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Eaton et al.

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(54) **GLYCEROL CONTAINING FUEL MIXTURE FOR DIRECT INJECTION ENGINES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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USPC ..... 44/301, 302, 389, 436, 446, 447, 451; 123/1 A
See application file for complete search history.

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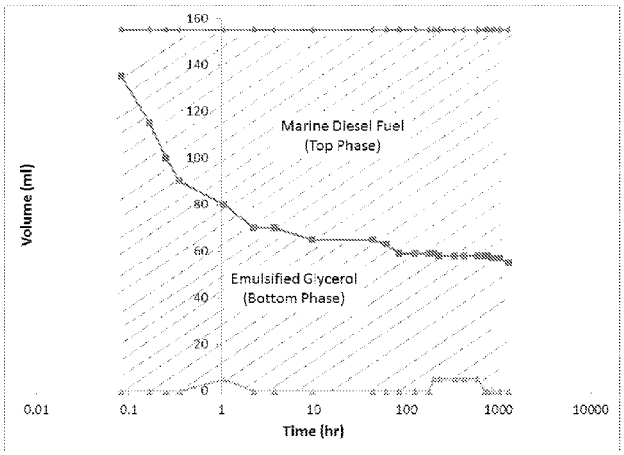
(57) **ABSTRACT**

The invention provides fuel mixtures containing fuel oil, glycerol, glycerol impurities and non-ionic surfactants. The mixtures remain homogeneous longer and are more chemically stable than previous mixtures. Upon combustion, the mixtures generate reduced SOx, NOx and particulate matter emissions compared to residual fuels and offer improved engine performance over previous mixtures.

28 Claims, 6 Drawing Sheets