

Title (en)

Apparatus for reducing thermoacoustic oscillations in combustion chambers with adjustable resonance frequency

Title (de)

Vorrichtung zur Dämpfung von thermoakustischen Schwingungen in Brennkammern mit veränderbarer Resonanzfrequenz

Title (fr)

Dispositif pour atténuer les oscillations acoustiques dans les chambres combustion avec fréquence de résonance ajustable

Publication

EP 1624251 B1 20120229 (DE)

Application

EP 04018395 A 20040803

Priority

EP 04018395 A 20040803

Abstract (en)

[origin: EP1624251A1] A method for damping thermo acoustic vibrations, especially in the combustion chamber of a gas turbine engine uses at least one Helmholtz resonator (2) of a fixed volume and connected to the combustion chamber via a duct (5) with variable transmission. This enables the control system to vary the resonant frequency to match a range of operating conditions. The duct can comprise a number of sub ducts selected by a movable baffle, a rotating/sliding baffle to vary the effective length of the duct, or any suitable means.

IPC 8 full level

F23R 3/10 (2006.01); **F23M 20/00** (2014.01)

CPC (source: EP)

F23M 20/005 (2015.01); **F23R 3/002** (2013.01); **F23R 2900/00014** (2013.01)

Cited by

WO2010018069A1; US2014109591A1; JP2012002500A; EP3156664A1; FR3065754A1; CH699322A1; JP2011530689A; US10718520B2; EP3153777A1; CN106594798A; US10557417B2; US9097179B2; US10100688B2; US8205714B2; EP2397761A1; US8727070B2; EP2397760A1; US8931589B2

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