

Title (en)

Noise absorbing structures and walls made therefrom

Title (de)

Geräuschabsorbierende Strukturen und daraus hergestellte Wände

Title (fr)

Structures d'absorption de bruit et parois constituées de ces structures

Publication

EP 0817164 B2 20040825 (FR)

Application

EP 97401411 A 19970619

Priority

FR 9608064 A 19960628

Abstract (en)

[origin: EP0817164A1] The structure has a membrane (10) which is sealed onto a fixed supporting shell (12) so the sound is directed onto the external surface of the membrane. Plates are positioned within the shell a short, modifiable distance from the membrane. Alternatively, there may be a closed chamber with a passage or a channel between two adjustable plates linking it to an inner chamber. The membrane may carry rods which enter fixed tubes closed at the lower end where they are attached to the shell. The internal volume between the membrane and the base (18) may be adjusted by an inflatable air-filled balloon or bellows (26) connected to the exterior by a hole (28). Electrical conductors or circuit boards are printed or positioned on the membrane.

IPC 1-7

G10K 11/172

IPC 8 full level

G10K 11/172 (2006.01)

CPC (source: EP US)

G10K 11/172 (2013.01 - EP US)

Citation (opposition)

Opponent :

- DE 4228356 A1 19940303 - DEUTSCHE AEROSPACE [DE]
- DE 9418063 U1 19950119 - WILHELMI WERKE GMBH & CO KG [DE]
- DE 9414943 U1 19960118 - FAIST M GMBH & CO KG [DE]
- EP 0244755 B1 19910206
- DE 2834823 B1 19791025 - MESSERSCHMITT BOELKOW BLOHM
- US 4068736 A 19780117 - DEAN RAYMOND H, et al

Cited by

EP0897176A1; WO9822934A1

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

EP 0817164 A1 19980107; EP 0817164 B1 20011128; EP 0817164 B2 20040825; CA 2209302 A1 19971228; CA 2209302 C 20101214; DE 69708523 D1 20020110; DE 69708523 T2 20020613; DE 69708523 T3 20050609; FR 2750527 A1 19980102; FR 2750527 B1 19980821; US 6332027 B1 20011218

DOCDB simple family (application)

EP 97401411 A 19970619; CA 2209302 A 19970626; DE 69708523 T 19970619; FR 9608064 A 19960628; US 390098 A 19980107