

WYNN'S Diesel Filter RE-CHARGE Kit

Product Number: 10382 12 x Twin Packs

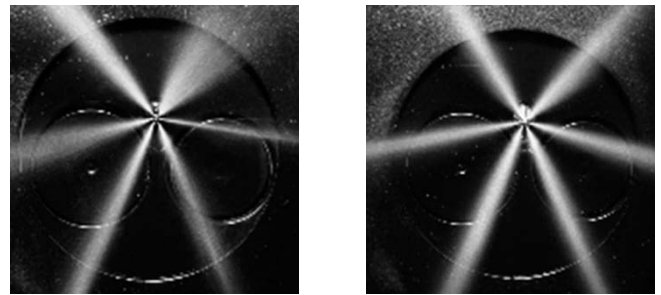
WYNN'S Diesel Filter RE-CHARGE Kit is the innovative solution for diesel fuel systems that are difficult to connect service equipment to in order to remove injector & combustion chamber deposits. The formula is proven to effectively eliminate & prevent internal diesel injector deposits (IDID) & nozzle deposits in today's modern diesel engines.

Introduction

Modern high pressure and common rail diesel fuel systems can be difficult to locate and connect service equipment to, taking up valuable labour charge out time.

Due to the location of injectors in modern diesel engines, they are especially prone to hard deposits because of the high temperatures they are exposed to during combustion.

These deposits are comprised of built up residue from the burnt diesel fuel. The deposits can build up and harden in the injectors and combustion chamber, significantly affecting the performance and efficiency of the engine.



Diesel injector spray pattern before Wynn's Treatment (left), & after (right)

Diesel Injector Deposits

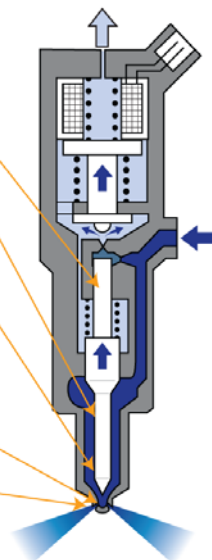
• **Internal Diesel Injector Deposits (IDID)**

- Control valve plunger
- Needle guide
- Above the needle seat

Cause of significant performance problems

• **'Conventional' Deposits**

- **Deposits inside spray channel** reduce the hydraulic flow leading to a loss of power
- **Injector tip deposits** adversely affect the fuel spray leading to increased emissions and fuel consumption



Deposits created on the tip of diesel injectors can cause injector fouling or interruption of the normal fuel spray pattern. This can result in poor performance, decreased fuel economy and increased emissions.

The use of WYNN'S Diesel Filter RE-CHARGE Kit is the solution to overcoming the above problems.



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Advantages:

➤ WYNN'S Diesel Filter RE-CHARGE Kit

Engineered to meet the vehicle needs of yesterday, today and tomorrow, the Wynn's® Diesel Filter RE-CHARGE Kit is the ultimate diesel fuel system cleaner. This kit includes two highly concentrated and highly effective products specifically formulated for cleaning diesel fuel systems, and preventing issues from arising.

➤ Added Advantages (Wynn's Diesel Inject-A-Clean Tank Additive)

Wynn's Diesel Inject-A-Clean and Biocide for high pressure / common rail systems has been developed using the latest cleaning and lubricating technology while still being compatible with traditional diesel systems. As Wynn's Diesel Inject-A-Clean mixes with the diesel and moves through the fuel system, detergents quickly and safely remove the deposits and the dispersants hold the microscopic deposits in suspension to be removed via the combustion chamber. It cleans the injectors and contains a deposit control additive to help prevent the formation of new deposits on the injectors.

The biocide is designed to kill all unwanted microorganisms and stop the exponential growth of the diesel bug.

Wynn's Diesel Inject-a-clean will enhance the wear protection of fuel system components, particularly injector pumps.

➤ Improved Power & Response

In addition, Wynn's Diesel Inject-a-clean contains a Cetane Improver which works like an Octane Boost in a petrol/gasoline fuel. The function of the Cetane Improver is to reduce the time lag between the start of injection and start of combustion (ignition) of the fuel. This is particularly effective for higher speed diesel engines (which modern days passenger diesel cars are), producing a higher horsepower output.

➤ Safe to use with oxygen sensors, DPF & other emission controls.

WYNN'S Diesel Filter RE-CHARGE has been extensively tested to ensure it is safe to use with oxygen sensors, diesel particulate filters & other emission controls found in diesel vehicles.

