

Title (en)
Vacuum pump and joint of shaft and rotary piston

Title (de)
Vakuumpumpe und Verbindung von Welle und Drehkolben

Title (fr)
Pompe à vide et la connexion de l'arbre avec le piston rotatif

Publication
EP 2461040 B1 20160106 (DE)

Application
EP 11008599 A 20111027

Priority
DE 102010051316 A 20101113

Abstract (en)
[origin: EP2461040A1] The vacuum pump (1) has shaft (4,6), and pistons (40,42,44,46,48,50) comprising a piston profile surface and a hole for receiving the shaft. A form-fitting element has one portion extended into the shaft recess and another portion located in the piston recess. A securing element fixes the form-fitting element and exerts pressing force on the form-fitting element.

IPC 8 full level
F04C 29/00 (2006.01); **F04C 18/12** (2006.01); **F04C 23/00** (2006.01); **F04C 28/02** (2006.01)

CPC (source: EP)
F04C 18/126 (2013.01); **F04C 23/001** (2013.01); **F04C 28/02** (2013.01); **F04C 29/0071** (2013.01)

Citation (examination)
DE 3689054 T2 19940203 - TOYOTA MOTOR CO LTD [JP]

Cited by
CN111692092A; JP2019039395A; US11608829B2; US11320036B2; US11339783B2; US11441564B2

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