

Title (en)  
BHA SURGE RELIEF SYSTEM

Title (de)  
BHA-DRUCKSTOSSENTLASTUNGSSYSTEM

Title (fr)  
SYSTÈME D'ÉQUILIBRAGE DE PRESSION POUR EFT

Publication  
**EP 2938809 A4 20160914 (EN)**

Application  
**EP 12890737 A 20121228**

Priority  
US 2012072116 W 20121228

Abstract (en)  
[origin: WO2014105056A1] Disclosed embodiments include a surge relief system for a bottom hole assembly (BHA) and drill bit on an offshore drill string. One embodiment includes flow passages and external ports arranged to manage flow of wellbore fluids during sudden movements of the BHA and drill bit caused by waves. A first relief valve in the first flow passage is disposed to activate at a predetermined pressure to allow flow therethrough. Additional flow passages and pressure relief valves may be sequentially positioned along the length of the BHA/drill bit system to further assist in a managed bleed of pressurized fluid through the surge relief system. The sequential pressure relief valves may have activation pressures that sequentially increase or decrease.

IPC 8 full level  
**E21B 21/08** (2006.01)

CPC (source: EP US)  
**E21B 7/12** (2013.01 - US); **E21B 21/001** (2013.01 - EP US); **E21B 21/103** (2013.01 - US); **E21B 21/08** (2013.01 - EP US)

Citation (search report)

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- [A] US 2009095528 A1 20090416 - HAY RICHARD T [US], et al
- [A] US 2010018715 A1 20100128 - ORBELL CHARLES R [US], et al
- [A] WO 03023181 A1 20030320 - OCEAN RISER SYSTEMS AS [NO], et al
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Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2014105056 A1 20140703**; AU 2012397857 A1 20150604; AU 2012397857 B2 20161215; BR 112015015320 A2 20170711; CA 2891331 A1 20140703; CN 104968884 A 20151007; EP 2938809 A1 20151104; EP 2938809 A4 20160914; MX 2015008170 A 20160222; RU 2015124925 A 20170203; US 2015308205 A1 20151029

DOCDB simple family (application)  
**US 2012072116 W 20121228**; AU 2012397857 A 20121228; BR 112015015320 A 20121228; CA 2891331 A 20121228; CN 201280077947 A 20121228; EP 12890737 A 20121228; MX 2015008170 A 20121228; RU 2015124925 A 20121228; US 201214646859 A 20121228