

Title (en)

METHOD AND APPARATUS FOR USE OF ELECTRONIC PRESSURE GAUGE IN EXTREME HIGH TEMPERATURE ENVIRONMENT

Title (de)

VERFAHREN UND VORRICHTUNG ZUR VERWENDUNG ELEKTRONISCHER DRUCKMESSVORRICHTUNGEN IN UMGEBUNGEN MIT EXTREM HOHER TEMPERATUR

Title (fr)

PROCÉDÉ ET APPAREIL POUR UTILISER UN MANOMÈTRE ÉLECTRONIQUE DANS UN ENVIRONNEMENT À TEMPÉRATURE EXTRÊMEMENT HAUTE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2013165439A1] Methods and apparatus for use of an electronic pressure gauge at high temperatures is presented. An electronic pressure sensor is exposed to wellbore pressure at a location having high-temperatures. A pressurized fluid, preferably a refrigerant, is flowed into a chamber proximate the pressure sensor and cools it sufficiently to preclude damage from the high wellbore temperatures. Preferably, the pressurized fluid is expanded, from liquid to gaseous phase, in the chamber. In another method, an electronic pressure gauge is positioned uphole, where temperature is not expected to damage the sensor, and a pressure chamber is positioned downhole at a location where pressure is to be sensed. The pressure chamber communicates downhole pressure to the uphole pressure gauge by way of a pressure conduit filled with pressurized fluid, such as an inert gas. The system is isolated from pressure during run-in by a temporary pressure isolation device such as a rupture disk.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [XY] US 5265677 A 19931130 - SCHULTZ ROGER L [US]
- [Y] US 4126406 A 19781121 - TRAYLOR FRANCIS T, et al
- [A] US 2011146967 A1 20110623 - WINSLOW DANIEL [US]
- See references of WO 2013165439A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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