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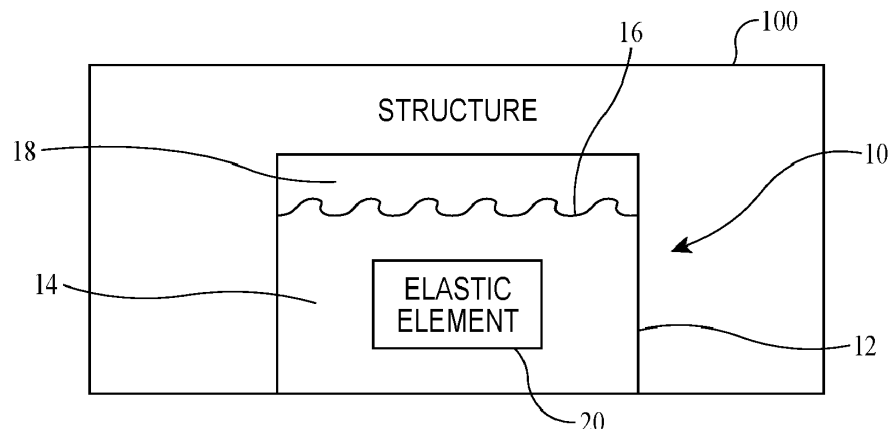
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(54) **MOTION ABSORBING SYSTEM AND METHOD FOR A STRUCTURE**

(57) A motion absorbing system and method for a structure includes the coupling of a container to a structure. The container has a liquid disposed therein wherein a ullage is defined above a surface of the liquid. An elastic

element is positioned in the liquid. The elastic element has a natural frequency tuned to damp motion of the liquid.



**FIG. 1**



## EUROPEAN SEARCH REPORT

Application Number

EP 22 17 1757

## DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
<b>X</b>	<b>US 3 635 182 A (PAFFETT JAMES ARTHUR HAINES) 18 January 1972 (1972-01-18)</b> * abstract; figure 4 * * column 6, line 8 - line 49 * -----	<b>1-11</b>	<b>INV.</b> <b>B63B39/00</b> <b>B63B35/44</b> <b>B63B25/24</b>
<b>A</b>	<b>US 2010/288178 A1 (MANSOUR ALAA [US]) 18 November 2010 (2010-11-18)</b> * abstract; figures * -----	<b>1</b>	
			<b>TECHNICAL FIELDS SEARCHED (IPC)</b>
			<b>B63B</b>
<del>The present search report has been drawn up for all claims</del>			

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EPO FORM 1503 03.82 (P04C01)

Place of search	Date of completion of the search	Examiner
<b>The Hague</b>	<b>20 October 2022</b>	<b>Balzer, Ralf</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document		



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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

**see sheet B**

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

**1-11**

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number

**EP 22 17 1757**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

**1. claims: 1-11****Motion absorbing system**

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**2. claims: 12, 13, 15****Tuned mass damper system for damping different frequencies**

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**3. claim: 14****Tunded mass damper system with pressurised air and diaphragm**

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 22 17 1757

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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20-10-2022

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<b>US 2010288178 A1</b>	<b>18-11-2010</b>	<b>NONE</b>	
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