

Title (en)

UNDERGROUND OPENING SELF-LOCKING WELL CASING PIPE CENTERING DEVICE

Title (de)

SELBSTVERRIEGELNDE BOHRLOCHVERROHRUNGSZENTRIERVORRICHTUNG MIT UNTERIRDISCHER ÖFFNUNG

Title (fr)

DISPOSITIF DE CENTRAGE DE TUBE DE FORAGE DE PUIITS À BLOCAGE AUTOMATIQUE D'OUVERTURE SOUTERRAINE

Publication

**EP 3170964 A4 20170920 (EN)**

Application

**EP 15821386 A 20150714**

Priority

- CN 201410337155 A 20140716
- CN 2015083917 W 20150714

Abstract (en)

[origin: US2016215574A1] The invention relates to a downhole-started self-locking casing centralizer, comprising a connecting part (1) and a connecting part (2) on both ends, a central supporting part being arranged between the connecting part (1) and the connecting part (2), and characterized in that the central supporting part comprises a hollow coupler, and at least three N-stage piston self-locking support devices extending by stages under pressure are evenly distributed along the circumference of the coupler, N#2. The invention has the following advantages: 1. a threaded integral structure is adopted; 2. a downhole-started self-locking support structure is adopted; and 3. a circular arc support cap helps ensure large support force and reduce damage to borehole walls.

IPC 8 full level

**E21B 17/10** (2006.01)

CPC (source: EP US)

**E21B 17/1014** (2013.01 - EP US)

Citation (search report)

- [I] CN 103670296 A 20140326 - PETROCHINA CO LTD
- [A] US 2008142228 A1 20080619 - HARVEY PETER R [US], et al
- See references of WO 2016008400A1

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)

**US 2016215574 A1 20160728**; CN 104234647 A 20141224; CN 104234647 B 20170208; EP 3170964 A1 20170524; EP 3170964 A4 20170920; SG 11201601868R A 20160428; WO 2016008400 A1 20160121

DOCDB simple family (application)

**US 201514914324 A 20150714**; CN 201410337155 A 20140716; CN 2015083917 W 20150714; EP 15821386 A 20150714; SG 11201601868R A 20150714