

Title (en)  
ARRANGEMENT OF A COOLANT PUMP.

Title (de)  
ANORDNUNG EINER KÜHLMITTELPUMPE

Title (fr)  
AGENCEMENT D'UNE POMPE À RÉFRIGÉRANT

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Application  
**EP 13824477 A 20131017**

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Abstract (en)  
[origin: WO2014059965A2] The invention relates to the development of a novel arrangement of a coolant pump for internal combustion engines that is of simple and robust design, can be simply manufactured, allows substantially easier access to the coolant pump in the engine compartment and which furthermore, with standard operating parameters, can be uniformly configured (universal pump) even for different engine platforms and at the same time minimises wear of the assemblies and of operating noise, facilitates diagnostic capability of the pump functions, furthermore substantially reduces the weight of the coolant pumps and the manufacturing costs of the coolant pumps and at minimal additional expense allows the pump functions to be electrified. The arrangement of a cooling pump according to the invention is characterised inter alia in that the bearing housing (2) of the coolant pump (1) is arranged inside the oil pan (10) at the crankcase (9), and in the bearing housing (2) an oil pump (11) is arranged next to the coolant pump (1), wherein the drive shaft (3) of the coolant pump (1) is simultaneously also the drive shaft (3) of the oil pump (11). A pump shaft seal (8) is arranged on the drive shaft (3) on the output side next to the impeller (7) of the coolant pump (1) and on the oil pump side in the bearing housing (2) a leakage collecting space (12) having a leakage bore (13) is arranged next to the pump shaft seal (8) of the coolant pump (1). A shaft seal (14) is arranged on the oil pump side next to the leakage collecting space (12), and in the leakage collecting space (12) a leakage pump (15) is arranged on the drive shaft (3). The invention relates to the arrangement of a coolant pump (1) for combustion engines having a drive shaft (3) mounted rotatably in a bearing housing (2), an impeller (7) arranged on the flow-side end of the drive shaft (3) in a working chamber (6) provided with an aspiration opening (4) and a discharge opening (5), having an oil pump (11) arranged inside an oil pan (10) at the crankcase (9).

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