**AMSOIL**

*The First in Synthetics* ®

# Diesel Injector Clean
## Cleans and Protects

AMSOIL Diesel Injector Clean (ADF/ADFP) removes performance-robbing deposits from diesel fuel injectors to help restore horsepower and improve fuel economy. It is formulated for all types of diesel engines, including high-pressure common-rail designs. Diesel Injector Clean is formulated to clean both the tough-to-remove internal diesel injector deposits surfacing in modern high-pressure common-rail diesel engines and traditional carbonaceous deposits. Diesel Injector Clean delivers confidence in your diesel's performance. Its concentrated formula uses unique chemistry to target and eliminate specific performance issues, maximizing diesel power.

### Helps Restore Horsepower & Improve Fuel Economy

Fuel injector deposits interrupt spray patterns, causing poor fuel atomization, incomplete combustion, excessive emissions and smoke. High-pressure common-rail fuel systems are becoming commonplace as vehicle manufacturers attempt to produce more power while still meeting tightening emissions standards. In high-pressure common-rail systems, injection pressures can be 30,000 psi and higher to atomize the fuel into a fine mist for more efficient combustion, yielding increased power and fuel economy while reducing emissions. To maintain these high pressures, injector assemblies are highly engineered, with clearances as tight as 1-3 microns (a human hair is typically 70-100 microns thick). Even minimal internal diesel injector deposits on the injector pintal or other components can lead to sticking and even seizure, reducing power, fuel economy and operability. Traditional additive chemistry is not designed to address these tough-to-remove deposits.

Diesel Injector Clean features advanced chemistry that delivers concentrated strength to target internal diesel injector deposits and traditional carbonaceous deposits, helping to restore horsepower and operability to like-new condition. Acceleration is improved and, with regular use, Diesel Injector Clean continues to enhance performance by keeping injectors clean. The net savings on fuel can result in no additional cost of ownership.

### Lubricates Pumps & Injectors to Reduce Wear

Ultra-low-sulfur diesel fuel (ULSD) provides significantly reduced lubricity – a critical property in controlling wear in fuel pumps and injectors. Diesel Injector Clean adds back the lubricity the fuel pump and injectors need, reducing wear, improving service life and saving time and money on maintenance costs.

### Minimizes Soot-Loading

Diesel Injector Clean's powerful formula cleans fuel injectors and piston rings for improved combustion and better sealing. It minimizes soot generated from incomplete combustion and helps keep soot out of the crankcase, reducing soot-related wear and engine oil viscosity increase.

### Separates Fuel and Water

Diesel Injector Clean is an alcohol-free product that protects fuel systems against water contamination. It helps prevent fuel/water emulsions so that separating filters can safely remove water before it reaches the injectors, where it can cause corrosion. Water can be drained easier, ensuring drivability.
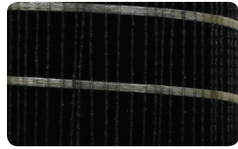
- **Cleans** dirty injectors
- **Lubricates** pumps and injectors to reduce wear
- **Extends** fuel-filter life
- **Improves** fuel economy up to 8%
- **Restores** power and torque
- **Reduces** smoke and emissions
- **Helps** prolong time between EGR and DPF regenerations
- **Combats** fuel-system corrosion
- **Reduces** downtime and maintenance costs
- **Safe for use** in all diesel fuels, including biodiesel
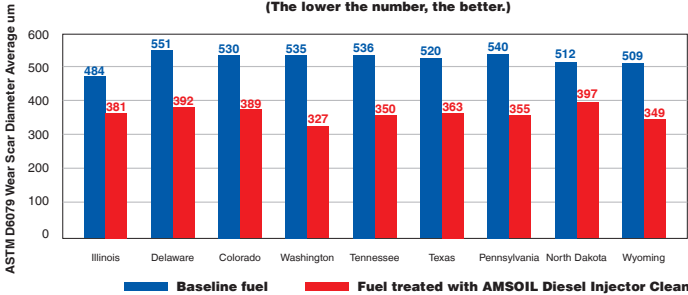- **Alcohol-free**

## Extends Filter Life

Modern diesel engines run hot, raising the temperature of the fuel returned to the tank and causing carbonaceous deposits that collect in the fuel filter (see picture), plugging it and causing premature failure issues. AMSOIL Diesel Injector Clean effectively protects against deposits, extending fuel filter life.