**ITW AAMTech, A division of ITW Australia Pty Ltd, 100 Hassall Street, Wetherill Park NSW 2164
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The data concerning properties and applications of the indicated products are offered in good faith and are based on our research and practical experiences. Due to the versatility of the application possibilities, it is impossible to mention all details and we do not assume any obligations or responsibilities resulting from this. When a new edition appears due to technical development, the preceding data is no longer valid



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Features & Benefits:

WYNN'S Diesel Filter RE-CHARGE Kit used in conjunction with Wynn's Diesel EGR 4 is the ultimate fuel system cleaner kit for diesel engines;

- Remove diesel injector deposits
- Maximise fuel economy
- Improves acceleration
- Easy starting
- B10 Compatible
- Prevents 'diesel bug'
- Unparalleled 'One Treatment' Deposit Removal Performance
- Cleans injectors & restores proper injector spray pattern
- Reduce emissions and exhaust particulates
- Outstanding performance in both the XUD-9 test and the most recent DW10 test
- Compensates for lack of lubricity in low sulphur fuels
- Safe to use with oxygen sensors, DPF and other emission controls

Applications:

- Recommended for use on diesel vehicles with diesel filters
- Recommended for use every 15,000 to 20,000 Kms
- Particularly effective in Bio Diesel fuelled vehicles

Directions:

Follow vehicle manufacturer's recommended filter fitting, bleeding or purging recommendations.

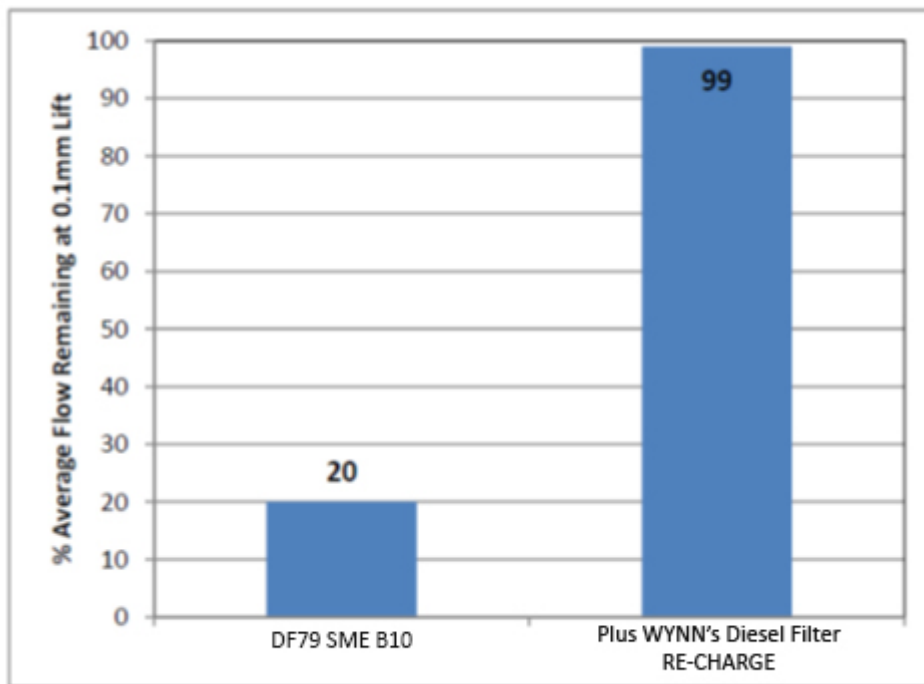
- Bring engine to operating temperature and switch off.
- Remove and empty diesel fuel filter, add contents of the 325ml to the filter and top up with diesel if necessary, any excess Wynn's Diesel FILTER RE-CHARGE can be added to the diesel tank.
- Add Wynn's Diesel Inject-A-Clean to the diesel tank.
- Refit filter and start engine.
- Check all filter connections for leaks.
- Immediately drive the vehicle for at least 5km at moderate speed.

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Peugeot XUD-9 Test

The XUD-9 injector nozzle fouling test is the standard method used to evaluate the capability of a diesel deposit control additive in reducing deposits on fuel system injector nozzles. The XUD-9 is the original injector coking test and is based on much older 'indirect injection' engines. However, even though there is a new Direction Injection test, the DW10, it only complements the traditional XUD-9 method rather than replacing it.



'One tank' injector deposit reduction results in the XUD-9 using WYNN'S Diesel Filter RE-CHARGE

WYNN'S Diesel Filter RE-CHARGE kit contains a high concentrate of deposit control additive. This 'one tank' treatment was tested for its ability to reduce injector deposits, and as you can see in the chart above the performance is outstanding.

