

VOLVO EXCAVATORS
EC380E

80,690-94,800 lb (36-43 t) 303 hp (226 kW)



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

ELITE EFFICIENCY.

Fuel efficiency is at the center of the EC380E crawler excavator. With advanced technology including Volvo's unique ECO mode and a new electro-hydraulic control system, this production machine delivers a 9% improvement in fuel efficiency. Experience efficient production at its best with Volvo.

Advanced hydraulics

The new electro-hydraulic system uses intelligent technology to control on-demand flow and reduce internal losses in the hydraulic circuit. This increases controllability, shortens cycle times and improves fuel efficiency – resulting in higher productivity and performance.

Work modes

Volvo's unique, integrated work mode system now includes the G4 mode for optimum fuel efficiency and machine performance. Operators can choose the best work mode for the task at hand – select from I (Idle), F (Fine), G (General) and H (Heavy).



Automatic idling system

Engine speed is reduced to idle when the controls are inactive for a pre-set amount of time (between 3 and 20 seconds). This reduces fuel consumption and noise.

Auto engine shut down

To reduce fuel consumption, the engine will automatically switch off when the machine is inactive for a pre-set amount of time (five minutes is the default setting).

Fuel consumption display

A gauge bar on the monitor measures both instantaneous fuel consumption and average fuel consumption. This allows machine owners and operators to monitor fuel usage on different job sites.



ECO mode



Volvo's unique ECO mode optimizes the hydraulic system to reduce flow and pressure losses – resulting in improved fuel efficiency without any loss of performance in most operating conditions. ECO mode is automatically selected but can be switched off via the keypad.

BOOST YOUR PRODUCTIVITY.



Human Machine Interface (HMI)

All machine interfaces – including the joysticks, keypad and LCD monitor – are ergonomically positioned and designed for optimum control and efficiency. For operator convenience and ease of use, the number of switches has been significantly reduced.

It's a fact that operators work more efficiently when they're given the best tools for the job. That's why, on top of being a superior production machine, the EC380E has an ergonomic design with ideally placed controls and switches. With built in comfort and optimized control, operators will work efficiently and productively all day long.

Keypad

The optimally positioned keypad allows the operator to easily navigate through the LCD monitor and activate machine functions in a safe and comfortable way. The functionality of the camera, air conditioning and lights can be customized via the hot key – enabling the operator to select and save desired configurations.



LCD monitor

The new, color, eight inch LCD monitor displays machine status information including fuel consumption data and service interval alerts – enabling increased uptime and high productivity. The user-friendly design is easy to read in any light conditions.



Shortcut switch

The windshield wipers, camera, and audio mute function can be assigned to a shortcut switch located on the joystick. This allows the operator to easily control the selected function by simply pressing a switch.

Seatbelt warning alarm

If the seatbelt is not fastened when the ignition key is turned, a sensor triggers an alarm which sounds for three seconds.

Bluetooth®

For added convenience, operators can now connect a Bluetooth device to the machine.

NON-STOP PRODUCTIVITY.