### Lubricity Improvement
#### (The lower the number, the better.)



| | Illinois | Delaware | Colorado | Washington | Tennessee | Texas | Pennsylvania | North Dakota | Wyoming |
|---|---|---|---|---|---|---|---|---|---|
| Baseline fuel | 484 | 551 | 530 | 535 | 536 | 520 | 540 | 512 | 509 |
| Fuel treated with AMSOIL Diesel Injector Clean | 381 | 392 | 389 | 327 | 350 | 363 | 355 | 397 | 349 |

ASTM D6079 Wear Scar Diameter Average um

■ Baseline fuel   ■ Fuel treated with AMSOIL Diesel Injector Clean

The ASTM D975 diesel fuel standard specifies a wear scar below 520 μm in ASTM D6079 testing, while the Engine Manufacturers Association (EMA) specifies a wear scar below 460 μm. Testing reveals AMSOIL Diesel Injector Clean provides significant lubricity improvement in diesel fuels found across the U.S., delivering improved wear protection.

## RECOMMENDATIONS

Diesel Injector Clean is recommended for use with all types of heavy- and light-duty, on- or off-road and marine diesel engines. For initial use, follow the Clean-Up recommendation; use Maintenance dose for regular treatment. Use with every tank of fuel for best performance

Use this treat rate chart for the 16-oz., 64-oz. and larger package sizes of AMSOIL Diesel Injector Clean.

| CLEAN-UP | MAINTENANCE | FUEL VOLUME |
|---|---|---|
| 2 oz. | 1 oz. | 5 Gal. |
| 4 oz. | 2 oz. | 10 Gal. |
| 12 oz. | 6 oz. | 30 Gal. |
| 32 oz. | 16 oz. | 80 Gal. |

Use this treat rate chart for the 8-oz. size of AMSOIL Diesel Injector Clean.

| CLEAN-UP | MAINTENANCE | FUEL VOLUME |
|---|---|---|
| 2 Bottles | 1 Bottle | Up to 20 Gal. |

AMSOIL Diesel Injector Clean

and protection against fuel-pump wear, injector wear and injector deposits. Compatible with all types of exhaust emission systems, including diesel particulate filters (DPFs). Add to fuel before storage. Excellent for use with AMSOIL Diesel Cetane Boost and AMSOIL Diesel Cold Flow.

## AMSOIL PRODUCT WARRANTY

AMSOIL products are backed by a Limited Liability Warranty. For complete information visit www.amsoil.com/warranty.aspx.

## High-Pressure Common-Rail Fuel Injector Pintal
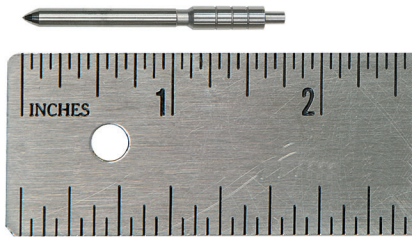


Fuel injectors in high-pressure common-rail diesel engines use smaller, highly engineered components to produce the higher fuel pressures needed for improved combustion. The tighter clearances invite internal diesel injector deposits that interfere with injector needle actuation, reducing performance. External deposits can also form on the injector

## Traditional Fuel Injector Pintal



nozzle (the typical trouble spot for traditional injectors). While many other fuel additives have yet to catch up to the internal diesel injector deposit problem, AMSOIL Diesel Injector Clean targets deposits wherever they form, maximizing power, fuel economy and performance in high-pressure common-rail and traditional diesel engines.



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AMSOIL products and Dealership information are available from your local full-service AMSOIL Dealer.

Order by Phone 1-800-956-5695 - Give Operator Reference #1936352