

Title (en)

DEVICE FOR THE THERMAL TREATMENT OF VISCOUS FUEL FOR INTERNAL COMBUSTION ENGINES

Title (de)

VORRICHTUNG ZUR THERMISCHEN BEHANDLUNG VON VISKOSEN TREIBSTOFFEN FÜR
BRENNKRAFTMASCHINEN-----

Title (fr)

DISPOSITIF DE TRAITEMENT THERMIQUE DE CARBURANTS VISQUEUX POUR MOTEURS A COMBUSTION INTERNE

Publication

EP 1362178 A1 20031119 (DE)

Application

EP 02719819 A 20020213

Priority

- EP 02719819 A 20020213
- EP 0201488 W 20020213
- EP 01103353 A 20010213

Abstract (en)

[origin: EP1233171A1] The thermal treatment device has a hollow chamber (2) inserted in the fuel feed line (3,4,5) for the IC engine, through which the fuel is passed in contact with a heat exchanger surface (6) connected to the engine coolant circuit. An electric heating device (7), supplied from the automobile battery (14), is contained in the hollow chamber and operated automatically via a thermostat or a time switch.

IPC 1-7

F02M 31/10; **F02M 31/125**

IPC 8 full level

F02D 33/00 (2006.01); **F02M 31/10** (2006.01); **F02M 31/125** (2006.01); **F02M 37/00** (2006.01)

CPC (source: EP US)

F02D 33/006 (2013.01 - EP US); **F02M 31/10** (2013.01 - EP US); **F02M 31/125** (2013.01 - EP US); **F02M 37/0064** (2013.01 - EP); **F02M 37/0035** (2013.01 - EP); **Y02T 10/12** (2013.01 - EP)

Citation (search report)

See references of WO 02064967A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1233171 A1 20020821; **EP 1233171 B1 20030806**; AT E246768 T1 20030815; DE 50100463 D1 20030911; DK 1233171 T3 20031201; EP 1362178 A1 20031119; ES 2204768 T3 20040501; PT 1233171 E 20031231; WO 02064967 A1 20020822

DOCDB simple family (application)

EP 01103353 A 20010213; AT 01103353 T 20010213; DE 50100463 T 20010213; DK 01103353 T 20010213; EP 0201488 W 20020213; EP 02719819 A 20020213; ES 01103353 T 20010213; PT 01103353 T 20010213