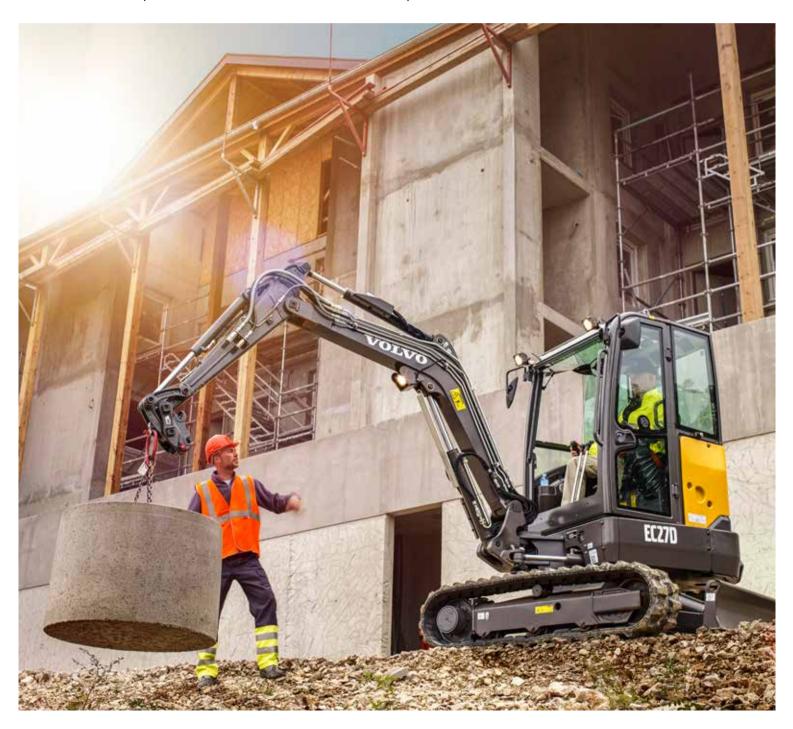


# EC27D

Volvo Compact Excavators 2.73 t / 6,019 lb 20.9 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 customers around the globe. 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 support training at our best-in-class Customer Center in Shippensburg and through hands-on training. Using a great Product Demonstration Center featuring a dedicated area for most commons applications, visitors operate equipment from our entire product line under a variety of simulated working conditions. This facility is in year-round use by our dealers and customers.

# 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.





























Volvo Buses

Volvo Construction Equipment

Volvo Penta Volvo Financial Services

# Ultimate performance

Stretch further, dig deeper and reach higher with the EC27D. Based on a proven design, this compact excavator is built to perform and boost profitability. Combining intuitive operation and operator comfort with simple serviceability, this machine provides all the strength and versatility you need – because big jobs demand big performance.

## Maintenance made easy

It's easy to keep your hardworking EC27D up and running with worry-free maintenance. The wide-opening lockable engine hood provides clear access to all daily service points, while the minimum 50-hour interval on all greasing points saves time and money. Check hydraulic oil at a glance using the Volvo patented hydraulic filter, with transparent housing to prevent unplanned downtime.



# The operator's choice

As the industry's leading operator environment, the easily accessible Volvo cab boasts superb visibility, comfortable seat, ergonomic controls, and conveniently located cup holder and phone holder. The flat floor makes cleaning easy, while noise and vibration insulation keep the operator fresh and focused – longer.



## **Control costs**

Decrease your total cost of ownership with a range of built-in features. The ideally matched Volvo engine and single variable displacement pump reduce fuel consumption, while auto-idle and auto-engine shutdown maximize fuel efficiency, cut service costs and ensure high resale value. Controlling your costs shouldn't be complicated, which is why the flat glass windows of the Volvo cab can be replaced easily and inexpensively.



# Intuitive operation

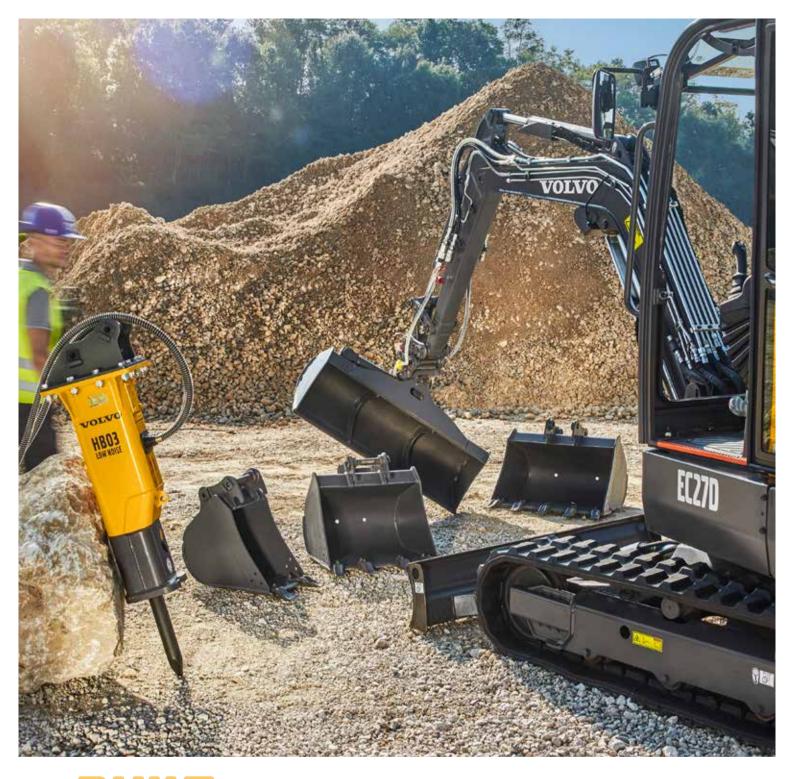
Experience precise, smooth and effortless command of the boom offset and auxiliary hydraulic flows. With easy-to-use proportional fingertip controls and the ability to fine-tune the maximum hydraulic flow speed or power of any attachment is ideally matched to the task at hand. For optimized travel speed and traction, the automatic two-speed travel allows the machine to shift down when more effort is needed.





