

Title (en)  
Multi stage turbomachine compressor

Title (de)  
Mehrstufiger Turbomaschinenkompressor

Title (fr)  
Compresseur multi-étages de turbomachine

Publication  
**EP 1739309 B1 20170111 (FR)**

Application  
**EP 06291053 A 20060626**

Priority  
FR 0506610 A 20050629

Abstract (en)  
[origin: EP1739309A1] The compressor has multiple compression stages, each with annular rows of movable blades (12) rotating inside a double wall casing (18), and annular rows of straightened fixed blades (14) carried by an inner wall of the casing. The inner wall is formed of integrated ferrules (30, 32) aligned end-to-end and independently suspended to an outer wall (20) of the casing by edge springs (34, 36). The ferrules (30, 32) respectively surround the annular rows of movable blades and the annular rows of straightened fixed blades. An independent claim is also included for a jet prop engine or jet engine of aircraft.

IPC 8 full level  
**F04D 29/16** (2006.01); **F01D 11/16** (2006.01)

CPC (source: EP US)  
**F04D 29/164** (2013.01 - EP US)

Citation (examination)  
US 3511577 A 19700512 - KARSTENSEN KARL W

Citation (opposition)  
Opponent : United Technologies Corporation  
• GB 856599 A 19601221 - GEN MOTORS CORP  
• EP 1580404 A2 20050928 - ROLLS ROYCE DEUTSCHLAND [DE]  
• US 3511577 A 19700512 - KARSTENSEN KARL W  
• US 4101242 A 19780718 - COPLIN JOHN FREDERICK, et al  
• US 3314648 A 19670418 - ERNST HOWALD WERNER

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 1739309 A1 20070103; EP 1739309 B1 20170111**; FR 2887939 A1 20070105; FR 2887939 B1 20160930; RU 2006123033 A 20080110; RU 2375607 C2 20091210; US 2009304498 A1 20091210; US 7651317 B2 20100126

DOCDB simple family (application)  
**EP 06291053 A 20060626**; FR 0506610 A 20050629; RU 2006123033 A 20060628; US 47611306 A 20060628