



Volvo Construction Equipment

# EC15D, EC18D, EC20D

Volvo Compact Excavators 1.54-1.95 t 16.3 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

# Built to last

The EC15D, EC18D and EC20D compact excavators from Volvo are built to deliver superior performance that lasts. These robust, reliable machines are equipped with a tough rear counterweight and casted digging equipment to ensure maximum durability for a long machine life. With fully protected hydraulics and a strong, reinforced dozer blade, these machines are designed to work harder for longer.

## Quality components

Casted swing frame, boom and arm ends allow for excellent stress distribution and enduring performance. Hardened pins and bushings are designed to keep pivot points tight and secure for minimum wear, guaranteeing your machine is ready to work year after year.



## Strong by design

All hoses are routed through the boom, providing full protection. With the EC15D and EC18D, the lifting cylinder is located on top of the boom, ensuring it is protected when digging and when using a breaker. A strong steel casing protects the boom cylinder on the EC20D.



## In-track boom swing

To maintain visibility when working in tight conditions, the natural position is to offset the boom to the left. These machines are designed so that the swing post and cylinder stay within the tracks in this position, avoiding the risk of damage to your machine when working alongside obstacles.

## Reinforced blade

The robust dozer blade is equipped with a reinforced 400HB cutting edge for superior wear resistance. A strong, curved upper lip gives added protection against damage in tough applications. This sturdy structure ensures outstanding performance whether dozing, back filling or using the blade as a stabilizer.



#### High profile rear counterweight

A tough rear counterweight provides excellent wear resistance and shields all vital components. The unique high-profile design is made from a single, strong piece of cast iron that wraps around each side of the machine ensuring outstanding protection.



#### Superior operator environment

The spacious, safe cab or canopy feature superior noise and vibration insulation for increased operator comfort throughout the day. A 12v electrical socket, optional MP3 radio, adjustable ergonomically designed seat and an efficient heating system provide a comfortable working environment. The flat floor allows for easy cleaning of the cab.

# Working made easy

Step inside the spacious cab and experience the benefits of the comfortable and intuitive Volvo operator environment. The modern styling delivers superior all-around visibility from large expanses of glass as well as innovative, ergonomic features including ideally placed controls with no auxiliary pedals, allowing for good floor space.

## Large cab access

Gain easy and safe entry to the cab via a wide door with three contact points. When equipped with a canopy, the machines feature a large, practical handrail.



## Assisted front window opening

The front window is equipped with a gas strut, together with large handles for easy opening, ensuring a comfortable, safe working environment.



## Intuitive fingertip controls

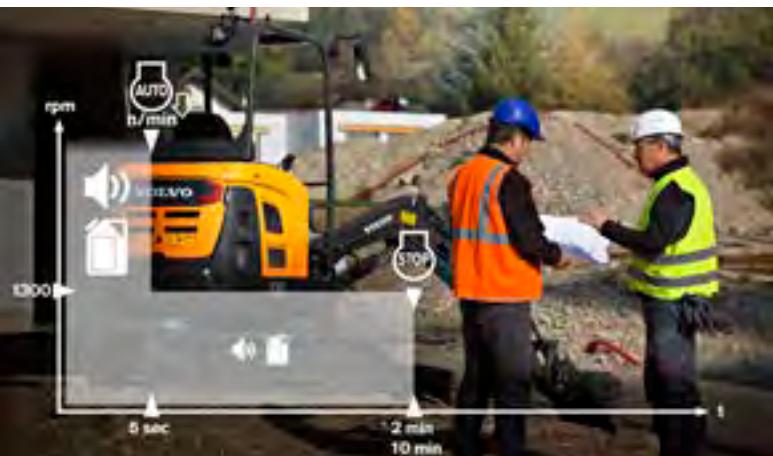
The boom offset and the auxiliary hydraulics are operated by ergonomic fingertip controls, rather than pedals. A single-acting button on the joystick makes it easy to send the maximum flow available to the accessory. This ensures precise control.

# Maintain your uptime

With a comprehensive range of built-in service features, Volvo makes it easy to take care of your machine. Guaranteed long greasing intervals and Volvo's patented hydraulic oil filter maximize your uptime. The auto-idle and auto engine shut down features ensure reduced fuel consumption and servicing requirements, decreasing your total cost of ownership. And, for assured peace of mind, you are fully supported by Volvo's global service network.

## Auto-idle and auto engine shutdown

Engine speed is reduced to idle when the controls are inactive for five seconds – reducing fuel consumption and noise. If the machine is left idling for longer, the engine can be set to automatically shut down. This then stops the hour meter, leading to longer service intervals, lower operating costs and ensuring a better resale value for your machine.



## 50 hour greasing interval

Grease points are easily accessible. With a greasing interval of 50 hours, there is no need to grease during the week. Longer greasing intervals increase uptime, lower maintenance costs and provide longevity for all pivot points.



## Flat windows

The flat, toughened glass used on the four sides of the cab guarantees that replacements can be fitted simply, quickly and inexpensively if damage occurs.



## Patented hydraulic oil filter

With Volvo's patented multifunctional hydraulic oil filter, filtration occurs when the tank is filled or topped up and before the oil returns back via the drain lines. The transparent bowl enables easy oil level checks and permits early detection of contamination. Preventative maintenance can be carried out before damage occurs.



#### Fast daily checks

Daily service points are logically grouped under the wide-opening lockable engine hood to ensure straightforward maintenance and maximized uptime. Quick checks encourage this essential work to be carried out – increasing machine lifetime.





