

Title (en)  
SCROLL COMPRESSOR

Title (de)  
SPIRALVERDICHTER

Title (fr)  
COMPRESSEUR À VOLUTES

Publication  
**EP 2700818 A1 20140226 (EN)**

Application  
**EP 11863892 A 20110422**

Priority  
JP 2011059938 W 20110422

Abstract (en)  
A scroll compressor includes: a fixed scroll 112; an orbiting scroll 109; a crankshaft 103 having an eccentric section 108 at an end portion; an oil supply hole 115 penetrating an inside of the crankshaft in an axial direction and having an opening portion on an end surface of the eccentric section; an orbiting sliding bearing 110 provided at the orbiting scroll and sliding by engaging with the eccentric section; and an oil supply passage 116 provided at an outer circumference of the eccentric section. The scroll compressor is structured so as to lubricate a gap between the eccentric section and the orbiting sliding bearing by lubricating oil supplied through the oil supply hole. At the outer circumference of the eccentric section, an axial loss reduction groove 117 is provided separately from the oil supply passage, and seal sections 118a, 118b are provided on at least one of the end surface side and a base end side of the eccentric section of the loss reduction groove. With this configuration, shear resistance of an oil film by the lubricating oil, which exists between an outer circumferential surface of the eccentric section of the crankshaft and an inner circumferential surface of the orbiting sliding bearing, can be reduced, and a bearing loss during fluid lubrication can be reduced.

IPC 8 full level  
**F04C 18/02** (2006.01); **F04C 29/00** (2006.01); **F04C 29/02** (2006.01)

CPC (source: EP KR)  
**F04C 18/02** (2013.01 - KR); **F04C 18/0215** (2013.01 - EP); **F04C 29/0057** (2013.01 - EP); **F04C 29/02** (2013.01 - KR); **F04C 29/023** (2013.01 - EP); **F04C 2240/54** (2013.01 - EP)

Cited by  
GB2529289A; GB2529289B; FR3102792A1; US9488171B2; US11680568B2; US11499553B2; DE102020128210B4

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 2700818 A1 20140226**; **EP 2700818 A4 20141203**; **EP 2700818 B1 20180801**; CN 103502645 A 20140108; CN 103502645 B 20160713; JP 5581440 B2 20140827; JP WO2012144067 A1 20140728; KR 101484728 B1 20150120; KR 20130125812 A 20131119; TR 201816164 T4 20181121; WO 2012144067 A1 20121026

DOCDB simple family (application)  
**EP 11863892 A 20110422**; CN 201180070247 A 20110422; JP 2011059938 W 20110422; JP 2013510807 A 20110422; KR 20137023891 A 20110422; TR 201816164 T 20110422