

Title (en)  
LINEAR COMPRESSOR WITH CARBON FIBRE REINFORCED SPRING

Title (de)  
LINEARVERDICHTER MIT CARBONFASERVERSTÄRKTER FEDER

Title (fr)  
COMPRESSEUR LINÉAIRE POURVU D'UN RESSORT RENFORCÉ PAR DES FIBRES DE CARBONE

Publication  
**EP 1991784 A1 20081119 (DE)**

Application  
**EP 07712086 A 20070123**

Priority  
• EP 2007050632 W 20070123  
• DE 102006009229 A 20060228

Abstract (en)  
[origin: DE102006009229A1] A piston housing (2) has a compressor piston movable bidirectionally along an axis (3). A support guides the compressor piston in a direction transverse to the axis. An intermediate storage stores kinetic energy of the compressor piston. The support and intermediate storage are provided by a flexible component (7) made from composite material. The flexible component is a spring (8), preferably a diaphragm spring, and is reinforced with carbon, glass, or aramide fibers. An independent claim is included for a method for cooling goods.

IPC 8 full level  
**F04B 35/04** (2006.01)

CPC (source: EP US)  
**F04B 35/045** (2013.01 - EP US); **F04B 53/145** (2013.01 - EP US); **F04B 53/146** (2013.01 - EP US)

Citation (search report)  
See references of WO 2007098997A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**DE 102006009229 A1 20070830**; CN 101389860 A 20090318; EP 1991784 A1 20081119; EP 1991784 B1 20120530; ES 2386204 T3 20120813; RU 2008138132 A 20100410; RU 2431060 C2 20111010; US 2010223936 A1 20100909; WO 2007098997 A1 20070907

DOCDB simple family (application)  
**DE 102006009229 A 20060228**; CN 200780006821 A 20070123; EP 07712086 A 20070123; EP 2007050632 W 20070123; ES 07712086 T 20070123; RU 2008138132 A 20070123; US 22451407 A 20070123