



Every™ Advantage.

Cummins Particulate Filter For Tier 4 Interim Engines, 174-600 hp (130-447 kW)

■ Cummins Particulate Filter

Our fully integrated Cummins Particulate Filter consists of our Diesel Oxidation Catalyst (DOC), Diesel Particulate Filter (DPF), and double-wall thermal insulation, replacing the Tier 3 muffler while achieving equivalent sound reduction.

■ Reduces Particulate Matter emissions by 90%.

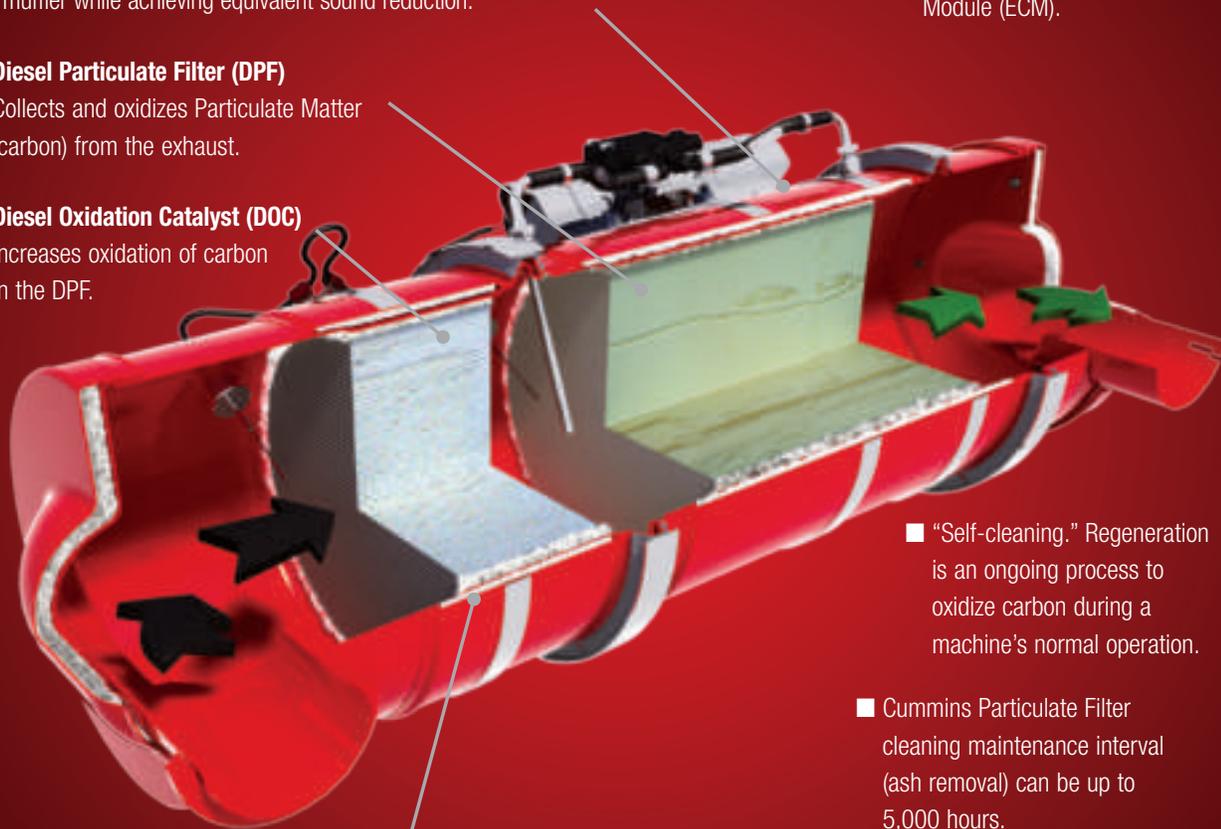
■ The Cummins Particulate Filter is fully integrated and constantly monitored by the Cummins Electronic Control Module (ECM).