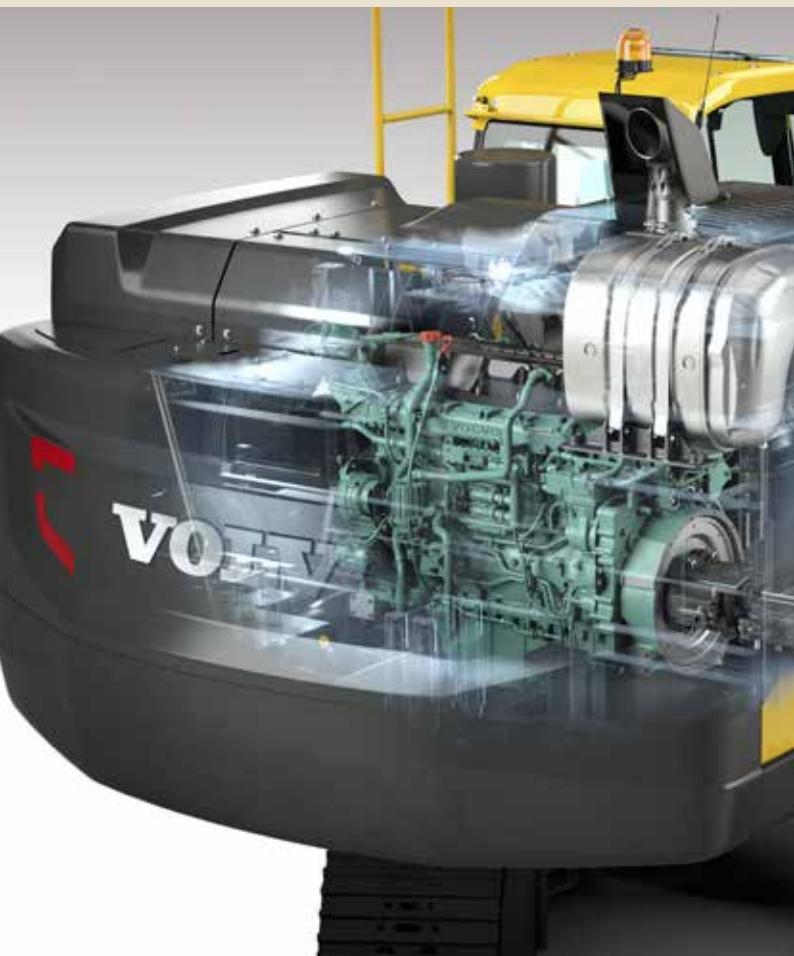
Experienced and skilled Volvo engineers have developed and rigorously tested Stage IV/Tier 4 Final engine systems that deliver the ultimate combination of high productivity and low fuel consumption. Benefit from Volvo's signature high torque at low rpm and experience superior performance and reduced fuel consumption.

Volvo After Treatment System

During the fully automatic regeneration process, particulate matter in the Diesel Particulate Filter is oxidized at low exhaust temperatures via passive regeneration. Volvo uses Selective Catalytic Reduction

Diesel-driven heater

The optional diesel-driven coolant heater helps to start the engine in low temperatures while simultaneously heating the cab. The heater can be set in advance to engage at a specific date and time.



technology where AdBlue®/Diesel Exhaust Fluid is heated to produce ammonia. This causes a chemical reaction which converts NOx to nitrogen and CO₂ – both of which are naturally found in the air. Neither process interrupts machine operation, performance or productivity.

® = registered trademark of the Verband der Automobilindustrie e.V. (VDA)

Cooling fan

The hydraulically-driven, electronically controlled cooling fan regulates the temperature of the vital components. It automatically activates only when needed – reducing fuel consumption and noise. The optional reversible functionality – which blows air in the opposite direction – enables self-cleaning of the cooling units.



Volvo engine

Featuring proven, advanced technology and built on decades of experience, Volvo's robust D13 Stage IV/Tier 4 Final engine boasts more power while reducing both fuel consumption and emissions and delivering superior quality, reliability and durability.

BUILT TO LAST.



Reinforced undercarriage

With a strong three-piece undercarriage and a high strength tensile steel X-shaped frame, Volvo excavators are built to withstand tough conditions. For superior durability, the undercarriage components are reinforced – ensuring long life and high uptime.

From quarries to mass excavation, this heavy-duty production machine has been built to work on tough job sites. Featuring a robust, reinforced structure and high quality welding, the EC380E boasts superior strength and durability. Experience reliability you can count on with Volvo.

Superstructure undercover

The heavy-duty superstructure undercover plates increase durability by providing additional protection to the underside of the machine in tough applications – preventing damage from rock and debris.

Doors and hinges

Volvo's durable design features a rigid side door with a robust handle and hinges for superior durability.



Robust design

The reinforced idler frame, track links and bottom rollers are built to withstand tough conditions for improved durability and reliability in demanding applications.

UP YOUR UPTIME.



Single module cooler

The radiator, charged air cooler and hydraulic oil cooler are situated side-by-side on a single layer to maximize efficiency, reduce blockages and aid cleaning. The system is easily accessed from ground level by simply opening the side door.

At Volvo we believe that maintaining your machine should be as quick and easy as possible. That's why our designers and engineers have developed innovative methods to make maintenance easy. With large, wide opening compartment doors and grouped service points, checks will be carried out faster and you'll get the most out of every operating shift.

Service access

Grouped filters are quick and easy to access from ground level. To facilitate fast servicing, grouped greasing points are easily accessed with the machine in one position.

