

Title (en)

ANNULAR MULTI-ROTOR DOUBLE-WALLED TURBINE

Title (de)

RINGFÖRMIGE DOPPELWANDIGE TURBINE MIT MEHREREN ROTOREN

Title (fr)

TURBINE À DOUBLE PAROI ET À PLUSIEURS ROTORS ANNULAIRES

Publication

EP 2368033 A1 20110928 (EN)

Application

EP 09828483 A 20091112

Priority

- CA 2009001649 W 20091112
- CA 2645296 A 20081127

Abstract (en)

[origin: WO2010060192A1] An annular single or multi-rotor double-walled turbine. The turbine includes an outer shroud, an inner shroud, and a plurality of driveshafts. The turbine also includes a plurality of rotors coaxially attached to the plurality of driveshafts at spaced intervals. Each of the plurality of rotors comprises a plurality of turbine blades extending between the inner and outer shrouds. Each of the plurality of turbine blades comprises a face. The inner shroud and the outer shroud form a continuous channel for directing a fluid entering the turbine towards the faces of the turbine blades and for directing fluid discharged from a first of the plurality of rotors to the remaining rotors. The channel greatly improves efficiency of power extraction from all augmented and non-augmented fluid streams.

IPC 8 full level

F03D 1/04 (2006.01); **F01D 1/02** (2006.01); **F01D 9/02** (2006.01); **F03B 3/04** (2006.01); **F03B 3/18** (2006.01); **F03B 17/06** (2006.01); **F03D 1/02** (2006.01); **F03D 3/02** (2006.01); **F03D 3/04** (2006.01)

CPC (source: EP US)

F03B 17/061 (2013.01 - EP US); **F03D 1/025** (2013.01 - EP); **F03D 1/04** (2013.01 - EP US); **F03D 3/0427** (2013.01 - EP); **F03D 13/20** (2016.05 - US); **F03D 80/00** (2016.05 - US); **F03D 9/25** (2016.05 - US); **F05B 2240/13** (2013.01 - EP US); **F05B 2240/133** (2013.01 - EP US); **Y02E 10/20** (2013.01 - US); **Y02E 10/30** (2013.01 - EP); **Y02E 10/72** (2013.01 - EP US); **Y02E 10/728** (2013.01 - EP); **Y02E 10/74** (2013.01 - EP US)

Designated contracting state (EPC)

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 SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

CA 2645296 A1 20100527; CN 102301128 A 20111228; CN 102301128 B 20140702; EP 2368033 A1 20110928; EP 2368033 A4 20140122; US 2012003077 A1 20120105; WO 2010060192 A1 20100603

DOCDB simple family (application)

CA 2645296 A 20081127; CA 2009001649 W 20091112; CN 200980155475 A 20091112; EP 09828483 A 20091112; US 200913131808 A 20091112