

Title (en)

PUMPING DEVICE, PLANT AND METHOD FOR SUPPLYING LIQUID HYDROGEN

Title (de)

PUMPVORRICHTUNG, ANLAGE UND VERFAHREN ZUR ZUFUHR VON FLÜSSIGEM WASSERSTOFF

Title (fr)

DISPOSITIF DE POMPAGE, INSTALLATION ET PROCÉDÉ DE FOURNITURE D'HYDROGÈNE LIQUIDE

Publication

EP 3899273 A1 20211027 (FR)

Application

EP 19842379 A 20191203

Priority

- FR 1873280 A 20181219
- FR 2019052899 W 20191203

Abstract (en)

[origin: WO2020128197A1] The invention relates to a device for pumping liquid hydrogen comprising, arranged in series between an inlet (12) for fluid to be compressed and an outlet (13) for compressed fluid, a first compression member (2), preferably with a piston, forming a first compression stage and a second compression member (3) with a piston forming a second compression stage, characterised in that the first compression member (2) is suitable for and configured to compress the liquid hydrogen in a supercritical state and in that the second compression member (3) is suitable for and configured to compress the supercritical hydrogen supplied by the first compression member to an increased pressure and in particular to a pressure of between 200 and 1000 bar.

IPC 8 full level

F04B 15/08 (2006.01); **F02M 21/02** (2006.01); **F04B 23/04** (2006.01); **F04B 41/06** (2006.01)

CPC (source: EP KR US)

F04B 15/08 (2013.01 - EP KR US); **F04B 23/04** (2013.01 - EP KR US); **F04B 25/00** (2013.01 - US); **F04B 41/06** (2013.01 - EP US); **F04B 53/08** (2013.01 - US); **F04B 53/14** (2013.01 - KR US); **F04B 53/16** (2013.01 - US); **F04B 23/06** (2013.01 - US); **F04B 53/06** (2013.01 - US); **F04B 53/162** (2013.01 - US); **F04B 2015/0822** (2013.01 - EP KR US); **F04B 2201/0202** (2013.01 - US); **Y02E 60/32** (2013.01 - EP)

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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2020128197 A1 20200625; CA 3121594 A1 20200625; CN 113167257 A 20210723; CN 113167257 B 20230815; EP 3899273 A1 20211027; FR 3090756 A1 20200626; FR 3090756 B1 20210409; JP 2022511486 A 20220131; JP 7451529 B2 20240318; KR 20210105928 A 20210827; US 2022074397 A1 20220310

DOCDB simple family (application)

FR 2019052899 W 20191203; CA 3121594 A 20191203; CN 201980080815 A 20191203; EP 19842379 A 20191203; FR 1873280 A 20181219; JP 2021531691 A 20191203; KR 20217021948 A 20191203; US 201917415685 A 20191203