

Title (en)  
BLADE WHEEL

Title (de)  
SCHAUFELRAD

Title (fr)  
ROUE À PALETTES

Publication  
**EP 2032858 B1 20090902 (DE)**

Application  
**EP 07764368 A 20070614**

Priority  
• DE 2007001051 W 20070614  
• DE 102006029379 A 20060627

Abstract (en)  
[origin: US2009226319A1] The invention relates to a blade wheel consisting of sheet metal for use in motor vehicle refrigerant pumps. The aim of the invention is to develop a novel blade wheel consisting of sheet metal for use in motor vehicle refrigerant pumps which, aside from a plurality of blades, also has a high blade height, thus ensuring a high throughput. Moreover, it also has smooth running properties without re-machining and, furthermore, also without re-machining, ensures an optimum sealing gap with respect to the housing. At the same time, it can always be produced simply and cost-effectively with an open construction (without an end plate) as well as with a closed construction (with an end plate). In addition, it is characterized by a high pumping efficiency. The inventive blade wheel (1) consisting of sheet metal for use in motor vehicle refrigerant pumps has blades (3) that are cut out of a disk and pitched and base disk segments (4) that lie adjacent to the blades (3) and remain between the latter (3). The blade wheel (1) is characterized, among other things, in that it is formed by at least two different blade wheel elements which are provided with cut out, pitched blades (3), are interconnected in a fixed manner and are arranged so that their respective base disk segments (4) are offset in relation to one another, forming a gap therebetween, the elements thus forming a common bottom disk (2). A hub sleeve (6) is provided in the center of one of these blade wheel elements (the hub disk (5)), and the center of the other blade wheel element or elements (the bore disk or disks (7)) is provided with a hub sleeve receiving bore (8), which can be pushed onto the casing of the hub sleeve (6).

IPC 8 full level  
**F04D 29/22** (2006.01)

CPC (source: EP US)  
**F04D 29/2222** (2013.01 - EP US); **F04D 29/2233** (2013.01 - EP US)

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 MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**US 2009226319 A1 20090910; US 8206084 B2 20120626**; AT E441781 T1 20090915; BR PI0714071 A2 20121218;  
DE 102006029379 B3 20071004; DE 112007001965 A5 20090528; DE 502007001457 D1 20091015; EP 2032858 A1 20090311;  
EP 2032858 B1 20090902; ES 2331386 T3 20091230; WO 2008000221 A1 20080103

DOCDB simple family (application)  
**US 30852607 A 20070614**; AT 07764368 T 20070614; BR PI0714071 A 20070614; DE 102006029379 A 20060627;  
DE 112007001965 T 20070614; DE 2007001051 W 20070614; DE 502007001457 T 20070614; EP 07764368 A 20070614;  
ES 07764368 T 20070614