

Title (en)
Steam turbine sealing mechanism

Title (de)
Dampfturbinendichtungsvorrichtung

Title (fr)
Mécanisme d'étanchéité pour une turbine à vapeur

Publication
EP 2860357 A1 20150415 (EN)

Application
EP 14188288 A 20141009

Priority
JP 2013213005 A 20131010

Abstract (en)
A steam turbine (1) includes a turbine rotor (2) including a shaft member and seals connected to the shaft member, a turbine casing (4) disposed around the turbine rotor with a turbine casing space (SP) formed between the turbine casing and the turbine rotor, a gland member (51) and a space-forming member provided with a sealing mechanism (70). The gland member includes a first section having a first joint surface and a second section having a second joint surface joined to the first joint surface, the first section being disposed around a part of the turbine rotor, the second section being disposed around another part of the turbine rotor. The gland member is connected to the turbine casing so as to close an opening (GS) of the turbine casing space that is located at an end thereof. The space-forming member forms a heat insulation space (HS) in which gas flow is inhibited, the heat insulation space being formed between the space-forming member, a first region of the inner surface of the turbine casing, and a second region of the inner surface of the gland member. The first region includes a first end portion of the turbine casing with respect to a direction parallel to a shaft of the turbine rotor and the second region includes a second end portion of the gland member that is adjacent to the first end portion.

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F01D 11/003 (2013.01); **F01D 11/04** (2013.01); **F01D 25/24** (2013.01); **F05D 2220/31** (2013.01)

Citation (applicant)
JP 2003013704 A 20030115 - FUJI ELECTRIC CO LTD

Citation (search report)
• [X] US 5031921 A 19910716 - DOROW JAMES W [US]
• [X] JP H0626303 A 19940201 - FUJI ELECTRIC CO LTD
• [AD] JP 2003013704 A 20030115 - FUJI ELECTRIC CO LTD

Cited by
US11459914B2

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