#### **Ultimate lifting capacity**

 Excellent stability and outstanding hydraulics ensure the D-series machines are capable of lifting heavy loads, with up to a 12% increase in lifting capacity compared to previous models.

# Power to perform

Increased lifting capacities and excellent digging forces give you the ability to efficiently handle a variety of demanding jobs. Experience stability and versatility with a variable-width undercarriage, and benefit from superior control thanks to flow sharing hydraulics and automatic two-speed travel system.

## Impressive digging forces

The EC15D, EC18D and EC20D feature class-leading tear-out forces and excellent break-out forces. Thanks to the optimized digging equipment, these powerful compact excavators allow you to stretch further, dig deeper and reach higher.



## Harmonized hydraulics

The state-of-the-art hydraulic system delivers superior performance no matter what the application. The flow sharing system ensures the operator has precise control of simultaneous functions for more efficient operations.



## Variable-width undercarriage

For maximum versatility, the undercarriage can be extended or retracted to suit your needs. A reduced width can be selected when going through narrow spaces. The undercarriage can be extended for more stability and improved performance.

## Automatic travel speed

For optimized travel speed and traction, automatic two speed travel allows the operator to continually drive the machine at high speed. When more traction is needed, the speed is automatically reduced.

# Durable by design

## Quality components

All components are designed to deliver outstanding durability and reliability, to maximise your machine life and lower maintenance costs.

## Auto-idle and auto engine shutdown

Reduce fuel consumption and servicing requirements with auto-idle and auto engine shutdown.

## Ultimate lifting capacity

 Excellent stability and outstanding hydraulics ensure the machines are capable of lifting heavy loads.

## 50 hour greasing interval

The greasing interval is 50 hours – therefore there is no need to re-grease between jobs.



## Superior operator environment

Ergonomic, spacious and safe Volvo cab/canopy features all-round visibility, intuitive controls and built-in comfort.



## Intuitive fingertip controls

The boom offset and the auxiliary hydraulics are operated by ergonomic fingertip controls, rather than pedals.



#### In-track boom swing

The swing post and cylinder stay within the tracks when in an offset position, avoiding the risk of damage to your machine when working alongside obstacles.



#### High profile rear counterweight

A robust, high-profile cast iron rear counterweight provides excellent resistance for outstanding durability.

#### Harmonized hydraulics

Flow sharing hydraulics ensure smooth, precise control of simultaneous functions for more efficient operations.



#### Fast daily checks

Daily service points are grouped under the wide-opening lockable engine hood to ensure straightforward maintenance and maximized uptime.

#### Variable-width undercarriage

For maximum versatility, the undercarriage can be extended for maximum stability or retracted during transport.



#### Wide range of attachments

A wide range of Volvo attachments make the EC15D, EC18D and EC20D ready to tackle any job.



#### Wide range of attachments

The range of Volvo attachments makes the D-series the perfect fit for your job. For maximum flexibility, choose from a variety of bucket sizes with Volvo bolted teeth and transport hook as standard. Fixed and tiltable ditching buckets are also available. A range of Volvo breakers are also available, delivering powerful impact energy and low noise levels. All attachments are fully supported by Volvo CE after sales services.

# Ultimate versatility for any job

These machines have been developed to work in harmony with a range of quality Volvo attachments, making them a versatile addition to your fleet. Volvo quick couplers allow you to switch between attachments with ease for ultimate flexibility, ready to tackle any job, at any site.

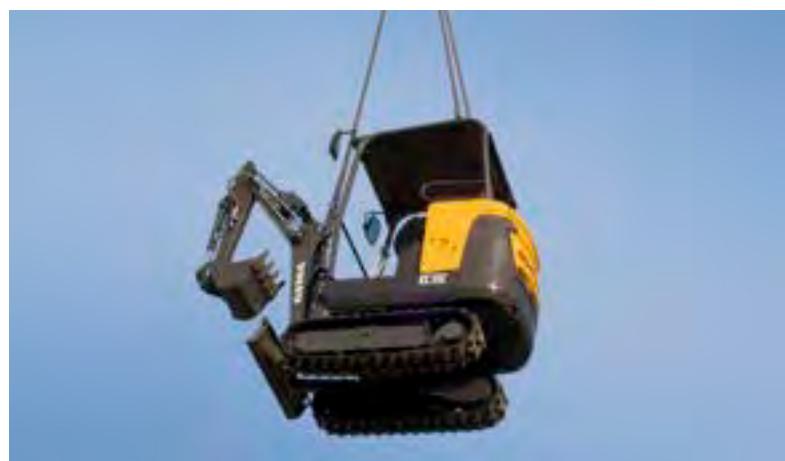
## Smart bucket transport system

Volvo's simple and effective bucket transportation system enables buckets to be transported safely and easily. Transportation hooks are integrated into the bucket design, allowing it to carry up to two general buckets by attaching them onto a ditching bucket, and securing them against the blade at the end of the working day.



## Volvo quick coupler

Volvo's dedicated quick coupler makes attachment changes easy. Pick up Volvo hydraulic attachments including breakers and buckets for use in both the face shovel and normal backhoe position.



## Adjustable hydraulic flows

Easily adjust auxiliary hydraulic flows from inside the cab and benefit from the optimal speed and power for attachment operation. Flows can be independently adjusted in each direction.

