

Title (en)
Pipe umbrella drilling method

Title (de)
Leitungsschirm-Bohrverfahren

Title (fr)
Procédé de forage par parapluie de tuyaux

Publication
EP 2407630 A2 20120118 (EN)

Application
EP 11173888 A 20110713

Priority
DE 102010027544 A 20100716

Abstract (en)
The invention provides a drilling device suitable for production of a support pipe-lined drill hole for the pipe umbrella technique wherein the device comprises: a body (4); a pilot drill bit (2) for drilling a pilot hole (35a); one or more drill elements (3) for radially enlarging the pilot hole by drilling to apply a rock loosening force (FG, 27) having a radial component (FGR) and an axial component (FGA) wherein the one or more drill elements are mounted on the body so that the one or more drill elements may be extended or retracted from the body and wherein the one or more drill elements are arranged so that the radial component (FGR) of the rock loosening force is such that the one or more drill elements are prevented from retraction during the drilling; wherein the device operates consistently independent of the rock conditions and ensures the production of bores 35 that are always of the same cross section.

IPC 8 full level
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E21B 7/20 (2013.01 - EP); **E21B 10/325** (2013.01 - EP US); **E21B 10/66** (2013.01 - EP); **E21D 9/04** (2013.01 - EP)

Citation (applicant)
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JP2016113803A; CN110529050A; CN107620572A; US11959337B2; WO2018095321A1; JP2022051732A; JP2016069908A; JP2020204189A

Designated contracting state (EPC)
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