Anti-slip plates

Punched anti-slip plates provide superior grip and increased safety. The design facilitates easy cleaning.



Storage space

A large storage compartment provides a safe and convenient location for items including a toolbox and grease can.

Handrails

Handrails and full size guardrails provide safe and easy access to the cab and superstructure.

THE PERFECT MATCH.

Maximize your productivity and profitability with the EC380E and Volvo's durable range of attachments. Increase your versatility, access more applications and effectively perform a variety of tasks – all while experiencing faster cycle times and excellent control. Get the most out of your excavator with Volvo.

Bucket range

Volvo's general purpose buckets are the perfect tool for digging and re-handling in soft to medium conditions. Heavy-duty buckets are intended for productive digging in compact materials. Both provide maximum productivity and long life.



Optional auxiliary hydraulics

Factory fitted breaker and shear piping (X1) as well as tilt and rotator piping (X3) increase versatility by enabling a wide range of additional attachments to be used.



S-type quick coupler

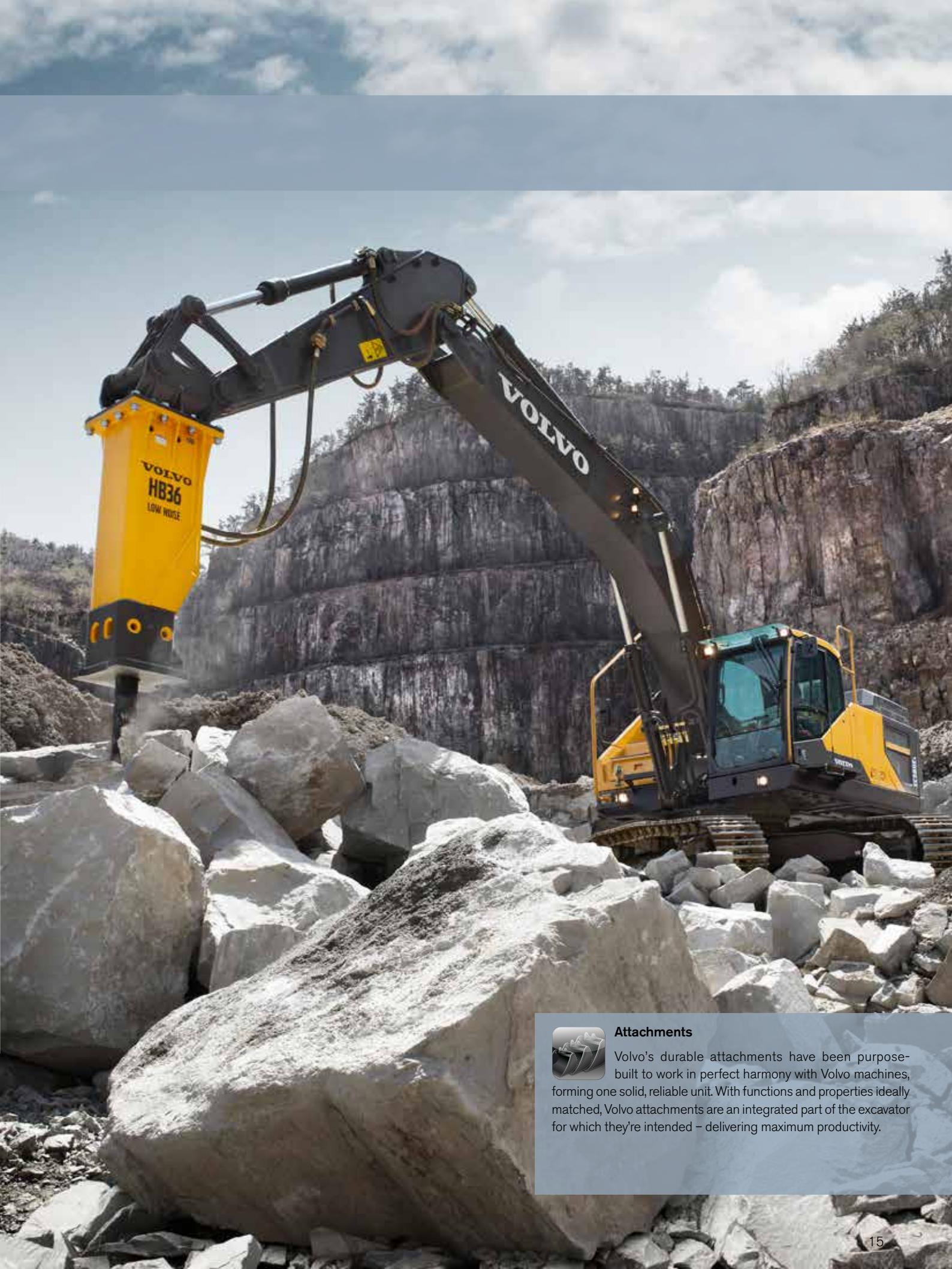
The Volvo S-type quick coupler is designed to work with Volvo attachments – delivering ultimate compatibility and unrivalled performance.

