

Title (en)

PUMP WITH HEATING DEVICE

Title (de)

PUMPE MIT HEIZEINRICHTUNG

Title (fr)

POMPE AVEC DISPOSITIF DE CHAUFFAGE

Publication

EP 2481931 B1 20170329 (DE)

Application

EP 12152098 A 20120123

Priority

DE 102011003467 A 20110201

Abstract (en)

[origin: EP2481931A2] The device (122) has a heating element provided on a tubular carrier (124). The carrier exhibits a deformation (129) deviating from a continuous tubular form, where the deformation is a bend (131b) or a bead or collar-like deformation inwardly or outwardly. The deformation is provided at end regions of the carrier. The continuous tubular form of the carrier is a cylindrical tubular shape with straight cut ends. The deformation is rotationally symmetrical about a central longitudinal axis of the carrier. The heating element exhibits a distance to the deformation. An independent claim is also included for a pump comprising a pump housing and a pump chamber.

IPC 8 full level

A47L 15/42 (2006.01); **F04D 29/42** (2006.01); **D06F 39/08** (2006.01); **F04D 29/12** (2006.01); **F04D 29/58** (2006.01)

CPC (source: EP US)

A47L 15/4225 (2013.01 - EP); **A47L 15/4285** (2013.01 - EP); **D06F 39/085** (2013.01 - EP US); **F04D 29/086** (2013.01 - EP);
F04D 29/426 (2013.01 - EP); **F04D 29/588** (2013.01 - EP US)

Citation (examination)

DE 3627732 A1 19880218 - EGO ITALIANA [IT]

Cited by

CN112294219A

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)

EP 2481931 A2 20120801; EP 2481931 A3 20130619; EP 2481931 B1 20170329; DE 102011003467 A1 20120802; PL 2481931 T3 20170929

DOCDB simple family (application)

EP 12152098 A 20120123; DE 102011003467 A 20110201; PL 12152098 T 20120123