Peugeot DW10 Test

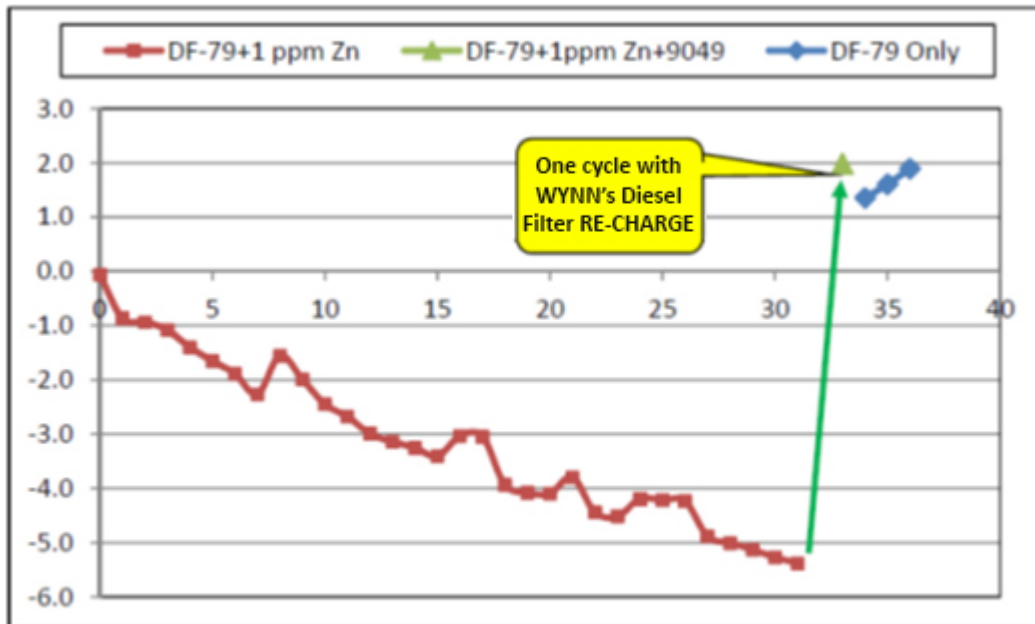
Diesel fuel injectors have always been prone to injector coking. However, as injector designs become progressively more sophisticated, the potential for negative impact on engine performance, emissions and fuel consumption is increasing. Adding to this trend are other engineering factors such as increasing fuel injection pressures and temperatures which are also likely to increase coking severity.

The response by the Fuel and Additive industry was to develop a new diesel injector fouling test based on an engine representing latest technology. The culmination of all of this effort resulted in a new method of testing based on the Peugeot DW10 engine.

Features & Benefits

- DW10 is a new method of testing that is focused on direct diesel injection, which most new cars are moving towards.
- There is evidence that advanced diesel engines might be sensitive to fouling. Tighter tolerances and nozzle hole sizes mean that fouling can have a more significant impact on power, emissions and fuel economy.

Testing in the DW10 was carried out to investigate the capability of WYNN'S Diesel Filter RE-CHARGE Kit to rapidly remove pre-existing injector deposits. Using the equivalent of 1 tank of treated diesel fuel the outcome was highly impressive, resulting in the complete restoration of lost engine power within a single test cycle.



WYNN'S Diesel Filter RE-CHARGE deposit reduction with DF-79-07 plus 1ppm of zinc in the DW10 test method

A single test consumes around 20 litres of fuel, thereby comfortably demonstrating the 'one tank' deposit elimination capability of the WYNN'S Diesel Filter RE-CHARGE Kit additives.



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Peugeot DW10 Test

Containing a highly concentrated dosage of deposit control additive, Wynn's Diesel FILTER RE-CHARGE will typically provide 100% restoration of lost engine power through injector deposit removal, as demonstrated in DW10 testing.

Component	Product Code Usage Level	Product Performance	
		WYNN'S Diesel Filter RE-CHARGE	
		One Tank	One Tank
Cetane Improver	CN Increase	0	6 - 7 CN
Lubricity Improver		No	No
Total Treat	mg/kg	1110	2313
Total Treat	ppm v/v	1000	2000
Key Claims Summary			
XUD-9 Deposit Control	%Flow Remain	100	100
XUD-9 Deposit Removal	%Flow Remain	98	98
DW10 1 Tank Power Restore	%Power Restored	100	100
IDID Deere Engine 1 Tank Deposit Reduction	%Power Restored	79	79

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