

Title (en)
HYDROGEN FUEL ASSIST DEVICE FOR AN INTERNAL COMBUSTION ENGINE AND RELATED METHODS

Title (de)
WASSERSTOFFBRENNSTOFF-UNTERSTÜTZUNGSVORRICHTUNG FÜR EINEN VERBRENNUNGSMOTOR UND ZUGEHÖRIGE VERFAHREN

Title (fr)
DISPOSITIF D'ASSISTANCE À COMBUSTIBLE À BASE D'HYDROGÈNE POUR UN MOTEUR À COMBUSTION INTERNE ET PROCÉDÉS ASSOCIÉS

Publication
EP 2872754 A1 20150520 (EN)

Application
EP 12880511 A 20120702

Priority
US 2012045279 W 20120702

Abstract (en)
[origin: WO2014007802A1] A hydrogen fuel system (10) for an internal combustion engine comprises a water reservoir (20) and a fuel cell (30) formed from a plurality of fuel cell stacks (150) in fluid communication with the water reservoir. Each fuel cell stack has at least one cathode (32), at least one anode (34) and a proton exchange membrane (36) for separating water from the water reservoir into hydrogen and oxygen when an electrical current is applied across the at least one cathode and at least one anode. Each fuel cell stack includes at least one gasket (380) disposed between two components of the fuel cell stack, the gasket including: a through hole (374) formed therein for passage of hydrogen or oxygen through the gasket; and a plurality of channels (372) formed in the gasket adjacent the through hole, each of the plurality of channels extending from an edge of the through hole to an edge of the gasket, the channels being sized and shaped to allow passage of hydrogen or oxygen to or from the through hole to or from the edge of the gasket.

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Cited by
CN113302387A; WO2021008098A1

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