

Title (en)

STATOR ASSEMBLY FOR A GAS TURBINE AND GAS TURBINE COMPRISING SAID STATOR ASSEMBLY

Title (de)

STATORANORDNUNG FÜR EINE GASTURBINE UND GASTURBINE MIT DIESER STATORANORDNUNG

Title (fr)

ENSEMBLE DE STATOR POUR TURBINE À GAZ ET TURBINE À GAZ COMPORTANT LEDIT ENSEMBLE DE STATOR

Publication

EP 3663522 A1 20200610 (EN)

Application

EP 18425095 A 20181207

Priority

EP 18425095 A 20181207

Abstract (en)

A stator assembly (22) for a gas turbine comprising: a stator ring (24), which extends about a longitudinal axis (A) and comprises an outer edge (29) provided with an annular groove (30); the annular groove (30) defining a leading edge wall (34) and a trailing edge wall (35); the leading edge wall (34) being provided with an annular leading edge radial face (56) and with an annular leading edge axial face (57); a plurality of stator vanes (25) radially arranged and coupled alongside one another to the outer edge (29) of the stator ring (24) so as to close the annular groove (30) and define an annular cooling channel (32); each stator vane (25) comprises an airfoil (38), an outer shroud (39) and an inner shroud (40) coupled to the stator ring (24); the inner shroud (40) comprising a platform (42) and a leading edge flange (43) and a trailing edge flange (44) extending radially inward from the platform (42); the leading edge flange (43) being coupled to the leading edge wall (34) and the trailing edge flange (44) being coupled to the trailing edge wall (35); the leading edge flange (43) being coupled to the leading edge wall (34) so as to leave a primary radial gap (48) between the leading edge wall (34) and the platform (42) and define a leading edge surface (50) of the leading edge flange (43); the leading edge flange (43) being provided, on the leading edge surface (50), with at least one primary cooling hole (55) in fluid communication with the annular cooling channel (32); the leading edge wall (34) comprising a primary baffle (59) protruding radially from the annular leading edge axial face (57) and axially facing the at least one primary cooling hole (55) .

IPC 8 full level

F01D 5/18 (2006.01); **F01D 9/06** (2006.01); **F01D 11/00** (2006.01)

CPC (source: CN EP)

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Citation (search report)

- [A] DE 112015003047 T5 20170316 - MITSUBISHI HITACHI POWER SYS [JP]
- [A] EP 0864728 A2 19980916 - MITSUBISHI HEAVY IND LTD [JP]
- [A] US 2013058756 A1 20130307 - THAM KOK-MUN [US], et al
- [A] WO 2015104695 A1 20150716 - ANSALDO ENERGIA SPA [IT]

Cited by

EP4019742A1

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 3663522 A1 20200610; **EP 3663522 B1 20211124**; CN 111287803 A 20200616; CN 111287803 B 20230714; RU 2019139258 A 20210603

DOCDB simple family (application)

EP 18425095 A 20181207; CN 201911242895 A 20191206; RU 2019139258 A 20191203