## Safe transportation

Whether you are lifting your machine into a demolition site or transporting it on a trailer, you can safely get where you need to be with dedicated lifting points and an automatic swing brake for easy transportation.

# Volvo EC15D, EC18D, EC20D in detail

Engine		EC15D, EC18D, EC20D			Hydraulic system		EC15D	EC18D		EC20D		
Engine	Volvo	D0.9A					Gear pump	Gear pump	Piston pump	Piston pump		
Rated speed	r/s (r/min)	40.3 (2 420)										
Maximum Gross power, ISO 14396/SAE J1995	kW / hp	12 / 16.3					Maximum system flow	l/min	34	48		
Max torque at	Nm / r/min	51 / 2 000					Maximum flow for accessories	l/min	30	43		
No. of cylinders		3					Maximum flow for 2nd accessory circuit (option)	l/min	-	19		
Displacement	cm <sup>3</sup>	898					Maximum operating pressure	Mpa	17	17		
Bore	mm	72						bar	170	170		
Stroke	mm	73.6							170	210		
Compression ratio		24										
Electrical system		EC15D, EC18D, EC20D					EC15D	EC18D		EC20D		
Rated voltage	V	12					Drive	EC15D	EC18D			
Batteries	V	1 x 12					Max. drawbar pull	daN	1 160	1 160		
Battery capacity	Ah	64					Max. travel speed (low / high)	km/h	1.9	1.9 / 3.7		
Alternator	V / Ah	12 / 40					2.5 / 4.7	2.5 / 4.7				
Swing system		EC15D	EC18D	EC20D			Gradeability	deg	30	30		
Max. slew speed	r/min	9.5	9.5	9.5					30	30		
Max. slew torque	daN.m	243	243	304								
Undercarriage		EC15D	EC18D	EC20D			Service refill capacities					
Bottom/top rollers per side		3 / 0	3 / 0	4 / 0			Fuel tank	l	EC15D, EC18D, EC20D			
Track tension		by grease piston					Hydraulic system, total	l	20			
Blade (width x height)	mm	980x 238	1 336x 248	1 356x 248			Hydraulic tank	l	21			
Digging performances		EC15D	EC18D	EC20D			Engine oil	l	15			
Standard bucket width (blade, W/O side cutter)	mm	450	450	500			Engine coolant	l	3.7			
Standard bucket mass	kg	33	33	48			Travel reduction unit	l	4			
Standard bucket rated capacity	l	36	36	63					2 x 0.33			
Bucket rotation	deg	196	196	199	Sound Level							
Bucket breakout force (ISO)	daN	1 510	1 510	1 827	Interior sound level according to ISO 6396 (LpA)							
Short arm tearout force (ISO)	daN	850	850	1 229	External sound level according to ISO 6395 and EU Noise Directive (2000/14/EC) and 474-1:2006 +A1:2009 (LwA)							
Long arm tearout force (ISO)	daN	750	750	1 033	dB(A)							
Weight and ground pressure		EC15D	EC18D	EC20D	EC15D, EC18D, EC20D							
Operating weight according to ISO 6016	kg	1 640	1 770	1 950								
Ground pressure	kg/cm <sup>2</sup> kPa	0.27 26.4	0.31 30.4	0.31 30.4								
Transport weight (Heated cab, rubber tracks, short arm, standard direct-fit bucket, full fuel tank capacity)	kg	1 565	1 695	1 875	Type	Width	Capacity	Weight	Capacity	Weight		
With canopy	kg	-78	-78	-78	General purpose buckets	200	14	21	-	-		
With extra counterweight	kg	+38	+38	+38		250	19	23	28	32		
With long arm	kg	+4	+4	+4		300	23	26	32	34		
				400	32	31	47	41				
				450	36	33	-	-				
				500	41	36	63	48				
					600	51	41	78	53			
					800	59	49	-	-			
					1 000	76	56	76	57			
					2 X 45° Tiltable-ditching buckets	850	59	83	59	83		
EC15D, EC18D, EC20D						EC15D, EC18D, EC20D						
						Operating weight		Tool Ø	Impact rate			
								kg	mm	bpm		
						Hydraulic breaker HB02LN		129	57	450 - 1 000		

# Specifications

## LIFTING CAPACITY EC15D

These capacities are given for a machine equipped with heated cab, rubber tracks and without a bucket or quick-coupler.

The handling capacity is 75% of the tipping load or 87% of the hydraulic limit.

Caution : In accordance with standard EN 474-5, the machine must be equipped with safety valves and an overload indicator (available as options) to carry out handling operations.

