

Title (en)
Radiators and soundproofing engine enclosure designs

Title (de)
Kühler und Maschinenlärmschutzumhüllung

Title (fr)
Projets des refroidisseurs et capots anti-son pour des moteurs

Publication
EP 0935058 A3 20000906 (EN)

Application
EP 99300840 A 19990204

Priority
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• JP 3986498 A 19980206
• JP 3986898 A 19980206

Abstract (en)
[origin: EP0935058A2] Disclosed a radiator (30) that transfers heat from a cooling liquid (W) to a current of air (A) made to forcibly flow, and a soundproofing engine enclosure (35) design in which a soundproofing enclosure (35) shields the noise sources of a heat engine (31) and a motor generator (34) while a radiator (30) is outside the enclosure. The radiator (30) for cooling down the cooling liquid (W) circulating through the heat engine (31) is comprised of an inner cylinder (1), porous-metal bodies (3,4) arranged in the inner cylinder (1) and made of a metal such as aluminum or aluminum alloys high in thermal conductivity so as to have therein interconnecting voids permitting the current of air (A) to flow, and an outer cylinder (2) arranged around the inner cylinder (1) so as to provide an annular passage (11) for the cooling liquid (W). The soundproofing enclosure (35) shields an engine body (36), engine mount (38), water pump (42), fuel injection pump (43) and motor generator (34). <IMAGE>

IPC 1-7
F01P 3/18; **F02B 77/13**; **F28F 13/00**; **F28D 7/10**

IPC 8 full level
F01P 3/18 (2006.01); **F02B 77/13** (2006.01); **F28D 7/10** (2006.01); **F28F 13/00** (2006.01)

CPC (source: EP)
F01P 3/18 (2013.01); **F02B 77/13** (2013.01); **F28D 7/106** (2013.01); **F28F 13/003** (2013.01)

Citation (search report)
• [A] US 3684053 A 19720815 - FACHBACH HEINZ, et al
• [A] US 4459944 A 19840717 - KIRCHWEGGER KARL [AT], et al
• [A] DD 97921 A1 19730521
• [A] EP 0819840 A1 19980121 - ISUZU CERAMICS RES INST [JP]
• [A] EP 0147262 A1 19850703 - CHARBONNAGES DE FRANCE [FR]
• [A] DE 3015150 A1 19811022 - STIEBEL ELTRON GMBH & CO KG [DE]
• [A] FR 2362354 A1 19780317 - PRONKO VLADIMIR [SU]
• [A] DE 3906446 A1 19900913 - DEUTSCHE FORSCH LUFT RAUMFAHRT [DE]
• [A] US 3409075 A 19681105 - LONG HUGH M

Cited by
CN118228521A; CN109826740A; CN107800235A; CN102426833A; FR2958330A1; CN101653616A; EP2623917A4; DE102006027230A1; US6142222A; DE102020129133B4; US9534856B2; EP2604476A1; WO2008071263A1

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