

Title (en)  
UNLOADED HEAT EXCHANGER TUBE SHEET.

Title (de)  
ENTLASTETE WÄRMETAUSCHEROHRPLATTE.

Title (fr)  
PLAQUE TUBULAIRE NON CHARGÉE POUR ÉCHANGEUR THERMIQUE.

Publication  
**EP 0523039 B1 19950301 (EN)**

Application  
**EP 90908144 A 19900404**

Priority  
• SE 9000225 W 19900404  
• SE 8803537 A 19881005

Abstract (en)  
[origin: WO9115728A1] An arrangement in a heat exchanger having a heat exchanger vessel with a shell (1) and, disposed inside the shell, at least one tube sheet (8) to which a number of heat exchanger tubes (9) are connected and whose edge portion is sealingly connected to the shell by means of a flexible connecting member (23). The connecting member is designed as part of a toroid having a cross-section of arched configuration, which exhibits a continuous curvature and has the shape of a quarter circle, such that loads deriving from pressure differences across the connecting member can be taken up in the form of general membrane stresses in the connecting member and such that thermal expansion between the shell and tube sheet can be taken up as bending of the connecting member.

IPC 1-7  
**F28F 9/04**

IPC 8 full level  
**F28F 9/02** (2006.01); **F28F 9/04** (2006.01); **F28F 9/22** (2006.01)

CPC (source: EP)  
**F28F 9/0241** (2013.01); **F28F 9/22** (2013.01); **F28F 2265/26** (2013.01)

Designated contracting state (EPC)  
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