

Title (en)

DIAMOND HIGH TEMPERATURE SHEAR VALVE DESIGNED TO BE USED IN EXTREME THERMAL ENVIRONMENTS

Title (de)

HOCHTEMPERATUR-SCHERVENTIL AUS DIAMANT ZUR VERWENDUNG IN EXTREMEN THERMISCHEN UMGEBUNGEN

Title (fr)

VANNE À CISAILLEMENT HAUTE TEMPÉRATURE EN LOSANGE DESTINÉE À ÊTRE UTILISÉE DANS DES ENVIRONNEMENTS THERMIQUES EXTRÊMES

Publication

EP 3715582 B1 20231213 (EN)

Application

EP 20152711 A 20200120

Priority

US 201916365998 A 20190327

Abstract (en)

[origin: EP3715582A1] A control valve assembly (48) for a downhole wellbore (21) including a body (60) formed partially from a magnetic material. A plunger (160) is moveably mounted in the body (60). A portion (164) of the plunger (160) is formed from a magnetic material. A magnetic circuit having a gap (171) is arranged within the control valve assembly (48). The portion (64) of the body (60) formed from a magnetic material defines a first portion (164) of the magnetic circuit and the portion of the plunger (160) formed from magnetic material forms another portion of the magnetic circuit. A solenoid (120) is mounted at the body (60) and is selectively activated to create a magnetic field across the gap (171) in the magnetic circuit causing the plunger (160) to move thereby narrowing the gap (171) to produce a pressure pulse in the wellbore (21).

IPC 8 full level

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CPC (source: EP)

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