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How's Your Stored Diesel? *Use These Tests To Find Out*

Keeping stored fuel at its best doesn't happen by accident, but it also isn't that hard to do, provided you know a few things. For one, it helps to know what to look at to determine how your fuel's doing as you wait to use it. There are lots of tests that anyone can have done, but not all of them are equally important. Some tests like copper strip corrosion or kinematic viscosity are important but not essential for you to know as you monitor the health of your stored fuel before you use it.

So we've put together the most important tests to monitor the health of your fuel. These are the ones you want to consider, along with why you need them and what to do if your fuel fails the test.

<i>Test</i>	<i>What It Does</i>	<i>What To Do If It Fails</i>
Microbial presence	This tells you if there is microbial or fungal presence in your storage tank - essential knowledge for the prevention of problems	Failed test = the need for biocide treatment to kill the microbes.
Fuel pH	this can easily be done with a quality pH meter. Diesel fuel is going to be naturally acidic, but not to a great extent. Fuel with pH below 5.5 can indicate microbial presence	Failed test = long term corrosive damage in storage tanks
Water and sediment	part of the ASTM D-975 test slate for diesel fuel properties. Measures the level of both water and sludge/sediment in a fuel sample	Fuel that fails the 0.05% limit is more likely to give operational problems. A failed test = the need for mechanical fuel polishing.
Cetane number	Another part of the D-975 test slate. Measures the combustibility of diesel and biodiesel fuels. Cetane number test will give a measurement of the fuel's cetane value . 40 is the minimum in the United States, but many engines need a higher value in their diesel fuel.	Failed test = leads to engine deposits, rough operation, and harder starting in cold weather. Easily remedied with addition of a cetane improver chemical. Cannot be fixed by mechanical processing.
Sulfur content	Especially important for fuel that's been sitting in storage for a while. Recent regulations have dropped the hammer on allowable sulfur levels, even for stationary engines and generators. Many storage tanks across the nation have higher sulfur diesel fuels sitting in them for years at a time, that will fail tests today.	Failed test = might need to dump the fuel or dilute it with lower sulfur fuel.

Want to know more? You're in luck.

Check out these helpful video summaries of important things to keep in mind when storing fuels.

Keeping Fuel Healthy In Storage: <https://www.youtube.com/watch?v=MC5uVeuEb0g>

Stored Diesel Fuel Overview: <https://www.youtube.com/watch?v=SfErM6P8s1U>

Watch This If You Store Biodiesel Blends: <https://www.youtube.com/watch?v=RBE6KVnaRE8>