



**FILTER**  
TECHNOLOGY

PRODUCTS FOR

# Onboard Filtration

cleaner fluids mean better business



FM40325 Onboard Filtration Unit fitted to Caterpillar® 793D



## Reduce contamination in differential and final drive oil

Haul truck fleets operate in harsh and demanding conditions worldwide. Hard working components such as differentials and final drives in mechanical drive trucks are subject to enormous working loads. Contaminated oil with particles larger than 2 microns is often responsible for excessive component wear and even failure.

Filter Technology's range of onboard filtration systems can provide the answer, enabling your fleet to operate more reliably – saving time and expense on unnecessary oil changes.

The FTA Onboard Filtration System is specifically designed for large mechanical drive haul trucks and provides optimum filtration for lubrication oil in the differential and final drive systems.

At the heart of the system features is the FTA designed and patented FM2100 industrial oil and fuel element, which is installed in a durable stainless steel housing. The capacity and number of housings varies depending on make and model of haul truck.

As a continuous bypass system, it is constantly providing filtration for the diff and final drive oil at all times that the vehicle is operating. The unit takes oil from the diff lube circuit and filters directly back to the compartment. Filter rates vary between 20% and 40% of total volume per hour, depending on different makes and models of haul trucks, and also operating conditions.

### WHAT ARE THE BENEFITS?

- On-board oil and fuel filtration for excavators, draglines, haul trucks, mine utility vehicles etc.
- Drastically reduce particulate contamination down to 2 micron
- Reduce costly component wear and failure
- Extend major component life
- Extend oil change intervals
- Reduce waste oil disposal costs



Onboard filtration system fits neatly in chassis, with plenty of access for filter changes.

Large haul trucks operate for long hours in high temperatures and harsh conditions, which puts immense stress on lubricants.

## Field tests prove outstanding results

Below are the results of a certified test program conducted on a Caterpillar 793D unit in Australia, where conditions are acknowledged to be among the harshest in the world.

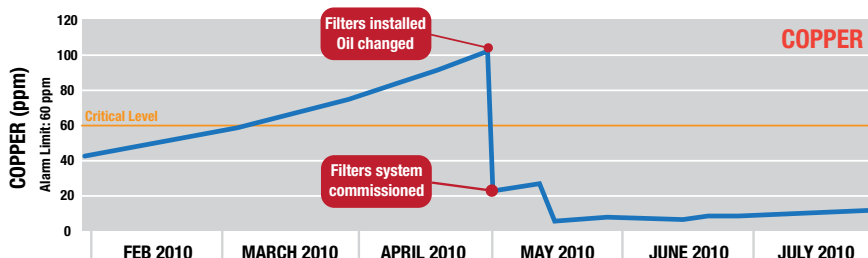
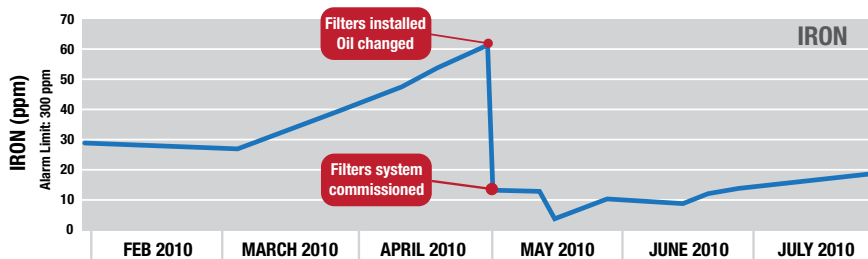
The graphs show levels of iron and copper contamination before and after installing the FTA Onboard Filtration System. Importantly, contamination levels were maintained at such low levels that oil change intervals could be dramatically extended. When the magnetic plugs were examined, iron paste build-up was significantly reduced.

Particle count was maintained at between 15/12 and 16/13 while the truck was in service. These results exceed the requirements for most new oils!

## Onboard Filtration System Components

- FTA filter housings and elements with mounting frame to suit application
- Welding bosses to fit unit to frame
- Pressure compensated flow control valve
- 5 bar system relief
- System pressure gauge
- Live oil sample point
- Modified diff inspection cover plate for connection of oil return hose
- All hydraulic hoses and fittings

Note: miscellaneous P-clamps etc. not included.



### Note:

Filter Technology Australia also designs and builds filtration units to cater for customers' specific requirements. Please note that due to our policy of constant improvement, product specifications and descriptions are subject to change without notice.