

Title (en)
Turbo-compressor for refrigerant fluid.

Title (de)
Kältemittel-Turboverdichter.

Title (fr)
Turbo-compresseur pour fluide de réfrigération.

Publication
EP 0635643 A3 19950308 (DE)

Application
EP 94108502 A 19940603

Priority
DE 4321173 A 19930625

Abstract (en)
[origin: EP0635643A2] the invention relates to a refrigerant turbo-compressor, preferably of radial design, for the compression of steam under vacuum conditions, possessing a multiplicity of blades. The object is to design the rotor of a radial turbo-compressor in such a way that, at the low density of the conveying medium, preferably steam, the necessarily high volume flows can be conveyed under the pressure conditions required, and in such a way that the strength problems arising from the high circumferential speeds are solved effectively. According to the invention, the rotor consists of blades or blade elements, rotor segments, blade-carrying elements and a hub. These parts consist in their entirety or individually of composite polymeric material, the reinforcing materials of which are preferably carbon fibres. The radially extending elements are connected individually to the hub. The carbon fibres are embedded in the composite material in a manner suitable for undergoing stress.

IPC 1-7
F04D 29/28

IPC 8 full level
F04D 29/02 (2006.01); **F04D 29/28** (2006.01)

CPC (source: EP US)
F04D 29/023 (2013.01 - EP US); **F04D 29/284** (2013.01 - EP US); **F05D 2300/43** (2013.01 - EP US); **F05D 2300/603** (2013.01 - EP US)

Citation (search report)
• [XY] EP 0115451 A2 19840808 - ARAP APPLIC RATION PHYSIQUE [FR]
• [Y] GB 2161110 A 19860108 - ROLLS ROYCE
• [X] DE 2937214 A1 19810402 - RHEIN BAYERN FAHRZEUGBAU GMBH
• [A] FR 2631083 A1 19891110 - PLASTIREMO [FR]
• [A] US 3521973 A 19700728 - SCHOUW ARTHUR C
• [A] FR 1575682 A 19690725
• [A] FR 2504209 A1 19821022 - HUNSINGER EWALD [FR]
• [A] US 4465434 A 19840814 - ROURK GEORGE W [US]

Cited by
EP2955386A4; US10514045B2; WO2004046559A1

Designated contracting state (EPC)
AT CH DE DK ES FR GB IT LI PT SE

DOCDB simple family (publication)
DE 4321173 A1 19950112; DE 4321173 C2 19960222; EP 0635643 A2 19950125; EP 0635643 A3 19950308; US 5464325 A 19951107

DOCDB simple family (application)
DE 4321173 A 19930625; EP 94108502 A 19940603; US 26694094 A 19940627