

Title (en)
SCROLL COMPRESSOR

Title (de)
SPIRALVERDICHTER

Title (fr)
COMPRESSEUR À SPIRALE

Publication
EP 2703648 B1 20160706 (EN)

Application
EP 11864486 A 20111227

Priority
• JP 2011101545 A 20110428
• JP 2011080591 W 20111227

Abstract (en)
[origin: EP2703648A1] Provided is a scroll compressor which can enhance the strength of an end plate facing a through-hole in the vicinity of the base of the lap tip portion of a fixed scroll and hence provide enhanced reliability and durability. A concave curved surface S32 of a non-involute surface S3 formed between the start point P of an inner involute surface S1 constituting a lap 23B of a fixed scroll 23 and the start point Q of an outer involute surface S2 is formed in a curved surface shape having a smaller radius of curvature. The opening shape of the periphery of a through-hole 23C in a close region μ facing the concave curved surface S32 is formed with a curved surface having a smaller radius of curvature than the radius r of curvature of the concave curved surface S32, the through-hole being formed at the spiral center or the tip portion of the lap 23B of the fixed scroll 23. A distance to hole L is ensured to be as long as possible, where the distance to hole L is the length between the base of a vertex Z of the convex curved surface S32 of the non-involute surface S3 and a maximum proximity edge U of the through-hole 23C facing the base of the lap tip portion Z.

IPC 8 full level
F04C 18/02 (2006.01); **F04C 23/02** (2006.01); **F04C 29/12** (2006.01)

CPC (source: EP)
F04C 18/02 (2013.01); **F04C 18/0261** (2013.01); **F04C 18/0269** (2013.01); **F04C 18/0284** (2013.01); **F04C 23/02** (2013.01); **F04C 29/12** (2013.01); **F04C 2250/102** (2013.01)

Cited by
DE102018116740A1; US10890185B2; DE102018116740B4

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 2703648 A1 20140305; **EP 2703648 A4 20140730**; **EP 2703648 B1 20160706**; CN 103502646 A 20140108; CN 103502646 B 20160413; JP 2012233421 A 20121129; JP 5879532 B2 20160308; WO 2012147239 A1 20121101

DOCDB simple family (application)
EP 11864486 A 20111227; CN 201180070452 A 20111227; JP 2011080591 W 20111227; JP 2011101545 A 20110428