

Title (en)  
RECIRCULATION STRUCTURE FOR TURBO CHARGERS

Title (de)  
REZIRKULATIONSSTRUKTUR FÜR TURBOVERDICHTER

Title (fr)  
STRUCTURE DE RECIRCULATION DE TURBOCOMPRESSEURS

Publication  
**EP 1478828 A1 20041124 (DE)**

Application  
**EP 03718608 A 20030226**

Priority  
• DE 0300623 W 20030226  
• DE 10238837 A 20020823  
• ZA 200201688 A 20020228

Abstract (en)  
[origin: WO03072910A1] The invention relates to a recirculation structure for turbo chargers, comprising an annular chamber (29) bordering on the main flow channel (9) arranged in the region of the free blade ends of the blade ring to a large extent upstream therefrom, and comprising a plurality of guiding elements (37) which are arranged in the annular chamber, distributed along the periphery thereof, being formed and disposed in a favourable flow position in relation to the recirculation flow. Said guiding elements (37) are provided with recesses in the front or rear region of the annular chamber (29). The side of the annular chamber (29) bordering on the contour of the main flow channel (9) is open along the axial length and entire periphery thereof. The free edges (41) of the guide elements (37) are located on or near to the contour of the main flow channel (9).

IPC 1-7  
**F01D 11/08**; **F04D 29/54**

IPC 8 full level  
**F01D 1/00** (2006.01); **F01D 5/14** (2006.01); **F01D 11/08** (2006.01); **F04D 27/02** (2006.01); **F04D 29/54** (2006.01)

CPC (source: EP US)  
**F01D 5/145** (2013.01 - EP US); **F01D 11/08** (2013.01 - EP US); **F04D 29/547** (2013.01 - EP US); **F04D 29/685** (2013.01 - EP US); **F04D 27/0207** (2013.01 - EP US); **F04D 29/321** (2013.01 - EP); **F05D 2220/40** (2013.01 - EP US); **Y10S 415/914** (2013.01 - EP US)

Citation (search report)  
See references of WO 03072910A1

Cited by  
EP2818724A1; US10151206B2

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

DOCDB simple family (publication)  
**WO 03072910 A1 20030904**; AT E348943 T1 20070115; AU 2003222718 A1 20030909; CA 2495186 A1 20030904; CA 2495186 C 20100427; CN 100395432 C 20080618; CN 1646790 A 20050727; DE 10390754 D2 20050512; DE 50306028 D1 20070201; EP 1478828 A1 20041124; EP 1478828 B1 20061220; JP 2006505730 A 20060216; JP 4527403 B2 20100818; RU 2004129277 A 20050827; RU 2293221 C2 20070210; UA 76596 C2 20060815; US 2004156714 A1 20040812; US 6935833 B2 20050830

DOCDB simple family (application)  
**DE 0300623 W 20030226**; AT 03718608 T 20030226; AU 2003222718 A 20030226; CA 2495186 A 20030226; CN 03807503 A 20030226; DE 10390754 T 20030226; DE 50306028 T 20030226; EP 03718608 A 20030226; JP 2003571571 A 20030226; RU 2004129277 A 20030226; UA 2004907814 A 20030226; US 47315204 A 20040412