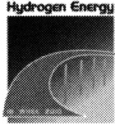



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




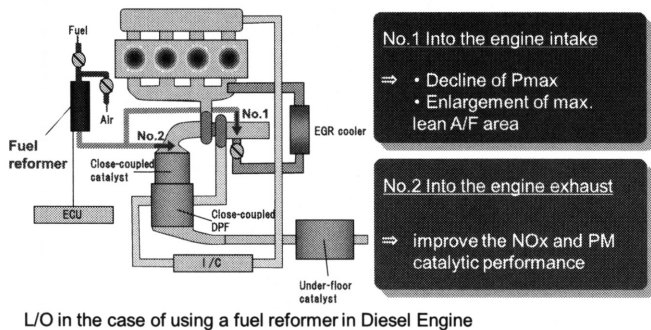
Development of an ultra compact CPOX reactor for diesel fuel

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– Honda R&D Co., Ltd.
– Honda R&D Co., Ltd.
– Honda R&D Co., Ltd.
– Precision Combustion, Inc.

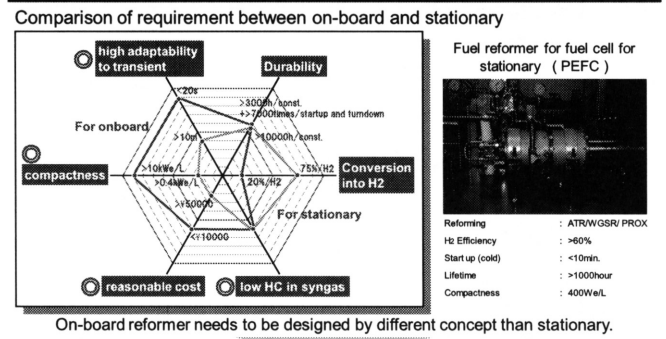


Needs of fuel reformer in Diesel



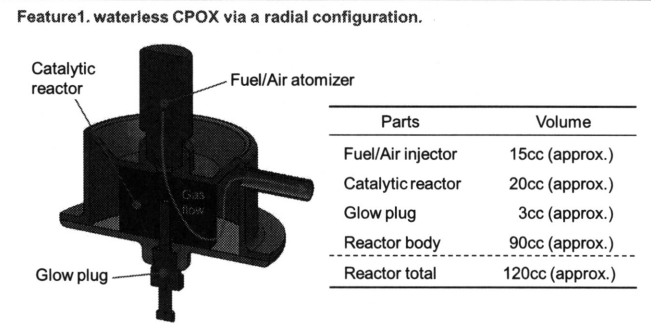
Use of fuel reformer is one of most efficient techniques for improving both fuel consumption and emissions.

Reactor Concept



Two features of our reforming reactor :
1. Waterless CPOX w. a radial configuration.
2. A novel fueling strategy capable of operating under rapid transients.

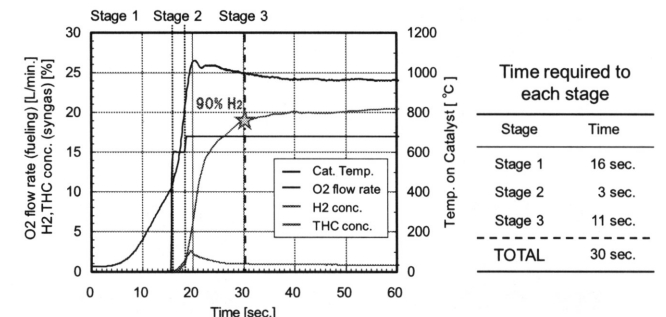
Reactor Design



Schematic diagram of a radial flow dry CPOX reforming reactor.

The reforming reactor was extremely compact and low cost!

Start-up Performance



Start up performance behavior of dry CPOX

The reactor also was capable of fast start-up (~30 sec.)