

BLUE OX Diesel Exhaust Fluid



BENEFITS:

- Increases fuel economy by 5% or more
- Reduces heat rejection
- Increased power
- Reduced diesel particulate filter regenerations
- Reduced total operating cost
- Reduces repair & maintenance
- Pays for itself by increasing fuel efficiency

WHAT IS BLUE OX DEF?

BLUE OX DEF is a leading full-service supplier of certified diesel exhaust fluid (DEF) for EPA 2010, Euro 4 and Euro 5 compliant diesel engines.

Changes to EPA emission standards for diesel engines require 2010 diesel engine makers to install a new control device called selective catalytic reduction (SCR). The device utilizes non-toxic DEF to chemically change exhaust into harmless nitrogen gas and water vapor.

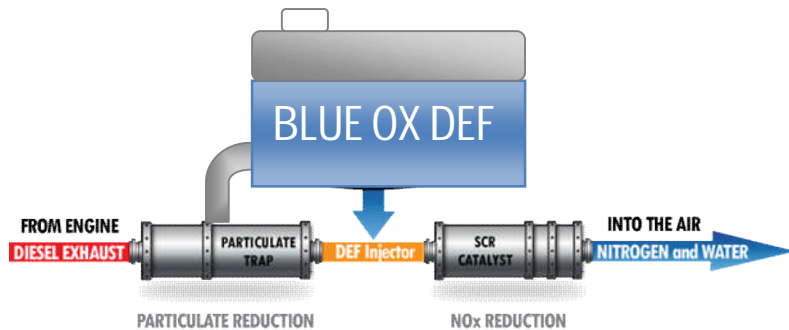
As a leader in DEF production in best-in-class and cost-effective solutions to transportation fleets, passenger vehicles, off-road equipment and seagoing vessels; BLUE OX is the logical solution for Diesel Exhaust Fluid (DEF) and SCR systems that comply with the EPA and legislation known as the Clean Air Act and the document required by the EPA to regulate emissions of NOx and PM.

WHAT IS SCR?

SCR stands for Selective Catalytic Reduction and is the most commonly used emission control technology used by diesel engine manufacturers to meet the new EPA 2010 emission standards effective as of January 1, 2010.

A key component of the SCR system is Diesel Exhaust Fluid. The DEF is injected into the exhaust stream in front of the catalytic converter where it hydrolyses to ammonia and starts the chemical process of converting the nitrogen oxides (NOx) in the exhaust to nitrogen and water vapor.

SCR SYSTEM & DEF TANK



WHAT DOES THE DRIVER HAVE TO DO IN ORDER TO OPERATE SCR?

Practically nothing! The system is completely automatic and apart from making sure the operator tops up the DEF tank as he/she would top up the diesel and coolant tanks on the vehicle it requires no intervention. For added convenience, warning signals for low DEF levels are part of the instrument panel on the dashboard similar to the diesel gauge.

HOW DOES SCR SYSTEMS WORK?

The SCR system is very straight forward: simplistically it consists of a DEF tank, fluid lines, injector, sensors and the catalytic convertor assembly.

The purpose of the SCR system is to reduce levels of NOx (oxides of nitrogen emitted from engines) that are harmful to our health and the environment. SCR is the after treatment technology that treats exhaust gas downstream of the engine. Injected into the exhaust, DEF hydrolyses and forms ammonia which in turn triggers the chemical reaction that converts the NOx gases in the exhaust into harmless nitrogen and water.

WHY USE BLUE OX SCR TECHNOLOGY?

SCR technology allows the engine manufacturers to re-tune the engines for optimum performance to increase power and torque at the same time as reducing fuel consumption. Commonly cited benefits associated with SCR technology include:

Fuel economy 5% or more (dependent on application), Reduces heat rejection, Increased power density, Reduced diesel particulate filter regenerations, Reduced total operating cost.

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WHAT IS DIESEL EXHAUST FLUID (DEF)?

You are probably reading this page because you recently bought a new 2010 truck or are thinking about buying one and want to learn about SCR, and have more than a few questions about Diesel Exhaust Fluid (DEF).

Diesel Exhaust Fluid (DEF) is a harmless and safe-to-handle solution - that is required by many new diesel trucks and buses equipped with an exhaust emissions control technology known as selective catalytic reduction (SCR). Some agricultural, construction and forestry equipment will soon need Diesel Exhaust Fluid (DEF) too.

WHY DO I NEED BLUE OX DEF?

The reason that you need to use BLUE OX Diesel Exhaust Fluid (DEF) lies with the EPA legislations which enforces an incise known as the Clean Air Act. This act requires the EPA to regulate emissions of NOx and PM.

The trucking industry has been split in two by this latest piece of rulemaking and manufacturers are pursuing to technology pathways. Daimler, PACCAR, Volvo, Mack, Isuzu, Hino and others are using SCR, while Navistar has decided to go it alone and use an extension of its 2007 MaxxForce EGR technology.

SCR technology offers drivers many benefits, most importantly great fuel efficiency. On top of this, drivers purchasing an SCR truck will enjoy greater reliability and a longer oil change interval, all of which adds up to impressive savings over the life of the vehicle.



PROFESSIONAL QUALITY & SERVICE



- BLUE OX DEF Diesel Exhaust Fluid is one of the key elements of the Selective Catalytic Reduction (SCR) process used by most medium and heavy-duty engine builders to meet EPA 2010 regulations.
- BLUE OX DEF Diesel Exhaust Fluid is a nontoxic solution and is not a fuel or fuel additive. Instead, when injected into the exhaust stream and passed over a catalyst, Diesel Exhaust Fluid helps convert NOx into nitrogen gas and water vapor – two harmless and natural components of the air we breathe.
- BLUE OX Diesel Exhaust Fluid is stable, colorless and odorless, and meets ISO Standards 22241 for purity and composition and is an American Petroleum Institute (API) certified diesel exhaust fluid. These are the highest quality and safety standards in place to ensure optimum SCR performance.
- Making sure you do not run out of BLUE OX Diesel Exhaust Fluid in a SCR equipped truck is simple – watch the Diesel Exhaust Fluid (DEF) gauge, which is part of the diesel fuel gauge, for when it is time to refill.
- BLUE OX DEF is stored in a dedicated tank next to the fuel tank on the driver's side. The tanks range in size from 6 to 23 gallons depending on the truck's application. The DEF tank fill opening is designed to accommodate a DEF fill nozzle to ensure only DEF is put into the tank. A diesel fuel nozzle will not fit into the DEF tank opening.
- DEF begins freezing at 12° Fahrenheit (-11° Celsius). If DEF freezes, the engine will start and run properly (no de-rate or malfunctioning lights). A DEF tank heater will thaw the fluid for use and at no point will this affect the operation of the engine.

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