

Title (en)  
LOW STRESS CAVITY EXIT FOR CONICALLY CONNECTING DRILL BIT

Title (de)  
SPANNUNGSARMER HOHLRAUMAUSGANG FÜR KONISCH VERBUNDENEN BOHRMEISSEL

Title (fr)  
SORTIE DE CAVITÉ À FAIBLE CONTRAINTE POUR CONNECTER CONIQUEMENT UN TRÉPAN

Publication  
**EP 3978719 A1 20220406 (EN)**

Application  
**EP 20199284 A 20200930**

Priority  
EP 20199284 A 20200930

Abstract (en)  
A percussive drill bit comprising a sleeve section and bit section having a longitudinal axis; wherein the sleeve section has an axial end at the opposing end of the drill bit compared to the bit section from which a generally conically shaped internal cavity extends from for receiving a conically shaped drill rod to form a conical frictional connection; characterised in that: the internal cavity has a transition section extending between the axial end of the drill bit and the a straight tapered region; wherein the transition section has at a first curved region having a first radius,  $TR_i$ , wherein its tangent,  $TT$ , is positioned at a first distance,  $TD_{>1}$  from the axial end.

IPC 8 full level  
**E21B 1/00** (2006.01); **E21B 17/04** (2006.01)

CPC (source: EP)  
**E21B 1/00** (2013.01); **E21B 17/04** (2013.01)

Citation (applicant)

- US 2007175671 A1 20070802 - NAVA PETER [SE]
- GB 658631 A 19511010 - HALL & PICKLES LTD, et al
- GB 860768 A 19610208 - ELECTROCHIMIE ELECTROMETALLURG

Citation (search report)

- [XYI] GB 2307930 A 19970611 - DREBO WERKZEUGFAB GMBH [DE]
- [YDA] GB 658631 A 19511010 - HALL & PICKLES LTD, et al
- [A] US 5685381 A 19971111 - KLOPPERS STEPHANUS FREDERICK [ZA], et al
- [A] US 3336081 A 19670815 - ERICSSON SAMUEL S

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)  
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**EP 20199284 A 20200930**; EP 2021076974 W 20210930; EP 21786207 A 20210930; JP 2023519717 A 20210930