

DIESEL KLEEN® +CETANE BOOST®

TECHNICAL BULLETIN 3800



Diesel Kleen® +Cetane Boost®
is endorsed and recommended
by Cummins®



Benefits

Cleans dirty injectors and prevents injector sticking in both High Pressure Common Rail (HPCR) and older systems

Removes both Internal Diesel Injector Deposits (IDIDs) and external deposits (nozzle coking) that decrease power and fuel economy

Boosts cetane up to 6 numbers - engines run smoother with less power lag and faster cold starts

Boosts power - reduces need for downshifting

Improves fuel economy up to 8%

Contains **Slickdiesel® Lubricator** to protect fuel pumps and injectors from increased wear caused by Ultra Low Sulfur Diesel (ULSD) fuel

Prevents asphaltene formations and thermal breakdown of diesel fuel - protects against sludge formations that plug fuel-filters and injectors

Provides superior corrosion protection

Effective in all diesel fuels, including ULSD, biodiesel and biodiesel blends

Boosts Cetane up to 6 Numbers

There is a direct relationship between a diesel fuel's cetane number and its ignition point. Delayed ignition is a primary cause of increased emissions and inferior engine performance. The lower the cetane number, the longer the ignition delay. Fuels with high cetane numbers burn more quickly and more completely, resulting in smoother running engines with less power lag, lower emissions and easier engine starting.

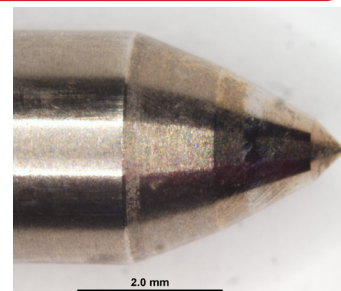
Diesel Kleen® +Cetane Boost® is a total injector cleaner and performance improver that cleans injectors, boosts cetane and lubricates fuel injection components. It restores lost power, smooths rough-running engines and improves fuel economy up to 8%.

Advanced OEM Recommended Injector Cleaning Technology

Power Service **Diesel Kleen +Cetane Boost** is formulated with the most effective diesel injector detergent technology in the industry to provide maximum clean-up and prevention of diesel deposits found in modern direct injection diesel engines. This technology prevents and restores lost power and fuel economy caused by both Internal Diesel Injector Deposits (IDIDs) and external deposits (nozzle coking). These deposits cause injector sticking and disrupt fuel flow into the combustion chamber. Diesel Kleen +Cetane Boost provides accelerated clean-up and keeps-clean performance in all industry standard diesel injector deposit tests including: DW10B, DW10C and XUD-9. The engine operational improvements are significant:

- Improved fuel economy up to 8%
- Increased power and reduced need for downshifting
- Smoother and quieter engine operation

DW10B DIESEL FUEL INJECTOR FOULING TEST BEFORE AFTER



High Pressure Common Rail injectors before and after clean-up with fuel treated with Diesel Kleen +Cetane Boost.



Diesel Kleen® +Cetane Boost®
is endorsed and recommended
by Cummins®

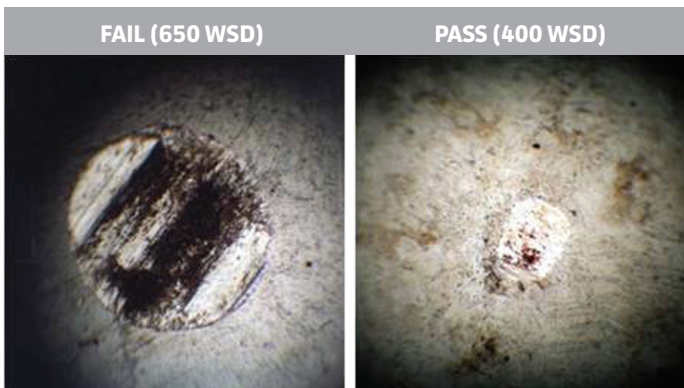
DIESEL KLEEN® +CETANE BOOST®

TECHNICAL BULLETIN 3800



Contains Slickdiesel® Lubricator for Maximum Fuel Lubrication

Slickdiesel is a proprietary Power Service diesel fuel lubricator that sets the standard for lubrication of diesel fuel injection systems. The components of diesel fuel injection systems are lubricated by diesel fuel. Without proper lubrication, fuel injectors and pumps are subjected to increased wear rates and premature failure. **Diesel Kleen® +Cetane Boost®** contains **Slickdiesel** and exceeds the ASTM D-975 specification of 520 Wear Scar Diameter (WSD) for lubricity in diesel fuel, allowing operators to achieve the EMA recommended 460 WSD.



High Frequency Reciprocating Rig (HFRR) evaluates the lubricity of diesel fuel. The Wear Scar Diameter (WSD) maximum is 520 microns. A WSD measuring larger than 520 does not meet lubricity specifications.

TYPICAL PHYSICAL PROPERTIES OF DIESEL KLEEN +CETANE BOOST

Color

Customer Convenience +Cetane Boost Formula (1:400)..... Straw
Concentrated +Cetane Boost Formula (1:1,000)..... Brown
Concentrated +Cetane Boost Formula (1:1,500)..... Brown

Density (lbs/gal)

Customer Convenience +Cetane Boost Formula (1:400)..... 7.7
Concentrated +Cetane Boost Formula (1:1,000)..... 7.8
Concentrated +Cetane Boost Formula (1:1,500)..... 7.9

Sulfur Content <15 parts per million (ppm)

Flash Point

Customer Convenience +Cetane Boost Formula (1:400)..... 116°F.
Concentrated +Cetane Boost Formula (1:1,000)..... 117°F.
Concentrated +Cetane Boost Formula (1:1,500)..... 143°F.

Solubility

In Diesel Fuel Completely Soluble
In Biodiesel and Biodiesel Blends Completely Soluble
In Kerosene Completely Soluble

Shipping and Handling

Part Nos. 3016, 3025, 3080, 3128, 3850, 3855.....Not regulated by DOT
Part No. 3860.....Combustible Liquid N.O.S. NA 1993 (Petroleum Distillates),
..... Marine Pollutant (2-Ethylhexyl Nitrate)

Use of Diesel Kleen +Cetane Boost will not harm oxidation catalysts or diesel particulate filters on 2007 or newer engines.

This diesel fuel additive complies with the federal low sulfur content requirements for use in diesel motor vehicles and nonroad engines.

DIRECTIONS FOR USE

Add **Diesel Kleen +Cetane Boost** as directed on the container label. To ensure thorough mixing, add prior to filling tanks with diesel fuel.

PART#	PACK	TREATS
CUSTOMER CONVENIENCE +CETANE BOOST FORMULA – 1:400 TREATMENT RATIO		
3016-09	9/1 16-Ounce	Up to 40 Gallons
3025-12	12/1 32-Ounce	Up to 100 Gallons
3080-06	6/1 80-Ounce	Up to 250 Gallons
CONCENTRATED +CETANE BOOST FORMULA – 1:1,000 TREATMENT RATIO		
3128-04	4/1 One-Gallon	Up to 1,000 Gallons
CONCENTRATED +CETANE BOOST FORMULA – 1:1,500 TREATMENT RATIO		
3850-02	Two/2.5-Gallon	Up to 3,750 Gallons
3855	55-Gallon Drum	Up to 82,500 Gallons
3860	260-Gallon Tote	Up to 390,000 Gallons
3800	6,000-Gallon Min.	Up to 9,000,000 Gallons



Endorsed and recommended
by Cummins®

**POWER
SERVICE**
Diesel Additives