# DESIGNED TO PERFORM

Experience best-in-class performance with the rock-solid EC27D, combining over 42kN (9,440 lbf) of digging forces with superior lift capacity and unshakable stability. The smooth combination of movements makes grading jobs easy, while the extended working range allows for less repositioning. The ISO Pattern change selector valve (excavator or backhoe controls) ensures operators can safely operate the EC27D. Thanks to these high-performing features and the ability to work close to the blade, finishing work on the jobsite has never been so quick.



# BUILT READY

Get the most out of your hardworking EC27D with Volvo's range of durably-designed attachments. Purpose-built to work in harmony with your machine, Volvo attachments optimize versatility and uptime of your EC27D, enabling you to effectively perform a variety of jobs.

# All work, all the time

Built to work for you, the EC27D is an industry-leader. Optimize machine performance, productivity and versatility with Volvo's range of durable attachments and Customer Solutions. Tailored to your business and operations - just like your EC27D - our unique, global dealer support network is built around you. Protect your profits with a long-term partnership and benefit from an array of services using Genuine Volvo Parts, delivered by passionate people.

# Fast, safe change outs

Change attachments quickly and efficiently with the pin-grabber mechanical quick coupler from Volvo. Compatible with the wide range of Genuine Volvo attachments, Volvo couplers ensure the optimum versatility for any task you choose.



# Volvo - a partner to trust

Being a Volvo customer means having a complete set of services at your fingertips. Your dealer is here for you and your machine anytime, anywhere – offering professional expertise, financial packages and Customer Support Agreements, catered specifically to help you achieve your business objectives.



# Unlock your potential

Unlock the full potential of your operation with the EC27D, compatible with any attachment, installed safely and easily thanks to built-in relief valves. And, with the secondary accessory circuit, you have the potential to do even more. Contact your local dealer and benefit from leading expertise and advanced attachment solutions.



# Keep your Volvo a Volvo

We're committed to providing a complete solution to guarantee the highest performance of your Volvo machine, including high quality Genuine Volvo Parts, extensively tested and approved because every part is vital for performance. Rely on our leading parts availability to ensure maximum uptime, extend the life of your Volvo and optimize the profitability of your business.



# Up to the challenge

# Maintenance made easy

Daily service points are grouped under the engine hood and are easily accessible for straightforward maintenance.

# The operator's choice

Ergonomic, spacious and safe, the Volvo cab features all around visibility, intuitive controls and built-in comfort.

# 50-hour greasing intervals

The greasing interval is 50-hours, cutting down service costs.

# Volvo - a partner to trust

We offer the right solutions throughout the entire life cycle of your Volvo to help you achieve your business objectives.

# Auto-idle

Engine speed is reduced to idle when controls are inactive for more than five seconds, reducing fuel consumption and noise.

# Ultimate lifting capacity

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



# **DESIGNED TO PERFORM**

Experience best-in-class performance with over 42 kN (9,440 lbf) of combined forces, superior lift capacity and wide working range.

# Intuitive operation

The boom offset and the auxiliary hydraulics are operated by ergonomic fingertip controls.

# **BUILT READY**

The EC27D is a perfect match with Volvo attachments for increased versatility, performance and profitability.

# Patented hydraulic filter

Filtration occurs when the tank is filled and before oil returns via the drain lines. The transparent bowl makes checking for oil contamination easy.

# Auto engine shutdown

When inactive for a pre-set amount of time, the engine automatically shuts off, increasing machine resale value, minimizing fuel consumption and service costs.

# Automatic travel speed

The operator can continually drive the machine at high speed. When more traction is needed, the speed is automatically reduced.

