

Title (en)  
FASTENER AND FASTENER INSTALLATION TOOL

Title (de)  
BEFESTIGUNGSELEMENT UND WERKZEUG ZUM ANBRINGEN DES BEFESTIGUNGSELEMENTS

Title (fr)  
ÉLÉMENT DE FIXATION ET OUTIL D'INSTALLATION D'ÉLÉMENT DE FIXATION

Publication  
**EP 3519704 A1 20190807 (EN)**

Application  
**EP 16778662 A 20160930**

Priority  
US 2016054860 W 20160930

Abstract (en)  
[origin: WO2018063352A1] A fastening system including a fastener and a fastener installation tool. The fastener includes a pin member (212) having an elongated shank portion with a threaded portion (220), a stop shoulder (232) located at an end of the threaded portion (220), and a pull portion (226) extending from the stop shoulder (232). The stop shoulder (232) includes an outer rim (237) and an inner annular wall (236). The inner annular wall (236) and the inner face form an annular recess. The fastener installation tool includes a puller (262) having a front face (272). The recess of the fastener is adapted to receive the front face (272) of the fastener installation tool when the puller (262) engages the pull portion (226) of the pin member (212) and facilitates alignment of teeth of the installation tool and pull grooves (228) of the pin member (212).

IPC 8 full level  
**F16B 19/10** (2006.01); **B21J 15/02** (2006.01); **F16B 19/05** (2006.01); **F16B 43/00** (2006.01)

CPC (source: EP)  
**F16B 19/1063** (2013.01); **F16B 43/00** (2013.01); **F16B 19/05** (2013.01)

Citation (search report)  
See references of WO 2018063352A1

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)  
**WO 2018063352 A1 20180405**; BR 112017013986 A2 20180619; EP 3519704 A1 20190807; JP 2019500547 A 20190110; JP 6567060 B2 20190828

DOCDB simple family (application)  
**US 2016054860 W 20160930**; BR 112017013986 A 20160930; EP 16778662 A 20160930; JP 2017538201 A 20160930