

FUEL FILTERS ENVIRONMENT



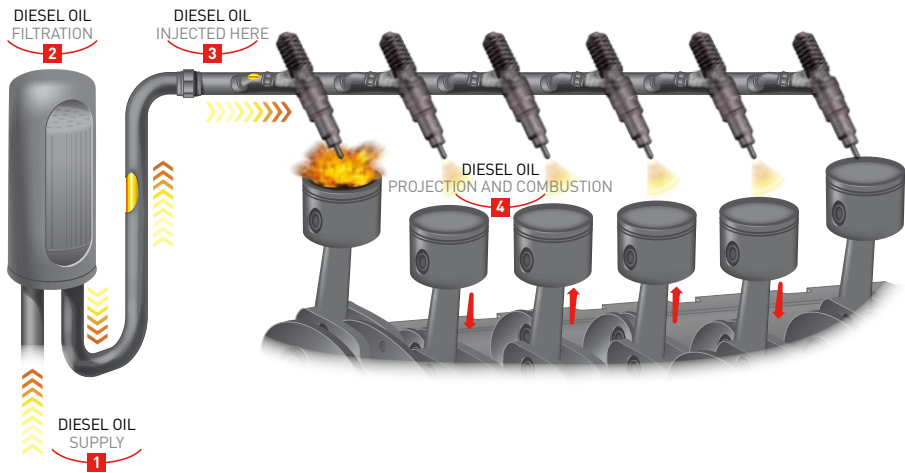
Before filtration begins, the fuel is loaded with particles (wood shavings, metal, water...).

The Diesel oil filter traps pollutant particles before the fuel is taken to the injectors.

Whether properly filtered (left) or poorly filtered (right), the fuel passes through the fuel filter on its way to the injectors.

The injectors are supplied with pressurized fuel. They will then atomise the fuel into a fine, homogeneous mist (left), or a more dispersed mist (right) if the injector is defective.

Given the high pressures exerted on the injectors, they will in time be rendered inoperable by the particles (right).



ALL ABOUT FUEL FILTERS



PRODUCT
COMMERCIAL KNOWLEDGE



PRACTICAL ADVICE

MAXIMISE THE SALE

Don't just sell the part – look for further opportunities to maximise the sale:

- **Make it easy!** Order a maintenance kit! With only one PN, you have all filters you need to change.
- Pre-filter and associated water trap.
- Ring kit – filter cartridge for pre-filter.

RENAULT FITTED-PART

- One year warranty.
- Fitted by Renault Trucks trained technicians.

RENAULT TRUCKS 24/7

- Professional roadside assistance 24 hrs a day, 7 days a week, 365 days a year.
- Dedicated to getting customers' trucks back on the road with minimum delay.



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Renault Trucks SAS with a capital of 50 000 000 € - 954 506 077 RCS Lyon Crédit photos : © Renault Trucks - 01/2017



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FACT

A trucks engine requires clean fuel to function properly. Even a single particle can cause severe problems by blocking the engine's injector nozzles. The fuel filter must therefore be capable of capturing close to 100% of all impurities.

An engine's fuel filter is one of various filters involved to protect from contamination and unnecessary wear that would otherwise shorten the life of the engine and cause costly unplanned stoppages. A GENUINE fuel filter is safe and reliable. It cleans the fuel efficiently. The risk of internal leakage within the filter is minimal. The cleaning filtration capacity is high and the filter works at full efficiency up to the next replacement interval. The engine fuel system is effectively protected from harmful particles to ensure maximum life of the fuel system components, such as injectors and pumps along with the meeting of legal emission requirements.

THE DIAMOND DISTINCTION

1 | The Renault Trucks filter media

Renault Trucks filters contain a specially produced, synthetic fibre-reinforced filter media with high cleaning ability and more than adequate capacity enabling fewer filter changes and lower running costs.

2 | Filter casing

The Renault Trucks fuel filter casing is not only made of strong sheet steel to provide protection from the outside, it is also given an internal corrosion protection to eliminate every possible source of fuel contamination.



A GENUINE Renault Trucks filter is designed to achieve optimum efficiency right from the start with a high filter capacity which delivers maximised service intervals and truck uptime to ensure profitable transport economy and an engine that maintains its powerful performance.

3 | Clear Identification

Renault Trucks has avoided the risk of mixing filters by giving each filter a unique thread, so no filter can be fitted in the wrong place. Every filter is always labelled with the filter type, part number and in some instances – clear assembly instructions.

