Title (en)

WASTE HEAT RECOVERY INSTALLATION

Title (de)

ABWÄRMENUTZUNGSANLAGE

Title (fr)

INSTALLATION À RÉCUPÉRATION DE CHALEUR PERDUE

Publication

EP 2655813 B1 20170419 (DE)

Application

EP 11802103 A 20111223

Priority

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Abstract (en)

[origin: WO2012085264A2] The invention relates to a waste heat recovery installation for a waste heat source (11), comprising an ORC (Organic-Rankine-Cycle) module that is mounted downstream of said waste heat source, the waste heat source (11) being connected to the heating device of the ORC module, and an expansion engine (4) coupled to a generator (5) for the steam expansion in the ORC module, said expansion engine comprising a magnetic bearing with an associated regulation device and a power supply unit via a DC intermediate circuit of a generator frequency converter. The aim of the invention is to optimize a waste heat recovery installation consisting of an ORC module that is mounted downstream of the waste heat source with respect to design and reliable operating behavior. According to the invention, a unit of expansion engine (4), generator (5) and frequency converter is proposed, which is cooled with refrigerant of the ORC circuit (1). Cool, liquid refrigerant is removed downstream of the feed pump (2) and is fed for cooling purposes to the unit consisting of expansion engine (4), generator (5) and frequency converter.

IPC 8 full level

F01K 25/10 (2006.01)

CPC (source: EP US)

F01K 25/08 (2013.01 - US); **F01K 25/10** (2013.01 - EP US)

Citation (examination)

- JP 2005264863 A 20050929 - EBARA CORP
- WO 2007088194 A2 20070809 - ECKERT FRANK [DE]

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