



**EVERY CHALLENGE.  
MET.**



**EMISSIONS TECHNOLOGY FOR EPA '07  
ON-HIGHWAY BUS APPLICATIONS**



## Every Challenge. Met.

When Cummins designed the first new engines of the 21st century, we created platforms with the capacity to meet stringent emissions standards well into the future. In 1998, we introduced Interact™ System engines with a totally integrated approach. In 2002, we were the first engine manufacturer to certify a product to meet the new emissions standards with the introduction of the cooled-EGR subsystem and our patented Variable Geometry Turbocharger (VG Turbo). And in 2007, our entire lineup of engines – the ISB, ISC, ISL and ISM have fully integrated systems controlling everything from the air intake to the exhaust aftertreatment.

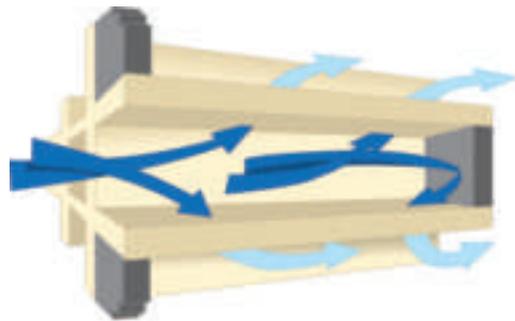
## Meeting Every Standard.

During the 2007-2010 time period, PM (particulate matter) and NOx (oxides of nitrogen) must be reduced by 90% from 2004 levels. Specifically, PM had to be reduced to .01 g/hp-hr beginning in 2007. NOx must be reduced to .2 grams per horsepower-hour (g/hp-hr) on a “phased in” basis. Crankcase gases are included in emissions calculations. That is why all EPA ‘07 Cummins engines will use an improved crankcase ventilation management system, together with the cooled-EGR subsystem.

## Proven Technology. Total Integration.

Cummins emissions solution for 2007 takes proven engine technology and electronics, and adds a proprietary Cummins Particulate Filter. This filter is the result of years of experience working with bus customers. In fact, our Fleetguard® Emission Solutions™ subsidiary is one of the largest suppliers of aftertreatment products in North America.

Because the Cummins Particulate Filter has been developed using in-house expertise, it has been integrated with the engine's combustion and air-handling systems on our EPA '07 engines from the beginning for optimum performance. And, it is designed to last the life of the engine.



## Trapping Every Particle.

Cummins Particulate Filter automatically traps and burns microscopic particles. When there isn't sufficient heat in the exhaust, the Electronic Control Module (ECM) initiates an active regeneration event, so the catalytic reaction can take place.

The active regeneration event is managed by the Electronic Control Module, without the need for fuel lines running to the Cummins Particulate Filter. It's a simple, clean installation that is highly dependable and efficient.

## Proven Durability, Today.



Cummins cooled-EGR subsystem isn't like the exhaust gas recirculation systems found on other diesel engines. It's simpler and more robust. Together with our patented Holset Variable Geometry Turbocharger (which has only one moving part in the hot exhaust stream for reliability and durability) it's a total

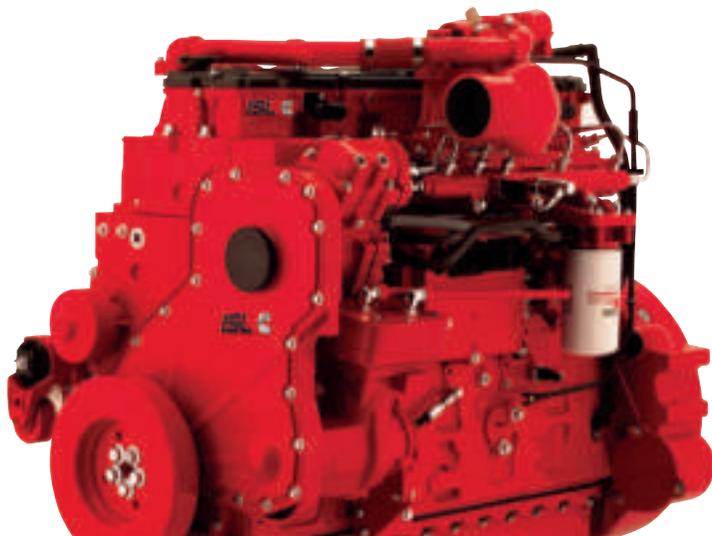
package designed to keep you on schedule and on budget on every route.

## Strong Performance.

Every one of our engines will feature our proven cooled-EGR subsystem, with the Variable Geometry Turbocharger (VG Turbo) that provides exceptional engine response at every rpm. This subsystem has been proven efficient and effective, running more than 16 billion miles in every terrain and weather condition possible.

These engines come with highly advanced fuel systems that deliver strong performance with exceptional dependability and durability. Smooth and quiet, they are designed to make work a lot easier for your drivers.

All our EPA '07 engines will run on Ultra-Low Sulfur Diesel (ULSD) fuel, which inherently produces less particulate matter from combustion. ULSD also reduces the production of sulfuric acid.



## Ease Of Maintenance.

The Cummins Particulate Filter is designed for easy maintenance during routine service events. The maintenance interval will vary depending on your bus fleet's duty cycle. The Cummins Particulate Filter can be monitored through the ECM or in-cab displays for servicing at the optimal interval.

A new industry-wide specification for lubricating oil is required for all EPA '07 engines. This new low-ash oil specification is designed to be compatible with low-emissions engines and particulate filters.

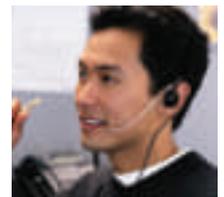


## The Right Technology.

Cummins is ready with an integrated solution that meets '07 emissions without compromise. Proven engines, electronics and the Cummins Particulate Filter – working together to keep your bus operation running cleanly, quietly and efficiently. Every day. Every time. Every route.

## Every Question. Answered.

For more information about Cummins engines for the bus market, visit [everytime.cummins.com](http://everytime.cummins.com), call us at 1-800-DIESELS (1-800-343-7357) or contact your local Cummins dealer or distributor.





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