

Title (en)  
ANTI-SLIP FASTENER REMOVER TOOL

Title (de)  
RUTSCHHEMMENDES WERKZEUG ZUM ENTFERNEN VON BEFESTIGUNGSMITTELN

Title (fr)  
OUTIL DE RETRAIT D'ÉLÉMENT DE FIXATION ANTI-DÉRAPANT

Publication  
**EP 4297932 A4 20240424 (EN)**

Application  
**EP 21937172 A 20210428**

Priority  
• US 202117231530 A 20210415  
• US 2021029768 W 20210428

Abstract (en)  
[origin: WO2022220850A1] An anti-slip fastener remover tool includes a torque-tool body, a plurality of paired engagement features, and an intersection point. The plurality of paired engagement features that grips the lateral surface of the stripped fastener head is radially positioned around a rotation axis of the torque-tool body. The plurality of paired engagement features, wherein each paired engagement feature is offset by 30 degrees, comprises a first engagement feature and a second engagement feature. The first engagement feature and the second engagement feature each comprises a bracing section, a cavity section, and a connector section that are adjacently connected to each other. The cavity section of the first engagement feature is adjacently connected to the cavity section of the second engagement feature. The bracing sections of the first engagement feature and the second engagement feature are oppositely positioned of each other about the cavity sections of the first and second engagement features.

IPC 8 full level  
**B25B 23/10** (2006.01); **B25B 13/06** (2006.01); **B25B 15/00** (2006.01); **B25B 23/00** (2006.01); **B25B 27/18** (2006.01); **F16B 23/00** (2006.01)

CPC (source: EP)  
**B25B 13/065** (2013.01); **B25B 15/005** (2013.01); **B25B 27/18** (2013.01)

Citation (search report)  
• [XAI] US 6164171 A 20001226 - KANEKO YOSHIHIRO [JP], et al  
• [XAI] US 2010037737 A1 20100218 - PCHOLA EDWARD [US], et al  
• [A] US 2006266168 A1 20061130 - PACHECO RAYMOND A JR [US]  
• See also references of WO 2022220850A1

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2022220850 A1 20221020**; EP 4297932 A1 20240103; EP 4297932 A4 20240424; JP 2024516513 A 20240416; TW 202241651 A 20221101

DOCDB simple family (application)  
**US 2021029768 W 20210428**; EP 21937172 A 20210428; JP 2023558650 A 20210428; TW 110122865 A 20210623