

Title (en)
COMPRESSOR COMPRISING A PRESSURE-RELIEF GROOVE

Title (de)
VERDICHTER MIT DRUCKENTLASTUNGSNUT

Title (fr)
COMPRESSEUR DOTÉ D'UNE RAINURE DE DÉCOMPRESSION

Publication
EP 2764248 A2 20140813 (DE)

Application
EP 12773223 A 20120926

Priority
• DE 102011114904 A 20111005
• EP 2012004039 W 20120926

Abstract (en)
[origin: WO2013050114A2] The invention relates to a compressor (10) comprising a pressure chamber (12;13) which is delimited by at least two housing parts (20;30), these housing parts (20;30) comprising sealing surfaces (25;35) that are connected by means of a connection device which applies a contact pressing force between said sealing surfaces (25;35). The compressor is characterised in that at least one groove (40a;40b) extending in a circumferential direction is arranged on at least one sealing surface (25;35), and in that at least one relief opening is arranged on at least one of the housing parts (20;30), this at least one relief opening connecting the groove (40a;40b) to the surroundings (11) of the compressor and emanating from the groove (40a;40b) which extends in the circumferential direction. Said groove (40a;40b) is arranged such that when a predetermined maximum pressure is exceeded in the pressure chamber (13), a pressure-building medium (E) can gather in the groove (40a;40b) and at least partially escape through the relief opening.

IPC 8 full level
F04B 53/16 (2006.01); **F04B 39/12** (2006.01); **F04B 43/12** (2006.01)

CPC (source: EP US)
F01P 1/00 (2013.01 - US); **F04B 27/1081** (2013.01 - EP US); **F04B 39/12** (2013.01 - EP US); **F04B 49/022** (2013.01 - US);
F04B 49/035 (2013.01 - US)

Citation (search report)
See references of WO 2013050114A2

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)
WO 2013050114 A2 20130411; WO 2013050114 A3 20131219; CN 103842653 A 20140604; CN 103842653 B 20160914;
DE 102011114904 A1 20130411; DE 112012004151 A5 20140710; EP 2764248 A2 20140813; EP 2764248 B1 20190306;
KR 20140105434 A 20140901; US 2014196683 A1 20140717; US 2016176266 A1 20160623; US 9273590 B2 20160301;
US 9744831 B2 20170829

DOCDB simple family (application)
EP 2012004039 W 20120926; CN 201280049202 A 20120926; DE 102011114904 A 20111005; DE 112012004151 T 20120926;
EP 12773223 A 20120926; KR 20147008765 A 20120926; US 201414216781 A 20140317; US 201615055997 A 20160229