

Title (en)

Turbine with variable geometry and bypass channel for an exhaust gas turbocharger

Title (de)

Turbine mit variabler Geometrie und Bypasskanal für einen Abgasturbolader

Title (fr)

Turbine à géométrie variable avec canal de dérivation pour turbocompresseur à gaz d'échappement

Publication

**EP 2937521 A1 20151028 (EN)**

Application

**EP 14165847 A 20140424**

Priority

EP 14165847 A 20140424

Abstract (en)

The invention relates to a radial turbine (1) for an exhaust gas turbocharger, in particular of an internal combustion engine, having a turbine housing (2), having a housing interior space (5) enclosed by the turbine housing (2), having a turbine wheel (6) which is rotatably mounted in the turbine housing (2), which turbine wheel (6) separates the housing interior space (5) into a high-pressure region (7) and a low-pressure region (8), having a bypass line (9) which is provided in the turbine housing (2) and fluidically connects the high-pressure region (7) with the low-pressure region (8), having a variable turbine geometry (11), which comprises a plurality of guide blades (12) connected upstream of the turbine wheel (6), which are adjustable between a first position, in which a flow cross-section between the guide blades (12) for exhaust gas to flow through is maximal and a second position, in which this flow cross-section is minimal, wherein the guide blades (12) are formed in such a manner, using a face plate (16) as closure element (15) with a passage opening (17), that at least one guide blade (12) opens the bypass line (9) in the first position, closing it off in the second position.

IPC 8 full level

**F01D 17/10** (2006.01); **F01D 17/16** (2006.01)

CPC (source: EP)

**F01D 17/105** (2013.01); **F01D 17/165** (2013.01); **F05D 2220/40** (2013.01)

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