

Title (en)

DEVICE FOR SECURING A COOLING CIRCUIT OF AN INTERNAL-COMBUSTION ENGINE

Publication

EP 0177860 B1 19891220 (DE)

Application

EP 85112273 A 19850927

Priority

DE 3436702 A 19841006

Abstract (en)

[origin: ES8608629A1] A device is provided for protecting the coolant circulation in an internal combustion engine, especially a motor vehicle engine, from excess pressure. A first pressure control valve is arranged in the upper region of a coolant-carrying tank and adjusted to a first opening pressure. A float is arranged in the tank which, in a sealing manner, can be engaged with a lead-in to the pressure control valve so that, in the case of an excessive rise of the coolant in the tank, the pressure control valve is not operative. The ejection of cooling water in the switch-off phase of a previously heated internal combustion engine is thereby prevented. In order to avoid an unacceptable increase of pressure in the coolant-circulating system, a second pressure control valve is provided which is designed for a higher opening pressure than the first one. As a result, the coolant-circulating system is protected from excessive pressures.

IPC 1-7

F01P 11/14; F01P 11/18

IPC 8 full level

F01P 11/02 (2006.01); **F01P 11/14** (2006.01); **F01P 11/18** (2006.01)

CPC (source: EP US)

F01P 11/029 (2013.01 - EP US); **F01P 11/14** (2013.01 - EP US); **F01P 11/18** (2013.01 - EP US); **F01P 11/0238** (2013.01 - EP US)

Citation (examination)

- DE 3045357 A1 19820609 - SUEDDEUTSCHE KUEHLER BEHR [DE], et al
- GB 1488484 A 19771012 - CHRYSLER UK

Cited by

EP0464317A1; DE4228185A1; DE29617824U1; DE19642114A1; DE3803165A1; DE4233038C1; FR2696501A1; US5357909A; US9856777B2; US6367644B1; GB2253695A; FR2673679A1; US5163506A; GB2253695B; WO9928605A1; WO0169057A1; WO0175282A1; WO2016094410A1

Designated contracting state (EPC)

BE DE FR GB IT NL SE

DOCDB simple family (publication)

EP 0177860 A2 19860416; EP 0177860 A3 19870325; EP 0177860 B1 19891220; DE 3436702 A1 19860410; DE 3436702 C2 19870903; DE 3574899 D1 19900125; ES 547595 A0 19860716; ES 8608629 A1 19860716; US 4640235 A 19870203

DOCDB simple family (application)

EP 85112273 A 19850927; DE 3436702 A 19841006; DE 3574899 T 19850927; ES 547595 A 19851004; US 77910285 A 19850923