# Volvo EC27D in detail

Max. power at         r/min (r/s)         2,400 (40           Gross         kW (hp)         15.6 (20.9)           According to ISO 9249 / SAE J1998         According to ISO 9249 / SAE J1998           Max. torque         Nm (ft lbf)         71.4 (52.7)           at engine speed         r/min         1,600           No. of cylinders             Displacement         cm³ (in³)         1,123 (68.5)           Bore         mm (in)         78.4 (3.08           Stroke         mm (in)         78.4 (3.08           Compression ratio         2         2           Electrical system         V         1.1           Voltage         V         1.2           Battery         V         1.2           Battery         V         1.2           Wing system         Max, slew speed         r/min         9.2           Max, slew speed         r/min         9.2           Max, slew torque         daNm (ft lbf)         485 (3,577           Jodecarriage         Rubber track width         mm (in)         300 (11.8           Steel track width         mm (in)         300 (11.8         300 (11.8           Battery passes         pressure         pressu	Engine		
Gross         kW (hp)         15.6 (20.9 According to ISO 9249 / SAE J1999 According to ISO 9249 According to I	Engine		Volvo D1.1A
According to ISO 9249 / SAE J1998	Max. power at	r/min (r/s)	2,400 (40)
Max. torque         Nm (ft lbf)         71.4 (52.7 at engine speed         r/min         1,600           No. of cylinders         3         1,123 (68.5 at engine speed)         1,123 (68.5 at engine speed)         1,123 (68.5 at engine speed)         3         1,123 (68.5 at engine speed)         3         3         3,07 at engine speed)         3         3,07 at engine speed)         4         3,08 at engine speed)         3         4         3,08 at engine speed)         4         3,08 at engine speed)         4         4         3,08 at engine speed)         4         4         3         4 <t< td=""><td>Gross</td><td>kW (hp)</td><td>15.6 (20.9)</td></t<>	Gross	kW (hp)	15.6 (20.9)
at engine speed r/min 1,600  No. of cylinders  Displacement cm³ (in³) 1,123 (68.5  Bore mm (in) 78.4 (3.08  Compression ratio  Electrical system  Voltage V 12  Battery V 13  Battery Ah 70  Alternator V/Ah 12 / 46  Swing system  Max, slew speed r/min 9.  Max, slew torque daNm (ft lbf) 485 (3,577  Judercarriage  Rubber track width mm (in) 300 (11.8  Steel track width mm (in) 300 (11.8  Steel track width mm (in) 300 (11.8  Bottom/top rollers per side 3 / 7  Track tension by grease pisto  Blade (width x height) mm (in) 1550 x 312  (61 x 12.3  Neight and Ground Pressure  Operating weight according to ISO 6016 kg (lb) 2,730 (6,019  Ground pressure (cab) kPa (psi) 27.8 (4  Ground pressure (canopy) kPa (psi) 26.9 (3.9  Transport weight kg (lb) 2,655 (5,853  With heated cab  With direct-fit bucket  With rubber tracks mm (in) 1,200 (47.2  With short arm hkg (+lb) 90 (198.4  With canopy -kg (-lb) 90 (198.4  With cubber tracks -kg (-lb) 78 (172	A	According to ISO	9249 / SAE J1995
No. of cylinders  Displacement  Displacement	Max. torque	Nm (ft lbf)	71.4 (52.7)
Displacement         cm³ (in³)         1,123 (68.5)           Bore         mm (in)         78 (3.07)           Stroke         mm (in)         78.4 (3.08)           Compression ratio         2.0           Electrical system         Voltage         V         15           Voltage         V         15         12 / 40           Battery capacity         Ah         70         12 / 40           Swing system         Alternator         V/Ah         12 / 40           Swing system         Max, slew speed         r/min         9.0           Max, slew torque         daNm (ft lbf)         485 (3,577)           Jndercarriage         Rubber track width         mm (in)         300 (11.8           Steel track width         mm (in)         300 (11.8         300 (11.8           Steel track width         mm (in)         300 (11.8	at engine speed	r/min	1,600
Bore         mm (in)         78 (3.07           Stroke         mm (in)         78.4 (3.08           Compression ratio         2.0           Electrical system         Voltage         V         15           Voltage         V         15           Battery         V         15           Battery capacity         Ah         70           Alternator         V/Ah         12 / 40           Swing system         Max, slew speed         r/min         9.0           Max, slew torque         daNm (ft lbf)         485 (3,577           Jndercarriage         Rubber track width         mm (in)         300 (11.8           Steel track width         mm (in)         300 (11.8         30 (11.8           Bottom/top rollers per side         3 /         3 /         550 x 31 (61 x 12.3           Weight and Ground Pressure         3 /         550 x 31 (61 x 12.3         30 (60.19	No. of cylinders		3
Stroke         mm (in)         78.4 (3.08           Compression ratio         2.5           Electrical system         V         1.1           Voltage         V         1.2           Battery         V         1.2           Battery capacity         Ah         70           Alternator         V/Ah         12 / 40           Swing system         Max, slew speed         r/min         9.4           Max, slew torque         daNm (ft lbf)         485 (3,577           Jndercarriage         Rubber track width         mm (in)         300 (11.8           Rubber track width         mm (in)         300 (11.8         300 (11.8           Steel track width         mm (in)         300 (11.8         300 (11.8           Bottom/top rollers per side         3 /         3         3         3           Track tension         by grease piston         by grease piston         4         550 x 31: (61 x 12.3         3         3         3         3         3         4         4         61 x 12.3         4         61 x 12.3	Displacement	cm³ (in³)	1,123 (68.5)
Compression ratio   Comp	Bore	mm (in)	78 (3.07)
Selectrical system   Voltage   V	Stroke	mm (in)	78.4 (3.08
Voltage         V         13           Battery         V         13           Battery capacity         Ah         70           Alternator         V/Ah         12 / 40           Swing system         Wax, slew speed         r/min         92           Max, slew torque         daNm (ft lbf)         485 (3,577           Jndercarriage         Rubber track width         mm (in)         300 (11.8           Bottom/top rollers per side         3 /         300 (11.8           Bottom/top rollers per side         3 /         3         4           Track tension         by grease piston         by grease piston         61.2         550 x 31: (61 x 12.3           Weight and Ground Pressure         Operating weight according to ISO 6016         kg (lb)         2,730 (6,019         2.730 (	Compression ratio		24
Battery V 1:  Battery capacity Ah 7:  Alternator V/Ah 12 / 4:  Swing system  Max, slew speed r/min 9.  Max, slew torque daNm (ft lbf) 485 (3,577  Jndercarriage  Rubber track width mm (in) 300 (11.8  Bottom/top rollers per side 3 /  Track tension by grease pisto 1:  Blade (width x height) mm (in) 1:  Sweight and Ground Pressure  Operating weight according to ISO 6016 kg (lb) 2,730 (6,019)  Ground pressure (cab) kPa (psi) 27.8 (4  Ground pressure (canopy) kPa (psi) 26.9 (3.9  Transport weight kg (lb) 2,655 (5,853  With heated cab  With fuel tank capacity % 100  With short arm mm (in) 300 (11.8  With canopy -kg (-lb) 90 (198.4  With canopy -kg (-lb) 12 (26.5  With long arm +kg (-lb) 78 (172.2  With rubber tracks -kg (-lb) 78 (172.2	Electrical system		
Battery capacity         Ah         70           Alternator         V/Ah         12 / 40           Swing system         Max, slew speed         r/min         9.4           Max, slew torque         daNm (ft lbf)         485 (3,577           Jndercarriage         Rubber track width         mm (in)         300 (11.8           Steel track width         mm (in)         300 (11.8         3.7           Bottom/top rollers per side         3 /         3.7<	Voltage	V	12
Alternator V/Ah 12 / 46  Swing system  Max, slew speed r/min 9.  Max, slew torque daNm (ft lbf) 485 (3,577  Jndercarriage  Rubber track width mm (in) 300 (11.8  Steel track width mm (in) 300 (11.8  Bottom/top rollers per side 3 /  Track tension by grease piston  Blade (width x height) mm (in) 1 550 x 31:	Battery	V	12
Swing system         Image: Company of the property of the pro	Battery capacity	Ah	70
Max, slew speed         r/min         9.0           Max, slew torque         daNm (ft lbf)         485 (3,577           Jndercarriage         Rubber track width         mm (in)         300 (11.8           Steel track width         mm (in)         300 (11.8           Bottom/top rollers per side         3 /           Track tension         by grease pistor           Blade (width x height)         mm (in)         1 550 x 31: (61 x 12.3           Weight and Ground Pressure           Operating weight according to ISO 6016         kg (lb)         2,730 (6,019           Ground pressure (cab)         kPa (psi)         27.8 (4           Ground pressure (canopy)         kPa (psi)         26.9 (3.9           Transport weight         kg (lb)         2,655 (5,853           With heated cab         With direct-fit bucket           With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         10           With extra counterweight         +kg (-lb)         90 (198.4           With long arm         +kg (-lb)         12 (26.5 <th< td=""><td>Alternator</td><td>V/Ah</td><td>12 / 40</td></th<>	Alternator	V/Ah	12 / 40
