



26 Oct 2015

Smart Air Fuel Saver testing of the Smart Emissions Reducer Report

Purpose: To demonstrate factual effects upon crankcase gases passed through the Smart Emissions Reducer (SER) device on two types of internal combustion engines.

It was requested of Infinity Industrial Controls and myself to devise a means of analysis for the SER to demonstrate how it affects the various hydrocarbon elements present in crankcase gases which are drawn into the combustion process. There have been numerous tests done of the combustion byproducts, in engines fitted with an SER, which demonstrated a reduction in exhaust emissions. These tests used 5 gas analysis, and snap testing to verify reduction in opacity. The unknowns were degree and quality of atomic effect on the crankcase vapors being processed by the SER which is not reflected in an exhaust analysis.

To record any change in character of the various chemical species, a test protocol was formed utilizing a mass spectrometer/gas chromatograph so that a verifiable picture of any conversions could be had. Tests were performed by FREE-COL Laboratories in Meadville Pa., using standard time vs flow methods of gas sampling on the crankcase gases. A broad range of hydrocarbon elements were detected showing the normal constituents of crankcase vapors in both the diesel and gasoline engine.

Elemental and ionic differences were noted in all tests indicating sweeping changes in the large majority of species detected. Effects on mass, charge and abundance were distinct with the overall trend indicating fracturing of heavier HC chains to lighter ones. This is congruent with earlier test data accumulated that demonstrates improved flame propagation and more complete combustion by analysis of exhaust and dyno data.

The apparent mechanism of ionization as a means of fracturing the elements, as stated by Smart Air Fuel Saver appears to be substantiated by the test findings.

A handwritten signature in black ink, appearing to read "Ed Grimm", with a long horizontal flourish extending to the right.

Ed Grimm

VP Operations, NASA Certified Calibration Inspector

Infinity Industrial Controls