	Lifting point height (B)	Lifting point radius (A)						Max.	
		2.0 m		3.0 m		Max reach			
Arm: 950mm + Dozer blade up	2 m kg	-	-	-	-	-	-	-	
	1 m kg	372	327	212	188	182	161	3.33	
	0 m kg	346	303	204	180	181	160	3.29	
	-1 m kg	347	303	-	-	223	197	2.82	
Arm: 950mm + Dozer blade down	2 m kg	-	-	-	-	-	-	-	
	1 m kg	447*	327	292*	188	262*	161	3.33	
	0 m kg	542*	303	294*	180	246*	160	3.29	
	-1 m kg	422*	303	-	-	238*	197	2.82	
Arm: 950mm + Dozer blade up + Additional counterweight	2 m kg	-	-	-	-	-	-	-	
	1 m kg	399	353	228	203	197	175	3.33	
	0 m kg	374	328	221	196	196	174	3.29	
	-1 m kg	375	329	-	-	238*	214	2.82	
Arm: 950mm + Dozer blade down + Additional counterweight	2 m kg	-	-	-	-	-	-	-	
	1 m kg	447*	353	292*	203	262*	175	3.33	
	0 m kg	542*	328	294*	196	246*	174	3.29	
	-1 m kg	422*	329	-	-	238*	214	2.82	
Arm: 1 150mm + Dozer blade up	2 m kg	-	-	225	194	205	177	3.17	
	1 m kg	372*	332	218	188	173	148	3.52	
	0 m kg	357	302	209	179	171	147	3.48	
	-1 m kg	353	298	208	178	204	174	3.05	
Arm: 1 150mm + Dozer blade down	2 m kg	-	-	241*	194	248*	177	3.17	
	1 m kg	372*	332	275*	188	240*	148	3.52	
	0 m kg	547*	302	296*	179	228*	147	3.48	
	-1 m kg	451*	298	232*	178	221*	174	3.05	
Arm: 1 150mm + Dozer blade up + Additional counterweight	2 m kg	-	-	241*	210	221*	192	3.17	
	1 m kg	372*	357	235	204	187	161	3.52	
	0 m kg	384	327	226	194	185	160	3.48	
	-1 m kg	381	324	225	193	220	190	3.05	
Arm: 1 150mm + Dozer blade down + Additional counterweight	2 m kg	-	-	241*	210	248*	192	3.17	
	1 m kg	372*	357	275*	204	240*	161	3.52	
	0 m kg	547*	327	296*	194	228*	160	3.48	
	-1 m kg	451*	324	232*	193	221*	190	3.05	

\*hydraulic limit

# Specifications

## LIFTING CAPACITY EC18D

These capacities are given for a machine equipped with heated cab, rubber tracks and without a bucket or quick-coupler.

The handling capacity is 75% of the tipping load or 87% of the hydraulic limit.

Caution : In accordance with standard EN 474-5, the machine must be equipped with safety valves and an overload indicator (available as options) to carry out handling operations.

Lifting point height (B)	Lifting point radius (A)						Max.	
	2.0 m		3.0 m		Max reach			
2 m kg	-	-	-	-	-	-	-	
Arm: 950mm + Dozer blade up	396	447*	236	292*	195	262*	3.33 m	
1 m kg	371	542*	218	294*	194	246*	3.29 m	
0 m kg	372	422*	-	-	238*	238*	2.82 m	
2 m kg	-	-	-	-	-	-	-	
Arm: 950mm + Dozer blade down	447*	447*	292*	292*	262*	262*	3.33 m	
1 m kg	542*	542*	294*	294*	246*	246*	3.29 m	
0 m kg	422*	422*	-	-	238*	238*	2.82 m	
2 m kg	-	-	-	-	-	-	-	
Arm: 950mm + Dozer blade up + Additional counterweight	424	447*	243	292*	210	262*	3.33 m	
1 m kg	399	542*	235	294*	209	246*	3.29 m	
0 m kg	400	422*	-	-	238*	238*	2.82 m	
2 m kg	-	-	-	-	-	-	-	
Arm: 950mm + Dozer blade down + Additional counterweight	447*	447*	292*	292*	262*	262*	3.33 m	
1 m kg	542*	542*	294*	294*	246*	246*	3.29 m	
0 m kg	422*	422*	-	-	238*	238*	2.82 m	
2 m kg	-	-	233	241*	213	248*	3.17 m	
Arm: 1 150mm + Dozer blade up	372*	372*	226	275*	179	240*	3.52 m	
1 m kg	370	547*	217	296*	178	228*	3.48 m	
0 m kg	366	451*	216	232*	212	221*	3.05 m	
2 m kg	-	-	241*	241*	248*	248*	3.17 m	
Arm: 1 150mm + Dozer blade down	372*	372*	275*	275*	240*	240*	3.52 m	
1 m kg	547*	547*	296*	296*	228*	228*	3.48 m	
0 m kg	451*	451*	232*	232*	221*	221*	3.05 m	
2 m kg	-	-	241*	241*	229	248*	3.17 m	
Arm: 1 150mm + Dozer blade up + Additional counterweight	372*	372*	243	275*	193	240*	3.52 m	
1 m kg	398	547*	234	296*	192	228*	3.48 m	
0 m kg	394	451*	232*	232*	221*	221*	3.05 m	
2 m kg	-	-	241*	241*	248*	248*	3.1 m	
Arm: 1 150mm + Dozer blade down + Additional counterweight	372*	372*	275*	275*	240*	240*	3.52 m	
1 m kg	547*	547*	296*	296*	228*	228*	3.48 m	
0 m kg	451*	451*	232*	232*	221*	221*	3.05 m	

\*hydraulic limit

## LIFTING CAPACITY EC20D

These capacities are given for a machine equipped with heated cab, rubber tracks and without a bucket or quick-coupler.

The handling capacity is 75% of the tipping load or 87% of the hydraulic limit.

