

Title (en)  
ADVANCED HOLDING APPARATUS

Title (de)  
FORTSCHRITTLICHE HALTEVORRICHTUNG

Title (fr)  
APPAREIL DE SUPPORT AVANCÉ

Publication  
**EP 3990221 A4 20220810 (EN)**

Application  
**EP 20846157 A 20200730**

Priority  

- US 201916548470 A 20190822
- IB 2019056500 W 20190730
- US 202016942658 A 20200729
- IB 2020057231 W 20200730

Abstract (en)  
[origin: WO2021019500A1] A screw bit body which allows for efficient torque force application onto a socket fastener. The screw bit body includes a plurality of laterally-bracing sidewalls, a first base, and a second base. The laterally-bracing sidewalls are radially distributed about a rotation axis of the screw bit body with each further including a first lateral edge, a second lateral edge, a bracing surface, and an engagement cavity. The engagement cavity creates an additional gripping point to prevent slippage in between the screw bit body and the socket fastener. The engagement cavity traverses normal and into the bracing surface. Additionally, the engagement cavity traverses into the screw bit body from the first base to the second base. The engagement cavity is specifically positioned offset from the first lateral edge by a first distance.

IPC 8 full level  
**B25B 15/00** (2006.01); **B21K 5/04** (2006.01); **B23P 15/00** (2006.01); **B25B 13/04** (2006.01); **B25B 13/06** (2006.01); **B25B 15/02** (2006.01)

CPC (source: EP)  
**B25B 15/005** (2013.01); **B25B 15/008** (2013.01)

Citation (search report)  

- [X] US 2018354102 A1 20181213 - KUKUCKA PAUL [US], et al
- [XA] WO 2018172831 A1 20180927 - GRIP TOOLING TECH LLC [US]
- [XA] US 2017312897 A1 20171102 - DOROSLOVAC ROBERT S [US], et al
- [A] US 2006266168 A1 20061130 - PACHECO RAYMOND A JR [US]
- [A] WO 2018150360 A1 20180823 - GRIP TOOLING TECH LLC [US]
- See also references of WO 2021019500A1

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)  
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DOCDB simple family (publication)  
**WO 2021019500 A1 20210204**; CA 3145110 A1 20210204; CN 114126806 A 20220301; CN 114126806 B 20230804; EP 3990221 A1 20220504; EP 3990221 A4 20220810; EP 3990221 B1 20240424; EP 3990221 C0 20240424; EP 4378627 A2 20240605; EP 4378627 A3 20240807

DOCDB simple family (application)  
**IB 2020057231 W 20200730**; CA 3145110 A 20200730; CN 202080052119 A 20200730; EP 20846157 A 20200730; EP 24163032 A 20200730