

Title (en)

System and method for operating multiple valves

Title (de)

System und Verfahren zur Bedienung mehrerer Ventile

Title (fr)

Système et procédé pour l'exploitation de plusieurs vannes

Publication

EP 2463477 A1 20120613 (EN)

Application

EP 11192992 A 20111212

Priority

- NO 20101748 A 20101213
- NO 20111679 A 20111209

Abstract (en)

A valve system for providing fluid flow through radial openings disposed along an axial length of a tubular. The tubular comprises at least one valve group containing at least two valves operable by one drop ball. An inset 302 e.g. of standard grade steel provided in a harder liner 301 in the opening provides an intermediate small opening for at least the time required to open all the remaining valves in the group. The small opening limits the pressure drop over the valve. When all valves are open, the insets 302 are eroded away by an abrasive material, e.g. a slurry used for hydraulic fracturing, and permanent full openings are created.

IPC 8 full level

E21B 34/14 (2006.01)

CPC (source: EP US)

E21B 34/142 (2020.05 - EP US); **E21B 2200/04** (2020.05 - EP); **E21B 2200/06** (2020.05 - EP)

Citation (applicant)

US 70542810 A 20100212

Citation (search report)

- [XII] US 2006124310 A1 20060615 - LOPEZ DE CARDENAS JORGE [US], et al
- [XII] WO 2010127457 A1 20101111 - PACKERS PLUS ENERGY SERVICES I [CA], et al
- [A] US 5048611 A 19910917 - COCHRAN CHUDLEIGH B [US]
- [A] US 2007151734 A1 20070705 - FEHR JIM [CA], et al
- [A] US 6253861 B1 20010703 - CARMICHAEL MARK [GB], et al

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)

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DOCDB simple family (application)

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