



In the Field with Donaldson

Clean Fuel & Lubricant Solutions

LOCAL EMERGENCY RESPONDER MUST KEEP RUNNING

THE SITUATION

Popp Excavating, Inc. realized long ago the value of on-site diesel fuel. The successful family-run construction business operates more than 30 pieces of heavy equipment, ranging from track excavators and off-road haulers to on-road flatbeds for hauling the equipment. An important part of the Popp business is local emergency-response situations, so surprise downtime isn't an option for the company. Donaldson has been helping to keep Popp running with bulk diesel filtration solutions since 2009.

In 2007, after experiencing rising costs due to fluctuating fuel prices and delivery issues, Popp installed a bulk diesel storage facility

with multiple tanks and more than 50,000 gallons of capacity. On-site bulk storage kept purchasing costs down but also resulted in longer-than-desirable storage periods. Popp installed a common dispenser filter at the outlet of their main tank, but with multiple day-tanks, jobsite tanks, mobile fueling trucks and other dispensers, the opportunities for contamination were endless.

Disaster eventually reared its contaminated head. Up to this time, the company's experience was that it would get 100 – 150 hours of service from its onboard equipment filters. However, in 2009, newer equipment began breaking down after a mere 6 - 8 hours of service.

THE INVESTIGATION

Owner Kurt Popp did some of his own troubleshooting but couldn't solve the problem himself. Also, he got no answers from the fuel supplier or OEM, who referred him to Donaldson. Donaldson's Jim Doyle visited the site and discovered that the new equipment was breaking down because of onboard filter clogging. He then examined the bulk tanks, where he discovered that one of the main tanks was contaminated with microbial bacteria and yeast. Because the diesel in the tank had sat untouched for an extended period, it was rife with bugs when the time came to use it. These bugs spread throughout the fleet.



THE CHALLENGE

Water provides an environment where microbes thrive. Without water, they cannot live and multiply. So to eradicate the troublesome microbes, it was imperative to remove all water from the tank and keep it out. To eliminate existing microbial growth, a thorough (and manual labor-intensive) tank-cleaning was prescribed and carried out by hand, from inside the tank. A systematic regimen of biocide and regular water-draining was also put into place.

THE CLEAN SOLUTION

Once the tank was clean and free of water, Popp installed Donaldson Bulk Filtration Systems throughout their bulk storage operation to Clean, Protect and Polish the diesel. Additionally, Donaldson filters and T.R.A.P. Breathers were installed on smaller jobsite tanks and service trucks throughout the company. This system prevents the water in which microbes thrive from getting into the tanks, while also protecting fuel from dirt and other contaminants.

CLEAN.



Manifold with four filters installed at the offload points, cleaning the diesel down to target cleanliness before it ever hits the Popp tanks.

PROTECT.



T.R.A.P. Breathers installed on all tanks to prevent dirt and moisture from entering through the vents.

POLISH.



Dispensers were outfitted with dual heads utilizing two P568666 filters, an extra layer of protection for direct fueling or transfer to smaller tanks.

THE RESULT

After getting completely outfitted with Donaldson Clean Solutions, samples were taken directly from the delivery truck (pre-filtration) and again on the system outlet. The results speak for themselves:

Before Clean Solutions



= 100 hours

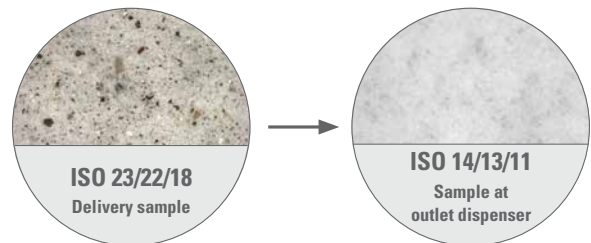
After Clean Solutions



= 1000 hours

The company would have been happy to get back to its previous service intervals of 100 - 150 hours for onboard filters; but after the switch to Donaldson, Popp reports up to 1000 hours between onboard filter changes – a full season for some equipment. This difference alone will save the company nearly \$30,000 per year in direct material costs, as they had been using seven filter sets per vehicle per year.

Popp Excavating, Inc. no longer allows diesel fuel into its tanks or equipment until it has been Cleaned, Protected and Polished by Donaldson.



“I think of Donaldson as the go-to guys. Donaldson is the first company I’ve run into that can give me confidence that I won’t be put out of action by my fuel!”

- Kurt Popp, Popp Excavating, Inc. Owner

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Need a Clean Solution?

As a global organization, we have offices throughout the world. Please direct your inquiry to clean.solutions@donaldson.com. This will enable us to address your inquiry in the shortest possible time.

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