

Title (en)

Cooling apparatus for internal combustion engine

Title (de)

Kühlvorrichtung für Verbrennungsmotoren

Title (fr)

Appareil de refroidissement pour moteur à combustion interne

Publication

**EP 1970548 A2 20080917 (EN)**

Application

**EP 08004783 A 20080314**

Priority

JP 2007068710 A 20070316

Abstract (en)

A flow control mechanism (300) is disposed downstream of an exhaust heat recovery device (150) on a cooling water circuit (500b) between the exhaust heat recovery device (150) and a water pump (120). The flow control mechanism (300) controls a flow rate of cooling water in accordance with a cooling water temperature around the flow control mechanism (300). When the cooling water temperature is low, the flow control mechanism (300) does not limit the flow rate of the cooling water to perform exhaust heat recovery. When the cooling water temperature is increased, the flow control mechanism (300) limits the flow rate of the cooling water to stop the exhaust heat recovery. Further, the flow control mechanism (300) again increases the flow rate of the cooling water when the cooling water temperature is increased to around the boiling point of the cooling water while the exhaust heat recovery is stopped.

IPC 8 full level

**F01P 3/12** (2006.01); **F01P 7/16** (2006.01)

CPC (source: EP US)

**F01P 3/12** (2013.01 - EP US); **F01P 7/165** (2013.01 - EP US); **F01P 2060/08** (2013.01 - EP US); **F01P 2060/16** (2013.01 - EP US)

Cited by

CN106321220A; GB2518864A; WO2010102773A1

Designated contracting state (EPC)

DE FR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

**EP 1970548 A2 20080917**; **EP 1970548 A3 20090923**; JP 2008231942 A 20081002; US 2008223317 A1 20080918

DOCDB simple family (application)

**EP 08004783 A 20080314**; JP 2007068710 A 20070316; US 7606608 A 20080313