

Volvo Construction Equipment
Building Tomorrow



EC55D

Volvo Compact Excavators 5.4-5.7 t 36.5 kW



A machine you can rely on

Volvo's EC55D high quality compact excavator is designed to work harder for longer. Using high quality components and Volvo design, the machine is built to last while delivering a superior performance and high fuel efficiency. You can rely on a solid investment in the durable EC55D, benefiting from increased uptime and a highly competitive residual value.

Smooth control

Achieve a smooth and comfortable operating experience with the EC55D. You can dig, swing, load and lift with increased controllability, for enhanced productivity and reduced fatigue. The machine does exactly what the operator intends with responsive controls and an optimized hydraulic system to achieve precise grading results for a high quality finish.



Proven reliability

Rely on increased uptime and a highly competitive residual value with the durable EC55D. The robust design of the EC55D incorporates the wrapped-around counterweight to shield the engine compartment, X-shaped undercarriage and heavy-duty arm, to enable a sturdy operation in extreme conditions. Maximum uptime is preserved thanks to easy-access maintenance points, and the new, easy-to-clean single layer cooling system.



A profitable operation

Reduce fuel costs with the EC55D for a more profitable operation. The state-of-the-art hydraulic system is perfectly matched to Volvo's premium Tier 3 engine to deliver high performance and superior fuel efficiency.



Complete comfort and convenience

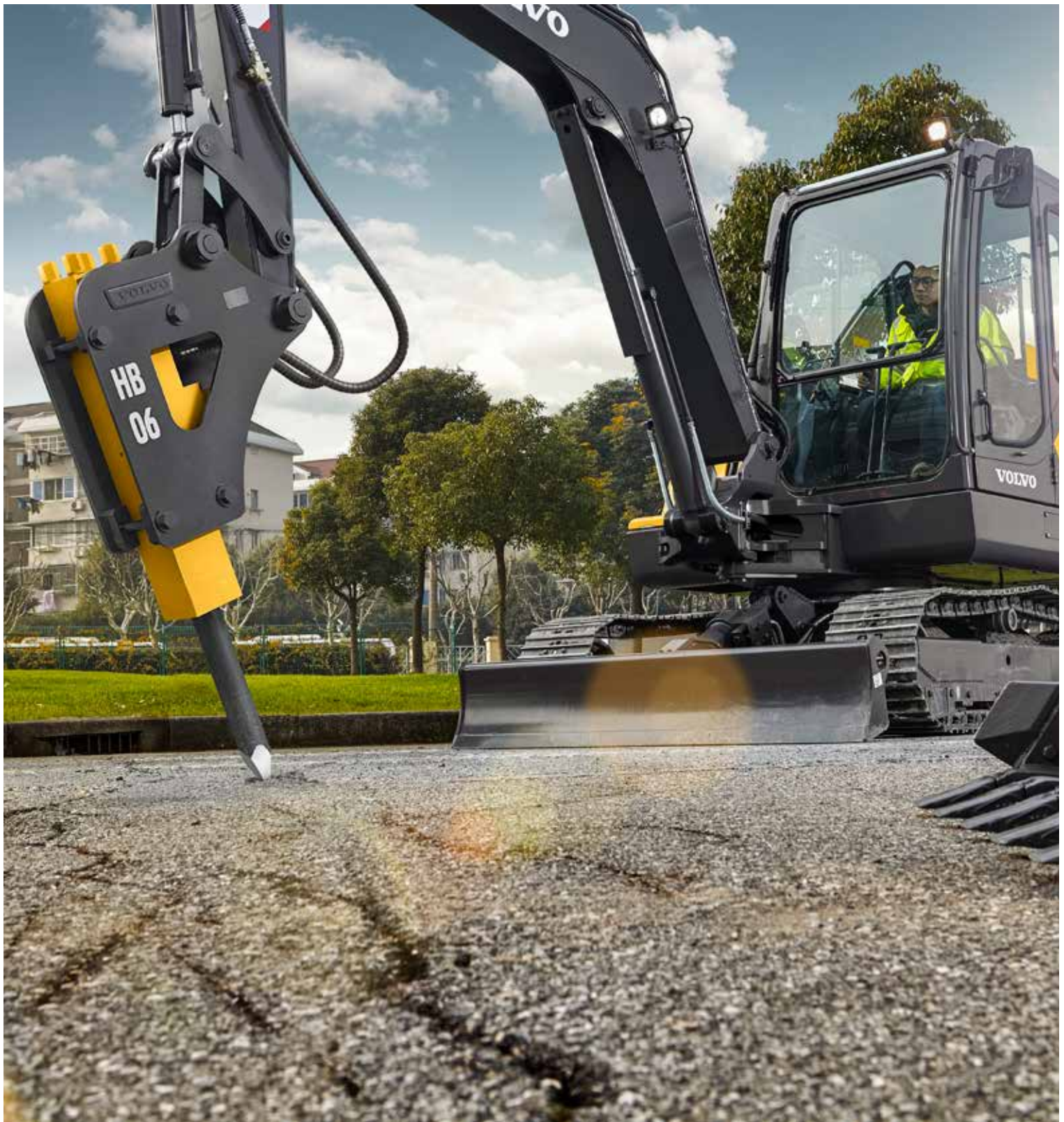
For comfortable operation and reduced operator fatigue, the EC55D cab offers a spacious and quiet working environment. Built for maximum convenience, the cab features ergonomically located monitor and controls, a fully adjustable seat, and a semi-long joystick. Performance of the air conditioning has been increased by 10% to ensure comfortable operation in all climates.