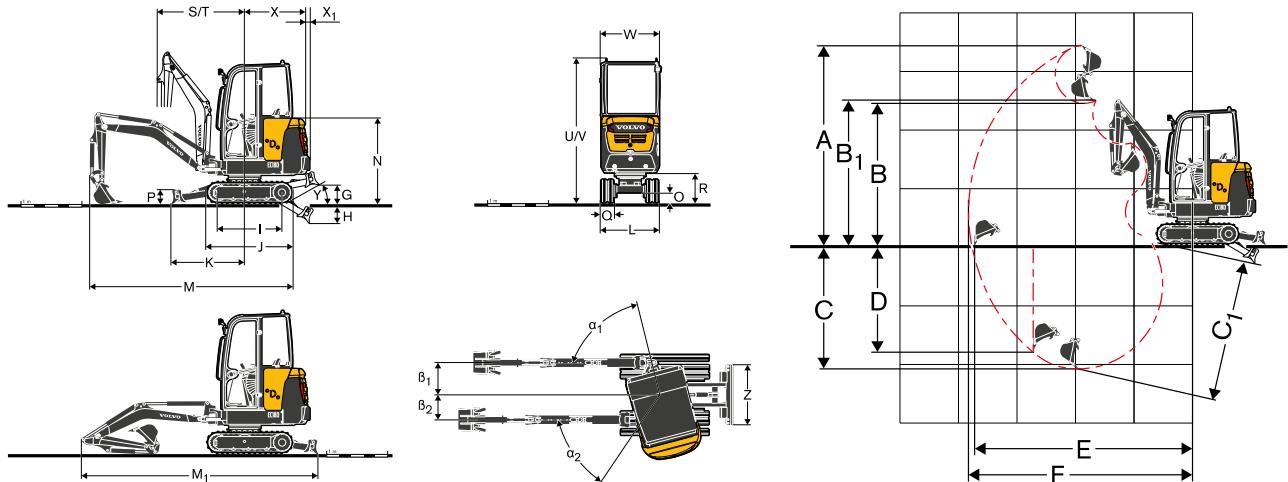
Caution : In accordance with standard EN 474-5, the machine must be equipped with safety valves and an overload indicator (available as options) to carry out handling operations.

Lifting point height (B)	Lifting point radius (A)						Max.	
	2.0 m		3.0 m		Max reach			
Arm: 1 050mm + Dozer blade up	2 m kg	-	-	295	330	259	289	3.25 m
	1 m kg	506	567	281	316	225	253	3.48 m
	0 m kg	475	536	270	304	232	262	3.35 m
	-1 m kg	479	540	-	-	302	340	2.79 m
Arm: 1 050mm + Dozer blade down	2 m kg	-	-	399*	330	407*	289	3.25 m
	1 m kg	776*	567	476*	316	431*	253	3.48 m
	0 m kg	965*	536	542*	304	468*	262	3.35 m
	-1 m kg	851*	540	-	-	514*	340	2.79 m
Arm: 1 350mm + Dozer blade up	2 m kg	-	-	298	332	223	250	3.55 m
	1 m kg	517	578	281	315	197	222	3.76 m
	0 m kg	471	532	265	299	201	227	3.64 m
	-1 m kg	466	527	262	297	247	279	3.15 m
Arm: 1 350mm + Dozer blade down	2 m kg	-	-	334*	332	354*	250	3.55 m
	1 m kg	648*	578	427*	315	379*	222	3.76 m
	0 m kg	931*	532	520*	299	413*	227	3.64 m
	-1 m kg	910*	527	503*	297	459*	279	3.15 m

