

Title (en)

DEVICE FOR PREHEATING FLUID, IN PARTICULAR COOLANT FOR A COMBUSTION ENGINE

Title (de)

VORRICHTUNG ZUM VORWÄRMEN EINER FLÜSSIGKEIT, INSBESONDERE EINES KÜHLMITTELS FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)

DISPOSITIF DE PRECHAUFFAGE DE FLUIDE NOTAMMENT DE FLUIDE DE REFROIDISSEMENT DE MOTEUR A COMBUSTION

Publication

EP 2981769 B1 20190605 (FR)

Application

EP 14717425 A 20140401

Priority

- BE 201300233 A 20130403
- EP 2014056502 W 20140401

Abstract (en)

[origin: WO2014161839A1] The invention concerns a device for heating a fluid (2), comprising a heating body (4) traversed by a passage (6, 8) for the fluid and provided with at least one groove (14) on the outer surface of same; at least one electrical resistor (24) housed in the or one of the grooves (14) of the heating body. The device further comprises at least one closing plate (20) for closing the or one of the grooves (14), covering the or one of the resistors (24).

IPC 8 full level

F24H 1/12 (2006.01); **F24H 1/14** (2006.01); **H05B 3/20** (2006.01)

CPC (source: EP US)

F24H 1/121 (2013.01 - EP US); **F24H 1/142** (2013.01 - EP US); **H05B 3/20** (2013.01 - EP US); **H05B 2203/02** (2013.01 - EP US); **H05B 2203/022** (2013.01 - EP US); **H05B 2214/03** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2014161839 A1 20141009; BE 1023731 B1 20170703; CA 2908556 A1 20141009; EP 2981769 A1 20160210; EP 2981769 B1 20190605; RU 2015146423 A 20170510; US 11243009 B2 20220208; US 2016054029 A1 20160225

DOCDB simple family (application)

EP 2014056502 W 20140401; BE 201300233 A 20130403; CA 2908556 A 20140401; EP 14717425 A 20140401; RU 2015146423 A 20140401; US 201414782278 A 20140401