

Title (en)

DEVICE FOR THE CRYOGENIC DESCALING OF NON-PLANAR SURFACES, PARTICULARLY THE INSIDE OF A TUBE

Title (de)

VORRICHTUNG ZUM KRYOGENEN ENTZUNDERN NICHTEBENER OBERFLÄCHEN, INSBESONDERE IM INNEREN VON RÖHREN

Title (fr)

DISPOSITIF DE DÉCAPAGE CRYOGÉNIQUE DE SURFACES NON PLANES, EN PARTICULIER DE L'INTÉRIEUR D'UN TUBE

Publication

EP 2741861 B1 20150916 (FR)

Application

EP 12750439 A 20120720

Priority

- FR 1157316 A 20110812
- FR 2012051732 W 20120720

Abstract (en)

[origin: WO2013024221A1] The invention relates to a descaling device comprising a conveying pipe (7) conveying fluid, particularly a cryogenic fluid, such as liquid nitrogen, supplying one or more fluid distribution nozzles (6) arranged at a free downstream end (5) of said conveying pipe (7), and a drive motor (1) collaborating with the fluid conveying pipe (7) via a transmission mechanism (2, 8, 9). The fluid conveying pipe (7) comprises a fixed portion (7b) situated upstream of an anchor point (10) located on said conveying pipe (7), and a downstream portion (7a) located downstream of the anchor point (10) and comprising the free downstream end (5). The transmission mechanism (2, 8, 9) acts mechanically on said downstream portion (7a) of pipe in order to achieve a determined movement of the downstream end (5) supporting the nozzle or nozzles (6), namely in order to confer upon it an angular deformation in torsion about its longitudinal axis. For preference, the angular deformation is a torsion through an angle of β of the downstream portion (7a) of pipe, with β comprised between 1 and 120°, preferably between 30 and 90°. Method for descaling the internal surface of a tube using a cryogenic fluid, in which use is made of a device according to the invention.

IPC 8 full level

B05B 13/04 (2006.01); **B05B 15/14** (2018.01); **B05B 15/652** (2018.01); **B24C 1/00** (2006.01); **B24C 3/04** (2006.01)

CPC (source: EP)

B05B 13/0405 (2013.01); **B05B 13/0421** (2013.01); **B05B 13/0636** (2013.01); **B05B 15/14** (2018.01); **B05B 15/652** (2018.01)

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

DOCDB simple family (publication)

FR 2978925 A1 20130215; **FR 2978925 B1 20130927**; EP 2741861 A1 20140618; EP 2741861 B1 20150916; WO 2013024221 A1 20130221

DOCDB simple family (application)

FR 1157316 A 20110812; EP 12750439 A 20120720; FR 2012051732 W 20120720