POWER TO PERFORM

Do more in less time with market-leading power, outstanding combined digging efforts and faster digging equipment speed of the EC55D. Tackle challenging job sites with ease thanks to the superior traction, swing force and lifting capacity. For the ultimate combination of power and productivity, improved cooling ensures optimized performance for any climate.



ROBUST ATTACHMENTS TO MATCH

Well-engineered and built to last in tough conditions, Volvo's robust, high quality buckets and hydraulic breakers offer high durability and performance. Specifically made for your Volvo machine, the buckets are reinforced with Volvo teeth and wear parts for longer life, and the range of breaker tools has been developed to break any kind of material with excellent performance.

The complete solution

We're committed to providing a complete solution to guarantee the highest performance from your Volvo machine, including high quality attachments and state-of-the-art support through our customer solutions. Take advantage of our unique dealer support network to ensure your machine achieves maximum uptime, and generates maximum profit and growth for your business.

Customer Support Agreements

Customer Support Agreements offer service and maintenance with controlled costs and maximum uptime. The flexible system caters for a range of needs from total repair and maintenance to an inspection program covering vital parts and functions.



Genuine Volvo Parts

Volvo Service Technicians work with industry-leading diagnostic tools and techniques, using only Genuine Volvo Parts to deliver the highest levels of quality and service. Talk to your local Volvo dealer about how genuine Volvo services can provide the service and maintenance plan that best fits your needs.



Customer support centre

Customer Support Agreements offer service and maintenance with controlled costs and maximum uptime. The flexible system caters for a range of needs from total repair and maintenance to an inspection program covering vital parts and functions.



Lasting performance

Proven reliability

Volvo conducts rigorous testing in the development stages resulting in a durable machine that won't let you down.

Smooth control

Increased controllability ensures smooth operation, improved productivity, and a high quality finish.

A profitable operation

The hydraulic system is perfectly matched to Volvo's premium engine to deliver high performance and fuel efficiency.



ROBUST ATTACHMENTS TO MATCH

High quality buckets and hydraulic breakers are specifically made for your Volvo machines to secure high durability.

Complete comfort and convenience

The spacious and ergonomic EC55D cab ensures a comfortable and productive operation as well as reducing operator fatigue.

POWER TO PERFORM

Do more in less time with market-leading power and outstanding combined digging power and speed of the EC55D.

Single layer cooling unit

The single layer cooling unit maximizes efficiency, reduces blockages and aids cleaning.

New D-Series styling

The new Volvo D-series styling offers a unique look to differentiate from competitors' designs and previous generations.

Improved air conditioning

Volvo's industry-leading climate control system provides a more comfortable and productive working environment.

X-shaped undercarriage

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

Customer Support Agreements

Covering a variety of service and maintenance needs, Customer Support Agreements control costs and maximize uptime.



