



To Whom It May Concern

A Profile on Boral Transport's DIESELGAS Experience :-

Background.

Boral Transport is the national transport division of Australia's largest building materials company and operates a company owned fleet of 400 heavy road trucks over 20 tonne GCM. In total all Boral divisions combined operate approximately 850 company trucks plus a similar quantity of permanent subcontractor vehicles all in excess of 20 tonnes GCM. Transport is a major part of Boral's construction materials business and as such is extremely interested in the efficiency of diesel and alternate fuel costs.

After evaluating a number of local and overseas retrofittable LPG diesel substitution kits during the 1980's Boral Transport believed there was serious potential for the technology and chose DieselGas to fully research and develop a kit for the then current E6 Mack 350 hp engine. DieselGas were chosen from a reasonable knowledge of available potential worldwide abilities in both gas and alternate fuels due to their previous experience with the Mack engine, their technology base and small concise team.

Following a resurgence in engine OEM's interest in the further development of alternate fuels for heavy engines, Boral withheld their own development until in the mid 1990's when the OEM's again relaxed their efforts and Boral saw the need to pursue the dual fuel CNG/Diesel substitution on a 400 hp Detroit Series 60 engine. At this time Boral had standardised on this engine within its fleet of more than 400 Freightliner vehicles. Boral again chose DieselGas for this development from the worldwide selection of possibilities for similar reasons as before together with their obviously increased successes, experience and their now equal to any technology worldwide.

Within the last twelve months and currently Boral Transport is negotiating further projects with DieselGas in the CNG/Diesel substitution dual fuel arena.

Project Outcomes

The LPG/Diesel substitution on the E6 Mack engine whilst not ultimately successful from an operational aspect the DieselGas team clearly demonstrated through thorough and professional research and development that at that time LPG dual fuel was not a viable fuelling system for a heavy duty engine. This was therefore a successful project in that Boral should look to other areas of fuelling as alternates to diesel.

The CNG/Diesel substitution dual fuelling of the Detroit engine should be considered a successful outcome for DieselGas even though it has not as yet been taken to operational use. Boral Transport considers the substitution rate and driveability performance of the demonstration engine in field trials indicates that DieselGas has developed the correct approach to dual fuel technology for heavy, high horsepower diesel engines. During the field trials the DieselGas engine was directly compared to the then current version of the Caterpillar C12 dual fuel engine. It was the considered opinion of the driver who drove both units over the same evaluation course that the DieselGas engine performed as well as if not better than the Cat whilst having had better driveability.

Boral Transport - has therefore had the confidence in the team at DieselGas and believes it's dual fuel technology is correct to currently continue further negotiations and projects.

Testimonial Statement

Boral Transport has no hesitation in recommending the DieselGas team to any prospective client interested in the dual fuel conversion of diesel engines and would also seriously suggest strong consideration for other projects within the LPG or CNG areas. The strong points of DieselGas are suggested to be the following :-

- Long and vast experience in practical gas fuelling technologies
- Small concise team capable of fast, flexible approach
- Proven technologies and results
- Practical approach to research and development issues
- Relatively good value for money by comparison with others

- Willing to take a flexible approach to project staged development

The above is offered as an overview of Boral Transport's experience with the team at DIESELGAS.

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