Genuine Volvo wear parts

Volvo offers a selection of economic, replaceable wear parts including high quality teeth, segments, side cutters, adapters and shrouds to protect the bucket and ensure long life.

Universal quick coupler

The Volvo universal quick coupler offers maximum versatility. It picks up a variety of attachments from various manufacturers and meets new safety regulations.



Attachments



Volvo's durable attachments have been purpose-built to work in perfect harmony with Volvo machines, forming one solid, reliable unit. With functions and properties ideally matched, Volvo attachments are an integrated part of the excavator for which they're intended – delivering maximum productivity.

QUALITY COUNTS.

Safe access

Punched anti-slip plates, handrails and full size guardrails provide safe and easy access to the machine.



HMI

All machine interfaces are ergonomically positioned and designed for optimum control and efficiency.

Advanced hydraulics

New electro-hydraulic system and main control valve use intelligent technology to control on-demand flow for high performance and efficiency.

Quick coupler

The Volvo quick coupler offers maximum versatility, picking up a wide variety of attachments.



Attachments

Volvo's durable attachments have been purpose-built to deliver maximum productivity and long service life in combination with Volvo machines.



Reinforced undercarriage

The undercarriage components are reinforced to ensure long life, high uptime and ultimate durability in tough conditions.



Diesel Exhaust Fluid (DEF)

Volvo offers a total DEF solution that is quality assured, cost efficient and easily accessible. Contact your Volvo dealer for more information.

LCD monitor

The new, eight inch LCD monitor clearly displays machine status information for easy operation and increased productivity.

ECO mode



Volvo's unique ECO mode improves fuel efficiency without any loss of performance in most operating conditions.

Service access

Grouped filters are quick and easy to access from ground level via large, wide compartment doors.

Volvo engine



Volvo's D13 Stage IV/Tier 4 Final engine boasts more power while reducing both fuel consumption and emissions and delivering superior quality, reliability and durability.

Single module cooler



The radiator, charged air cooler and hydraulic oil cooler are situated side-by-side on a single layer to maximize efficiency, reduce blockages and aid cleaning.

Volvo After Treatment System

The automatic regeneration process takes place without interrupting machine operation, performance or productivity.

ADDING VALUE TO YOUR BUSINESS.

Being a Volvo customer means having a complete set of services at your fingertips. Volvo can offer you a long-term partnership, protect your revenue and provide a full range of customer solutions using high quality parts, delivered by passionate people. Volvo is committed to the positive return of your investment.



Complete Solutions

Volvo has the right solution for you. So why not let us provide all your needs throughout the whole life cycle of your

machine? By listening to your requirements, we can reduce your total cost of ownership and increase your revenue.



Genuine Volvo Parts

Our attention to detail is what makes us stand out. This proven concept acts as a solid investment in your machine's future. Parts are extensively tested and approved because every part is vital for uptime and performance. Only by using Genuine Volvo Parts, can you be sure that your machine retains the renowned Volvo quality.



Service Network

In order to respond to your needs faster, a Volvo expert is on their way to your job site from one of our Volvo facilities. With our extensive infrastructure of technicians, workshops and dealers, Volvo has a comprehensive network to fully support you using local knowledge and global experience.