Volvo EC55D in detail

Engine

Volvo engine Tier 3 (Stage 3) emissions compliant diesel engine. The engine uses precise, high pressure fuel injectors, Air Filter: 2 stage.		
Model	Volvo	D2.6A
Max. power at	r/min	2 000
Net (ISO 9249/SAEJ1349)	kW	34.5
	hp	47
Gross (SAE J1995)	kW	36.5
	hp	50
Max. torque	Nm	210
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	12/60
Starter motor output	V - kW	12 - 2.5

Swing system

Swing provided by radial piston motor and reduction gear with remote lubrication.		
Max. swing speed	r/min	9
Max. swing torque	kNm	11

Undercarriage

The undercarriage has a robust X-shaped frame. Greased and sealed track chains are standard.		
Track shoes		2 x 39
Link pitch	mm	135
Shoe width	mm	380
Bottom rollers		2 x 5
Top rollers		2 x 1

Sound Level

Sound level in cab according to ISO 6396		
L _{PA}	dB	80
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L _{WA}	dB	98

Travel System

Each track is powered by an automatic two-speed shift travel motor. The track brakes are multi-disc, spring-applied and hydraulic released. The travel motor, brake and planetary gears are well protected within the track frame.		
Travel speed low	km/h	2.6
Travel speed high	km/h	4.3
Max. drawbar pull	kN	43
Gradeability	°	35

Hydraulic system

Open-center, horsepower control providing fuel saving and high performance		
Variable-displacement, load-sensing pump for all equipment:		
Maximum flow	l/min	2 x 55
Maximum operating pressure	MPa	21.6
Maximum flow	l/min	1 x 32.4
Maximum operating pressure	MPa	20.6
Pilot pump (Gear pump) for the power assistance circuit:		
Maximum flow	l/min	1 x 9
Maximum operating pressure	MPa	3.2
Swing circuit:		
Maximum operating pressure	MPa	18.6
Travel circuit:		
Maximum operating pressure	MPa	20.6

Service Refill

Fuel tank	l	100
Hydraulic system, total	l	130
Hydraulic tank	l	90
Engine oil	l	10
Engine coolant	l	7.8
Travel reduction unit	l	

BUCKETS

Width	Weight	Capacity
mm	kg	l
600	129	142

MACHINE WEIGHTS AND GROUND PRESSURE

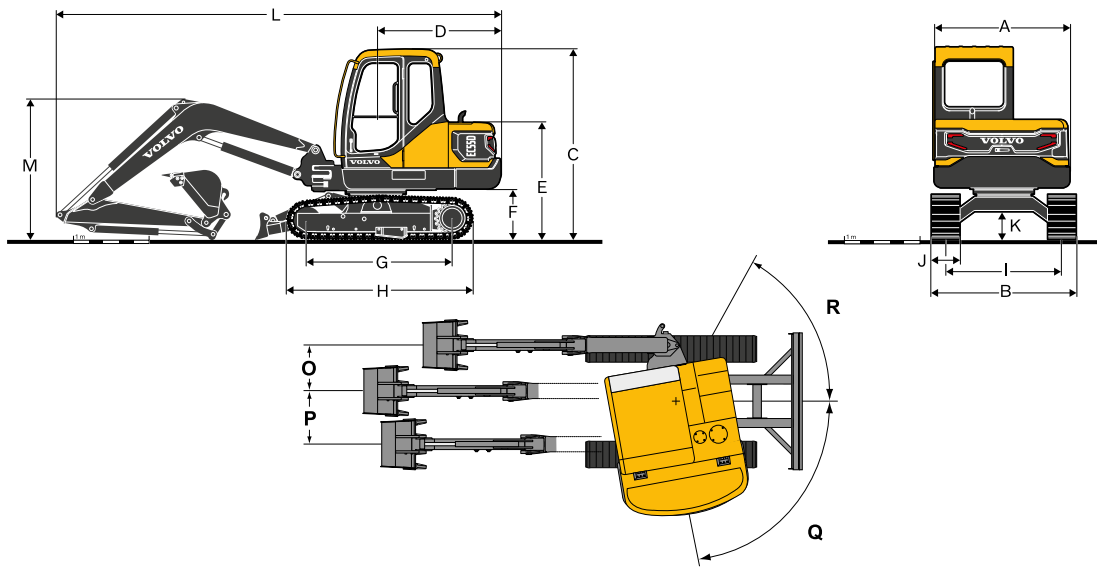
EC55D with 3.03 m boom, 1.54 m arm, 142 l (129 kg) bucket, 420 kg counterweight

