

Title (en)
CONVERSION SET FOR A TUBE BUNDLE HEAT EXCHANGER

Title (de)
UMRÜSTSATZ FÜR EINEN ROHRBÜNDELWÄRMETAUSCHER

Title (fr)
JEU D ADAPTATION POUR UN ÉCHANGEUR DE CHALEUR À FAISCEAU TUBULAIRE

Publication
EP 2304370 A1 20110406 (DE)

Application
EP 08773495 A 20080618

Priority
EP 2008004905 W 20080618

Abstract (en)
[origin: WO2009152830A1] The present invention relates to a conversion set for pipe bundle heat exchanger having a cylindrical housing. Using said conversion set, existing tube bundle heat exchangers can be changed over such that the efficiency and thus the heat transfer thereof is improved, large exchange surface areas are provided, and energy costs are reduced. The conversion set can also be used in high-pressure applications for pressures above 300 bar. According to the invention, the conversion set has at least one plate heat exchange unit for replacing the tube bundle unit, comprising at least the following components: a plate packet having at least two heat exchange plates, each comprising at least one through hole and welded to each other in pairs along the periphery thereof or along the periphery of the through holes, two mounting plates each having at least one through hole, wherein one each of the mounting plates is disposed at each end of the plate packet and is connected to each outermost heat exchanger plate of the plate packet, and at least one traction mechanism extending in the longitudinal axis between the mounting plates and connected to both mounting plates, so that the two mounting plates and the traction mechanism form a cage about the plate packet, said cage supporting the forces arising in the plate packet in the operating state of the plate heat exchange unit, wherein the outer diameter of the plate heat exchange unit is adapted to the inner diameter of the cylindrical housing of the tube bundle heat exchanger, and the traction mechanism is designed as a flow director extending at least partially around the periphery of the plate packet.

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

CPC (source: EP US)
F28D 9/0012 (2013.01 - EP US); **F28D 9/0031** (2013.01 - EP US); **F28F 9/001** (2013.01 - EP US); **F28F 9/005** (2013.01 - EP US); **F28F 2275/06** (2013.01 - EP US); **F28F 2280/02** (2013.01 - EP US)

Citation (search report)
See references of WO 2009152830A1

Cited by
WO2014044650A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
WO 2009152830 A1 20091223; CA 2728106 A1 20091223; EP 2304370 A1 20110406; EP 2304370 B1 20130109; US 2011139400 A1 20110616; US 9080815 B2 20150714

DOCDB simple family (application)
EP 2008004905 W 20080618; CA 2728106 A 20080618; EP 08773495 A 20080618; US 99988408 A 20080618