

Title (en)  
DAMAGE RESISTANT HEAT EXCHANGER

Publication  
**EP 0061873 A3 19830420 (EN)**

Application  
**EP 82301412 A 19820319**

Priority  
GB 8109699 A 19810327

Abstract (en)  
[origin: EP0061873A2] A damage-resistant radiator, typically for i.c. engines in land vehicles, has heat-exchange tubes extending between header tanks, said tubes being surrounded by a secondary heat exchange surface. The row of tubes adjacent the radiator face where impingement damage is anticipated is arranged so that the tubes are isolated from the route of the cooling fluid through the radiator. Alternatively the tubes in this row are replaced by solid rods.

IPC 1-7  
**F28F 19/00**; **F28F 21/08**

IPC 8 full level  
**F28D 1/053** (2006.01); **F28F 19/00** (2006.01); **F28F 21/08** (2006.01)

CPC (source: EP)  
**F28D 1/05383** (2013.01); **F28F 19/00** (2013.01); **F28F 21/082** (2013.01); **F28F 21/085** (2013.01)

Citation (search report)

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Designated contracting state (EPC)  
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