

Title (en)  
FREE PISTON DEVICE

Title (de)  
FREIKOLBENVORRICHTUNG

Title (fr)  
DISPOSITIF À PISTON LIBRE

Publication  
**EP 3458694 A1 20190327 (DE)**

Application  
**EP 17726216 A 20170512**

Priority  
• DE 102016109038 A 20160517  
• EP 2017061495 W 20170512

Abstract (en)  
[origin: WO2017198569A1] The invention relates to a free piston device, comprising a piston holder (16) in which at least one piston device (30) having a piston (34) is arranged so as to be movable to and fro along an axis (18), wherein the piston holder (16) comprises or forms a combustion chamber (42) delimited by a wall (24), in which combustion chamber at least one inlet opening (26) for the supply of fresh gas and, spaced apart therefrom in the axial direction, at least one outlet opening (28) for the removal of exhaust gas are formed, wherein fresh gas can be delivered via a supply line (66). In order to provide such a free piston device, in which the supply of fresh gas is improved with regard to optimized combustion, the free piston device (10), according to the invention, comprises a housing (68) for fresh gas which is connected to the supply line (66) in the flow direction of the inflowing fresh gas. Said housing forms a stabilizing chamber (76) which at least partially surrounds the piston holder (16) in the region of the at least one inlet opening (26) in the circumferential direction of the axis (18) and opens via the at least one inlet opening (26) into the combustion chamber (42).

IPC 8 full level  
**F02B 71/00** (2006.01); **F02B 71/04** (2006.01); **F02B 75/02** (2006.01); **F02B 75/28** (2006.01)

CPC (source: EP US)  
**F01B 7/02** (2013.01 - US); **F01B 11/007** (2013.01 - US); **F01B 11/02** (2013.01 - US); **F01P 3/02** (2013.01 - US); **F02B 71/00** (2013.01 - EP US); **F02B 71/04** (2013.01 - EP US); **F02B 75/282** (2013.01 - EP US); **F02B 63/041** (2013.01 - US); **F02B 2075/025** (2013.01 - EP US)

Citation (search report)  
See references of WO 2017198569A1

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)  
**WO 2017198569 A1 20171123**; CN 109072778 A 20181221; CN 109072778 B 20210727; DE 102016109038 A1 20171123; EP 3458694 A1 20190327; EP 3458694 B1 20231018; US 10890070 B2 20210112; US 2019085694 A1 20190321

DOCDB simple family (application)  
**EP 2017061495 W 20170512**; CN 201780028037 A 20170512; DE 102016109038 A 20160517; EP 17726216 A 20170512; US 201816192283 A 20181115