

Title (en)  
Heat exchanger.

Title (de)  
Wärmetauscher.

Title (fr)  
Echangeur de chaleur.

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Application  
**EP 93107123 A 19930503**

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Abstract (en)  
A heat exchanger such as a fuel/oil heat exchanger for use in an aircraft operates in an environment whereby the heat exchanger is caused to vibrate. This causes the various components to move relative to one another, for example the tubes (3,33) move relative to the baffle plates (5,15) and results in tube wear known as fretting. In the extreme perforation (failure) of the tubes occurs. In the heat exchanger of the present invention an internal member such as a baffle plate (5,15) or a distance tube (7) against which the fuel tubes (3,13) move are made of polyetheretherketone (PEEK) (trade name: ARLON) or polyamide imide (trade name: TORLON), which has a low coefficient of wear. It also has the required structural rigidity and strength properties within the operating temperature. Furthermore the coefficient of thermal expansion of the material of the internal member is greater than that of the material e.g. aluminium alloy, of the remaining components. <IMAGE>

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IPC 8 full level  
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Citation (search report)  
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• [Y] PATENT ABSTRACTS OF JAPAN vol. 10, no. 331 (M-533)11 November 1986 & JP-A-61 136 027 ( HITACHI CHEM CO LTD ) 23 June 1986  
• [A] PATENT ABSTRACTS OF JAPAN vol. 14, no. 242 (C-721)23 May 1990 & JP-A-02 064 137 ( SUMITOMO CHEM CO LTD ) 5 March 1990

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