

Service Bulletin **"Fuels for Cummins Engines"**



Additives

This section gives information on the use of fuel additives in Cummins engines including the use of biodiesel and water emulsifiers. Cummins Inc. neither approves nor disapproves of the use of any fuel additive, fuel extender, fuel system modification, or the use of any device not manufactured or sold by Cummins Inc. or its subsidiaries. Engine damage, service issues, or performance problems that occur due to the use of these products are not considered a defect in workmanship or material as supplied by Cummins Inc. and can not be compensated under the Cummins warranty.

Fuel Additives

Cummins engines are designed, developed, rated, and built to operate on commercially available diesel fuel as listed in Required Diesel Fuel Specifications; therefore, it is not our policy to recommend fuel additives.

In extreme situations, when available fuels are of poor quality or problems exist which are peculiar to certain operations, additives can be used. However, Cummins recommends consultation with the fuel supplier or Cummins Service Engineering Department prior to use of fuel additives

Among the situations where additives can prove useful are the following:

1. A cetane improver additive can be used with low cetane fuels.
 2. A pour point depressant or flow improver additive can help with high pour point fuels.
 3. A wax crystal modifier can help with fuels with high cold filter plugging points (CFPP).
 4. An anti-icer can help prevent ice formation in wet fuel during cold weather.
 5. An anti-oxidant or storage stability additive can help with fuel system deposits and poor storage stability.
 6. A lubricity enhancer can be used to increase the lubricity of fuels so that they meet the requirements given in Table 1.
 7. A biocide or fungicide can help when fuels are prone to contamination with bacteria or fungus. Although other additives may provide some performance benefits, Fleet-tech™ Microbicide (quart - CC2661 and gallon - CC2662) is the only product recommended by Cummins to treat fuels with biological contamination problems.
 8. Fleetguard's Fleet-tech™ Turbo Diesel All Season Fuel Additive (pint - CC2588) can be used with low cetane fuels to boost cetane values. Although other additives are available that may boost the cetane number, Fleetguard's Fleet-tech™ All Season Fuel Additive is the only diesel fuel additive recommended by Cummins for cetane number improvement.
 9. Fleetguard's Fleet-tech™ Asphaltene Conditioner (quart - CC2597 and 2.5 gallon CC2596) or Fleetguard's Fleet-tech™ Turbo Diesel All Season Fuel Additive (pint -CC2588) can be used to clean carbon deposits from injectors and improve lubricity in fuels that fall below the recommended lubricity specification in Table 1. Although other additives may provide some performance benefits, Fleettech™ Asphaltene Conditioner, and Turbo Diesel All Season Fuel Additive are the only diesel fuel additives recommended by Cummins for use with fuels that do not meet the lubricity specification in Table 1.
 10. Fleetguard's Fleet-tech™ Winter Conditioner (pint - CC2591, quart - CC2592, 2.5 gallon - CC2595, 5 gallons - CC2593, 55 gallons - CC2594, and bulk - CC2590) and Turbo Diesel All Season Fuel Additive (pint - CC2588) can be used to improve the pour point and cold filter plugging point of diesel fuels in addition to preventing ice formation in wet fuels during cold storage. Although other additives are available that may provide some winter performance benefits, Fleet-tech™ Winter Conditioner and Turbo Diesel All Season Fuel Additive are the only diesel fuel additives recommended by Cummins for winter performance improvements.
- Premium diesel fuels can possibly contain several additives that can accomplish the same as buying additives and adding them to lower quality diesel fuel. A premium diesel fuel is defined by the Worldwide Fuel Charter as described on page 1. Cummins recommends the use of a premium diesel fuel during winter (ambient conditions at -7°C [20°F] or below) operating conditions. Great care must be exercised in the choice and use of additives. Some fuel additives can be harmful to the engine. Fuel additives containing ash forming materials will cause combustion chamber deposits. Most legitimate fuel additives perform only one function. Multifunctional fuel additives are mixtures of several additives. All fuel additives perform differently in different fuels; therefore, the additive used must be one to which the fuel will respond. There are no known additives that increase the power or improve the efficiency of a properly maintained engine.