

Title (en)
Secondary pumping group

Title (de)
Sekundär-Pumpenaggregat

Title (fr)
Groupe de pompage secondaire

Publication
EP 0767307 A1 19970409 (FR)

Application
EP 96402094 A 19961001

Priority
FR 9511660 A 19951004

Abstract (en)
The assembly, associated with a secondary mechanical pump (1), has a cryogenic trap (2) in the form of a ring surrounding the suction side of the pump. The trap is enclosed in a housing (4) forming the pump's suction port. It has a U-shaped cross-section with its open side towards the pump's suction side. The trap is cooled by a pulsed-tube cryogenerator (9) which surrounds the pump beneath the trap and is fed by a compressor (11) through an impedance (12) and an exchanger-regenerator (14). The impedance is in the form of a rotary valve (12) driven by a motor (13), with the exchanger-regenerator, the valve and the motor aligned parallel with the axis of the pump and beneath the cold end of the pulsed tube. The assembly is connected to a chamber in which an industrial process takes place, and a neutral gas is injected into the pump and its flow is regulated according to the pressure in the chamber.

Abstract (fr)
Groupe de pompage secondaire associant une pompe secondaire mécanique (1) avec un piège cryogénique (2), caractérisé en ce que ledit piège cryogénique (2) forme un anneau entourant la pompe secondaire mécanique à son aspiration, ledit piège (2) étant enfermé dans un carter (4) délimitant l'ouverture d'aspiration, en parallèle, de la pompe mécanique (1) et du piège cryogénique (2). <IMAGE>

IPC 1-7
F04B 37/06; **F04B 41/06**; **F04D 19/04**

IPC 8 full level
F04B 37/06 (2006.01); **F04B 37/08** (2006.01); **F04B 41/06** (2006.01); **F04D 19/04** (2006.01); **F16T 1/36** (2006.01)

CPC (source: EP US)
F04B 37/06 (2013.01 - EP US); **F04B 41/06** (2013.01 - EP US); **F04D 19/046** (2013.01 - EP US); **Y10S 417/901** (2013.01 - EP)

Citation (search report)
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• [AD] RAVEX A ET AL: "EXPERIMENTAL STUDY AND MODELISATION OF A PULSE TUBE REFRIGERATOR", CRYOGENICS, vol. 32, 1 January 1992 (1992-01-01), pages 9 - 12, XP000565610

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Designated contracting state (EPC)
CH DE GB IT LI

DOCDB simple family (publication)
EP 0767307 A1 19970409; **EP 0767307 B1 20021218**; DE 69625436 D1 20030130; DE 69625436 T2 20031009; FR 2739574 A1 19970411; FR 2739574 B1 19971114; JP 2763524 B2 19980611; JP H09126126 A 19970513; US 5720174 A 19980224

DOCDB simple family (application)
EP 96402094 A 19961001; DE 69625436 T 19961001; FR 9511660 A 19951004; JP 26471296 A 19961004; US 72486596 A 19961003