

Title (en)  
Steam turbine in three-shelled architecture

Title (de)  
Dampfturbine in dreischaliger Bauweise

Title (fr)  
Turbine à vapeur en construction à trois coquilles

Publication  
**EP 2487337 A1 20120815 (DE)**

Application  
**EP 11154199 A 20110211**

Priority  
EP 11154199 A 20110211

Abstract (en)  
The turbomachine (1) has an outer housing (2) into which inner housing is provided. The inner housing comprising an inner structure (3) and outer structure (4) that are provided around a rotor (5), such that inner structure is made of a higher-quality material than that of outer structure. A medium-pressure inflow generating unit (7) is provided in outer structure of inner housing for generating flow of medium-pressure stream (18), such that flow direction of medium-pressure stream is same as that of high-pressure stream (19).

Abstract (de)  
Die Erfindung betrifft eine Strömungsmaschine, insbesondere eine Dampfturbine, umfassend einen Rotor (5) sowie ein inneres Innengehäuse (3), ein äußeres Innengehäuse (4) und ein Außengehäuse (2), wobei die Strömungsmaschine eine Mitteldruck-Beschaufelung bzw. Niederdruck-Beschaufelung aufweist, wobei das innere Innengehäuse (3) aus einem höherwertigen Material als das äußere Innengehäuse (4) gefertigt ist.

IPC 8 full level  
**F01D 25/26** (2006.01); **F01D 25/14** (2006.01)

CPC (source: EP)  
**F01D 25/14** (2013.01); **F01D 25/26** (2013.01); **F05D 2220/72** (2013.01)

Citation (applicant)  
• DE 102006027237 A1 20061228 - ALSTOM TECHNOLOGY LTD [CH]  
• DE 3421067 A1 19841213 - HITACHI LTD [JP]  
• DE 10353451 A1 20050616 - ALSTOM TECHNOLOGY LTD BADEN [CH]  
• Y. TANAKA ET AL.: "Advanced Design of Mitsubishi Large Steam Turbines", MITSUBISHI HEAVY INDUSTRIES, POWER GEN EUROPE, 6 May 2003 (2003-05-06)

Citation (search report)  
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• [X] GB 662371 A 19511205 - WESTINGHOUSE ELECTRIC INT CO  
• [X] GB 773430 A 19570424 - SIEMENS AG  
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• [A] EP 2216515 A1 20100811 - SIEMENS AG [DE]  
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• [A] EP 1925785 A1 20080528 - SIEMENS AG [DE]  
• [A] JP H1089013 A 19980407 - FUJI ELECTRIC CO LTD

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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BA ME

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**EP 2487337 A1 20120815**; CN 103370498 A 20131023; CN 103370498 B 20160608; EP 2652271 A1 20131023; WO 2012107140 A1 20120816

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**EP 11154199 A 20110211**; CN 201180067356 A 20111222; EP 11805032 A 20111222; EP 2011073744 W 20111222