

Title (en)

Pump off/gas lock motor controller for electrical submersible pumps.

Title (de)

Motorsteuerung zum Abschalten der Pumpe bei Gasblockierung für elektrische Unterwasserpumpe.

Title (fr)

Commande d'un moteur pour l'arrêt d'une pompe lors d'un blocage par le gaz de pompes électriques submersibles.

Publication

EP 0314249 A2 19890503 (EN)

Application

EP 88202383 A 19881025

Priority

US 11446887 A 19871028

Abstract (en)

A pump off/gas lock motor controller for electrical submersible pumps (ESP) uses a flow rate or flow/no-flow sensor to shut down the ESP when it no longer is pumping fluid so that damage to the ESP is avoided.

IPC 1-7

F04D 9/00; **F04D 15/02**; **H02P 3/00**

IPC 8 full level

E21B 43/12 (2006.01); **E21B 47/00** (2012.01); **F04D 15/02** (2006.01)

CPC (source: EP US)

E21B 43/128 (2013.01 - EP US); **E21B 47/008** (2020.05 - EP US); **F04D 15/0227** (2013.01 - EP)

Cited by

US2014352953A1; AU602995B2; US7083392B2; EP1639258A4; US10947981B2; US8141646B2; US7798215B2; WO2012003870A1; WO2009026043A3; WO2004109106A3; WO2009003099A1; US10465676B2; US10883489B2; US9605680B2; US9885360B2; US10871001B2; US11073155B2; US10590926B2; US11493034B2; US10731655B2; US11391281B2; US9702243B2; US9726184B2; US10480516B2; US10724263B2; US7845913B2; US9712098B2; US9777733B2; US10415569B2; US10241524B2; US10289129B2; US10409299B2; US10416690B2; US10642287B2; US8043070B2; US10240606B2; US10240604B2; US10502203B2; US10527042B2; US10871163B2; US11619222B2

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