



## PRODUCT INFORMATION SHEET

### WYNN'S DIESEL CHARGE™

Product Number: 18001 12 x 500ml

WYNN'S DIESEL CHARGE is a patented diesel fuel treatment designed to boost power and improve overall driveability.

Wynn's Diesel Charge Diesel Fuel Treatment is formulated to add power and performance to any diesel engine vehicle, new or used.

#### Introduction

Diesel engines are similar in many ways to petrol engines. They are both internal combustion engines operating in either 2-stroke or 4-stroke cycles, but they differ in several important ways. Diesel engines use the heat of compression to ignite the air/fuel mixture, rather than using spark ignition as in petrol engines. As such, diesel engines rely on very high compression ratios in comparison to petrol engines, in order to generate the roughly 400°C temperatures necessary to ignite the fuel upon contact with the compressed and superheated air in the combustion chamber. A diesel engine controls power output by varying the amount of fuel injected into the cylinder, thereby varying the air:fuel ratio, rather than by varying or throttling the amount of the air/fuel mixture drawn into the cylinder as in a petrol engine. Engine differences, in combination with differences in the fuel, result in diesel engines being much more efficient than petrol engines, translating to as much as a 40% fuel economy advantage for diesel engines over petrol engines of the same size. These fuel economy advantages in combination with improvements in combustion processes that have resulted in decreased emissions have greatly increased the popularity of diesel engines in the automotive, light truck and SUV markets. Because of their power output, fuel economy and durability, diesels have always been the engines choice for the heavy-duty trucking market.

Residues from modern diesel fuels form deposits in the injectors and in the combustion chambers of diesel engines. Injectors in diesel engines are specially prone to hard deposits because their location exposes them to the high temperatures of combustion. Diesel combustion chamber deposits are similarly hard and difficult to remove.

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These deposits on the tips of diesel injectors can cause injector sticking or interruption of the normal fuel spray pattern. Such injector and combustion chamber deposits can result in poor performance, decreased fuel economy and increased emissions, specifically particulate emissions. Many products on the market may be universal and meant for both gasoline and diesel engines and may not provide sufficient deposit removal to correct performance, fuel economy and emissions concerns.

### Advantages

The Wynn's Diesel Clean Machine (Part No. 03500) is an extremely user-friendly machine which easily connects to the diesel fuel system in place of the normal fuel supply using one of the included adapters. Wynn's Diesel Injector Purge (Product No. 15401) is a highly concentrated and highly effective cleaning chemical specifically formulated to clean diesel fuel systems, especially the hard to remove injector and combustion chamber deposits. This product is delivered by the machine into the vehicle's fuel system providing a Diesel Fuel System Service that will rapidly remove deposits from the diesel injectors, combustion chamber and other areas of the diesel fuel system. This service will help to restore the ultimate in power, torque, towing capability and fuel economy to the customer's vehicle.

Wynn's Diesel Clean Machine is a very compact, lightweight, roll-around unit with very user-friendly connections and operating cycle. The unit is powered by 12V DC and has on-board tanks for both the Wynn's Diesel Injector Purge cleaning chemical and diesel fuel. When the cleaning cycle is complete, the machine automatically switches to diesel fuel delivery to the vehicle to prevent air from entering the system.

After completing this cleaning service, Wynn's Diesel Charge II Diesel Fuel Treatment is added to the diesel fuel tank to give the customer instant power.

### Benefits

Wynn's Diesel Charge II is formulated to provide the following benefits:

- Removes diesel injector and combustion chamber deposits
- Reduces exhaust particulate matter (PM) and emissions
- Reduces deposit build-up in the EGR system, intake system and particulate traps/filters
- Boosts power and performance
- Increases fuel economy
- Prevents corrosion

## Application

Wynn $\text{\$}$  Diesel Charge $\text{\textcircled{I}}$  provides the feeling of increased performance with the first application. Regular use of Wynn $\text{\$}$  Charge $\text{\textcircled{I}}$  with Wynn $\text{\$}$  Diesel Injection Purge, will clean and help maintain diesel fuel systems.

After the application of Wynn $\text{\$}$  Diesel Injector Purge (and Wynn $\text{\$}$  Diesel Clean Machine), add complete contents of the 473ml bottle of Wynn $\text{\$}$  Diesel Charge $\text{\textcircled{I}}$  to diesel fuel tank. One bottle treats 70-160 litres of diesel fuel.

Wynn $\text{\$}$  Diesel Charge $\text{\textcircled{I}}$  and Wynn $\text{\$}$  Diesel Injector Purge are the twin pack components of the Wynn $\text{\$}$  Diesel Purge Kit (Product No. 10366).

## Typical Characteristics

Appearance	Clear Thin Liquid
Colour (Visual)	Light Amber
Colour (ASTM D 1500)	0.5
Density @ 15°C	0.880 (ASTM D 4052)
Flash Point (°C) PMCC	42 (ASTM D 93)
Volatiles (%Vol)	34.5
Boiling Point (°C)	110-277