\*hydraulic limit

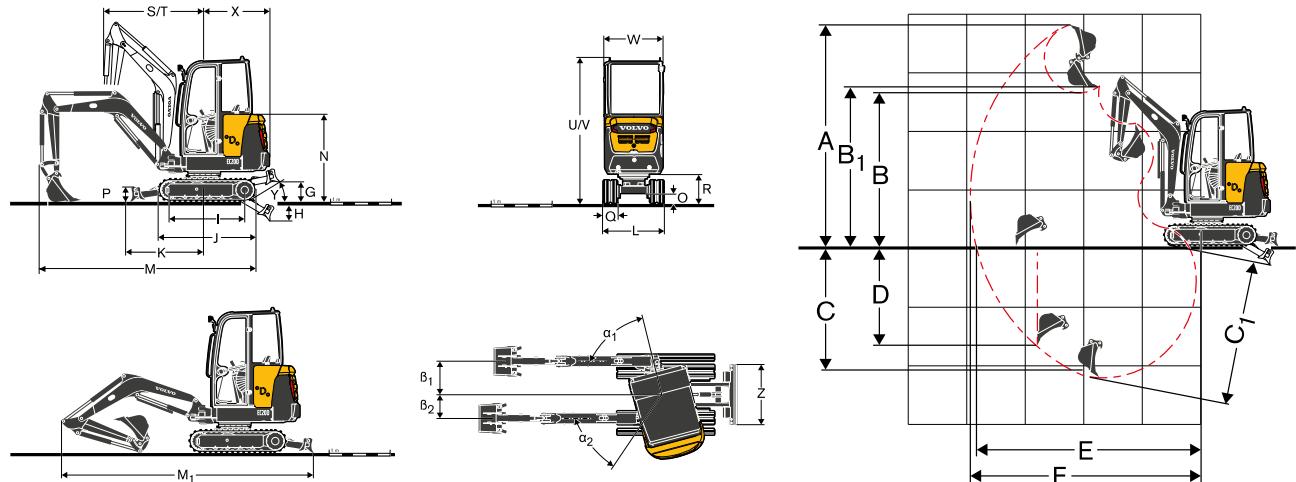
# Specifications

## DIMENSIONS EC15D - EC18D



Description	Unit	EC15D		EC18D	
		mm	950	1 150	mm
<b>Arm</b>					
A Maximum cutting height	mm	3 437	3 580	3 460	3 603
B Maximum dumping height	mm	2 439	2 582	2 462	2 605
B <sub>1</sub> Maximum bucket clearance	mm	2 475	2 620	2 498	2 642
C Digging depth	mm	2 120	2 323	2 097	2 297
C <sub>1</sub> Maximum digging depth	mm	2 354	2 565	2 387	2 582
D Maximum vertical wall digging depth	mm	1 793	1 985	1 772	1 961
E Maximum digging reach at ground level	mm	3 803	3 996	3 799	3 992
F Maximum digging reach	mm	3 856	4 046	3 856	4 046
G Highest position dozer blade	short blade mm	209		245	
	long blade mm	321		326	
H Lowest position dozer blade	short blade mm	190		227	
	long blade mm	294		311	
I Tumbler length	mm	1 082		1 082	
J Track length	mm	1 462		1 462	
K Dozer blade, maximum reach at ground level	short blade mm	857		976	
	long blade mm	1 166		1 215	
L Overall track width	min mm	980		994	
	max mm	-		1 336	
M Overall length	mm	3 580		3 591	
M <sub>1</sub> Transport length	mm	3 770	3 780	3 770	3 780
N Overall height of engine hood	mm	1 400		1 423	
O Minimum ground clearance	mm	210		159	
P Dozer blade height	short blade mm	238		238	
	long blade mm	241		248	
Q Shoe width	mm	230		230	
R Ground clearance to superstructure	mm	458		481	
S Front slew radius	mm	1 452		1 452	
T Front slew radius with maximum offset	mm	1 147		1 147	
U Overall height (canopy)	mm	2 296		2 318	
V Overall height (cab)	mm	2 371		2 395	
W Overall width of superstructure	mm	993		993	
X Tail slew radius	mm	1 052		1 052	
X <sub>1</sub> Tail slew radius with additional counterweight	mm	38		38	
Y Angle of approach	short blade deg	28		26	
	long blade deg	25		24	
Z Dozer blade width	min mm	980		994	
	max mm	-		1 336	
$\alpha_1$ Maximum boom swing angle to the left	deg	75		75	
$\beta_1$ Maximum boom offset to the right	mm	527		527	
$\alpha_2$ Maximum boom swing angle to the right	deg	55		55	
$\beta_2$ Maximum boom offset to the left	mm	412		412	

## DIMENSIONS EC20D



Description	Unit	EC20D	
Arm	mm	1 050	1 350
A Maximum cutting height	mm	3 807	3 982
B Maximum dumping height	mm	2 635	2 810
B <sub>1</sub> Maximum bucket clearance	mm	2 746	2 920
C Digging depth	mm	2 257	2 557
C <sub>1</sub> Maximum digging depth	mm	2 482	2 781
D Maximum vertical wall digging depth	mm	1 692	1 978
E Maximum digging reach at ground level	mm	3 971	4 261
F Maximum digging reach	mm	4 080	4 362
G Highest position dozer blade	mm	326	
H Lowest position dozer blade	mm	311	
I Tumbler length	mm	1 240	
J Track length	mm	1 620	
K Dozer blade, maximum reach at ground level	mm	1 215	
L Overall track width	min mm max mm	1 014 1 356	
M Overall length	mm	3 746	
M <sub>1</sub> Transport length	mm	2 850	2 880
N Overall height of engine hood	mm	1 423	
O Minimum ground clearance	mm	159	
P Dozer blade height	mm	248	
Q Shoe width	mm	250	
R Ground clearance to superstructure	mm	481	
S Front slew radius	mm	1 683	
T Front slew radius with maximum offset	mm	1 383	
U Overall height (canopy)	mm	2 318	
V Overall height (cab)	mm	2 395	
W Overall width of superstructure	mm	993	
X Tail slew radius	mm	1 090	
Y Angle of approach	deg	28	
Z Dozer blade width	min mm max mm	1 014 1 356	
α <sub>1</sub> Maximum boom swing angle to the left	deg	75	
β <sub>1</sub> Maximum boom offset to the right	mm	547	
α <sub>2</sub> Maximum boom swing angle to the right	deg	55	
β <sub>2</sub> Maximum boom offset to the left	mm	392	

# Equipment

## STANDARD EQUIPMENT

### Engine

Low emission, water-cooled, Volvo 3-cylinder diesel engine, meeting EPA Tier 4 environmental regulations

Starter motor protected against ignition when engine is already running

Dry-type single element air filter

Water separator

Translucent fuel filter

### Electric/Electronic control system

Maintenance free battery

IP67 protected electrical system and high quality connectors

Removable breaker switch

Two working lights on cab version

Working light on the canopy frame

12V power socket in cab / canopy

### Hydraulic system

Flow-sharing main control valve

Boom cylinder cushioning at end stroke (up)

Patented filtering and filling element

Large tiltable oil cooler

Double-acting hydraulic circuit for accessories

On digging unit, the hydraulic hoses are routed inside the boom for increased protection

Plastic tank with drain plug

### Swing system

Radial piston hydraulic motor with integrated shockless valve

Automatic multi-disc spring applied hydraulic released slew brake

Centralized and remote lubrication of crown wheel & ball bearing

### Drivetrain

Axial piston hydraulic motors equipped with an epicyclic reduction gears

Inner flange bottom rollers lubricated for life

Grease tensioning wheel lubricated for life

### Undercarriage and dozer blade

Box welded fabricated frame

4 Integrated tie-down points

Sturdy removable protecting covers for track motors and slew system

Weld-on edge on dozer blade

### Digging Equipment

Monobloc box welded fabricated boom with integrated lifting eye

Boom cylinder protection (EC20D)