■ Diesel Particulate Filter (DPF)

Collects and oxidizes Particulate Matter (carbon) from the exhaust.

■ Diesel Oxidation Catalyst (DOC)

Increases oxidation of carbon in the DPF.



■ “Self-cleaning.” Regeneration is an ongoing process to oxidize carbon during a machine’s normal operation.

■ Cummins Particulate Filter cleaning maintenance interval (ash removal) can be up to 5,000 hours.

■ Designed and manufactured by Cummins Emission Solutions.

■ Double-Wall Thermal Insulation

Delivers skin temperatures equivalent to a Tier 3 muffler during regeneration.

■ During normal operation, no operator interaction is required.

Cummins Particulate Filter.

How It Works.

Cummins Particulate Filter is used on QSX15, QSX11.9, QSL9 and QSB6.7 Tier 4 engines rated at 174-600 horsepower (130-447 kW).

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 filter. The carbon is then oxidized to remove it from the DPF. This cleaning process is called regeneration.

More Passive. Less Active.

Passive regeneration occurs when the equipment's duty cycle and exhaust temperature drive the continuous oxidation of carbon, up to 99% of the time, depending on application. On the rare occasion on which the duty cycle does not generate enough heat to convert all the carbon being collected in the DPF, the Electronic Control Module (ECM) initiates an active regeneration by injecting a minimal amount of diesel fuel into the exhaust stream. As the diesel fuel enters the DOC, a chemical reaction generates additional heat, ensuring that the excess carbon is oxidized. No burner is required to generate additional heat, and there is no flame in the exhaust system to raise the temperature. No incremental actions are required by the engine or operator to keep the DPF clean.

Indicator Lamps And Switches.

With the Cummins Particulate Filter, there are new indicator lamps and switches installed on the instrument panel by the Original Equipment Manufacturer (OEM).

Diesel Particulate Filter Lamp —

Indicates that the DPF is approaching the need for regeneration.



High Exhaust System Temperature (HEST) Lamp —

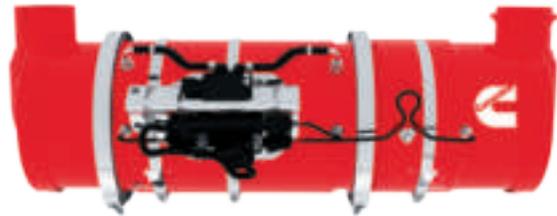
Illuminates to indicate that high exhaust temperatures may exist due to active regeneration.



Regeneration Inhibit Lamp — Indicates that the Regeneration Inhibit switch is engaged. Prevents active regeneration from occurring.



Consult the Owners Manual in your equipment for specific lamp and switch information.



Operator Actions.

The Cummins Particulate Filter has been designed for minimal operator interaction and maintenance.

- If the DPF lamp illuminates, ensure that the Regeneration Inhibit switch is in the "off" position. This is an indication that regeneration is needed. Regeneration can be initiated by performing a stationary regeneration at the operator's earliest convenience.
- If the DPF lamp is flashing, make sure the Regeneration Inhibit switch is in the "off" position. Perform a stationary regeneration as soon as possible. Stationary regeneration is the same as active regeneration, but takes place while the equipment is not being operated. Consult your Owners Manual for instructions on how to initiate a stationary regeneration.
- When the High Exhaust System Temperature (HEST) lamp illuminates, be aware that high exhaust temperatures may exist. Use caution around the exhaust system.
- Unnecessary or excessive use of the Regeneration Inhibit switch may result in the need to service or replace the Cummins Particulate Filter.
- The only maintenance requirement of the Cummins Particulate Filter is removal of the ash that is a result of lube oil consumed by the engine. The regeneration process removes only carbon from the filter. Service intervals can be up to 5,000 hours when using low-ash oil. The ash cleaning should be performed only by an authorized technician. Contact your local Cummins distributor or dealer or visit www.Tier4.info.



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