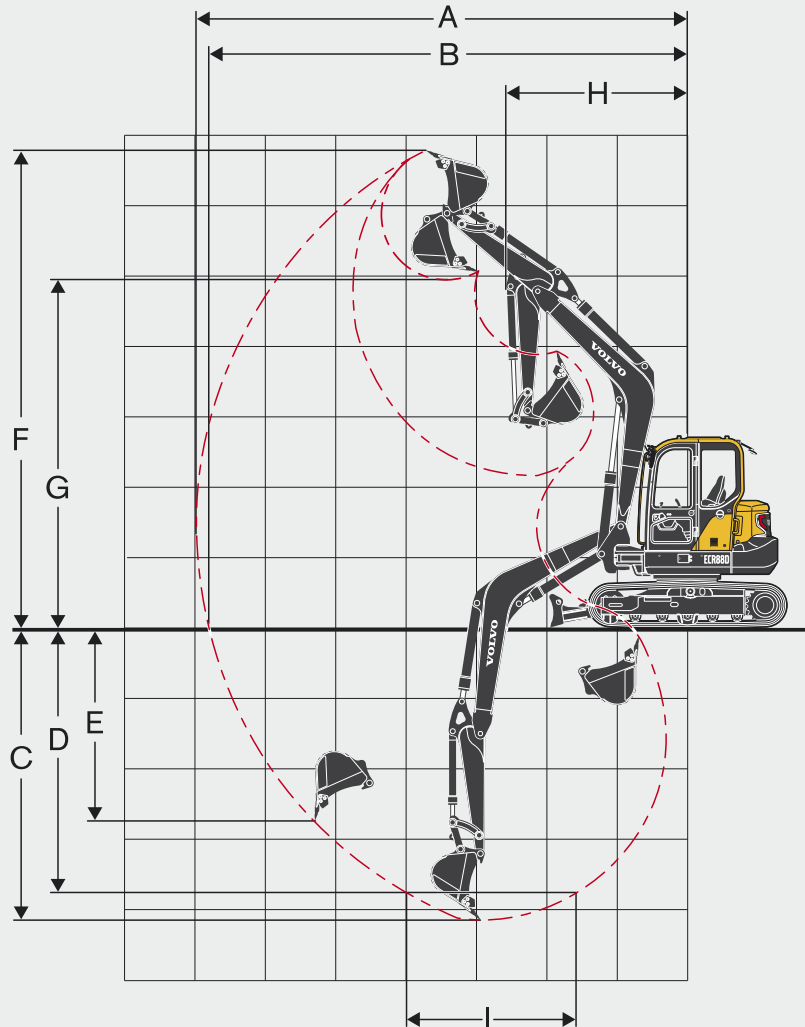
Arm: Includes cylinder, linkage and pin.

MACHINE WEIGHTS AND GROUND PRESSURE

	Shoe width		Operating weight		Ground pressure	
	mm	in	kg	lb	kPa	psi
Mono boom 3.55 m 11' 8", Arm 1.7 m 5' 7", Bucket 188 kg (266 l) 410 lb, Counterweight 1 480 kg 3 260 lb						
Steel track	450	18	9 010	19,860	40.5	5.9
	600	24	9 180	20,240	30.9	4.5
Rubber track	450	18	8 810	19,420	39.6	5.7
Rubber pad	450	18	9 030	19,910	40.4	5.9
Mono boom 3.55 m 11' 8", Arm 2.1 m 6' 11", Bucket 188 kg (266 l) 410 lb, Counterweight 1 480 kg 3,260 lb						
Steel track	450	18	9 090	20,040	40.9	5.9
	600	24	9 260	20,410	31.2	4.5
Rubber track	450	18	8 890	19,600	40.0	5.8
Rubber pad	450	18	9 110	20,080	40.8	5.9

ECR88D SPECIFICATIONS.

WORKING RANGES



Description	Unit						
Boom	m	ft-in	3.55	11' 8"	3.55	11' 8"	
Arm	m	ft-in	1.7	5' 7"	2.1	6' 11"	
A Max. digging reach	mm	ft-in	6 970	22' 10"	7 350	24' 1"	
B Max. digging reach on ground	mm	ft-in	6 800	22' 4"	7 180	23' 7"	
C Max. digging depth	mm	ft-in	4 130	13' 7"	4 530	14' 10"	
D Max. digging depth (l=2.44 m / 8' level)	mm	ft-in	3 750	12' 4"	4 200	13' 9"	
E Max. vertical wall digging depth	mm	ft-in	2 820	9' 3"	3 200	10' 6"	
F Max. cutting height	mm	ft-in	6 790	22' 3"	7 050	23' 2"	
G Max. dumping height	mm	ft-in	4 960	16' 3"	5 220	17' 2"	
H Min. front swing radius	mm	ft-in	2 560	8' 5"	2 640	8' 8"	
Digging forces with direct fit bucket							
Breakout force (bucket)	SAE J1179	kN	lb	50.7	11,400	50.4	11,330
	ISO 6015	kN	lb	57.2	12,860	56.8	12,770
Tearout force (arm)	SAE J1179	kN	lb	38.9	8,740	33.8	7,600
	ISO 6015	kN	lb	39.8	8,950	34.4	7,730
Rotation angle, bucket	°		190		190		