Monobloc box welded arms with casted ends

Long-life steel bushings

Hardened, pre-lubricated and corrosion resistant pins

50H hours greasing intervals

### Canopy

FOPS level 1 (Falling Objects Protective Structure)

TOPS (Tip-Over Protective Structure)

ROPS (Roll-Over Protective Structure)

Cushioned operator station

Toolbox with integrated storage for operator's manual and lockable door

Large and roomy uncluttered floor

Left hand-rail access

Seat-belt with warning indicator

Right rear-view mirror

2 Integrated lifting points

### Cab

FOPS level 1 (Falling Objects Protective Structure)

TOPS (Tip-Over Protective Structure)

ROPS (Roll-Over Protective Structure)

OPG1 on top (Operator Protective Guard)

Cushioned operator station

Large door access

Large and roomy uncluttered floor

Flat toughened glass

Gas-strut assisted front window opening

Front windscreens wiper and washer nozzle

Right hand side sliding window

Heating systems with in-cab adjustment of temperature and air flow level

Multiple adjustable air vents

Filtered air inlet

Toolbox with integrated storage for operator's manual and lockable door

Seat-belt with warning indicator

Right rear-view mirror

2 Integrated lifting points.

### Machine controls

Finger tip control for boom offset

Finger tip control for auxiliary circuit

Breaker toggle switch on right joystick

Automatic locking device for pilot controls and travel levers when the left console is raised

Engine starting safety device : the left console must be raised to operate the starter

Pressure accumulator to lower the equipment on the ground if the engine is switched off

Two speed travel switch on the dozer blade lever

### Instrumentation and monitoring

Permanent digital hour meter

Warning lights for hydraulic filter and air filter restriction

Water temperature and fuel level gauges

### Official approval

Machine conforming to European directive 2006/42/EC

Noise emissions in the environment conforming to directive 2000/14/EC

Hand Arm Vibrations - Whole Body Vibrations compliant with directive 2002/44/EC

Electromagnetic compatibility (EMC) conforming to European directive 2004/108/EC and its amendments

Object handling device conforming to EN 474-1 and EN 474-5 standards

FOPS 1 conforming to ISO 3449 standard

ROPS conforming to ISO 3471-1 and / SAE J1040 standards

TOPS conforming to ISO 12117 and EN 13531 standards

OPG 1 conforming to ISO 10262 standard (when equipped)

## STANDARD AND OPTIONAL EQUIPMENT

• = Standard

◦ = Option

**EC15D**

**EC18D**

**EC20D**

### Operator environment

Canopy

◦

◦

◦

Heated cab

◦

◦

◦

Vinyl seat, low-back seat and 2" standard seat belt

◦

◦

◦

Vinyl seat with mechanical suspension, low-back seat and 2" standard seat belt

◦

◦

◦

Vinyl seat with mechanical suspension, extended-back seat and 2" retractable seat belt

◦

◦

◦

Vinyl seat with mechanical suspension, extended-back seat and 3" retractable seat belt

◦

◦

◦

Fabric seat with mechanical suspension, extended-back seat and 2" retractable seat belt

◦

◦

◦

Fabric seat with mechanical suspension, extended-back seat and 3" retractable seat belt

◦

◦

◦

ISO / SAE control pattern change

◦

◦

◦

Travel alarm

◦

◦

◦

Radio preparation (Antenna, wire harness)

•

•

•

Radio, AUX, USB, Bluetooth

◦

◦

◦

Anti-theft device

◦

◦

◦

Front guard OPG1

◦

◦

◦

### Machine exterior

Left rearview mirror

◦

◦

◦

One protected worklight on the boom

◦

◦

◦

One rear worklight

◦

◦

◦

Rotating beacon

◦

◦

◦

Additional counterweight

◦

◦

◦

Several level of customisation (RAL specifications) to match with your corporate identity

◦

◦

◦

### Digging equipment

Short arm

◦

◦

◦

Long arm

◦

◦

◦

### Undercarriage equipment

Automatic two speed travel

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•

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230mm rubber tracks

•

•

•

250mm rubber tracks

•

•

•

Short dozer blade

◦

◦

◦

Long dozer blade

◦

◦

◦

## STANDARD AND OPTIONAL EQUIPMENT

	• = Standard	◦ = Option	EC15D	EC18D	EC20D
<b>Hydraulic equipment</b>					
Gear pump	•	◦			
Variable displacement piston pump		◦	•		
Finger tip control for boom offset	•	•	•		
Finger tip control for accessories	•	•	•		
Proportional controls for boom offset and accessories		•	•		
Maximum accessorie flow adjustment	•	•			
Relief valve for auxiliaries	◦	◦	◦		
Breaker / Shear valve	◦	◦	◦		
Hydraulic drain for accessories	◦	◦	◦		
Breaker and clamshell auxiliaries	◦	◦	◦		
Second accessory circuit		◦	◦		
Kit 2 flat face hydraulic couplings	◦	◦	◦		
Kit 4 flat face hydraulic quick couplings	◦	◦	◦		
Boom & arm safety lifting valves	◦	◦	◦		
Safety lifting valves on boom, arm & dozer blade	◦	◦	◦		
Safety valve certification	◦	◦	◦		
Mineral hydraulic oil VG46	◦	◦	◦		
Bio hydraulic oil VG46	◦	◦	◦		
Mineral hydraulic oil VG68	◦	◦	◦		
Mineral hydraulic oil VG32	◦	◦	◦		
Bio hydraulic oil VG32	◦	◦	◦		