FEATURES	BENEFITS
Sturdy sheet steel case.	No risk of damage – less risk of breakdown.
Flexible adhesive joint.	No leakage due to vibrations and pressure – increased protection from unnecessary damage to the fuel system.
Special filter media.	Filters out all particles that may damage the fuel system – eliminating unnecessary repair costs. – lower repair costs. Good filtration without clogging.
Large filter media area.	High capacity, no risk of clogging between filter changes – no unnecessary stoppages.
Uniform folding.	The entire filter surface is used – avoids unnecessary wear.
Flexible rubber seal.	Seals perfectly even during cold starts – eliminates the risk of damage.

TWO PARTS MAY LOOK ALIKE BUT...

There will always be non-genuine suppliers wanting to sell fuel filtration components to Renault Trucks operators. The quality of these non-genuine makes naturally varies as much as their prices. However, even if a well-known non-genuine Renault Trucks make is chosen – it is by no means certain that their fuel filters are tailored to the specification of the Renault Trucks fuel filtration system in the same way as a GENUINE Renault Trucks part.

STURDY SHEET STEEL CASE

The fuel filter has to be able to withstand large and rapid fluctuations in pressure. For this reason, the case of steel can withstand installation without denting, so there is no risk of fatigue failure leading to leakage. This means greater protection for the engine fuel system components. Material is resistant to pressure and treated against corrosion:

- Interior/exterior galvanized and varnished.
- Strong resistance to pressure and pulsing.
- No risk of corrosion-induced perforation.

FLEXIBLE ADHESIVE JOINTS

The joints between the ends of the cartridge and the filter media are bonded with a compound which withstands vibration and pressure. This avoids the risk of unfiltered fuel finding its way into the engine fuel system leading to unnecessary premature repair costs (injector, pump).

SPECIAL FILTER MEDIA

The filter media block the particles that harm and wear the engine's fuel system components such as injectors. If harmful particles were to get past the filter media they could quickly damage the fuel system components or lead to non-fulfilment of emission regulations. GENUINE filters have three layers in comparison to non-genuine parts which have often two layers.

In addition, non-genuine parts are often far from the requirements of Manufacturers' specifications:

- Reduced impurities absorption capacity.
- Lesser quality materials.
- Shortened service life.
- No central reinforcement.
- Low resistance to crushing.

LARGE FILTER MEDIA AREA/UNIFORM FOLDING

The large area of media means that the filter has a high capacity. If the filter media surface is too small the filter will clog up before the end of the maintenance interval. In Renault Trucks filters the filter media is uniformly folded so that the entire area is used. Uneven folding reduces the filtration capacity and leads to the filter clogging up before the end of the maintenance interval. In both instances allowing unfiltered fuel to pass and cause damage to the fuel system.

FLEXIBLE RUBBER SEAL

The rubber seal between the filter and mounting is made of nitrile rubber. This material retains its elasticity and pliability and therefore it's sealing properties in virtually all pressure and temperature conditions.

FUEL FILTER – HOW IT WORKS

It is essential that the injection system is protected from dirt. The smallest dirt particle will damage the pump pistons and pump cylinders, where clearance is just 0.001 to 0.002 mm. A single strand of hair is about 20 times thicker than this tolerance. Several different filters are used in the injection system. A rubber ring attached to the filter cartridge upper outer rim, seals the filter with the fuel filter housing. Sometimes referred to as a spin-on filter. The fuel filter protects the injection pump and injectors from dirt. Fuel flows through the filter cartridge which is made of a special type of filter media. This filter media is creased and coiled to give the filter the greatest possible active surface area.



FUEL INJECTION OPERATING SYSTEM

There are three fuel injection operating systems in service with the Renault Trucks parc:

- Pump Line Nozzle (P.L.N.).
- Unit injectors.
- Common Rail.

As these systems have evolved the working pressures have increased considerably.



COMMON RAIL

In a Common Rail (CR) system, fuel is distributed to the injectors from a high pressure accumulator, called the rail. The Electronic Diesel Control (EDC) precisely controls all the injection parameters – such as the pressure in the rail and the timing and duration of injection. This means that optimum fuel pressure can be maintained in all conditions. Less noise from the injectors, better fuel economy, and higher torque at low revs, results in diesel engines becoming quieter and more fuel efficient, cleaner and more powerful.



MAKE IT EASY!
ORDER
A MAINTENANCE KIT!
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YOU NEED TO CHANGE