

Title (en)
ENGINE COOLANT CROSSOVER ASSEMBLY

Title (de)
VERBUNDUNGSVORRICHTUNG FÜR DIE KÜHLFLÜSSIGKEIT VON MOTORKÜHLUNGEN

Title (fr)
ENSEMBLE D'INTERCOMMUNICATION POUR LIQUIDE DE REFROIDISSEMENT DE MOTEUR

Publication
EP 1121514 A4 20060308 (EN)

Application
EP 00955536 A 20000815

Priority
• US 0022305 W 20000815
• US 14914199 P 19990816

Abstract (en)
[origin: WO0112962A1] In a preferred embodiment, an engine coolant crossover assembly (10) includes a crossover conduit member (12) carrying an integral liquid cooled alternator (14) and liquid cooled exhaust gas recirculation valve (16). The integration of one or both of these parts into the coolant crossover eliminates many parts from the total assembly. These parts include: attachment brackets, coolant hoses, hose clamps, cast mounting clocks, coolant tubes and attachment bolts. Reduction of these parts reduces system costs, assembly time, mass and potential coolant leak paths. A temperature sensor (18) and a thermostat housing (20) may also be included in the crossover assembly (12). The assembly may also be made part of an intake manifold (56) for an integrated air fuel module (58) of V-type engine.

IPC 1-7
F01P 1/06

IPC 8 full level
F01P 3/12 (2006.01); **F01P 11/00** (2006.01); **F02M 25/07** (2006.01); **F01P 7/16** (2006.01); **F01P 11/04** (2006.01); **F02B 75/22** (2006.01)

CPC (source: EP)
F01P 3/12 (2013.01); **F01P 11/00** (2013.01); **F02M 26/30** (2016.02); **F02M 26/58** (2016.02); **F02M 26/73** (2016.02); **F01P 7/16** (2013.01); **F01P 11/04** (2013.01); **F01P 2025/08** (2013.01); **F01P 2060/16** (2013.01); **F01P 2060/185** (2013.01); **F01P 2070/00** (2013.01); **F02B 75/22** (2013.01); **F02M 26/21** (2016.02); **F02M 26/28** (2016.02); **F02M 26/41** (2016.02)

Citation (search report)
• [X] EP 0492877 A1 19920701 - FORD MOTOR CO [GB], et al
• See references of WO 0112962A1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
WO 0112962 A1 20010222; EP 1121514 A1 20010808; EP 1121514 A4 20060308

DOCDB simple family (application)
US 0022305 W 20000815; EP 00955536 A 20000815