

Title (en)
VOLUMETRIC MACHINE

Title (de)
VOLUMETRISCHE MASCHINE

Title (fr)
MACHINE VOLUMÉTRIQUE

Publication
EP 3354897 A1 20180801 (EN)

Application
EP 18151079 A 20180110

Priority
IT 201700010437 A 20170131

Abstract (en)
A volumetric machine acting on an operating fluid, comprising: i) a first toothed wheel (21) comprising a first group (210) of teeth that identify interposed between them a first plurality (201) of compartments for the operating fluid; ii) a second toothed wheel (22) comprising a second group (220) of teeth intended to engage with the teeth of the first group (210); iii) a casing (3) that defines a housing (30) for positioning the first and the second toothed wheel (21, 22); iv) a path (4) that extends along a section of said casing (3) and that places in fluid communication at least two compartments of said first plurality (201). The volumetric machine may be a pump and/or a motor. The casing (3) comprises at least a first channel (51) distinct from said path (4). At least in one predetermined configuration assumed by the first wheel (21): - the first channel (51) places in fluid communication a first and a second compartment (211, 212) of said first plurality (201) which are consecutive and at least partially delimited by a same tooth of the first group (210); - at least the first compartment (211) of the first plurality (201) being distinct from compartments of the first plurality (201) licked by said path (4); - said second compartment (212) being licked by the path (4); - said first compartment (211) being placed upstream of the second compartment (212) and of the compartments of the first plurality (201) licked by said path (4).

IPC 8 full level
F04C 2/18 (2006.01)

CPC (source: CN EP)
F03C 2/08 (2013.01 - CN); **F04C 2/18** (2013.01 - CN EP); **F04C 15/00** (2013.01 - CN); **F04C 15/0026** (2013.01 - EP); **F04C 2240/30** (2013.01 - CN)

Citation (search report)
• [XAI] GB 1224566 A 19710310 - KOEHRING CO [US]
• [A] US 3263620 A 19660802 - SCHOFIELD JOHN J
• [A] WO 2014168830 A2 20141016 - CATERPILLAR INC [US]

Cited by
EP3754158A1; US10858940B1

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 3354897 A1 20180801; EP 3354897 B1 20231129; CN 108374749 A 20180807; CN 108374749 B 20210817; IT 201700010437 A1 20180731

DOCDB simple family (application)
EP 18151079 A 20180110; CN 201810059788 A 20180122; IT 201700010437 A 20170131