Title (en)

SCREW COMPRESSOR

Title (de)

SCHRAUBENVERDICHTER

Title (fr)

COMPRESSEUR À VIS

Publication

EP 3608543 A1 20200212 (EN)

Application

EP 17904559 A 20170406

Priority

JP 2017014385 W 20170406

Abstract (en)

Provided is a screw compressor that prevents refrigerating machine oil in an oil reservoir from re-scattering because of a swirling flow, enabling high oil separation efficiency. The screw compressor includes an oil separation unit including an outer cylinder and a tubular inner cylinder, the outer cylinder allowing gas and oil discharged from a compressor body to enter the outer cylinder, the inner cylinder being provided inside the outer cylinder coaxially with the outer cylinder; the oil reservoir provided below the oil separation unit; and a partition plate provided on an inner wall of the outer cylinder, the partition plate partitioning the oil separation unit from the oil reservoir. The outer cylinder has a first oil return hole at a position in which the partition plate is provided, the first oil return hole passing through a side face of the outer cylinder that faces the compressor body to communicate with the oil reservoir, the partition plate has a second oil return hole at a position axisymmetric to the first oil return hole, the second oil return hole being provided along half a circumference of the partition plate, the second oil return hole passing through the partition plate to cause the oil reservoir and the oil separation unit to communicate with each other, and the partition plate is integrally formed with the outer cylinder.

IPC 8 full level

F04C 29/02 (2006.01); **F04B 39/04** (2006.01); **F04C 18/16** (2006.01); **F04C 23/00** (2006.01)

CPC (source: EP)

F04B 39/04 (2013.01); **F04C 18/16** (2013.01); **F04C 23/008** (2013.01); **F04C 29/02** (2013.01); **F04C 29/026** (2013.01)

Cited by

EP4105482A4; US11904265B2

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 3608543 A1 20200212; **EP 3608543 A4 20200212**; JP 6762420 B2 20200930; JP WO2018185914 A1 20191107; WO 2018185914 A1 20181011

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