

Title (en)

PISTON RING ARRANGEMENT, PISTON COMPRESSOR AND METHOD FOR SEALING A COMPRESSION CHAMBER

Title (de)

KOLBENRINGANORDNUNG, KOLBENVERDICHTER SOWIE VERFARHEN ZUM ABDICHTEN EINES VERDICHTUNGSRAUMS

Title (fr)

ENSEMBLE SEGMENT DE PISTON, COMPRESSEUR À PISTON ET PROCÉDÉ PERMETTANT DE SCELLER UNE CHAMBRE DE COMPRESSION

Publication

EP 4118365 A1 20230118 (DE)

Application

EP 21708041 A 20210303

Priority

- EP 20160779 A 20200303
- EP 2021055294 W 20210303

Abstract (en)

[origin: WO2021175905A1] The piston ring arrangement (1) comprises a first and a second endless sealing ring (2, 4) and an elastic ring carrier (3), wherein: the first and the second sealing ring (2, 4) extend in a peripheral direction (U) and each have an outer peripheral surface (2a, 4a); the first sealing ring (2) has a first centre point (M1) with respect to its outer peripheral surface (2a) and the second sealing ring (4) has a second centre point (M2) with respect to its outer peripheral surface (4a); the first and the second sealing ring (2, 4) each have a longitudinal axis (L) extending perpendicular to the peripheral direction (U); the ring carrier (3) extends in the peripheral direction (U); and the ring carrier (3) and the first and the second sealing ring (2, 4) have a mutually adapted design such that the first and the second sealing ring (2, 4) are arranged one after the other in the longitudinal direction (L) in the ring carrier (3) and that their first and second centre points (M1, M2) are arranged radially mutually distanced from the longitudinal axis (L), wherein when the piston ring arrangement (1) is used in the manner according to the invention, the sealing rings (2, 4) are pressed in a diametrically opposed manner onto the inner wall (11a) of a cylinder (11).

IPC 8 full level

F04B 39/00 (2006.01); **F04B 39/04** (2006.01); **F16J 9/02** (2006.01); **F16J 9/06** (2006.01); **F16J 9/16** (2006.01); **F16J 9/28** (2006.01); **F16J 15/24** (2006.01); **F16J 15/26** (2006.01)

CPC (source: EP KR US)

F04B 39/0005 (2013.01 - EP KR); **F04B 39/042** (2013.01 - EP KR US); **F16J 9/02** (2013.01 - EP KR US); **F16J 9/06** (2013.01 - EP KR US); **F16J 9/16** (2013.01 - EP KR US); **F16J 9/28** (2013.01 - EP KR US); **F16J 15/24** (2013.01 - EP KR US); **F16J 15/26** (2013.01 - EP KR); **F16J 15/28** (2013.01 - US)

Citation (search report)

See references of WO 2021175905A1

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

DOCDB simple family (publication)

EP 3875807 A1 20210908; CN 115769010 A 20230307; EP 4118365 A1 20230118; JP 2023516701 A 20230420; KR 20220148858 A 20221107; US 2023184332 A1 20230615; WO 2021175905 A1 20210910

DOCDB simple family (application)

EP 20160779 A 20200303; CN 202180030963 A 20210303; EP 2021055294 W 20210303; EP 21708041 A 20210303; JP 2022552830 A 20210303; KR 20227033554 A 20210303; US 202117908569 A 20210303