Description	Shoe width	Operating weight	Ground pressure
Units	mm	kg	kPa
Steel track	380	5 510	33.3

DIGGING PERFORMANCE

Breakout force - bucket	SAE J1179	kN	36.2
	ISO 6015	kN	41.6
Tearout force - dipper arm	SAE J1179	kN	28.8
	ISO 6015	kN	29.5
Rotation angle, bucket		°	195

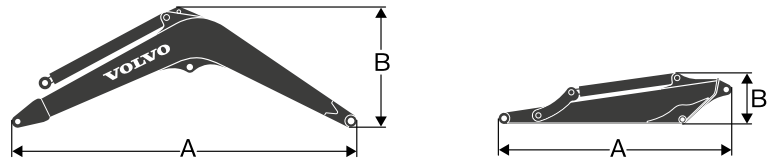
Specifications



DIMENSIONS

Description	Unit	
A Overall width of upper structure	mm	1 840
B Overall width	mm	1 920
C Overall height of cab	mm	2 560
D Tail swing radius	mm	1 680
E Overall height of engine hood	mm	1 600
F Counterweight clearance*	mm	690
G Tumbler length	mm	1 950
H Track length	mm	2 500
I Track gauge	mm	1 540
J Shoe width	mm	380
K Min. ground clearance*	mm	380
L Overall length	mm	5 885
M Overall height of boom	mm	1 865
O Boom swing distance	mm	770
P Boom swing distance	mm	610
Q Boom swing angle	°	80
R Boom swing angle	°	50

* Without shoe grouser

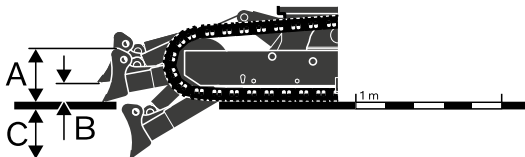


DIMENSIONS

Description	unit	Boom		Arm	
		m	3.03	m	1.54
A Length	mm	3 136	2 040		
B Height	mm	1 090	463		
Width	mm	202	148		
Weight	kg	210	111		

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

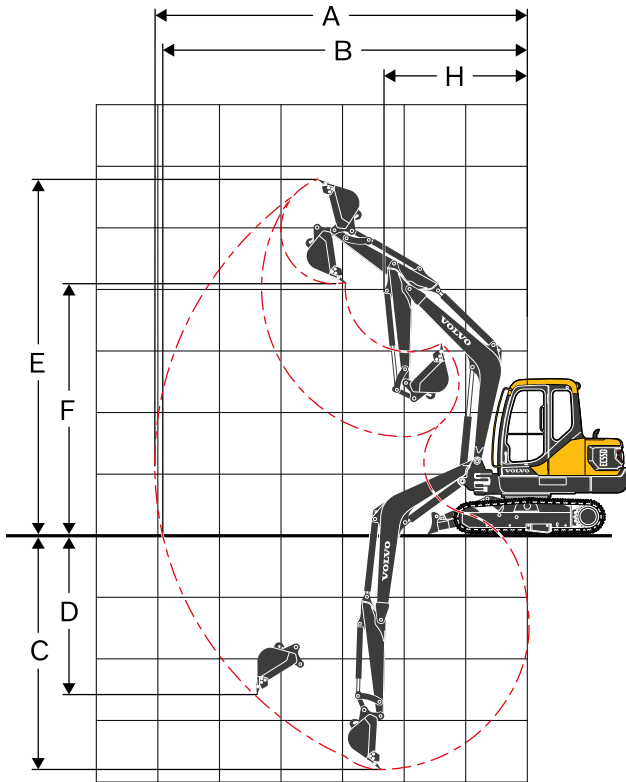
Arm: Includes cylinder, linkage and pin



DIMENSIONS

Description	unit	Dozer blade
A Height	mm	360
Width	mm	1 920
B Lifting height	mm	350
C Digging depth	mm	450