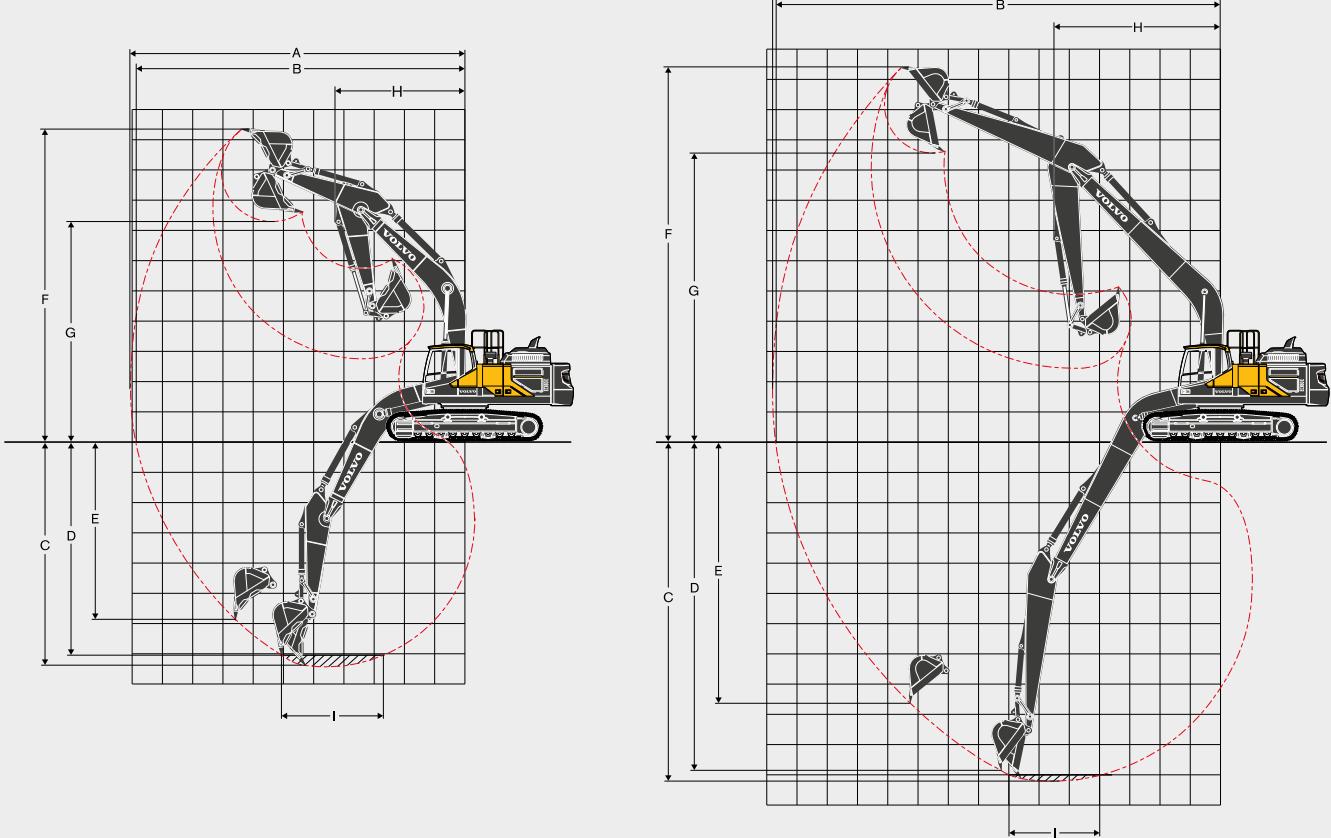


Customer Support Agreements

The range of Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services. Volvo uses the latest technology to monitor machine operation and status, giving you advice to increase your profitability. By having a Customer Support Agreement you are in control of your service costs.

SPECIFICATIONS.