Max, slew torque         daNm (ft lbf)         485 (3,577)           Jndercarriage         Rubber track width         mm (in)         300 (11.8           Rubber track width         mm (in)         300 (11.8           Bottom/top rollers per side         3 /           Track tension         by grease pisto           Blade (width x height)         mm (in)         1 550 x 31: (61 x 12.3           Weight and Ground Pressure           Operating weight according to ISO 6016         kg (lb)         2,730 (6,019           Ground pressure (cab)         kPa (psi)         27.8 (4           Ground pressure (canopy)         kpa (psi)         26.9 (3.9           Transport weight         kg (lb)         2,655 (5,853           With heated cab         With direct-fit bucket           With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         10           With canopy         -kg (-lb)         90 (198.4           With long arm         +kg (+lb)         100 (220.5           With rubber tracks         -kg (-lb)         78 (172	Swing system		
Dindercarriage   Rubber track width   mm (in)   300 (11.8	Max, slew speed	r/min	9.4
Rubber track width         mm (in)         300 (11.8           Steel track width         mm (in)         300 (11.8           Bottom/top rollers per side         3 /           Track tension         by grease pistor           Blade (width x height)         mm (in)         1 550 x 31: (61 x 12.3           Neight and Ground Pressure           Operating weight according to ISO 6016         kg (lb)         2,730 (6,019           Ground pressure (cab)         kPa (psi)         27.8 (4           Ground pressure (canopy)         kPa (psi)         26.9 (3.9           Transport weight         kg (lb)         2,655 (5,853           With heated cab         With direct-fit bucket           With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         10           With canopy         -kg (-lb)         90 (198.4           With long arm         +kg (+lb)         10 (220.5           With rubber tracks         -kg (-lb)         78 (172	Max, slew torque	daNm (ft lbf)	485 (3,577
Steel track width         mm (in)         300 (11.8           Bottom/top rollers per side         3 /           Track tension         by grease pisto           Blade (width x height)         mm (in)         1 550 x 31.9           Weight and Ground Pressure         Operating weight according to ISO 6016         kg (lb)         2,730 (6,019           Ground pressure (cab)         kPa (psi)         27.8 (4           Ground pressure (canopy)         kPa (psi)         26.9 (3.9           Transport weight         kg (lb)         2,655 (5,853           With heated cab         With direct-fit bucket           With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         300 (11.8           With fuel tank capacity         %         10           With extra counterweight         +kg (-lb)         90 (198.4           With long arm         +kg (-lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172	Undercarriage		
Bottom/top rollers per side	Rubber track width	mm (in)	300 (11.8
Track tension         by grease pistor           Blade (width x height)         1 550 x 31* (61 x 12.3)           Weight and Ground Pressure         Operating weight according to ISO 6016         kg (lb)         2,730 (6,019           Ground pressure (cab)         kPa (psi)         27.8 (4           Ground pressure (canopy)         kPa (psi)         26.9 (3.9           Transport weight         kg (lb)         2,655 (5,853           With heated cab         With direct-fit bucket           With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         10           With extra counterweight         +kg (-lb)         90 (198.4           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172	Steel track width	mm (in)	300 (11.8
Blade (width x height)   mm (in)   1 550 x 31' (61 x 12.3)	Bottom/top rollers per side		3/
Blade (width x height)         mm (in)         (61 x 12.3)           Weight and Ground Pressure           Operating weight according to ISO 6016         kg (lb)         2,730 (6,019           Ground pressure (cab)         kPa (psi)         27.8 (4           Ground pressure (canopy)         kPa (psi)         26.9 (3.9           Transport weight         kg (lb)         2,655 (5,853           With heated cab         With direct-fit bucket           With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         10           With canopy         -kg (-lb)         90 (198.4           With extra counterweight         +kg (+lb)         100 (220.5           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172	Track tension		by grease pistor
Operating weight according to ISO 6016         kg (lb)         2,730 (6,019           Ground pressure (cab)         kPa (psi)         27.8 (4           Ground pressure (canopy)         kPa (psi)         26.9 (3.9           Transport weight         kg (lb)         2,655 (5,853           With heated cab         With direct-fit bucket           With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         10           With canopy         -kg (-lb)         90 (198.4           With extra counterweight         +kg (+lb)         10 (220.5           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172	Blade (width x height)	mm (in)	1 550 x 312 (61 x 12.3
Ground pressure (cab)         kPa (psi)         27.8 (4           Ground pressure (canopy)         kPa (psi)         26.9 (3.9           Transport weight         kg (lb)         2,655 (5,853           With heated cab         With direct-fit bucket           With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         10           With canopy         -kg (-lb)         90 (198.4           With extra counterweight         +kg (+lb)         100 (220.5           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172	Weight and Ground Pressure		
Ground pressure (canopy)         kPa (psi)         26.9 (3.9 (3.9 (3.9 (3.9 (3.9 (3.9 (3.9 (3	Operating weight according to ISO 6016	kg (lb)	2,730 (6,019
Transport weight         kg (lb)         2,655 (5,853)           With heated cab           With direct-fit bucket           With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         100           With canopy         -kg (-lb)         90 (198.4           With extra counterweight         +kg (+lb)         100 (220.5           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172	Ground pressure (cab)	kPa (psi)	27.8 (4
With heated cab         With direct-fit bucket         With rubber tracks       mm (in)       300 (11.8         With short arm       mm (in)       1,200 (47.2         With fuel tank capacity       %       10         With canopy       -kg (-lb)       90 (198.4         With extra counterweight       +kg (+lb)       100 (220.5         With long arm       +kg (+lb)       12 (26.5         With rubber tracks       -kg (-lb)       78 (172	Ground pressure (canopy)	kPa (psi)	26.9 (3.9
With direct-fit bucket         mm (in)         300 (11.8           With rubber tracks         mm (in)         1,200 (47.2           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         10           With canopy         -kg (-lb)         90 (198.4           With extra counterweight         +kg (+lb)         100 (220.5           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172.2	Transport weight	kg (lb)	2,655 (5,853
With rubber tracks         mm (in)         300 (11.8           With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         10           With canopy         -kg (-lb)         90 (198.4           With extra counterweight         +kg (+lb)         100 (220.5           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172.2	With heated cab		
With short arm         mm (in)         1,200 (47.2           With fuel tank capacity         %         100           With canopy         -kg (-lb)         90 (198.4           With extra counterweight         +kg (+lb)         100 (220.5           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172	With direct-fit bucket		
With fuel tank capacity         %         10l           With canopy         -kg (-lb)         90 (198.4           With extra counterweight         +kg (+lb)         100 (220.5           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172.2	With rubber tracks	mm (in)	300 (11.8
With canopy         -kg (-lb)         90 (198.4)           With extra counterweight         +kg (+lb)         100 (220.5)           With long arm         +kg (+lb)         12 (26.5)           With rubber tracks         -kg (-lb)         78 (172)	With short arm	mm (in)	1,200 (47.2
With extra counterweight         +kg (+lb)         100 (220.5)           With long arm         +kg (+lb)         12 (26.5)           With rubber tracks         -kg (-lb)         78 (172)	With fuel tank capacity	%	100
With extra counterweight         +kg (+lb)         100 (220.5           With long arm         +kg (+lb)         12 (26.5           With rubber tracks         -kg (-lb)         78 (172		-kg (-lb)	90 (198.4
With rubber tracks -kg (-lb) 78 (172		+kg (+lb)	100 (220.5
With rubber tracks -kg (-lb) 78 (172	With long arm	+kg (+lb)	12 (26.5
•		-	78 (172
	Rubber tracks	•	250 (9.8

