

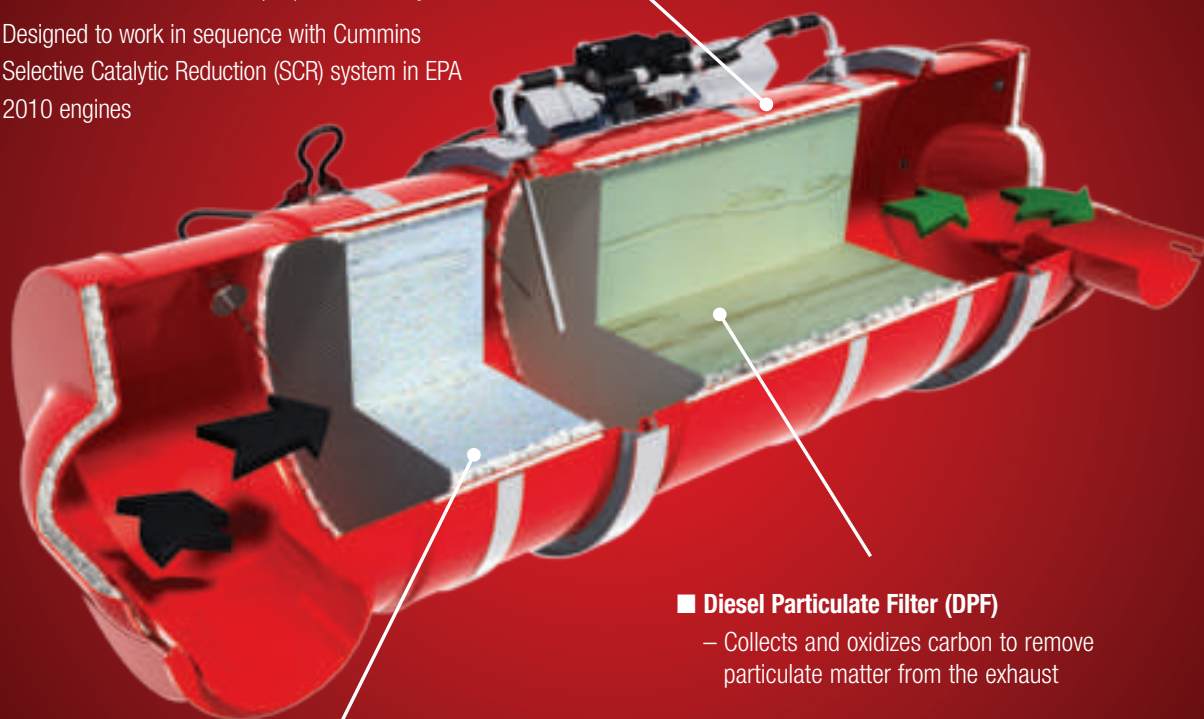


EveryTM Advantage.

Cummins Particulate Filter
For Fire And Emergency Vehicles.
For EPA 2007 And 2010 Engines.

■ Cummins Particulate Filter

- Replaces the muffler in the exhaust system with standard inlet and outlet connections
- Fully integrated and constantly monitored by the Cummins Electronic Control Module (ECM)
- Reduces Particulate Matter (PM) emissions by 90%
- Designed to work in sequence with Cummins Selective Catalytic Reduction (SCR) system in EPA 2010 engines



■ Diesel Particulate Filter (DPF)

- Collects and oxidizes carbon to remove particulate matter from the exhaust

■ Diesel Oxidation Catalyst (DOC)

- Increases oxidation of carbon in the DPF
- Increases passive regeneration for improved fuel economy

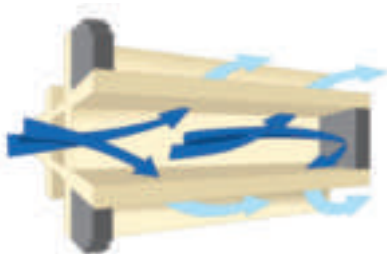
Cummins Particulate Filter.

Aftertreatment System – How It Works.

The Cummins Particulate Filter is part of the Cummins Aftertreatment System that is designed and manufactured by Cummins Emission Solutions.

Exhaust flows out of the engine and into the Cummins Particulate Filter. It passes through the Diesel Oxidation Catalyst (DOC) and then into the Diesel

Particulate Filter (DPF), where Particulate Matter (PM) is collected on the walls of the DPF. The carbon collected is then oxidized to remove it from the DPF. This process is called regeneration.



Passive Regeneration — Occurs when the vehicle's duty cycle and exhaust temperature drive the continuous oxidation of carbon. No incremental actions are required by the engine or operator to keep the DPF clean.



Active Regeneration — Required when the duty cycle does not generate enough heat to convert all the carbon being collected in the DPF. In this case, the ECM initiates an active regeneration by injecting a small amount of diesel fuel into the exhaust stream, which generates heat as it enters the DOC. The additional heat ensures that the excess carbon is oxidized without any operator intervention.

Indicator Lamps And Switches – What You'll See.

With the Cummins Aftertreatment System, there are dash indicator lamps and switches installed by the OEM.

Aftertreatment Diesel Particulate Filter Lamp — Indicates the DPF is approaching the need for regeneration.



High Exhaust System Temperature (HEST) Lamp — Illuminates to indicate that high exhaust temperatures may exist due to aftertreatment regeneration.



Manual Regeneration Switch — Allows an operator to perform an active regeneration while parked.

Regeneration Inhibit Switch — Used to prevent or stop an active regeneration.

Operator Actions.

The Cummins Particulate Filter has been designed for minimal operator interaction and maintenance. During normal operation, no operator interaction is required. The operator will be alerted if action is needed, through a sequence of dash lamps. They include:

- Illuminated DPF Lamp
- Flashing DPF Lamp
- Flashing DPF Lamp with Warning or Check Engine Lamp
- Illuminated Stop Engine Lamp

For more information on this lamp sequence, please refer to the Driver Tips For Fire And Emergency Vehicles flyer, Bulletin 4971316.

- When the HEST Lamp illuminates, be aware that high exhaust temperatures may exist. Therefore, use caution around the exhaust system.
- Unnecessary or excessive use of the Inhibit Switch may result in the need to service or replace the DPF.
- The only maintenance requirement of the Cummins Particulate Filter is to remove ash from the DPF – ash that is a result of lube oil consumed by the engine. The regeneration process removes carbon only from the filter. Maintenance intervals will vary between 200,000 and 400,000 miles (320,000-640,000 km) or up to 6,750 hours, depending on the duty cycle, oil consumption and type of oil being used.
- Reference your Cummins Owners Manual and your vehicle's owners manual for complete operating instructions, including specific lamp and switch information.



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