

Title (en)
Pump unit for fluid delivery

Title (de)
Pumpeneinheit zur Förderung eines Fluids

Title (fr)
Unité de pompe destinée à l'écoulement d'un fluide

Publication
EP 2143935 B1 20110119 (DE)

Application
EP 08012308 A 20080708

Priority
EP 08012308 A 20080708

Abstract (en)
[origin: EP2143935A1] The pump unit has a pump housing (14) with a pump housing opening (16), and a drive shaft (24) for driving the pump unit. The drive shaft is arranged in the housing opening. A pump cover (15) closes the housing opening in a fluid-tight manner. A radially circulating spring element (44) e.g. disk spring and compression spring, axially lies at the pump cover. The spring element is designed such that the pump cover is pressed at the pump housing in an axial direction by the spring element. A retaining ring (46) e.g. snap ring, fixes the spring element in the axial direction.

IPC 8 full level
F02M 59/06 (2006.01); **F02M 59/10** (2006.01); **F04B 1/04** (2006.01); **F04B 23/10** (2006.01)

CPC (source: EP US)
F02M 59/06 (2013.01 - EP); **F02M 59/102** (2013.01 - EP US); **F04B 1/0404** (2013.01 - EP); **F04B 1/0448** (2013.01 - EP); **F04B 23/103** (2013.01 - EP US); **F04B 23/12** (2013.01 - EP US); **F04C 2/102** (2013.01 - EP); **F04C 15/0026** (2013.01 - EP); **F04C 2230/60** (2013.01 - EP); **F04C 2240/30** (2013.01 - EP)

Cited by
US2017254329A1; IT201800009496A1; ITUB20159736A1; EP2357362A3; CN109185093A; DE102019102991B4; US10724519B2; EP3956565A4; WO2020212792A1; EP3225846B1

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