



**Mining, Aggregates
and Energy**

It's a gritty, dusty world.

We can help maximize equipment availability
and life – while reducing your total cost of
ownership.



THE PROBLEM



DUST INGESTION

- A major West Virginia coal mine operation faces extremely abrasive dirt and coal dust
- In the highly competitive coal industry, an operation must be efficient and cost-conscious, knowing an abrasive mixture of air contaminants could quickly destroy an engine



INJECTOR WEAR

- A south-central producer of ready-mixed concrete with 20+ sites and 250 mixer trucks had fuel-related downtime
- Premature fuel-filter plugging and fuel-injector wear was the culprit and source of contamination was its diesel fuel
- Although it met D975 fuel-delivery standards, the diesel was not clean enough for production equipment with Tier 4 engines and mixer trucks with HPCR engines



GEARBOX WEAR

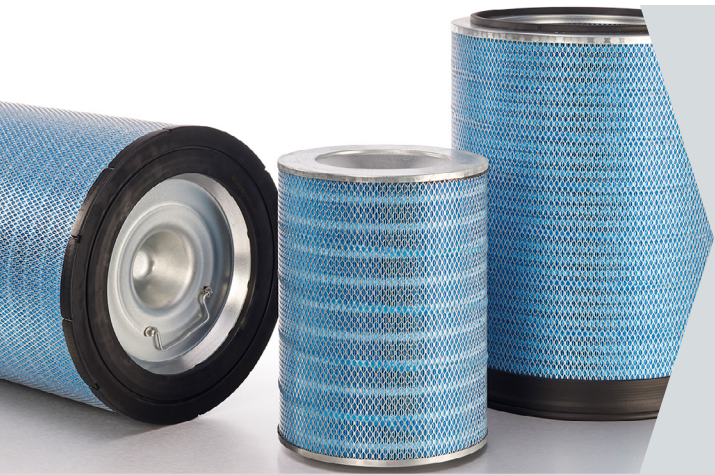
- Large east coast aggregate producer operates five Metso® crushers in extremely dirty operating conditions
- Gearbox oil and lubrication systems required a sufficient cleanliness level to protect gears, bushings and steel shafts in a crusher
- Ineffective original filters resulted in downtime and high levels of wear metals in oil



SHORT SERVICE INTERVAL

- A mega oil and gas company wanted to significantly extend its oil drain intervals
- Their service schedule was based on the standard OEM recommendation
- Customer wanted to reduce scheduled maintenance, while protecting equipment and mitigating the risk of unplanned downtime

THE DONALDSON SOLUTION



Donaldson Blue® Air Filters

- Designed for extended maintenance intervals, minimizing dust exposure during filter changes
- Ultra-Web® high-efficiency media delivers greater protection from the moment it's installed



Donaldson Clean Diesel Kit

- Implemented comprehensive approach to fuel storage
- T.R.A.P.™ breathers on bulk tanks limit additional in-tank contamination
- Filters at the point of fuel dispensing polish the fuel before it's pumped into equipment



Kidney Loop Filtration

- Filter manifold applied to meet flow/pressure needs
- Donaldson Blue® high-efficiency filters chosen to remove particulate and protect sensitive components
- Oil was continuously cleaned to protect the gearbox from wear



Donaldson Lube Filters

- Conducted fleet evaluation and provided a recommendation to meet service interval need
- Donaldson Blue® lube filters offer seals that last longer and have high-efficiency Synteq™ media

THE PROOF



CUT FILTER SERVICE
UP TO
75%

Engine overhaul interval extended significantly with Donaldson Blue® air filters.

One MTU 4000 Series engine has seen nearly nine consecutive years of continuous use with virtually no downtime. Overall, the team has maintained a 90% fleet availability while cutting maintenance downtime and filtration costs by up to 75%.

See the full case study [here](#), or search “Donaldson 51,000 Reasons.”



60X
CLEANER
FUEL

There were no unscheduled injector replacements.

With Donaldson Clean Diesel Kits, the company has not had to replace a single fuel injector outside of the normal preventative maintenance schedule of once every four years. Once filters were installed, the diesel fuel was 60x cleaner than before. Plus service intervals were doubled from 400 to 800 hours.

See the full case study [here](#), or search “Donaldson Cleaner Fuel.”



3.5X
GEARBOX LIFE

The Donaldson filtration system increased the crusher gearbox life by 3.5 times.

The amount of contaminant reaching the gearbox was reduced by 8 ISO codes and the oil was 125x cleaner, thereby extending the gearbox life by 3.5x.

See the full case study [here](#), or search “Donaldson Rock On.”



2X
DRAIN
INTERVAL

By switching to Donaldson Blue® lube filters, service intervals were doubled.

The company upgraded their lube filters and doubled previous drain intervals, for significant savings on filters and service.



Donaldson specialists can recommend solutions based upon your equipment, your environment and your duty cycle.

- **Extend equipment life**
- **Maximize equipment availability**
- **Lower risk of catastrophic failure**
- **Extend maintenance intervals**
- **Use predictive methods to identify source of wear**
- **Deploy high-efficiency filtration**
- **Adopt predictive maintenance schedules**
- **Minimize operational expense**

Lowering Your Total Cost of Ownership

Equipment Overview

Contact/Location _____

of Units by Type _____

____ % Leased ____ % Owned

Expected Operational Life _____

Key Challenges

Downtime _____

Maintenance Intervals _____

Overhaul Interval _____

Component Failure _____

Resale Value _____

Other _____

Next Steps

Additional information needed:

Provided by:

Who else should be included? _____

Next steps/Timing: _____

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Brochure No. F111641 ENG (10/19)

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