

Title (en)  
SHAFT SEAL AND OPERATING METHOD

Title (de)  
WELLENDICHTUNG, VERFAHREN ZUM BETRIEB

Title (fr)  
JOINT D'ÉTANCHÉITÉ D'ARBRE ET PROCÉDÉ DE FONCTIONNEMENT

Publication  
**EP 3161357 A1 20170503 (DE)**

Application  
**EP 15763538 A 20150908**

Priority  
• DE 102014218937 A 20140919  
• EP 2015070465 W 20150908

Abstract (en)  
[origin: WO2016041814A1] The invention relates to a shaft seal (SHS) for sealing off a gap (G) of a feedthrough (PT) for a shaft (S) through a housing (C), wherein these sealing surfaces are located opposite one another in a sealing plane (SEP), wherein the sealing plane (SEP) has an extent that is substantially radial with respect to the shaft (S), wherein the stationary sealing surface (SSS) and rotating sealing surface (RSS) are fastened to a support (RSUP, SSUP), specifically a stationary support (SSUP) and a rotating support (RSUP), and the sealing surfaces (RSS, SSS) are braced elastically against one another in that either at least the stationary support (SSUP) or the rotating support (RSUP) is pretensioned by means of an elastic element (EEL). For simplification, in addition to an operating method, it is proposed that the inner secondary seal (SS2) has at least one first labyrinth seal (LTS1) and that the inner secondary seal (SS2) has at least one barrier-fluid suction system (SLF) on the outer side of the first labyrinth seal (LTS1).

IPC 8 full level  
**F16J 15/34** (2006.01); **F01D 11/00** (2006.01); **F16J 15/00** (2006.01); **F16J 15/447** (2006.01)

CPC (source: CN EP RU)  
**F01D 11/003** (2013.01 - CN EP); **F16J 15/002** (2013.01 - CN EP); **F16J 15/34** (2013.01 - RU); **F16J 15/342** (2013.01 - CN EP); **F16J 15/3484** (2013.01 - CN EP); **F16J 15/447** (2013.01 - CN EP)

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**DE 102014218937 A1 20160324**; CN 106687663 A 20170517; CN 106687663 B 20190423; EP 3161357 A1 20170503; RU 2657403 C1 20180613; WO 2016041814 A1 20160324

DOCDB simple family (application)  
**DE 102014218937 A 20140919**; CN 201580050742 A 20150908; EP 15763538 A 20150908; EP 2015070465 W 20150908; RU 2017108794 A 20150908