

Title (en)

Gas lift valve with ball-orifice closing mechanism and fully compressible dual edge-welded bellows

Title (de)

Gasliftventil mit Kugel-Düse-Verschlussmechanismus und vollständig komprimierbare doppelte, kantengeschweißte Balge

Title (fr)

Soupape d'extraction au gaz avec mécanisme de fermeture à orifice à bille entièrement compressible et soufflet à bord soudé double

Publication

EP 2666957 A2 20131127 (EN)

Application

EP 13168990 A 20130523

Priority

US 201261650632 P 20120523

Abstract (en)

A valve for performing gas lift operations is provided that incorporates two edge-welded bellows and a ball-orifice closing mechanism. The gas lift valve incorporates features enabling enhanced compression of one of the bellows, beyond an initial closure point of the valve. For example, a stem with the sealing ball is divided into two components, wherein one of the stem components is configured to continue moving in relation to the other stem component with the ball, which is fixed in position when the ball seals the orifice and initially closes the valve. This continued movement allows one of the bellows to be fully compressed in the ultimately closed valve position, thereby protecting the bellows from high pressures and potential failure that could occur to bellows in a partially compressed state.

IPC 8 full level

E21B 43/12 (2006.01)

CPC (source: EP US)

E21B 43/123 (2013.01 - EP US); **Y10T 137/0318** (2015.04 - EP US); **Y10T 137/2934** (2015.04 - EP US)

Cited by

GB2618475A; US11692405B2; US11725490B2; US11542798B2; US11060385B2; WO2020167521A1; US11933150B2; WO2022170336A1; WO2024148279A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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