

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)

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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