

SYSTEM AND METHOD FOR HYDROGEN BASED ENGINE DECARBONIZATION

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Abstract

The present disclosure relates to a system for decarbonizing engines. The system
10 comprises a set of engine decarbonization units, each engine decarbonization unit having
a hydrogen flow regulation unit couplable to a source of dry hydrogen; a hydrogen
delivery line coupled to the hydrogen flow regulator and configured for introducing dry
hydrogen into an engine; an engine exhaust gas analyzer configured for measuring engine
exhaust gas components and determining a set of corresponding lambda values, each
15 lambda value corresponding to an air-to-fuel ratio of the engine; and a control unit
configured for controllably introducing dry hydrogen into the engine while the engine is
running in accordance with an initial set of engine decarbonization process parameters.
Particularly, the initial set of engine decarbonization process parameters is based upon at
least some of engine type, engine capacity, and engine odometer reading.

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(Most illustrated by FIG.2)