

Title (en)  
Vibration absorber for vibration-endangered structural parts and structures

Title (de)  
Schwingungsdämpfer für schwingungsgefährdete Bauteile und Bauwerke

Title (fr)  
Amortisseur de vibrations pour éléments de construction et constructions mis en danger de vibrations

Publication  
**EP 0686733 B2 20030226 (DE)**

Application  
**EP 95105685 A 19950414**

Priority  
DE 4418916 A 19940531

Abstract (en)  
[origin: EP0686733A1] The equipment is esp. for chimneys, masts, industrial tanks etc. with quasi-rotational-symmetrical-vibration characteristics. It comprises a liquid-filled tank whose weight, sloshing frequency and inherent damping characteristics are matched to the natural frequency of the building. The distance (A) from each enclosing wall (W) of the tank to the mid-point (M) of the surface of the liquid at the central perpendicular is approximately the same. The height to which the tank is filled can be less than the distance (A), and typically less than half of it. The tank may be square or can have a circular bottom (G), or it can be annular and divided by radial partitions. <IMAGE>

IPC 1-7  
**E04B 1/98**

IPC 8 full level  
**E04B 1/98** (2006.01)

CPC (source: EP)  
**E04H 9/0215** (2020.05)

Citation (opposition)  
Opponent :

- US 4783937 A 19881115 - SATO TAKANORI [JP]
- T. Miyata, H. Yamada, Y. Saitoh. "Feasibility Study on Damping of Wind-induced Vibrations of Structure By. Breaking of Sloshing Water" Journal of Wind Engineering No. 32, May 1987 (in Japanese)
- K. Fujii, Y. Tamura, T. Wakahara: "Wind-induced Vibration of Tower and Practical Applications of Tuned Sloshing Damper", Journal of Wind Engineering, No. 37, October 1988.

Cited by  
DE102014113145A1; EP1677003A3; US6695588B1; US8051625B2; EP2899397A1; CN104806449A; WO2008153489A1; DE102021121874A1; WO2023025780A1; WO2016037958A1; US10161387B2

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