

Title (en)  
A vehicle heat exchanger

Title (de)  
Wärmetauscher für Kraftfahrzeug

Title (fr)  
Echangeur de chaleur pour véhicule automobile

Publication  
**EP 1065463 A2 20010103 (EN)**

Application  
**EP 00305448 A 20000629**

Priority  
GB 9915573 A 19990702

Abstract (en)  
A vehicle heat exchanger (1), typically an oil cooler, has stacked galleries, including a first gallery system for containing a first fluid, and a second gallery system for containing a second fluid. The first and second gallery systems are sealed from one another and formed by a dimpled shell (2), a plain shell (4) nested within the dimpled shell element (2) and having a surface contacted by projecting dimples (15) of the dimpled shell (2)(to define a first gallery being); a turbulator (3) nested within the plain shell (4); and a further dimpled shell (2) nested in the plain shell (4), the further dimpled shell (a second gallery being defined between the further dimpled shell and the nesting plain shell, and occupied by the turbulator (4)).  
<IMAGE>

IPC 1-7  
**F28D 9/00**; **F28F 3/04**; **F28F 13/12**

IPC 8 full level  
**F28D 9/00** (2006.01); **F28F 3/04** (2006.01)

CPC (source: EP)  
**F28D 9/005** (2013.01); **F28F 3/04** (2013.01)

Cited by  
DE202010003080U1; US11959710B2; EP3444557A1; CN111542725A; WO2019034646A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**EP 1065463 A2 20010103**; **EP 1065463 A3 20010808**; **EP 1065463 B1 20040414**; AT E264491 T1 20040415; DE 60009798 D1 20040519; DE 60009798 T2 20050428; GB 2355300 A 20010418; GB 2355300 B 20030716; GB 9915573 D0 19990901

DOCDB simple family (application)  
**EP 00305448 A 20000629**; AT 00305448 T 20000629; DE 60009798 T 20000629; GB 9915573 A 19990702