

Title (en)
Hollow valve plate

Title (de)
Hohle Ventilplatte

Title (fr)
Plaque de soupape creuse

Publication
EP 2708746 A1 20140319 (DE)

Application
EP 13171393 A 20130611

Priority
AT 503922012 A 20120914

Abstract (en)
The valve plate (1) has a half shell (3) comprising single-sided opened cooling channels (4, 5) that are covered by a thin covering plate (2). The covering plate is sealed along the channels. The plate has a lift limiter (9) for closing plates (10) of a pressure valve. The plate is welded or glued with the half shell along the channels, and another covering plate is arranged on a suction side of the valve plate. The latter plate has a single-piece suction lamella in an area of suction openings. A fitting sleeve (13) positions the valve plate between a cylinder and a cylinder head.

Abstract (de)
Die hohle Ventilplatte 1 eines Kolbenkompressors weist eine einzelne Halbschale (3) mit zur Seite der Druckventile (8) hin offenen Kühlkanälen (4,5) auf, welche von einer zumindest entlang der Kühlkanäle (4,5) vorzugsweise verschweißten oder verklebten Abdeckplatte (2) überdeckt ist, die im Bereich der Druckventile (8) als Hubbegrenzer (9) für eingelegte Schließplatten (10) ausgebildet ist. Damit ist Herstellung und Montage derartiger Ventilplatten vereinfacht.

IPC 8 full level
F04B 39/06 (2006.01); **F04B 39/10** (2006.01); **F04B 39/12** (2006.01)

CPC (source: EP US)
F04B 39/06 (2013.01 - EP US); **F04B 39/1066** (2013.01 - EP US); **F04B 39/1073** (2013.01 - EP US); **F04B 39/123** (2013.01 - EP US); **F16K 15/14** (2013.01 - US); **Y10T 137/784** (2015.04 - EP US); **Y10T 137/7891** (2015.04 - EP US)

Citation (search report)
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• [XA] EP 0893602 A2 19990127 - KNORR BREMSE SYSTEME [GB]
• [A] AT 509081 A4 20110615 - HOERBIGER KOMPRESSORTECH HOLD [AT]
• [A] US 5454397 A 19951003 - MISZCZAK FRANK L [US]

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DE102019118653A1; DE102017106147A1; DE102017106147B4; EP3763941A1; WO2018206371A1; WO2021254742A1

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 2708746 A1 20140319; AT 512407 A4 20130815; AT 512407 B1 20130815; CN 103671032 A 20140326; US 2014076443 A1 20140320; US 8950432 B2 20150210

DOCDB simple family (application)
EP 13171393 A 20130611; AT 503922012 A 20120914; CN 201310320640 A 20130726; US 201314022432 A 20130910