Digging Performances		
Standard bucket width (blade, W/O side cutter)	mm (in)	500 (19.7)
Standard bucket mass	kg (lb)	59 (130)
Standard bucket rated capacity	I (ft³)	74 (2.6)
Bucket rotation	0	203
Bucket breakout force (ISO)	daN (lbf)	2,459 (5,528)
Short arm tearout force (ISO)	daN (lbf)	1,806 (4,060)
With short arm	mm (ft in)	1,200 (3'11")
Long arm tearout force (ISO)	daN (lbf)	1,543 (3,469)
With long arm	mm (ft in)	1,500 (4'11")
Hydraulic system		
Pump type		Variable displacement, load sensing
Maximum system flow	l/min (gal/min)	65 (17.2)
Maximum flow for accessories	l/min (gal/min)	50 (13.2)
Maximum pressure for accessories	MPa (psi)	25 (3,626)
Maximum flow for 2nd accessory circuit (option)	l/min (gal/min)	23 (6.1)
Maximum operating pressure	MPa (psi)	25 (3,626)
Travel System		
Max, drawbar pull	daN (lbf)	2,500 (5,620)
Max. travel speed low	km/h (mi/h)	2.6 (1.6)
Max. travel speed high	km/h (mi/h)	4.8 (3)
Gradeability	0	30
Service Refill		
Fuel tank	l (gal)	28 (7.4)
Hydraulic system, total	l (gal)	33 (8.7)
Hydraulic tank	l (gal)	23 (6.1)
Engine oil	l (gal)	5.1 (1.3)
Engine coolant	l (gal)	4 (1.1)
Travel reduction unit	l (gal)	2 x 0.6 (2 x 0.159)
Sound Level		
Interior sound level according to ISO 6396		
LpA	dB(A)	78
External sound level according to ISO 6395 (2000/14/EC) and 474-1:2006 +A1:200	5 and EU Nois	e Directive
LwA	dB(A)	93

# **Specifications**

# LIFTING CAPACITY EC27D

These capacities are given for a machine equipped with a cabin, 300 mm rubber tracks and without a bucket or quick-coupler.

The below values are in compliance with ISO standard 10567. They do not exceed 75% of the tipping load or 87% of the hydraulic limit with the machine on firm level ground.