WORKING RANGE



Description	Unit		EC380E						EC380ELR			
Boom			6.2 m, 20'4" ft in		6.45 m, 21'2" ft in			8.5 m, 27'11" ft in				
Arm	m	ft in	2.6	8'6"	2.6	8'6"	3.2	10'6"	3.9	12'10"	5.0	16'5"
A. Max. digging reach	mm	ft in	10 300	33'9"	10 545	34'7"	11 070	36'4"	11 700	38'5"	14 745	48'5"
B. Max. digging reach on ground	mm	ft in	10 075	33'1"	10 325	33'11"	10 860	35'7"	11 500	37'9"	14 590	47'10"
C. Max. digging depth	mm	ft in	6 540	21'6"	6 785	22'3"	7 390	24'3"	8 085	26'6"	10 975	36'0"
D. Max. digging depth (2.44 m/8' level)	mm	ft in	6 180	20'3"	6 430	21'11"	7 060	23'2"	7 735	25'4"	10 665	35'
E. Max. vertical wall digging depth	mm	ft in	5 275	20'3"	5 430	17'10"	5 875	19'3"	6 675	21'11"	8 450	27'9"
F. Max. cutting height	mm	ft in	10 035	32'11"	10 170	33'4"	10 340	33'11"	10 635	34'11"	12 405	40'8"
G. Max. dumping height	mm	ft in	6 945	22'9"	7 095	23'3"	7 285	23'11"	7 560	24'10"	9 610	31'6"
H. Min. front slew radius	mm	ft in	4 115	13'6"	4 315	14'2"	4 275	14'0"	4 240	13'11"	5 730	18'10"
Digging forces with direct fit bucket												
Bucket radius	mm	ft in	1 810	5'11"	1 623	5'4"	1 623	5'4"	1 623	5'4"	1 598	5'3"
Bucket forces	SAE J1179	kN lb	214.5	48,220	198.0	44,510	198.0	44,510	198.0	44,510	148.3	33,340
Breakout force - bucket	SAE J1179	kN lb	234.5	52,720	215.0	48,335	215.0	48,335	215.0	48,335	148.3	33,340
(Normal/Power boost)	ISO 6015	kN lb	243.4	54,720	221.7	49,840	221.7	49,840	221.7	49,840	166.4	37,410
ISO 6015	kN lb	265.4	59,665	242.7	54,560	242.7	54,560	242.7	54,560	166.4	37,410	
ISO 6015	kN lb	187.7	42,195	195.9	44,040	161.9	36,395	141.3	31,765	120.0	26,975	
Tearout force - dipper arm	SAE J1179	kN lb	205.7	46,245	212.9	47,860	176.9	39,770	154.3	34,690	130.9	29,430
(Normal/Power boost)	ISO 6015	kN lb	193.9	43,590	201.1	45,210	166.0	37,320	144.4	32,460	122.0	27,435
ISO 6015	kN lb	211.9	47,635	219.1	49,255	181.0	406,900	157.4	35,385	133.1	29,930	
Rotation angle, bucket	°		164		177		177		177		177	

EQUIPMENTS.

STANDARD EQUIPMENT

Engine

Turbocharged, 4 stroke diesel engine with water cooling, direct injection and charged air cooler that meets Tier 4f EU (Stage IV) requirements
 Air filter with indicator
 Air intake heater
 Cyclone pre-cleaner
 Electric engine shut-off
 Fuel filter and water separator
 Fuel filler pump: 13.2 gal/min (50 l), with automatic shut-off
 Alternator, 80 A

Electric/Electronic control system

Contronics
 Advanced mode control system
 Self-diagnostic system
 Machine status indication
 Engine speed sensing power control
 Automatic idling system
 One-touch power boost
 Safety stop/start function
 Adjustable 8inch LCD color monitor
 Master electrical disconnect switch
 Engine restart prevention circuit
 High-capacity halogen lights:
 Frame-mounted 2
 Boom-mounted 2
 Batteries, 2 x 12 V / 200 Ah
 Start motor, 24 V / 7 kW

Hydraulic system

Hose rupture valve: boom
 Overload warning device
 Automatic sensing hydraulic system
 2-pump flow bucket circuit
 Summation system
 Boom priority
 Arm priority
 Swing priority
 Boom, arm and bucket regeneration valves
 Swing anti-rebound valves
 Boom and arm holding valves
 Multi-stage filtering system
 Cylinder cushioning
 Cylinder contamination seals
 Auxiliary hydraulic valve
 Automatic two-speed travel motors
 Hydraulic oil, ISO VG 46

Frame

Access way with handrail
 Tool storage area
 Punched metal anti-slip plates
 Undercover (heavy-duty)

Cab and interior

ROPS (ISO12117-2) certified cab
 Silicon oil and rubber mounts with spring
 Travel pedals and hand levers
 Adjustable operator seat and joystick control console
 Control joysticks with 4 switches each
 Heater & air-conditioner, automatic
 Flexible antenna
 AM/FM stereo with MP3, USB and bluetooth input
 Hydraulic safety lock lever
 Cab, all-weather sound suppressed, includes:
 Cup holders
 Door locks
 Tinted glass
 Floor mat
 Horn
 Large storage area
 Pull-up type front window
 Removable lower windshield
 Seat belt
 Safety glass
 Sun screens, front, roof, rear
 Rain shield
 Windshield wiper with intermittent feature
 Rear view camera
 Master key

