

Title (en)
Heat exchanger with double envelope.

Title (de)
Wärmeaustauscher mit doppelter Umhüllung.

Title (fr)
Echangeur de chaleur à double enveloppe.

Publication
EP 0022025 A2 19810107 (FR)

Application
EP 80400957 A 19800625

Priority
FR 7916196 A 19790625

Abstract (en)
1. Double envelope heat exchanger for a composite hot water boiler in which hot gases (G) are produced and conducted so as to heat two tubular circuits serving respectively for the circulation of drawn water (L1) and for the circulation of heating water (L2), characterized in that the two circuits comprise two independent networks of tubes (12, 22) formed in known manner by triple walls (1) which themselves comprise two corrugated metal sheets (10, 20) fixed to one another by an intermediate common wall (2), the pitch of the corrugations (11) corresponding to the drawn water being smaller than the pitch of the corrugations (21) corresponding to the heating water, and the assembly being arranged so that the hot gases flowing along the outside of the triple walls circulate in counter-current relative to the water to be heated circulating inside these walls.

Abstract (fr)
L'invention se rapporte à un échangeur de chaleur se situant dans le domaine des échangeurs à trois fluides en circulation, dont un gazeux. Cet échangeur est obtenu à partir de deux tôles 10 et 20 comportant chacune des ondulations 11 et 21 et fixées de part et d'autre d'une paroi intermédiaire commune 2 pour la formation de deux circuits d'eau indépendants 12 et 22. Le pas des ondulations 11 de la tôle 10 est inférieur au pas des ondulations 21 de la tôle 20. Application come échangeur de chaleur pour chaudières à condensation.

IPC 1-7
F28F 3/12

IPC 8 full level
F28D 9/00 (2006.01); **F28F 3/12** (2006.01)

CPC (source: EP)
F28D 9/0093 (2013.01); **F28F 3/02** (2013.01); **F28F 3/12** (2013.01)

Cited by
US4996950A; FR2988823A1; FR2657422A1; EP1134535A1; CN102278903A; EP2639541A1; CN104169672A; AU2013234306B2; US6435270B2; US9939211B2; WO2013135813A3

Designated contracting state (EPC)
AT BE CH DE GB IT LU NL

DOCDB simple family (publication)
EP 0022025 A2 19810107; EP 0022025 A3 19810218; EP 0022025 B1 19840125; AT E5997 T1 19840215; DE 3066267 D1 19840301; ES 492690 A0 19810216; ES 8102673 A1 19810216; FR 2459954 A1 19810116; FR 2459954 B1 19860905; PT 71415 A 19800701

DOCDB simple family (application)
EP 80400957 A 19800625; AT 80400957 T 19800625; DE 3066267 T 19800625; ES 492690 A 19800623; FR 7916196 A 19790625; PT 7141580 A 19800619