

Title (en)
Turbo-machinery sealing arrangement

Title (de)
Turbomaschinendichtungsanordnung

Title (fr)
Agancement d'étanchéité pour turbomachines

Publication
EP 2634376 A3 20160413 (EN)

Application
EP 13157095 A 20130228

Priority
JP 2012042693 A 20120229

Abstract (en)
[origin: EP2634376A2] Turbo machinery includes a rotating body (2), a stator (3, 4, 5), and a labyrinth seal (11) disposed in a gap between the rotating body and the stator. The labyrinth seal (11) includes a first seal fin (12) and a second seal fin (14). The first seal fin (12) protrudes from a portion of one of the rotating body and the stator, which is disposed on the high-pressure side of the center of the labyrinth seal in the axial direction of the rotating body, toward an opposing portion of the other one of the rotating body and the stator. The second seal fin (14) is disposed on the low-pressure side of the first seal fin to form a cavity (13) together with the first seal fin and protrude from a portion of one of the rotating body and the stator toward an opposing portion of the other one of the rotating body and the stator. A gap to the portion opposing the first seal fin (12) is smaller than a gap to the portion opposing the second seal fin (14).

IPC 8 full level
F01D 11/00 (2006.01); **F01D 11/02** (2006.01); **F01D 11/12** (2006.01); **F01D 25/04** (2006.01)

CPC (source: EP US)
F01D 11/001 (2013.01 - EP US); **F01D 25/00** (2013.01 - US); **F01D 11/02** (2013.01 - EP US); **F01D 11/122** (2013.01 - EP US); **F01D 25/04** (2013.01 - EP US); **F05D 2200/33** (2013.01 - EP US); **F05D 2220/31** (2013.01 - EP US)

Citation (search report)
• [XY] WO 9416251 A1 19940721 - TEXAS A & M UNIV SYS [US]
• [X] JP S6154556 U 19860412
• [XY] US 5967746 A 19991019 - HAGI NAOKI [JP], et al
• [XY] JP H0343502 U 19910424
• [Y] US 2012003080 A1 20120105 - DEO HRISHIKESH VISHVAS [US], et al

Cited by
CN112796841A

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2634376 A2 20130904; **EP 2634376 A3 20160413**; CN 103291379 A 20130911; CN 103291379 B 20160817; JP 2013177866 A 20130909; US 2013223998 A1 20130829

DOCDB simple family (application)
EP 13157095 A 20130228; CN 201310061204 A 20130227; JP 2012042693 A 20120229; US 201313779338 A 20130227