Specifications



WORKING RANGES

Description	unit	
A	Max. digging reach	mm 6 110
B	Max. digging reach on ground	mm 5 980
C	Max. digging depth	mm 3 820
D	Max. vertical wall digging depth	mm 2 620
E	Max. cutting height	mm 5 770
F	Max. dumping height	mm 4 090
G	Min. front swing radius	mm 2 360

LIFTING CAPACITY EC55D

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 hook related to ground level	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		Max. reach			
			Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Max. mm	
Boom	3.03 m	4.0 m	kg						*1 360	1 070			1 300	960	4 248	
Arm	1.54 m	3.0 m	kg						*1 410	1 050			1 040	770	4 862	
Shoe	380 mm	2.0 m	kg					2 140	1 540	1 370	1 010	980	720	930	690	5 171
CWT	420 kg	1.0 m	kg					2 020	1 430	1 330	960	960	700	900	660	5 238
Dozer blade up		0 m	kg					1 970	1 390	1 290	930	950	690	930	680	5 076
		-1.0 m	kg	*2 480	*2 480	*3 220	2 660	1 970	1 380	1 290	930			1 050	760	4 654
		-2.0 m	kg	*4 230	*4 230	*3 150	2 700	2 000	1 410					1 370	990	3 868
Boom	3.03 m	4.0 m	kg						*1 360	1 140			*1 390	1 030	4 248	
Arm	1.54 m	3.0 m	kg						*1 410	1 130			*1 370	820	4 862	
Shoe	380 mm	2.0 m	kg					*2 210	1 660	*1 630	1 080	*1 400	780	*1 380	740	5 171
CWT	420 kg	1.0 m	kg					*2 780	1 550	*1 870	1 040	*1 470	760	*1 400	710	5 238
Dozer blade down		0 m	kg					*2 920	1 510	*1 980	1 010	*1 470	740	*1 440	730	5 076
		-1.0 m	kg	*2 480	*2 480	*3 220	2 930	*2 700	1 500	*1 870	1 000			*1 460	820	4 654
		-2.0 m	kg	*4 230	*4 230	*3 150	2 980	*2 110	1 530					*1 420	1 070	3 868

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 Volvo diesel engine
- Standard cooling system (45 deg. C)
- Two-stage air filter
- Fuel filter and water separator
- Alternator, 60 A

Electric / Electronic control system

- Safe engine start function
- Halogen working lights: Cab-mounted 1, Boom-mounted 1
- Battery, 12 V / 100 Ah
- Start motor, 12 V / 2.5 kW

Frame

- Lower frame with dozer blade
- 420 kg counterweight
- Under cover

Undercarriage

- 380 mm steel track

Hydraulic system

- Pump for Standard
- Automatic two speed travel motors
- Cylinder cushioning
- Hydraulic fluid mineral 46

Cab and interior

- Standard cab
- Fabric operator seat
- Control joystick with LH/RH one button
- Heater and air-conditioner
- Radio with USB
- Master Key
- Rearview mirror-side (LH/RH)

Digging equipment

- 3.03 m Offset Boom, 1.54 m Arm
- Linkage

Service

- Tool kit, standard
- Spare parts

OPTIONAL EQUIPMENT

Engine

- Fuel filler pump: 35 l/min, with automatic shut-off

Electric / Electronic control system

- Extra working lights: Cab-mounted 1 (rear 1)
- Rotating warning beacon
- Travel alarm

Undercarriage

- 400 mm rubber track

Hydraulic system

- Pump for High Attitude
- Hydraulic fluid mineral 68
- Hammer
- Hammer piping

Cab and interior

- Audio - provision
- FOG (Falling Object Guard)
- FOPS (Falling Object Protection Structure)

Service

- Tool kit, full scale
- Tool kit-daily maintenance

SELECTION OF VOLVO OPTIONAL EQUIPMENT

Extra work lights



Breaker piping



Rotating beacon



Travel alarm



FOG



Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

VOLVO

Volvo Construction Equipment

volvoce.com