

Title (en)

OIL REMOVAL FROM A TURBINE OF AN ORGANIC RANKINE CYCLE (ORC) SYSTEM

Title (de)

ÖLBESEITIGUNG VON EINER TURBINE EINES SYSTEMS MIT ORGANIC-RANKINE-KREISLAUF (ORC)

Title (fr)

RETRAIT D'HUILE D'UNE TURBINE D'UN SYSTÈME À CYCLE DE RANKINE ORGANIQUE (ORC)

Publication

EP 2179145 A4 20140409 (EN)

Application

EP 07810848 A 20070727

Priority

US 2007016892 W 20070727

Abstract (en)

[origin: WO2009017471A1] A method and system for removing oil in an organic rankine cycle (ORC) system (10) is used to prevent failures in the ORC system (10), especially during startup. The ORC system (10) includes an evaporator, a turbine (18), a condenser and a pump, and is configured to circulate a refrigerant (22) through the ORC system (10). The oil-removal system is used to remove oil from certain areas of the turbine (18), and includes an eductor line (32) and an eductor system (20). The eductor line (32) is located upstream of the turbine (18) and configured to receive a portion of the refrigerant (22b) exiting the evaporator. The eductor line (32) delivers the refrigerant (22b) to an eductor system (20) configured to remove oil from inside the turbine (18) and deliver the oil to an oil sump (58).

IPC 8 full level

F01K 25/10 (2006.01); **F01K 17/04** (2006.01)

CPC (source: EP US)

F01K 17/04 (2013.01 - EP US); **F01K 25/10** (2013.01 - EP US)

Citation (search report)

- [A] US 5329771 A 19940719 - KYTOEMAEKI TIMO [FI], et al
- [A] US 2893926 A 19590707 - PORTER WORTHEN EUGENE, et al
- [A] US 4363216 A 19821214 - BRONICKI LUCIEN
- [A] US 2571166 A 19511016 - LOUIS ROSSETTO
- [A] US 2535689 A 19501226 - MCMAHAN KENTON D
- See references of WO 2009017471A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2009017471 A1 20090205; AU 2007357132 A1 20090205; CA 2694678 A1 20090205; CA 2694678 C 20140916; CN 101765704 A 20100630; DK 2179145 T3 20170109; EP 2179145 A1 20100428; EP 2179145 A4 20140409; EP 2179145 B1 20161109; JP 2010534785 A 20101111; JP 4913904 B2 20120411; MX 2010001077 A 20100728; SI 2179145 T1 20170228; US 2011005237 A1 20110113

DOCDB simple family (application)

US 2007016892 W 20070727; AU 2007357132 A 20070727; CA 2694678 A 20070727; CN 200780100057 A 20070727; DK 07810848 T 20070727; EP 07810848 A 20070727; JP 2010518153 A 20070727; MX 2010001077 A 20070727; SI 200731871 A 20070727; US 67075710 A 20100126