Title (en)

Process and apparatus for cleaning the end plate of a heat exchanger from the inner side of the heat exchanger bundle

Title (de)

Verfahren und Vorrichtung zur Reinigung der Endplatte eines Wärmetauschers vom Innern des Wärmetauscherbündels

Title (fr)

Procédé et dispositif de nettoyage d'une plaque tubulaire d'un échangeur de chaleur depuis l'intérieur du faisceau de l'échangeur de chaleur

Publication

EP 0780627 B1 20000112 (FR)

Application

EP 96402509 A 19961121

Priority

FR 9515418 A 19951222

Abstract (en)

[origin: EP0780627A1] The method involves using jets of liquid (55a,55b,55c) to clean a tube plate heat exchanger with tubes in a series of flat parallel layers bent into a U-shape. The jets are fed from a position between two layers of tubes in an oscillating motion, with a flow rate of at least 20 l/min and closer to 60 l/min. The cleaner itself comprises a lance (14) which is at least partially supple and has a thickness which is less than the width of the gap between two layers of tubes. It produces liquid jets perpendicular to the pipe layers through nozzles (48a,48b,48c). The body of the lance is made from a plastics material, with a rigid head at one end equipped with an oscillating nozzle carrier.

IPC 1-7

F22B 37/48

IPC 8 full level

F22B 37/48 (2006.01); **F28G 3/16** (2006.01)

CPC (source: EP)

F22B 37/483 (2013.01); **F28G 3/16** (2013.01)

Cited by

CN102265111A; GB2468651A; GB2468651B; GB2468650A; GB2468650B

Designated contracting state (EPC)

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EP 0780627 A1 19970625; **EP 0780627 B1 20000112**; DE 69606156 D1 20000217; DE 69606156 T2 20000824; ES 2143736 T3 20000516; FR 2742858 A1 19970627; FR 2742858 B1 19980306; US 5782255 A 19980721; US 5833767 A 19981110

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EP 96402509 A 19961121; DE 69606156 T 19961121; ES 96402509 T 19961121; FR 9515418 A 19951222; US 76940896 A 19961219; US 96548597 A 19971106