

Title (en)

METHOD AND SYSTEM FOR WATER-FUEL EMULSIONS PRODUCTION

Title (de)

VERFAHREN UND SYSTEM ZUR HERSTELLUNG VON WASSER-KRAFTSTOFF-EMULSIONEN

Title (fr)

PROCÉDÉS ET SYSTÈMES DE PRODUCTION D'ÉMULSIONS EAU-CARBURANT

Publication

EP 2847303 A1 20150318 (EN)

Application

EP 13787027 A 20130506

Priority

- US 201261643311 P 20120506
- US 2013039754 W 20130506

Abstract (en)

[origin: WO2013169669A1] Water-fuel emulsions can be used in engines, predominantly in diesel engines, to achieve considerable fuel economy and reduce emissions of noxious exhaust components, NO_x, CO₂ and soot. However, the emulsion combustion technology for engines of power units has not been applied widely since the main two components are immiscible; water separates and causes corrosion in pumps, injectors, regulators and so on. In order to improve mixing, special emulsifiers are applied, but in this option emulsion does not sustain long. Proposed new emulsion making technology uses simultaneous dissolution of highly soluble gases CO₂ and CH₄ in immiscible components-fuel and water. Tests demonstrate that water-fuel emulsion produced using the new technology retains stability when exposed to temperature and at long-term storage in the open air.

IPC 8 full level

C10L 1/32 (2006.01); **B01F 3/08** (2006.01)

CPC (source: EP US)

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Citation (search report)

See references of WO 2013169669A1

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