Undercarriage

Undercover (heavy-duty)
 Hydraulic track adjusters
 Greased and sealed track link
 Track Guard

Track shoes

800 mm(32") with triple grousers
Digging equipment
 Boom: 21' 2" (6.45 m) HD
 Arm: 10'6" (3.2 m) HD
 Manual centralized lubrication

OPTIONAL EQUIPMENT

Engine

Block heater: 120 V, 240 V
 Oil bath pre-cleaner
 Diesel coolant heater, 10 kW
 Water separator with heater
 Auto engine shutdown

Electric

Extra work lights: Halogen/LED
 Cab-mounted 3
 Boom-mounted 2
 Counterweight-mounted 1
 Travel alarm
 Anti-theft system
 Rotating warning beacon

OPTIONAL EQUIPMENT

Hydraulic system

Hose rupture valve: arm
 Boom float function
 Hydraulic piping:
 Work tool management system (up to 20 programmable memories)
 Hammer & shear, 1 and 2 pump flow
 Hammer & shear: variable flow and pressure pre-setting
 Additional return filter
 Slope & rotator
 Grapple
 Oil leak (drain) line
 Quick coupler piping
 Volvo hydraulic quick coupler S3
 Volvo hydraulic quick coupler UQC38
 Hydraulic oil, ISO VG 32
 Hydraulic oil, ISO VG 46
 Hydraulic oil, ISO VG 68
 Hydraulic oil, biodegradable 46
 Hydraulic oil, longlife oil 32
 Hydraulic oil, longlife oil 46
 Hydraulic oil, longlife oil 68

Counterweight

13,670lb (6 200 kg), 14,770lb (6 700 kg), 15,980lb (7 250 kg)
 18,080 lb (8 200 kg) for long reach

Cab and interior

Fabric seat with heater
 Fabric seat with heater and air suspension
 Pilot control pattern change
 Opening top hatch
 Falling object guard (FOG)
 Frame-mounted
 Cab-mounted
 Cab-mounted falling object protective structure (FOPS)
 Smoker kit (ashtray and lighter)
 Safety net for front window
 Lower wiper with intermittent control
 Anti-vandalism kit
 Specific key

Undercarriage

Full track guard

Track shoes

Track shoes 24/28/32/36" (600/700/800/900 mm) with triple grousers
 Track shoes 24" (600 mm) HD with triple grousers
 Track shoes 24" (600 mm) with double grousers

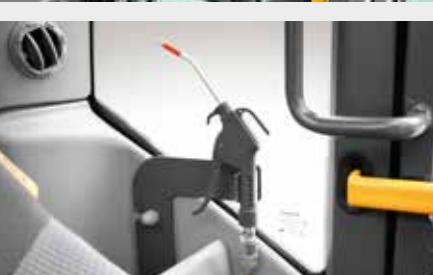
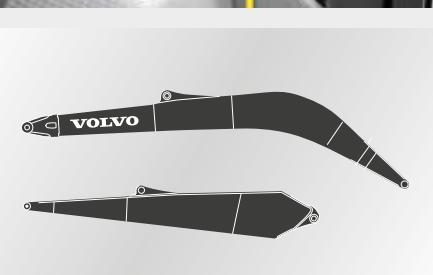
Digging equipment

Boom: 20'4" (6.2 m) ME, 27'11" (8.5 m) LR
 Arm: 8'6" (2.6 m) ME, 12'10" (3.9 m) HD, 16'5" (5.0 m) LR
 Linkage with lifting eye

Service

Tool kit, daily maintenance
 Tool kit, full scale
 Automatic lubrication system
 Air compressor

SELECTION OF VOLVO OPTIONAL EQUIPMENT

Auxiliary hydraulics Breaker/Shear Tilt / Rotator	
Side-view camera	
LED Lights	
Air gun	
Long reach	
Mass excavation	

VOLVO CONSTRUCTION EQUIPMENT



Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 180 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo.

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

VOLVO

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