

# My experience with Fuel Doctor

## Brisbane Bus Lines

Founded in 1965 by the late Bill Mitchell, Brisbane Bus Lines has provided a comprehensive service to the people of Brisbane with their fleet of 72 local and interstate buses.

With the passing of Bill in 1984 sons Jeffrey and Ian stepped into his shoes. Jeffrey on leaving school served his heavy diesel mechanics apprenticeship at Brisbane Bus Lines with Ian studying business management. Jeffrey explains that his father's preferred oil supplier was



less than helpful when they were experiencing major wear and failures with their Detroit Diesels. Castrol Technical Services Manager Lou Achterberg helped us through that difficult period consequently one of the first changes to the workshop was the introduction of Castrol Oils, a change that has now endured for over 20 years.

The fleet's engine configurations range from Detroit Diesel 6V-92-TA, Caterpillar 3208T, 3116, 3176, 3126 & C10, Volvo THD 100, Scania DS 11, and Mercedes 447. Consequently a comprehensive and varied range of Castrol Oils can be found in the workshop.

Lube oil issues were now a thing of the past. However, in 1994 fuel related problems started to occur. Fuel filters that would normally be changed at 24,000 kilometres were having to be changed at 10,000 to 12,000 kilometres. Consultation with their fuel supplier resulted in a fuel additive ( Biocide ) being supplied which initially seemed to alleviate the problem. However, this treatment scenario culminated in two tour buses coming to a halt due to plugged fuel filters, 150 kilometres from the depot with 100 school children stranded.

Lou Achterberg was again consulted and recommended a site meeting with a fuel technician from Fuel Doctors. After inspecting spent fuel filters and retrieving fuel samples from numerous buses and four underground storage tanks, the cause of the break downs was immediately evident. All the samples had copious amounts of Cladosporia, a fungal material that derives oxygen from free water ( condensation ) and converts minerals and trace elements in the fuel into feed. The fungal material was thriving in the underground tanks and being distributed through out the fleet, further investigation indicated that the two buses that had failed had refilled their tanks only a matter of hours after a road tanker had replenished the underground tanks.

Fuel Doctors proposal to de-contaminate and integrity test the underground tanks and remediate the bus tanks with their proprietary tank cleaner / fuel conditioner FUEL DOCTOR was met with a positive response.



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Twelve years later and after applying FUEL DOCTOR to every re-fill of the underground tanks some remarkable results have been observed. Fuel filter changes have gone from 24,000 Kilometres to in excess of 100,000 Kilometres. Workshop records indicate that from 1984 to 1994 the fleet would require one or two injector pump re-builds and two or three sets of injectors per year, by 2004 it was noted that not one injector pump or injector has been replaced due to fuel related issues, since 1994.

Fuel consumption monitoring since 1990 has revealed a fuel consumption decrease across the fleet of 5% plus. In 2006, as part of the Brisbane City Council clean air policy, the entire fleet has undergone emission testing for Oxides of Nitrogen, Carbon Dioxide, Carbon Monoxide, and Particle Emissions with outstanding results, apart from the older two stroke engines every one of the fleet has passed the test.

*"Ian makes the comment that his father, he and Jeffrey had always been sceptical about fuel additives, that was until they experienced FUEL DOCTOR. No-one within Brisbane Bus Lines can deny the benefits we have experienced and even the drivers note that our buses do not blow smoke and when it comes time to wash them there are no sticky black exhaust spots to remove from the rear."*

