

Title (en)
PISTON AND CRANKCASE ASSEMBLY FOR AN INTERNAL COMBUSTION ENGINE

Title (de)
ANORDNUNG AUS EINEM KOLBEN UND EINEM KURBELGEHÄUSE FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)
ENSEMBLE CONSTITUÉ D'UN PISTON ET D'UN CARTER DE VILEBREQUIN POUR UN MOTEUR À COMBUSTION INTERNE

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Application
EP 13744418 A 20130503

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Abstract (en)
[origin: WO2013167102A2] The invention relates to an assembly (100, 200) consisting of a piston (10, 110, 210) made of a steel-based material, and a crankcase (140, 240) made of an aluminum-based material, for an internal combustion engine. Said piston (10, 110, 210) comprises a piston head (11) and a piston skirt (16), said piston head (11) having a peripheral annular part (15) and in the region of said annular part (15), a peripheral cooling channel (23). The piston skirt (16) comprises piston bores (17) provided with hub bores (18), which are arranged over the hub connections (19) on the underside (11a) of the piston head (11). Said piston hubs (17) are interconnected over the running surfaces (21, 22). According to the invention, at least one bore (24a, 24b, 24c, 24d) which is closed towards the outside is arranged between a running surface (21, 22) and a hub bore (18) such that the at least one bore (24a, 24b, 24c, 24d) leads into the cooling channel (23), and that the cooling channel (23) and the at least one bore (24a, 24b, 24c, 24d) contain a coolant (127, 227) in the form of a metal or a metal alloy which have a low-melting point.

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Citation (examination)
• DE 726685 C 19421019 - VERSUCHSANSTALT FUER LUFTFAHRT
• FR 2901577 A3 20071130 - RENAULT SAS [FR]
• GB 517713 A 19400207 - ARTHUR VILLENEUVE NICOLLE, et al

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