

Title (en)  
Turbocharger

Title (de)  
Abgasturbolader

Title (fr)  
Turbosoufflante

Publication  
**EP 1201881 A3 20040211 (DE)**

Application  
**EP 01890300 A 20011025**

Priority  
• AT 18462000 A 20001031  
• AT 18452000 A 20001031  
• AT 19892000 A 20001127

Abstract (en)  
[origin: EP1201881A2] The exhaust gas turbo charger, for an internal combustion motor, has a turbine with a turbine wheel (4), a spiral housing and a guide (5) to direct the exhaust gas flow to the wheel. The guide system has at least two groups of jets (11,12) aligned directly at the outer periphery of the turbine wheel. The jets (11) of the first group are positioned at equal angular intervals around the wheel, with further controlled jets (12) between them. The spiral housing is in two flow paths (9,10), with a flow connection between them and the jets, to link the paths separately or together to the motor exhaust.

IPC 1-7  
**F01D 17/14**; **F01D 17/16**; **F02C 6/12**

IPC 8 full level  
**F01D 17/14** (2006.01); **F01D 17/16** (2006.01)

CPC (source: EP)  
**F01D 17/14** (2013.01); **F01D 17/146** (2013.01); **F01D 17/165** (2013.01); **F05D 2220/40** (2013.01)

Citation (search report)  
• [XY] US 4927325 A 19900522 - YANO SHUNJI [JP]  
• [Y] US 5560208 A 19961001 - HALIMI EDWARD M [US], et al  
• [Y] DE 19543190 A1 19970528 - DAIMLER BENZ AG [DE]  
• [DY] DE 4242494 C1 19930909

Cited by  
DE102009020592A1; DE102011121330A1; CN103998724A; CN104053863A; US9689275B2; US9611750B2; WO2013107610A1; WO2013087155A1

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

DOCDB simple family (publication)  
**EP 1201881 A2 20020502**; **EP 1201881 A3 20040211**; **EP 1201881 B1 20051207**; DE 50108296 D1 20060112

DOCDB simple family (application)  
**EP 01890300 A 20011025**; DE 50108296 T 20011025