

Title (en)
DEVICE AND PROCESS FOR COOLING AN ENGINE

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Application
EP 88909289 A 19881026

Priority
DE 3738412 A 19871112

Abstract (en)
[origin: WO8904419A1] A device and a process for cooling an engine are disclosed in which at least one coolant pump (22) mechanically driven by the engine (10) to be cooled and at least one coolant pump (23, 54) electrically controlled by an electronic switch gear (24) are arranged in at least one cooling circuit of said engine. The output of the electric pump (23, 54) is established in function of characteristic operating parameters of the engine (10) to be cooled and of other parameters, while the mechanical pump (22) is designed to provide a basic output. A heat exchanger (16) which functions as a radiator is arranged in a first coolant section (15) of the cooling circuit. The cooling capacity of said heat exchanger can be varied by means of a radiator shutter (36) and a fan (37). A second heat exchanger (20) is arranged in another coolant section (19) or in a separate cooling circuit. The heat dissipated by the second heat exchanger is used for heating purposes or to further cool the engine.

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WO 8904419 A1 19890518; AT E86361 T1 19930315; DE 3738412 A1 19890524; DE 3878919 D1 19930408; EP 0389502 A1 19901003; EP 0389502 B1 19930303; JP H03500795 A 19910221; KR 900700721 A 19900816; KR 960012136 B1 19960916; US 5036803 A 19910806

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