

REAL Torque

February 2019

Contact maintenance for any questions on 0800 80 80 69

Fuel Contamination by Diesel Exhaust Fluid (DEF)

Diesel Exhaust Fluid (DEF) is commonly known as AdBlue. It is one of the most popular ways that vehicle manufacturers (OEMs) can achieve Euro 5-emission control standards.

As AdBlue or similar brands of DEF have become more available and the usage more widespread, we have noticed a concerning trend: Contamination of fuel.

Diesel

+

AdBlue

=



Fuel Contamination

Contamination of fuel happens when AdBlue is accidentally mixed with diesel. This normally happens at the time the AdBlue is purchased at the pump. The mistake happens when the AdBlue is added to the truck's diesel fuel tank.

This contamination can have disastrous consequences. Accidentally adding AdBlue can cause catastrophic damage to the entire fuel system and the engine. The cost to put the vehicle back on the road can be tens of thousands of dollars.

AdBlue is corrosive. When it is added to the vehicle's diesel, it causes damaging corrosion to many parts of the fuel system. **Modern diesel engines have many expensive parts that make up the fuel system. From the fuel filters to the high-pressure fuel pump and injectors, all of these items often need to be replaced at huge cost.**



**Visual
Inspection**

The result of AdBlue contamination on fuel filters.

A vehicle has had AdBlue put in the fuel tank, and the engine is beyond repair.

Even worse, in the most serious of AdBlue contamination cases, AdBlue damages the engine's internals.

Most of the time, simply cleaning out the fuel system is not enough to ensure no long-term damage is caused. **All contaminated parts must be replaced.** In the case of a vehicle still under a manufacturer's warranty, not having the vehicle repaired to an approved process could void the warranty.





Diesel tank and filler (left). AdBlue tank and filler (right).
Special care needs to be taken to not mix these up.



Inside the AdBlue filler, there is a restrictor, as AdBlue pumps are narrower than diesel pumps. This should prevent a diesel pump filling the AdBlue tank.



There is no restriction in the diesel tank filler, any pump can fit. Therefore, it requires crucial care to not put an AdBlue pump nozzle anywhere near the diesel tank.



If AdBlue is accidentally put into the diesel tank, the best way to avoid contamination is to not start the truck. Mistakes happen. But the worst can be avoided by not starting the engine. The fuel tank can be drained, and fresh fuel can be added. This will only result in the cost of the callout and associated draining/refueling the vehicle instead of thousands of dollars if the engine is started and damaged.

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Tips and Tricks

- ▶ AdBlue and Diesel must never be mixed.
- ▶ If you suspect you might have accidentally put AdBlue into the diesel tank, stop and call someone. A callout to drain the tank will cost vastly less than if you continue driving.
- ▶ Let people using AdBlue know of the damage and cost associated with making a simple mistake.
- ▶ Ensure adequate lighting at fuel stops. Equip operators with torches if lighting is poor.