

Title (en)

BLAST/IMPACT FREQUENCY TUNING AND MITIGATION

Title (de)

ABSTIMMUNG UND MINDERUNG DER EXPLOSIONS-/STOSSEINWIRKUNGSFREQUENZ

Title (fr)

ACCORD ET ATTÉNUATION DE FRÉQUENCE DE SOUFFLE/D'IMPACT

Publication

**EP 3517883 A1 20190731 (EN)**

Application

**EP 18200528 A 20160615**

Priority

- US 201562180931 P 20150617
- US 201615036293 A 20160512
- EP 16812347 A 20160615
- US 2016037645 W 20160615

Abstract (en)

A tuning and mitigation system for mitigating a blast or impact event having a tuning layer assembly having an acoustic impedance chosen to tune stress waves resulting from the blast or impact to one or more specific tuned frequencies, and a dissipative layer assembly made of a viscoelastic material having a critical damping frequency that matches at least one or more specific tuned frequencies.

IPC 8 full level

**F42D 5/05** (2006.01); **F41H 5/04** (2006.01)

CPC (source: EP)

**F41H 1/08** (2013.01); **F41H 5/04** (2013.01); **F42D 5/05** (2013.01); **F41H 1/02** (2013.01)

Citation (applicant)

US 2014065658 W 20141114

Citation (search report)

- [X] US 6298963 B1 20011009 - KIM MICHAEL [US]
- [A] US 2013000476 A1 20130103 - ECKHOFF PHILIP A [US], et al
- [X] ROHAN PAI ET AL: "Design and Fabrication of Optimal Constrained Layer Damping Topologies", SPIE, PO BOX 10 BELLINGHAM WA 98227-0010 USA, vol. Smart Structures and Materials, no. 5386, 1 July 2004 (2004-07-01), BELLINGHAM WA, USA, pages 438 - 446, XP040183329, DOI: 10-1117/12.540065

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

DOCDB simple family (publication)

**WO 2016205380 A1 20161222**; CA 2989822 A1 20161222; CA 2989822 C 20230214; EP 3311099 A1 20180425; EP 3311099 A4 20190522; EP 3311099 B1 20211229; EP 3517883 A1 20190731; EP 3517883 B1 20220420; ES 2904548 T3 20220405; ES 2912334 T3 20220525; JP 2018521289 A 20180802; JP 2019078409 A 20190523; JP 6595628 B2 20191023; JP 6754820 B2 20200916

DOCDB simple family (application)

**US 2016037645 W 20160615**; CA 2989822 A 20160615; EP 16812347 A 20160615; EP 18200528 A 20160615; ES 16812347 T 20160615; ES 18200528 T 20160615; JP 2017565167 A 20160615; JP 2018239115 A 20181221