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, 3.3 ft		2.0 m, 6.6 ft		3.0 m, 9.9 ft		4.0 m, 13.2 ft		5.0 m, 16.5 ft		6.0, 19.8 ft		Max. reach				
	m	ft	kg	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Max.	
Boom 3.55 m, 11' 8" Arm 1.7 m, 5' 7" Shoe 450 mm, 18" CWT 1 480 kg / 3,260 lb Dozer blade down	5.0	16.5	kg	-	-	-	-	-	-	*1 520	*1 520	-	-	-	-	*1 600	*1 600	4.6 m	
			lb	-	-	-	-	-	-	*3,380	*3,380	-	-	-	-	*3,550	*3,550	14.9 ft	
	4.0	13.2	kg	-	-	-	-	-	-	*1 580	*1 580	*1 540	1 390	-	-	*1 560	1 230	5.3 m	
			lb	-	-	-	-	-	-	*3,470	*3,470	*3,400	3,050	-	-	*3,450	2,740	17.5 ft	
	3.0	9.9	kg	-	-	-	-	*2 490	*2 490	*1 890	*1 890	*1 640	1 360	-	-	*1 540	1 060	5.8 m	
			lb	-	-	-	-	*5,420	*5,420	*4,150	*4,150	*3,610	2,980	-	-	*3,400	2,340	19.0 ft	
	2.0	6.6	kg	-	-	-	-	*3 700	2 830	*2 330	1 840	*1 830	1 310	*1 590	980	*1 580	980	6.0 m	
			lb	-	-	-	-	*8,040	6,200	*5,100	4,040	*4,010	2,870	-	-	*3,490	2,160	19.7 ft	
	1.0	3.3	kg	-	-	-	-	*3 800	2 640	*2 690	1 750	*2 000	1 260	*1 630	960	*1 620	950	6.0 m	
			lb	-	-	-	-	*8,570	5,760	*6,150	3,720	*4,540	2,700	-	-	*3,680	2,180	19.1 ft	
	0.0	0.0	kg	-	-	-	-	*5,550	*5,550	*5,870	3,830	*4,380	2,770	-	-	*3,580	2,110	19.7 ft	
			lb	-	-	-	-	*12,340	*12,340	*13,030	8,510	*9,850	6,140	-	-	*7,970	4,640	19.7 ft	
Boom 3.55 m, 11' 8" Arm 1.7 m, 5' 7" Shoe 450 mm, 18" CWT 1 480 kg / 3,260 lb Dozer blade up	5.0	16.5	kg	-	-	-	-	-	-	*1 520	*1 520	-	-	-	-	*1 600	*1 600	4.6 m	
			lb	-	-	-	-	-	-	*3,380	*3,380	-	-	-	-	*3,550	*3,550	14.9 ft	
	4.0	13.2	kg	-	-	-	-	-	-	*1 580	*1 580	*1 540	1 320	-	-	*1 470	1 160	5.3 m	
			lb	-	-	-	-	-	-	*3,470	*3,470	*3,400	2,880	-	-	*3,270	2,580	17.5 ft	
	3.0	9.9	kg	-	-	-	-	*2 490	*2 490	*1 890	1 850	*1 630	1 290	-	-	*1 270	1 010	5.8 m	
			lb	-	-	-	-	*5,420	*5,420	*4,150	4,040	*3,560	2,820	-	-	*2,820	2,210	19.0 ft	
	2.0	6.6	kg	-	-	-	-	3 440	2 650	2 210	1 740	*1 580	1 240	1 180	920	*1 180	920	6.0 m	
			lb	-	-	-	-	7,530	5,800	4,850	3,800	*3,450	2,710	-	-	*2,610	2,030	19.7 ft	
	1.0	3.3	kg	-	-	-	-	-	-	2 120	1 640	*1 530	1 190	1 160	900	*1 160	900	6.0 m	
			lb	-	-	-	-	-	-	4,640	3,600	*3,340	2,600	-	-	*2,550	1,980	19.7 ft	
	0.0	0.0	kg	-	-	-	-	3 240	2 460	2 070	1 590	*1 490	1 160	-	-	*1 200	930	5.8 m	
			lb	-	-	-	-	7,080	5,380	4,520	3,490	*3,270	2,530	-	-	*2,650	2,050	19.1 ft	
		lb	-	-	-	-	7,080	5,380	4,520	3,490	*3,270	2,530	-	-	*2,650	2,050	19.1 ft		
