

REAL Torque

June 2024

Contact maintenance for any questions on 0800 80 80 69

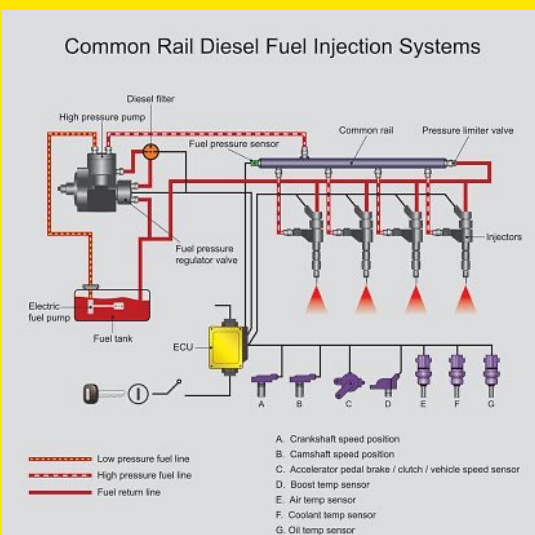
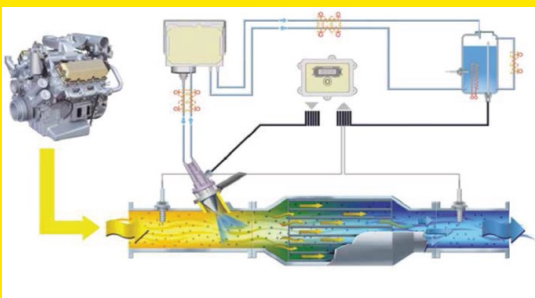
Double check before topping up.

Although it is rare, we do see failures that have been caused by topping up using the wrong fluid. This month we want to cover of some of these common failures, the changes you might not be aware of to insurance policies as well what to do to prevent it happening where possible.

AdBlue in Diesel or Diesel in AdBlue

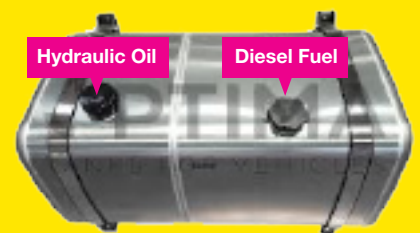
AdBlue is made up of urea and water. Urea is corrosive and even a small quantity added to a fuel system can damage the high-pressure common rail fuel system.

Depending on the quantity added, and if left long enough, this can result in a complete engine rebuild and replacement of the entire fuel system. When diesel is added to the AdBlue tank, this can also result in the emissions system needing to be replaced.



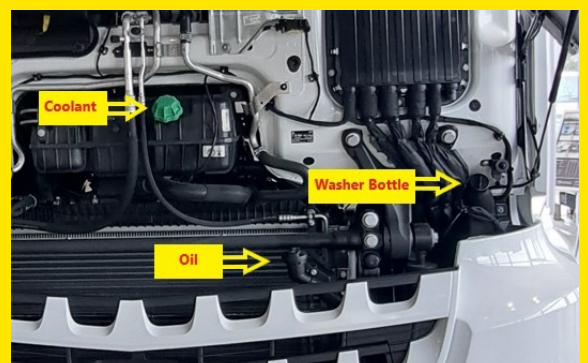
Diesel in Hydraulic Systems

Some of our trucks are fitted with PTO systems and have a hydraulic oil tank incorporated with the diesel tank like the image to the left. When diesel is mixed with the hydraulic oil, this causes the hydraulic oil to become thin, break down and lose its lubrication properties. A hydraulic system is made up of many parts machined to very tight tolerances. One property of hydraulic oil is to prevent these metal parts from contacting each other. Diesel removes this property, which can quickly lead to major component failures. It also leads to seal and gasket failure.



Water or Coolant in Engine Oil

We have seen examples of drivers who thought they were topping up the cooling system or the windscreen washer bottle only to discover they had, in fact, topped up the engine oil with water or coolant. Water doesn't mix well with engine oil, and it reduces lubrication properties quickly, leading to catastrophic engine failures.



Consequences

Below are some pictures shown what can happen when the wrong fluid is used to top up. It is important to understand that the cost of mistakes like this can be very costly to the operator. Not so long ago, insurance companies would cover incidents; however, recently there have been significant changes in most policies regarding these incidents. It is important that operators know and understand exactly what is in their individual insurance policies and are familiar with the wording used to know what they are potentially liable for in events like these. We have seen numerous claims declined due to a lack of understanding of what is in their individual policies.

Here is an extract from an insurance policy, where in the past they would cover all costs. But now, as shown here, they will only cover up to a maximum of \$10,000. To put this in context, some repairs can exceed \$50,000.

Section 1 covers accidental loss to the insured vehicle during the period of insurance caused directly by the addition of diesel exhaust fluid into the insured vehicle's fuel system.

'Exclusions applying to Section 1 – 1.3 Vehicle Components' does not apply.

The maximum the Insurer will pay under this extension during the period of insurance is \$10,000, regardless of the number of insured vehicles covered by this policy.

Examples of damage caused by cross contamination of fluids.

AdBlue, when added to the diesel system, caused this crystallization of the fuel filter and further damage to the entire engine. The cost to repair was \$30,000.



This is damage to a hydraulic pump after it ran on fluid heavily contaminated with diesel fuel. The pump, cylinder, and other components needed replacing as well as a major system clean-out, resulting in lengthy downtime.



This is the underside of an engine rocker cover where water has mixed with the oil. Someone mistakenly thought the engine oil filler cap was the washer bottle and topped up the engine oil with water. This cost several thousand dollars to repair and was not covered under the customer's insurance policy.



Tips and Tricks



TR Tips

- ▶ Be aware when hiring trucks to drivers they might not be familiar with. Take the time to complete a comprehensive handover.
- ▶ Take time to make sure when topping up any fluids that you are topping up the correct compartment with the correct fluid.
- ▶ Not all insurance companies are the same, operators and owners should be across what is covered and what is not covered by the insurance company. Encourage them if they are unsure to contact their insurance company directly.
- ▶ Fatigue can play a big part in these incidents. Be aware when you are tired and take the time to make sure and double-check.
- ▶ Although some trucks have a magnet on the AdBlue filler neck and the fuel stations have one on the nozzle to prevent cross-contamination, not all vehicles have this, so we must still be alert.

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