

Title (en)
MECHANICAL SWITCHABLE AUTOMOTIVE COOLANT PUMP

Title (de)
MECHANISCHE SCHALTBARE AUTOMOBILE KÜHLMITTELPUMPE

Title (fr)
POMPE MÉCANIQUE À LIQUIDE DE REFROIDISSEMENT AUTOMOBILE COMMUTABLE

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Abstract (en)
[origin: WO2017028921A1] The invention refers to a mechanical switchable automotive coolant pump (10) for providing a liquid coolant for an automotive engine (12). The pump comprises a static pump frame (30), a rotatable rotor shaft (20) which is rotatably supported at the pump frame (30), a pulley wheel (22) which is co-rotatably fixed to the rotor shaft (20) and which is suitable to be mechanically driven by the engine (12), a rotatable and axially shiftable pump wheel (60) which is rotatably supported and is axially shiftable with respect to the rotor shaft (20) and to the pump frame (30) and which is provided with a ferromagnetic means, and an electromagnetic wet friction clutch arrangement (50) with a static electromagnet (32) and a clutch disk (51) which is co-rotatably supported by the rotor shaft (20), a clutch friction surface (54) at the clutch disk (51) and a corresponding clutch friction surface (62) at the pump wheel (16), and a separate stop friction surface (64) at the pump wheel (60) and a corresponding static stop friction surface (36) at the pump frame (30). The pump wheel (60) is axially attracted by the excited electromagnet (52) so that the stop friction surfaces (64, 36) engage and the pump wheel (60) is stopped.

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