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COMMERCIAL VEHICLE

WORKSHOP

JULY/AUGUST 2009

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BORPower to the people

CVW reports on a recent test carried out on an engine oil additive from NanoBoron.

Roger Denniss of Lorry Logic, Repton, Derbyshire, recently carried out a Type One test for NanoBoron, on the company's latest engine oil additive, BORPower, which contains a low coefficient of friction boundary lubricant. This article highlights the results of the trials, where over 10% fuel savings have been recorded.

Satisfactory analysis of the accurate fuel consumption of a commercial vehicle, takes a great deal of careful planning, preparation and patience, with checks and balances along the line. Determining the amount of fuel used by weight and converting it to volume, using temperature corrected specific gravity, is accepted as a very accurate method of establishing a vehicle's fuel consumption by the commercial vehicles technical press.

Recording a fleet's fuel consumption has never been easy, because of the difficulty in collecting reliable details of the fuel consumed and distances covered. The introduction of Telematics, providing instantaneous on board fuel performance, has added another complication, in that

the information can be very optimistic and unreliable. Only very expensive fuel flow meters have proved successful and even then experience has indicated that some sort of test back up is advisable.

Type One procedure

BTAC (British Transport Advisory Consortium) and the IRTE (Institute of Road Transport Engineers) defined their Motor Industry Research Association (MIRA) proving ground based Type One test procedure. The procedure involves controlled running of vehicles on the MIRA's high-speed track to simulate motorway operations and low-speed circuit test track to simulate urban operations. The benefits are to avoid 'Road Noises', which enables the vehicle or vehicles to achieve their planned run. In addition, data including vehicle weight, type of fuel and quantity used, and the distance run can be gathered accurately. Climatic conditions including wind speed and direction and ambient pressures and temperatures can be recorded at 10 minute intervals.

The first test on the vehicle was run prior to the BORPower being applied to the test vehicle's engine and an overall fuel consumption of 10.73mpg was recorded. Following the application of the BORPower additive, the vehicle was put into normal service, where it covered some 500miles on normal over the road operation before the second fuel consumption evaluations at the MIRA proving ground. The further IRTE/BTAC Type One Test was performed on the following day. The ambient conditions on each day were very similar and the services of the same MIRA test driver utilised. On this occasion the overall fuel consumption of 11.88 mpg was achieved, which represented an improvement of 10.8%.

In summary, the claimed fuel saving through the use of BORPower has been verified through an independently and scientifically controlled, accurate IRTE/BTAC Type One Fuel Consumption Evaluation procedure. A full report is available from Mounir Adjrad, Technical Manager of NanoBoron.

For further details on BORPower and NanoBoron circle 102 on the readerlink card