

Title (en)  
An apparatus for converting waste heat from a production process into electrical energy

Title (de)  
Vorrichtung für die Umwandlung von Abwärme in elektrische Energie

Title (fr)  
Installation pour la conversion de la chaleur résiduelle en énergie électrique

Publication  
**EP 2295736 A3 20110427 (EN)**

Application  
**EP 10008824 A 20100825**

Priority  
BE 200900518 A 20090826

Abstract (en)  
[origin: EP2295736A2] An apparatus for converting the waste heat from a production process into electrical energy, whereby the production process comprises a number of sub-processes, in which the waste heat from at least two sub-processes is simultaneously extracted from the production process by a single closed work-producing cooling circuit (1), and in which there is at least one heat exchanger (3,4) for each sub-process in the form of an evaporator, with a primary section incorporated into the closed cooling circuit (1) and a secondary section through which a fluid is taken from the sub-process concerned to evaporate the coolant in the closed cooling circuit (1), whereby at least one of the aforementioned heat exchangers (3,4) has its secondary section incorporated into a cooling circuit of a sub-process that uses the same coolant, and such that after cooling in the heat exchanger concerned the coolant is mixed with the coolant in the closed cooling circuit by means of a mixer (11) followed by a closed mixing vessel (12) in which the fluid and gas phases of the coolant are separated, and there is a closed mixing vessel (12) in the closed cooling circuit (1) after the mixer (11) in which the liquid and gas phases of the coolant are separated, and coolant is tapped off from this for use in the aforementioned cooling circuit of the sub-process.

IPC 8 full level  
**F01K 25/10** (2006.01); **C11B 3/14** (2006.01); **F01K 15/00** (2006.01)

CPC (source: EP)  
**C11B 3/14** (2013.01); **F01K 15/00** (2013.01); **F01K 25/106** (2013.01)

Citation (search report)  
• [A] DE 102006057448 A1 20080612 - IBB TECHNOLOGY GMBH [DE]  
• [A] DE 102006043835 A1 20080327 - BAYERISCHE MOTOREN WERKE AG [DE]  
• [A] FR 2885169 A1 20061103 - RENAULT SAS [FR]  
• [A] GB 2076062 A 19811125 - ENGLISH ELECTRIC CO LTD  
• [A] WO 9601363 A1 19960118 - RAUSCHER GEORG [DE]  
• [A] EP 0101889 A2 19840307 - STAGE HERMANN

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

Designated extension state (EPC)  
BA ME RS

DOCDB simple family (publication)  
**EP 2295736 A2 20110316; EP 2295736 A3 20110427; EP 2295736 B1 20120919; BE 1018868 A3 20111004**

DOCDB simple family (application)  
**EP 10008824 A 20100825; BE 200900518 A 20090826**