Boom 3.55 m, 11' 8" Arm 2.1 m, 6' 11" Shoe 450 mm, 18" CWT 1 480 kg / 3,260 lb Dozer blade down	6.0	19.8	kg	-	-	-	-	-	-	-	-	-	-	-	-	*1 510	*1 510	4.0 m	
			lb	-	-	-	-	-	-	-	-	-	-	-	-	-	*3,350	*3,350	12.8 ft
	5.0	16.5	kg	-	-	-	-	-	-	-	-	*1 380	*1 380	-	-	*1 320	*1 320	5.1 m	
			lb	-	-	-	-	-	-	-	-	*3,080	3,060	-	-	*2,930	*2,930	16.6 ft	
	4.0	13.2	kg	-	-	-	-	-	-	-	-	*1 340	*1 340	-	-	*1 230	*1 070	5.8 m	
			lb	-	-	-	-	-	-	-	-	*2,960	*2,960	-	-	*2,710	*2,380	18.9 ft	
	3.0	9.9	kg	-	-	-	-	-	-	*1 650	*1 650	*1 470	1 370	*1 390	990	*1 210	940	6.2 m	
			lb	-	-	-	-	-	-	*3,610	*3,610	*3,230	2,990	*3,080	2,170	*2,260	2,070	20.3 ft	
	2.0	6.6	kg	-	-	-	-	*3 160	2 900	*2 100	1 850	*1 680	1 310	*1 470	970	*1 240	870	6.4 m	
			lb	-	-	-	-	*6,870	6,350	*4,600	4,060	*3,690	2,860	*3,230	2,120	*2,730	1,920	20.9 ft	
	1.0	3.3	kg	-	-	-	-	*3 630	2 660	*2 520	1 740	*1 890	1 250	*1 560	940	*1 320	850	6.4 m	
			lb	-	-	-	-	*8,000	5,830	*5,500	3,810	*4,130	2,730	*3,410	2,050	*2,920	1,870	21.0 ft	
0.0	0.0	kg	-	-	-	-	*3 940	2 580	*2 730	1 670	*2 010	1 200	*1 590	920	*1 480	870	6.2 m		
		lb	-	-	-	-	*8,770	5,640	*5,980	3,650	*4,410	2,630	*3,470	2,010	*3,270	1,920	20.4 ft		
Boom 3.55 m, 11' 8" Arm 2.1 m, 6' 11" Shoe 450 mm, 18" CWT 1 480 kg / 3,260 lb Dozer blade up	6.0	19.8	kg	-	-	-	-	-	-	-	-	-	-	-	-	*1 510	*1 510	4.0 m	
			lb	-	-	-	-	-	-	-	-	-	-	-	-	-	*3,350	*3,350	12.8 ft
	5.0	16.5	kg	-	-	-	-	-	-	-	-	*1 380	1 330	-	-	*1 320	1 280	5.1 m	
			kg	-	-	-	-	-	-	-	-	*3,080	2,890	-	-	*2,930	2,840	16.6 ft	
	4.0	13.2	kg	-	-	-	-	-	-	-	-	*1 340	1 330	-	-	*1 230	1 010	5.8 m	
			lb	-	-	-	-	-	-	-	-	*2,960	2,900	-	-	*2,710	*2,250	18.9 ft	
	3.0	9.9	kg	-	-	-	-	-	-	*1 650	*1 650	*1 470	1 290	*1 200	930	*1 130	880	6.2 m	
			lb	-	-	-	-	-	-	*3,610	*3,610	*3,230	2,820	*2,620	2,040	*2,150	1,950	20.3 ft	
	2.0	6.6	kg	-	-	-	-	*3 160	2 720	*2 100	1 750	*1 570	1 230	*1 170	910	*1 050	810	6.4 m	
			lb	-	-	-	-	*6,870	5,950	*4,600	3,820	*3,440	2,690	*1,560	1,990	*2,330	*1,800	20.9 ft	
	1.0	3.3	kg	-	-	-	-	3 270	2 480	2 110	1 630	1 510	1 170	1 140	880	*1 030	790	6.4 m	
			lb	-	-	-	-	7,150	5,440	4,610	3,580	*3,300	2,570	*2,500	1,930	*2,280	*1,750	21.0 ft	
0.0	0.0	kg	-	-	-	-	3 180	2 400	2 030	1 560	*1 460	1 130	*1 120	860	*1 060	810	6.2 m		
		lb	-	-	-	-	6,950	5,260	4,450	3,420	*3,210	2,470	*2,450	1,880	*2,350	*1,800	20.4 ft		