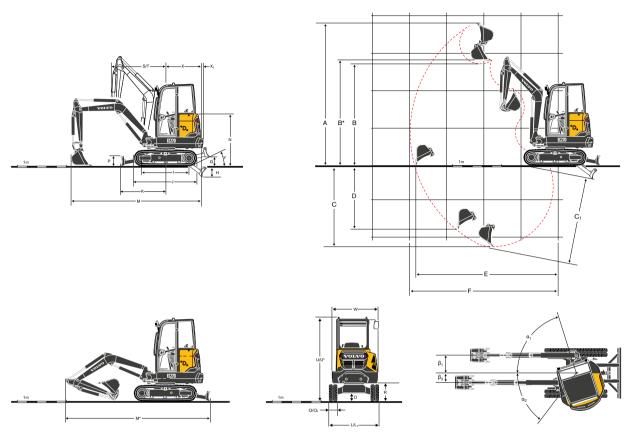
Loads market with an asterisk (\*) are limited by machine's hydraulic lifting capacity rather than tipping load.

Caution: In accordance with standard EN 474-5, the machine must be equipped to carry out handling operations.

It is the operator's obligation to know and follow the applicable national and local safety regulations.

· · · · · · · · · · · · · · · · · · ·		Lifting point radius										
			2.0 m (6.5 ft) 3.0 m (9.8 ft)				Max reach			Max.		
	Lifting point height m (ft in)		Along undercarriage, dozer blade up	Along undercarriage, dozer blade down	Across undercarriage	Along undercarriage, dozer blade up	Along undercarriage, dozer blade down	Across undercarriage	Along undercarriage, dozer blade up	Along undercarriage, dozer blade down	Across undercarriage	m (ft in)
	3 (9' 10")	kg (lb)	-	-	-	626* (1,380*)	626* (1,380*)	602 (1,327)	593 (1,307)	622* (1,371*)	567 (1,250)	3.1 (10' 2")
Arm: 1 200mm /	2 (6' 7")	kg (lb)	-	-	-	619 (1,365)	673* (1,483*)	592 (1,305)	456 (1,005)	583* (1,285*)	437 (963)	3.6 (11'11")
3' 11.2" Counterweight:	1 (3' 3")	kg (lb)	1 081 (2,383)	1 473* (3,247*)	1 017 (2,242)	591 (1,303)	870* (1,918*)	565 (1,246)	418 (922)	617* (1,360*)	401 (884)	3.8 (12' 6")
standard	0 (0' 0")	kg (lb)	1 034 (2,280)	1 804* (3,977*)	972 (2,143)	569 (1,254)	1 024* (2,257*)	543 (1,197)	437 (963)	744* (1,640*)	418 (922)	3.6 (11'11")
	-1 (-3' -3")	kg (lb)	1 036 (2,284)	1 688* (3,721*)	974 (2,147)	569 (1,254)	967* (2,131*)	543 (1,197)	546 (1,204)	911* (2,008*)	522 (1,151)	3.1 (10' 2")
	3 (9' 10")	kg (lb)	-	-	-	626* (1,380*)	626* (1,380*)	626* (1,380*)	622* (1,371*)	622* (1,371*)	618 (1,362)	3.1 (10' 2")
Arm: 1 200mm /	2 (6' 7")	kg (lb)	-	-	-	673* (1,483*)	673* (1,483*)	646 (1,424)	499 (1,100)	583* (1,285*)	479 (1,056)	3.6 (11'11")
3' 11.2" Counterweight: + 100kg / 220lb	1 (3' 3")	kg (lb)	1 180 (2,601)	1 473* (3,247*)	1 110 (2,447)	647 (1,426)	870* (1,918*)	618 (1,362)	459 (1,012)	617* (1,360*)	441 (972)	3.8 (12' 6")
additional	(0' 0")	kg (lb)	1 134 (2,500)	1 804* (3,977*)	1 065 (2,348)	625 (1,377)	1 024* (2,257*)	596 (1,314)	480 (1,058)	744* (1,640*)	460 (1,014)	3.6 (11'11")
	-1 (-3' -3")	kg (lb)	1 135 (2,502)	1 688* (3,721*)	1 067 (2,352)	625 (1,377)	967* (2,131*)	596 (1,314)	600 (1,322)	911* (2,008*)	573 (1,263)	3.1 (10' 2")
	3 (9' 10")	kg (lb)	-	-	-	494* (1,089*)	494* (1,089*)	494* (1,089*)	484* (1,067*)	484* (1,067*)	484* (1,067*)	3.5 (11' 4")
Arm: 1 500mm /	2 (6' 7")	kg (lb)	-	-	-	576* (1,269*)	576* (1,269*)	576* (1,269*)	410 (903)	456* (1,005*)	394 (868)	3.9 (12' 11")
4' 11" Counterweight:	1 (3' 3")	kg (lb)	1 111 (2,449)	1 258* (2,773*)	1 046 (2,306)	601 (1,325)	794* (1,750*)	575 (1,267)	380 (837)	482* (1,062*)	365 (804)	4.1 (13' 5")
standard	0 (0' 0")	kg (lb)	1 042 (2,297)	1 752* (3,862*)	980 (2,160)	574 (1,265)	991* (2,184*)	548 (1,208)	393 (866)	553* (1,219*)	377 (831)	3.9 (12' 11")
	-1 (-3' -3")	kg (lb)	1 032 (2,275)	1 770* (3,902*)	969 (2,136)	566 (1,247)	1 025* (2,259*)	540 (1,190)	470 (1,036)	777* (1,712*)	450 (992)	3.4 (11' 4")
	3 (9' 10")	kg (lb)	-	-	-	494* (1,089*)	494* (1,089*)	494* (1,089*)	484* (1,067*)	484* (1,067*)	484* (1,067*)	3.5 (11' 4")
Arm: 1 500mm /	2 (6' 7")	kg (lb)	-	-	-	576* (1,269*)	576* (1,269*)	576* (1,269*)	450 (992)	456* (1,005*)	432 (952)	3.9 (12' 11")
4' 11" Counterweight: + 100kg / 220lb	1 (3' 3")	kg (lb)	1 210 (2,668)	1 258* (2,773*)	1 139 (2,511)	657 (1,448)	794* (1,750*)	628 (1,385)	418 (922)	482* (1,062*)	402 (886)	4.1 (13' 5")
additional	0 (0' 0")	kg (lb)	1 142 (2,518)	1 752* (3,862*)	1 073 (2,366)	630 (1,389)	991* (2,184*)	601 (1,325)	433 (955)	553* (1,219*)	415 (915)	3.9 (12' 11")
	-1 (-3' -3")	kg (lb)	1 131 (2,493)	1 770* (3,902*)	1 063 (2,344)	622 (1,371)	1 025* (2,259*)	593 (1,307)	516 (1,138)	777* (1,712*)	494 (1,089)	3.4 (11' 4")

