1893 - 1946 Volvo develops its first crude oil powered internal combustion engine which are followed by small two-stroke, low-speed (1000 rpm) diesel engines.

1946 - 1954 Volvo introduces three and four cylinder diesel engines with direct injection which are followed by turbocharged, direct injection heavy-duty diesel engines.

1978 - 1990 Intercooler technology is introduced leading to the world's first truly low-emission diesel engines - constant engine refinement ensures greater fuel efficiency.

1991 - 2000 In anticipation of Tier 1 emission standards, Volvo introduces air-to-liquid intercoolers with a Twin Pump device for higher engine efficiency and lower emissions.

2001 - 2004 Volvo introduces the Engine Management System which ensures high performance and low emissions - this innovation preceeds Tier 2 emission regulations.

2005 - 2010 To meet Tier 3 emission regulations, Volvo introduces Advanced Combustion Technology allowing in-cylinder emissions control and helps lead the way to Tier 4 compliance.

2011 - 2014 Building on V-ACT, Volvo's Tier 4i platform exceeds regulations - an accomplishment made possible by leveraging our extensive on-highway experience.

2014 Volvo Construction Equipment is preparing for the final tier of emission regulations and this technology will have been proven through our on-highway presence.
What does Tier 4-Interim mean?

Tier 4-Interim focuses primarily on the reduction of particulate matter (PM) and nitrogen oxides (NOx) with focus on reducing hydro-carbons (HC) as well as carbon monoxide (CO).

Is Volvo CE’s Tier 4-Interim engine solution proven or will a new design be required like others in the industry?

Over the past decade, Volvo has been the world leader in 9-18 liter engines with extensive experience gained over multiple industries. Since 2007, Volvo Trucks has proven our Tier 4 technology reliable and ready for off-highway performance. Volvo CE leverages this expertise providing you with the performance you demand for your extreme conditions.

What is DPF regeneration and why is it needed?

DPF regeneration means cleaning the filter by way of burning off particulate matter (soot) that has accumulated in the filter during operation - a process needed in order to ensure proper engine and machine performance. Under normal operating conditions, regeneration will take place every 8 to 10 hours and take approximately 20 minutes. There will be no loss of machine performance and will not interfere with the normal operation of the machine. The operator will be fully aware on the status of regeneration due to safety and service criteria through electronic monitoring.

From draft board to final product, Volvo has designed the entire system and has ensured that the quality and durability of the system components including cooling and packaging of the system have been given full attention, bearing in mind the demanding operational conditions of construction equipment.

Will Volvo’s construction equipment see fuel consumption impacts due to the Tier 4-Interim technical solutions?

The high efficiency of our regeneration system and Tier 4-Interim solution ensures that the impact on fuel consumption is minimal. The impact varies somewhat depending on engine size and engine load / application. Our target is to achieve enhanced performance, emission reductions and optimized fuel efficiency, which, depending on the engine duty cycle, will translate into somewhat lower fuel consumption compared to current levels. In some products and applications the reduction in fuel consumption will be up to 5% on average.
Engine oil requirements

VDS-4 Ultra Diesel Engine Low-Ash Oil has been available from Volvo since 2007 with on-road trucks.

Not only do our engines meet and exceed emissions requirements, we work to reduce noise levels and vibrations to keep the operator comfortable over the long haul.

Refined computer programming will alert operators when regeneration needs to occur. Operation is possible while the machine regenerates, thus reducing downtime.

All the power you expect from one of the world’s largest engine manufacturers, alongside perfectly matched drivetrains and components to maximize performance in any application.
Ultra low sulfur diesel is required in order to operate machinery with Tier 4 engines. This fuel is the same fuel that has been used with on-highway trucks since 2007.

Volvo’s particulate filter cleans itself by oxidizing particulate matter during regeneration and only needs service every 4500 hours. Regeneration cleans the filter every 8 to 10 hours during machine operation.

The variable turbocharger helps increase power and provides instant torque. It helps enhance performance and promotes high fuel efficiency.

Quality components and strategic placement of filters provides for easy service, keeping machine downtime at a minimum and production time at a maximum.
A strong, dedicated, capable dealer network.

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

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

Building the best starts right here.

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

The major R&D center and manufacturing plant in the Americas is located in Shippensburg, Pennsylvania. This facility has been in operation for over 30 years and – with its recently added 200,000 sq ft expansion – now covers 570,000 sq ft on an 80 acre campus. Dedicated work teams and highly advanced technologies and techniques using the Volvo Production System ensure continuous quality improvements, labor savings and cost control to reach the high quality that our customers have come to expect from Volvo.
CareTrack - Volvo's telematics system works with our exclusive machine tracking info system, MATRIS, using guided diagnostics to track and analyze machines remotely - minimizing costs and maximizing uptime.

Customer Support Agreements - Gives you peace of mind by reducing total ownership costs, maximizing uptime, and distributing maintenance and major repair costs.

Parts - Genuine Volvo Parts and certified Volvo technicians will keep your machine running and working hard over the long haul.

Attachments - Providing customers with a wide variety of attachments keep your machine working and open up new job opportunities.

VOLVO'S GLOBAL SUPPORT STRENGTH

Volvo has the expertise in designing power systems that move the world and to provide you the support you need to succeed. Volvo's expertise shines in Volvo Construction Equipment, Volvo Aero, Volvo Buses, Volvo Penta and Volvo Trucks - Volvo Financial Services help support you during purchasing phases. Our company performance has been honed on land, over the sea, across the sky and into space. So when we say Volvo strength is tested and proven, you can believe it. Trust in it. It's the real advantage of Volvo's global strength.
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 175 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.