

Title (en)

Engine oil cooling

Title (de)

Brennkraftmaschinenölkühlung

Title (fr)

Refroidissement d'huile pour moteur à combustion

Publication

EP 1411215 A1 20040421 (EN)

Application

EP 03256433 A 20031011

Priority

GB 0224068 A 20021016

Abstract (en)

The flow of oil and coolant through a heat exchanger (16), is controlled in accordance with respective temperatures in relation to preset temperatures, to control the mutual exchange of heat between oil and coolant using a control valve (18). Independent claims are also included for the following: (1) engine oil heating/cooling system; and (2) internal combustion engine.

IPC 1-7

F01M 5/00

IPC 8 full level

F01M 5/00 (2006.01); **F01P 7/16** (2006.01)

CPC (source: EP)

F01M 5/00 (2013.01); **F01M 5/005** (2013.01); **F01P 7/165** (2013.01); **F01P 2025/08** (2013.01); **F01P 2025/33** (2013.01); **F01P 2025/40** (2013.01); **F01P 2037/02** (2013.01); **F01P 2060/04** (2013.01)

Citation (search report)

- [PX] US 2002148433 A1 20021017 - ROSSITER DAVID [US]
- [XA] GB 2362210 A 20011114 - FORD GLOBAL TECH INC [US]
- [X] FR 2571431 A1 19860411 - RENAULT VEHICULES IND [FR]
- [A] US 6053131 A 20000425 - MUELLER LUDWIG [DE], et al
- [A] US 4512300 A 19850423 - DEVORE JAMES R [US], et al
- [A] EP 0926322 A2 19990630 - ISUZU MOTORS LTD [JP]
- [A] US 2392723 A 19460108 - CHANDLER EDWARD F

Cited by

FR2887289A1; CN115309209A; CN106499462A; CN114961960A; US7717070B2; WO2005113959A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1411215 A1 20040421; **EP 1411215 B1 20090128**; DE 60326029 D1 20090319; GB 0224068 D0 20021127

DOCDB simple family (application)

EP 03256433 A 20031011; DE 60326029 T 20031011; GB 0224068 A 20021016