# **Specifications**



Descr	ription	Uı	nit	EC27D		
Arm		mm	ft in	1 200 (3' 11")	1500 (4' 11")	
Α	Maximum cutting height	mm	ft in	4 333 (14' 3")	4 598 (15' 1")	
В	Maximum dump height	mm	ft in	3 092 (10' 2")	3 209 (10' 6")	
B*	Maximum bucket clearance	mm	ft in	3 198 (10' 6")	3 280 (10' 9")	
С	Digging depth	mm	ft in	2 486 (8' 2")	2 859 (9' 5")	
C*	Maximum digging depth	mm	ft in	2 715 (8' 11")	3 088 (10' 2")	
D	Maximum vertical wall digging depth	mm	ft in	1 959 (6' 5")	2 601 (8' 6")	
Ε	Maximum digging reach at ground level	mm	ft in	4 295 (14' 1")	4 665 (15' 4")	
F	Maximum digging reach	mm	ft in	4 427 (14' 6")	4 786 (15' 8")	
G	Highest position dozer blade	mm	ft in	401 (1		
Н	Lowest position dozer blade	mm	ft in	422 (1	' 4.6")	
l	Tumbler length	mm	ft in	1 440 (	4' 8.6")	
J	Track length	mm	ft in	1 906 (6' 3")		
K	Dozer blade, maximum reach at ground level	mm	ft in	1 365 (4' 5.7")		
L	Overall width with 300mm (11.8") rubber tracks	mm	ft in	1 550 (5' 1")		
L,	Overall width with 250mm (9.8") rubber tracks	mm	ft in	1 500 (4' 11")		
M	Overall length	mm	ft in	3 933 (12' 11")	3 811 (12' 6")	
M*	Transport length	mm	ft in	4 400 (14' 5")	4 295 (14' 1")	
N	Overall height of engine hood	mm	ft in	1 571 (5' 1.8")		
0	Minimum ground clearance	mm	ft in	2 90 (0' 11.4")		
Р	Dozer blade height	mm	ft in	312 (1' 0.2")		
Q	Shoe width (rubber)	mm	ft in	300 (0' 11.8")		
Q,	Shoe width (rubber)	mm	ft in	250 (0' 9.8")		
R	Ground clearance to superstructure	mm	ft in	559 (1' 10")		
S	Front slew radius	mm	ft in	1 712 (5' 7")	1 759 (5' 9")	
T	Front slew radius with maximum offset	mm	ft in	1 346 (4' 5")	1 389 (4' 7")	
U	Overall height cab	mm	ft in	2 535		
U*	Overall height canopy	mm	ft in	2 505	(8' 3")	
W	Overall width of superstructure	mm	ft in	1 340	(4' 5")	
Χ	Tail slew radius	mm	ft in	1 080	(3' 7")	
Χ,	Additional counterweight overhang	mm	ft in	75 (0' 3")		
Y	Angle of approach		0	3		
Z	Dozer blade width	mm	ft in	1 550		
α,	Maximum boom swing angle to the left		0	72.5		
β	Maximum boom offset to the right	mm	ft in	542 (1' 9")		
$\alpha_{2}$	Maximum boom swing angle to the right		0	5		
$\beta_2$	Maximum boom offset to the left	mm	ft in	279 (0		

# **Equipment**

#### STANDARD EQUIPMENT

### **Engine**

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

Engine restart prevention system. Starter motor is protected against ignition when engine is already running.

Dry-type single element air filter.

Plastic fuel tank with drain plug.

Protective strainer on the fuel succion pipe inside the tank.

Water separator.

Translucent fuel filter.

## Drivetrain

Axial piston hydraulic motors equipped with an epicyclic reduction gears.

Automatic two speed travel.

Bottom flanged rollers lubricated for life.

Grease tensioning wheel lubricated for life.

# Electric / Electronic control system

Maintenance free battery.

IP67 protected electrical system and high quality connectors.

Protected battery cut-off switch.

In-cab 12V power socket.

## Swing system

Radial piston hydraulic motor with direct engagement on the ball internal crown wheel (no reduction gears).

Integrated shockless valve.

Automatic multi-disc spring applied hydraulic released slew brake.

Centralized and remote lubrication of crown wheel & ball bearing.

## Undercarriage

"X" shape, box welded fabricated frame with sloping side members.

2 Tie-down points on the dozer blade.

2 Tie-down points on the frame

2 lifting points on the frame.

Sturdy removeable protecting covers for track motors and slew system.

400HB weld-on edge on dozer blade.

# Hydraulic system

Plastic tank with drain plug.

Variable displacement, load-sensing piston pump.

Closed centre flow-sharing main control valve.

Cushoning on cylinders:

Boom up

Arm out

Large tiltable oil cooler.

Patented filtering and filling element.

Double-acting hydraulic circuit for accessories.

## Canopy

Certified FOPS level 1 on top (Falling Objects Protective Structure).

