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(54) **Gas spring system for a vehicle**

(57) The invention relates to a gas spring device for a vehicle, in particular a rail vehicle, comprising a gas spring unit (106) and an emergency spring unit (107), the gas spring unit comprising a first housing part (106.1), a second housing part (106.2) and a bellows (106.3). The bellows (106.3) moveably connects the first housing part (106.1) and the second housing part (106.2) such that a substantially gas tight gas spring chamber (106.4) is confined by the bellows (106.3), the first housing part (106.1) and the second housing part (106.2). The first housing part (106.1) is adapted to be connected to a loading structure (102) while the second housing part (106.2) is adapted to be connected to a support structure (103) adapted to support a load exerted by the loading structure (102). The gas spring unit (106) has an inflated state and a deflated state, the gas spring unit (106) being adapted to resiliently support the load exerted by the loading structure (102) on the support structure (103) in the inflated state, the emergency spring unit (107) being adapted to resiliently support the load exerted by the loading structure (102) on the support structure (103) in the deflated state. The emergency spring unit (107) has a first end (107.3) and a second end (107.4) and a longitudinal axis (107.5) extending between the first end and the second end, the emergency spring unit (107) being connected to the first housing part (106.1) or the second housing part (106.2) in such a manner that one end (107.4) of the emergency spring unit (107), in the inflated state, is a

free end. The free end (107.4) of the emergency spring unit (107) is located closer to the bellows (106.3) than the other end (107.3) of the emergency spring unit (107).

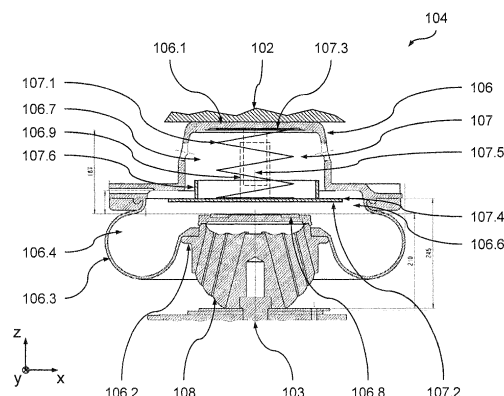


Fig. 2



## EUROPEAN SEARCH REPORT

Application Number  
EP 12 18 9763

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	----- US 2006/195240 A1 (BEAUBATIE LAURENT [FR]) 31 August 2006 (2006-08-31) * paragraph [0022] - paragraph [0033]; figures 1,2 *	1-7,12, 14	
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			TECHNICAL FIELDS SEARCHED (IPC)
			B61F B60G F16F
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 15 April 2013	Examiner Chlost, Peter
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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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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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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