

Title (en)  
HIGH PRESSURE VALVE ASSEMBLY

Title (de)  
HOCHDRUCKVENTILANORDNUNG

Title (fr)  
ENSEMBLE DE SOUPAPE HAUTE-PRESSION

Publication  
**EP 3224448 A1 20171004 (EN)**

Application  
**EP 15793909 A 20151023**

Priority  
• US 201414551821 A 20141124  
• IB 2015058195 W 20151023

Abstract (en)  
[origin: WO2016083918A1] A valve assembly for high pressure applications includes a pre-charge chamber in fluid communication with a first bellows, at least one inlet for pressurized gas to enter the assembly, a system poppet and an outlet for releasing pressurized gas into a desired environment. The pre-charge chamber and first bellows are filled with pre-charge gas to a threshold pressure. Pressurized gas can flow through access channels into a second bellows, which expands to move a valve shaft connected to the poppet assembly to open the poppet and allow the release of gas. The expansion of the second bellows pushes incompressible fluid disposed between the two bellows against the first bellows, thus contracting the first bellows. The gas within each bellows maintains an internal pressure equal to the pressure exerted upon each bellows by the incompressible fluid, so as to minimize differential pressure across the bellows in the extended position.

IPC 8 full level  
**E21B 43/12** (2006.01)

CPC (source: EP US)  
**E21B 43/123** (2013.01 - EP US)

Citation (search report)  
See references of WO 2016083918A1

Designated contracting state (EPC)  
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Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
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