Certified TOPS (Tip-Overv Protective Structure).

Certified ROPS (Roll-Over Protective Structure).

Cushionned operator station.

Large and roomy uncluttered floor.

Left hand-rail access.

Seat-belt with warning indicator.

Right rear-view mirror.

One working light on the top front.

Toolbox with integrated storage for operator's manual and lockeable door.

Phone holder

#### STANDARD EQUIPMENT

# Cab

Certified FOPS level 1 on top (Falling Object Protective Structure).

Certified TOPS (Tip-Over Protective Structure).

Certified ROPS (Roll-Over Protective Structure).

Cushioned operator station.

Large door access.

Large and roomy uncluttered floor.

Gas-strutt assisted front window opening.

Full opening front bay with in-cab storage for the front lower window.

Front windscreen wiper and washer nozzle.

Right hand side sliding window.

Flat toughened glass.

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 lockeable door.

Cab inside light.

Seat-belt with warning indicator.

Right rear-view mirror.

Two working lights on top front.

Cup holder.

Phone holder.

## Digging equipment

Monobloc box weldded fabricated boom.

Boom cylinder rod protection.

Integrated lifting point on the boom.

Monobloc box weldded arms with casted ends.

Long-life steel bushings.

Hardened, pre-lubricated and corrosion resistant pins.

50 hours greasing intervals.

## 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

Pressure accumulator to lower the equipment on the ground when the engine

High torque / automatic two speed change over switch on the dashboard.

High speed toggle switch on the dozer blade lever.

Large travel pedals.

## Instrumentation and monitoring

Permanent digital hour meter.

Water temperature and fuel level gauges.

Warning lights for hydraulic filter and air filter restriction.

Self-acting emergency engine shutdown. Prevents failures in case of coolant overheating or too low engine oil pressure.

Several warning lights, coupled to an audible signal, in the event of malfunction (overheating, drop in oil pressure, low battery voltage...)

# 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 on top level 1 conforming to ISO 10262 standard.

TOPS conforming to ISO 12117 and EN 13531 standards.

ROPS conforming to ISO 3471-1 and / SAE J1040 standards. OPG 1 conforming to ISO 10262 standard (when equipped).

OPG 2 conforming to ISO 10262 standard (when equipped).

# **Equipment**

# STANDARD AND OPTIONAL EQUIPMENT

• = Standard; ○ = Option

Machine standard and optional equipment may differ depending on local

# **Engine** Engine auto idling Engine auto shut-down with time adjustment 0 Dual stage air filter Operator environment Canopy Cab with heater Vinyl or textile seat, low backrest and standard seat belt Vinyl or textile seat, lumbar asjustment, high backrest and retractable seat belt High visibility 2" orange seatbelt 3" or 75mm black retracteable seat belt High visibility orange entrance foot step Storage box Additional lockeable storage box (behind the seat) ISO / SAE control pattern change Radio preparation (cab) Radio, AUX, USB, Bluetooth Anti-theft, code lock 0 Anti-theft, coded key Digital hourmeter Cupholder (cab only) Phone holder Machine exterior Right rearview mirror Left rearview mirror 0 Protected worklight on the boom Rear worklight Rotating beacon, halogen Warning beacon, flashing LED Halogen worklights LED worklights Additional counterweight Front canopy guard (OPG1) Severe-duty guards for cab or canopy (OPG2, front & top) Several level of paint customisation (RAL specifications) to match 0 with your corporate identity Undercarriage 250mm / 9.8" rubber tracks 300mm / 11.8" rubber tracks

Standard dozer blade with 400 HB weld-on edge

# STANDARD AND OPTIONAL EQUIPMENT

• = Standard;  $\circ$  = Option

Machine standard and optional equipment may differ depending on local

setup.	
Hydraulic system	
Proportional finger tip control for boom offset and accessories	0
On / Off finger tip control for boom offset and accessories	0
Accessory flow adjustment	0
Secondary relief valves for auxiliaries	•
Hammer / shear valve	0
Hydraulic drain for accessories	0
Breaker and clamshell auxiliaries	0
Second accessory circuit	0
Flat face hydaulic quick couplings	0
Single acting circuit for hydraulic quick couplers	0
Double acting circuit for hydraulic quick couplers	0
Boom & arm safety lifting valves with overload indicator	0
Boom, arm and dozer blade safety lifting valves with overload indicator	0
Safety valve certification	0
Mineral hydraulic oil VG46	0
Bio hydraulic oil VG46 (PANOLIN®)	0
Mineral hydraulic oil VG68	0
Mineral hydraulic oil VG32	0
Bio hydraulic oil VG32 (PANOLIN®)	o
Digging equipment	
Short arm 1200mm / 3' 11.2"	0
Long arm 1500mm / 4' 11"	0
Service and maintenance	
In-cab air filter clogg warning lamp	•
In-cab engine overheating warning indicator	•
Tool kit	0
Attachments	
Volvo quick coupler mechanical (pin-on)	0
Extra pin kit	0
Lehnhoff® Quick Coupler Mechanical (MS03)	0
S-type hydraulic quick coupler (S40)	0
General purpose buckets (250mm or 10" / 34L or 0,04yd3 up to 750mm or 29" / 119L or 0,15yd3)	0
Aggressive cut buckets (350mm / 50L or or 550mm / 95L)	0
Fix ditching buckets (1200mm or 47" 125L or 0,16yd3 or 1300mm or 51" 141L or 0,18yd3)	0
Tiltable ditching buckets (1200mm or 47" 125L or 0,16yd3)	0
Hydraulic breaker	0
Telematics	
Care Track	0

# SELECTION OF VOLVO OPTIONAL EQUIPMENT

# LED lights and beacon



OPG1 guards



Anti-theft key



Automatic engine shutdown



Specific colours



Radio / Hands-free phone function



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.