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

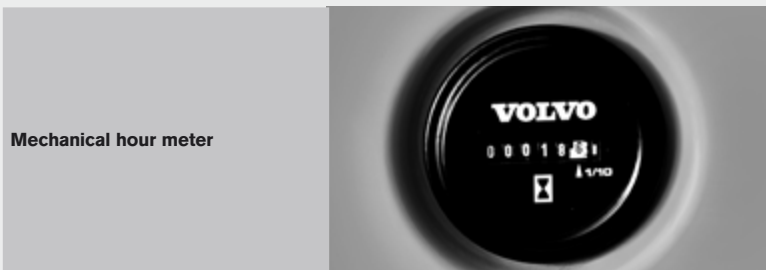
	ECR58D	ECR88D
Engine		
Low-emission Volvo T4f diesel engine	•	•
Standard cooling system	•	•
Two-stage air filter	•	•
Fuel filter and water separator	•	•
Alternator, 70 A	•	•
Electric/Electronic control system		
Safe engine start function	•	•
Automatic idling system	•	•
Halogen working lights;		
Cab-mounted 2 (front)	•	•
Battery, 12 V / 100 Ah	•	•
Start motor, 12 V / 3 kW	•	•
Travel alarm	•	•
Monitor and keypad	•	•
Master electrical disconnect switch	•	•
Hydraulic system		
Automatic two speed travel motors	•	•
Cylinder cushioning	•	•
Hydraulic fluid mineral 46	•	•
Pilot control pattern change	•	•
Single (Hammer) and Double Acting (Thumb) Hydraulics	•	•
X1 Flow Control through I ECU	•	•

	ECR58D	ECR88D
Cab and interior		
Canopy	•	•
PVC operator seat with suspension	•	•
Seat belt, 2 inch retractable	•	•
Control joystick	•	•
Master key	•	•
Hour meter (non analog)	•	•
Frame		
580 kg (1,280 lb) counterweight	•	
1 480 kg (3,260 lb) counterweight		•
Under cover	•	•
Dozer Blade with float function	•	•
Undercarriage		
Track link	•	
Greased and sealed track link		•
400 mm (16") rubber track	•	
450 mm (18") rubber track		•
Digging equipment		
Boom: 2.9 m (9' 6"), Arm: 1.54 m (5' 1")	•	
Boom: 3.55 m (11' 8"), Arm: 1.7 m (5' 7")		•
Linkage	•	•
Service		
Tool kit-daily maintenance	•	•

OPTIONAL EQUIPMENT

	ECR58D	ECR88D
Electric/Electronic control system		
Fuel filler pump: 35 l/min (9 gpm), with automatic shut-off	•	•
Extra working lights;	•	•
Cab-mounted 1 (rear), Boom-mounted 1	•	•
Caretrack	•	•
Air compressor	•	•
Travel alarm	•	•
Anti theft, code-lock	•	•
Rotating warning beacon	•	•
Hydraulic system		
Hydraulic piping:	•	•
Hammer & shear hydraulic piping (max. flow: 70 lpm / 18 gpm, max. pressure: 26.5 Mpa / 3,840 psi)	•	
Hammer & shear hydraulic piping (max. flow: 90 lpm / 24 gpm, max. pressure: 32.4 Mpa / 4,690 psi)		•
Slope & rotator (max. flow: 35 lpm / 9 gpm, max. pressure: 14.7 Mpa / 2,130 psi)	•	•
Grapple	•	•
Attachment carriers	•	•
Hose rupture valve for boom	•	•
Overload warning device	•	•
Hydraulic oil, ISO VG 32, 68	•	•
Hydraulic oil, biodegradable 46	•	•
Hydraulic oil, longlife oil 46	•	•
Cab and interior		
Cab	•	•
Carecab includes CareTrack connection	•	•
Fabric operator seat with suspension	•	•
Heater and air-conditioner	•	•
Control joystick, X3 proportional	•	•
Seat belt, 3 inch retractable	•	•
AM/FM stereo	•	•
AM/FM stereo with CD player and USB input	•	•
Mechanical hour meter	•	•
Cab mounted FOG (Falling Object Guard)	•	•
FOPS (Falling Object Protection Structure)	•	•
Sun screen, front/roof	•	•
Safety net	•	•
Frame		
Rearview mirror	•	•
Undercarriage		
380 mm (15"), 500 mm (20") steel track	•	
450 mm (18"), 600 mm (24") steel track		•
400 mm (16") rubber pad	•	
450 mm (18") rubber pad		•
Digging equipment		
Boom: 3.85 m (12' 8") 2 piece		•
Arm: 1.94 m (6' 4")	•	
Arm: 2.1 m (6' 11")		•
Service		
Tool kit, full scale	•	•
Spare parts	•	•

SELECTION OF VOLVO OPTIONAL EQUIPMENT



VOLVO CONSTRUCTION EQUIPMENT



Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 180 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.

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

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