

Title (en)  
VOLUMETRIC PISTON PUMP

Title (de)  
VOLUMETRISCHE KOLBENPUMPE

Title (fr)  
POMPE À PISTON VOLUMÉTRIQUE

Publication  
**EP 3578811 A1 20191211 (EN)**

Application  
**EP 19174328 A 20190514**

Priority  
IT 201800006145 A 20180608

Abstract (en)  
A volumetric piston pump (10) that comprises:- a casing (20) equipped with a cylinder (21) defining a compression chamber (22) communicating with an intake conduit (23,25) and a delivery conduit (24,27);- a reciprocating piston (30) slidable inside the cylinder (21) and delimiting the compression chamber (22);- a first gasket (60) fixed to the casing (20) inside the cylinder (21) and coaxially inserted on the reciprocating piston (30);- a second gasket (61) fixed to the casing (20) inside the cylinder (21) and coaxially inserted on the reciprocating piston (30) in distal position from the compression chamber (22) with respect to the first gasket (60);- a collection chamber (65) interposed and axially delimited between the first gasket (60) and the second gasket (61);- a recirculation conduit (70) that connects the collection chamber (65) with the intake conduit (23,25); and- a lubrication conduit (80) that connects the delivery conduit (24,27) with the collection chamber (65).

IPC 8 full level  
**F04B 1/04** (2006.01); **F04B 53/04** (2006.01); **F04B 53/16** (2006.01); **F04B 53/18** (2006.01); **F04B 39/12** (2006.01)

CPC (source: EP)  
**F04B 1/0443** (2013.01); **F04B 53/04** (2013.01); **F04B 53/164** (2013.01); **F04B 53/18** (2013.01); **F04B 39/123** (2013.01)

Citation (applicant)  
EP 2728190 A1 20140507 - INTERPUMP ENGINEERING SRL [IT]

Citation (search report)  
• [A] EP 2728190 A1 20140507 - INTERPUMP ENGINEERING SRL [IT]  
• [A] US 5415531 A 19950516 - CAVANAUGH JAMES E [US]  
• [A] DE 10239943 C1 20031030 - KAERCHER GMBH & CO KG ALFRED [DE]  
• [A] US 2011027106 A1 20110203 - OCHIAI TETSUNARI [JP]  
• [A] US 2010226795 A1 20100909 - SHAULL ANTHONY A [US], et al  
• [A] EP 2025937 A1 20090218 - THREE ES S R L [IT]

Cited by  
EP4063653A1; IT202100006824A1

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)  
**EP 3578811 A1 20191211; EP 3578811 B1 20210317**; DK 3578811 T3 20210607; IT 201800006145 A1 20191208

DOCDB simple family (application)  
**EP 19174328 A 20190514**; DK 19174328 T 20190514; IT 201800006145 A 20180608