

Title (en)
CENTRIFUGAL PUMP FOR CONVEYING A HIGHLY VISCOUS FLUID

Title (de)
KREISELPUMPE ZUM FÖRDERN EINER HOCHVISKOSEN FLÜSSIGKEIT

Title (fr)
POMPE CENTRIFUGE POUR CONVOYER UN FLUIDE HAUTEMENT VISQUEUX

Publication
EP 3156654 B1 20191218 (EN)

Application
EP 16189944 A 20160921

Priority
EP 15189840 A 20151014

Abstract (en)
[origin: EP3156654A1] A pump for conveying a highly viscous fluid is proposed comprising a casing (2) with at least a first inlet (3) and an outlet (4) for the fluid, an impeller (5) for conveying the fluid from the inlet (3) to the outlet (4), wherein the impeller (5) is arranged on a rotatable shaft (6) for rotation around an axial direction (A), and comprises a front shroud (7) facing the first inlet (3) of the pump, wherein the casing (2) is provided with a stationary impeller opening (8) for receiving the front shroud (7) of the impeller (5) and having a diameter (D), wherein the front shroud (7) and the stationary impeller opening (8) form a gap (9) having a length (L) in the axial direction (A), wherein the ratio of the length (L) of the gap (9) and the diameter (D) of the impeller opening (8) is at most 0.092.

IPC 8 full level
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CPC (source: CN EP KR US)
F04D 1/006 (2013.01 - EP US); **F04D 7/04** (2013.01 - CN EP KR US); **F04D 29/026** (2013.01 - KR); **F04D 29/086** (2013.01 - CN); **F04D 29/167** (2013.01 - EP US); **F04D 29/2294** (2013.01 - EP US); **F04D 29/4273** (2013.01 - CN); **F04D 29/4293** (2013.01 - KR US); **F04D 29/2266** (2013.01 - EP US)

Citation (opposition)
Opponent : KSB SE & Co. KGaA
• US 7775763 B1 20100817 - JOHNSON GABRIEL L [US], et al
• WO 2013092144 A1 20130627 - SULZER PUMPEN AG [CH]
• US 4913619 A 19900403 - HAENTJENS WALTER D [US], et al
• EP 2484917 A1 20120808 - EBARA CORP [JP]
• "Betriebs-/ Montageanleitung", ETABLOC, 2014, pages 1 - 60, XP055743470

Cited by
CN113048066A

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

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