	• = Standard	◦ = Option	EC15D	EC18D	EC20D
<b>Engine</b>					
Dual stage air filter		◦	◦	◦	◦
Auto idling system			◦	◦	◦
Auto engine shutdown				◦	◦
<b>Service and maintenance</b>					
Tool kit		◦	◦	◦	◦
<b>Telematics</b>					
Care Track		◦	◦	◦	◦
<b>Attachments</b>					
Volvo quick coupler mechanical (pin-on)	◦	◦	◦	◦	◦
Lehnhoff® Quick Coupler Mechanical (MS type)	◦	◦	◦	◦	◦
General purpose buckets	◦	◦	◦	◦	◦
Fix ditching buckets		◦	◦	◦	◦
Tiltable ditching buckets	◦	◦	◦	◦	◦
Hydraulic breaker HB02LN	◦	◦	◦	◦	◦

Above mentionned features and options might be available independantly or through packs.

## Selection of Volvo optional equipment

**Auto engine shutdown**



**Auto idle**

**Short/long blade**



**Additional counterweight**



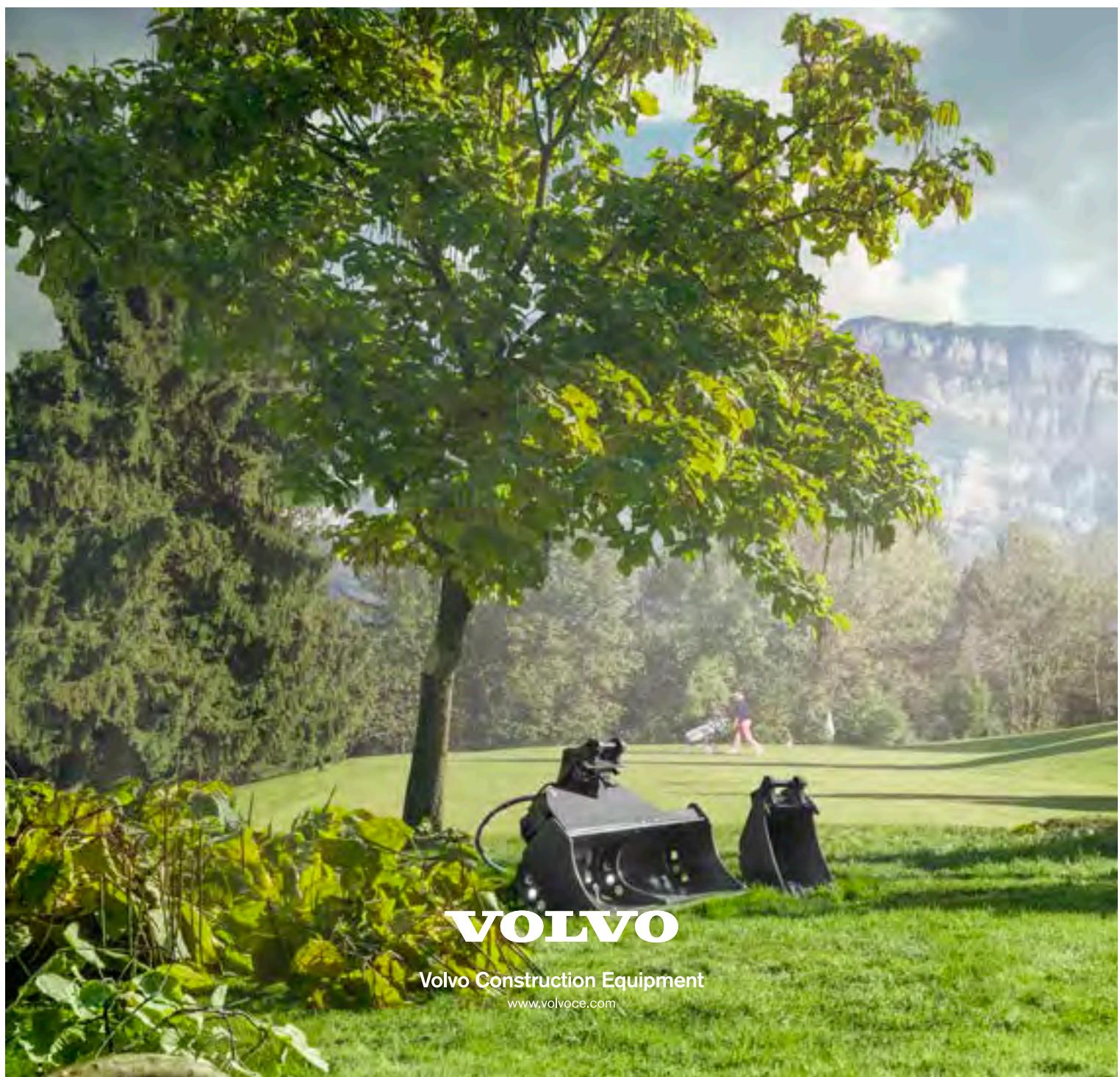
**OPG1 guards**



**Specific colour machine**



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The illustrations do not necessarily show the standard version of the machine.



**VOLVO**

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