

Title (en)
IMPROVEMENTS TO A GAS-POWERED FASTENING TOOL

Title (de)
PERFEKTIONIERUNGEN FÜR EIN GASFIXIERUNGSWERKZEUG

Title (fr)
PERFECTIONNEMENTS POUR UN OUTIL DE FIXATION A GAZ

Publication
EP 3189937 A1 20170712 (FR)

Application
EP 17157754 A 20151218

Priority
• EP 15158537 A 20150310
• EP 15200997 A 20151218

Abstract (en)
[origin: CA2976366A1] The present invention concerns improvements for a gas-powered fixing tool (10). It notably concerns a combustion chamber or precombustion chamber for a gas-powered fixing tool, a working chamber for a gas-powered fixing tool, a fuel gas injection device for a gas-powered fixing tool and a gas-powered fixing tool including one or more of these elements.

Abstract (fr)
La présente invention concerne des perfectionnements pour un outil (10) de fixation à gaz. Elle concerne notamment une chambre de combustion ou de précombustion pour un outil de fixation à gaz, une chambre de travail pour un outil de fixation à gaz, un dispositif d'injection d'un gaz combustible pour un outil de fixation à gaz, et un outil de fixation à gaz comportant un ou plusieurs de ces éléments.

IPC 8 full level
B25C 1/08 (2006.01)

CPC (source: EP US)
B25C 1/08 (2013.01 - EP US)

Citation (applicant)
• EP 0123717 B1 19880420
• EP 1243383 B1 20090513 - ILLINOIS TOOL WORKS [US]
• EP 2087220 B1 20111026 - ILLINOIS TOOL WORKS [US]

Citation (search report)
• [A] EP 1371457 A2 20031217 - ILLINOIS TOOL WORKS [US]
• [A] EP 1484138 A2 20041208 - MAKITA CORP [JP]
• [A] US 2006226193 A1 20061012 - TOULOUSE BRUNO [FR]
• [A] US 2014014703 A1 20140116 - KESTNER KYLE [US], et al

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

DOCDB simple family (publication)
EP 3067158 A1 20160914; EP 3067158 B1 20180912; AU 2016229422 A1 20170824; AU 2016229422 B2 20180913; AU 2018207324 A1 20180809; AU 2018207324 B2 20200116; AU 2018207324 C1 20200507; AU 2018207327 A1 20180809; AU 2018207327 B2 20200326; AU 2018207329 A1 20180809; AU 2018207329 B2 20200326; CA 2976366 A1 20160915; CA 2976366 C 20190827; CA 3031269 A1 20160915; CA 3031269 C 20200630; CA 3031271 A1 20160915; CA 3031271 C 20210112; CA 3031272 A1 20160915; CA 3031272 C 20210112; EP 3189937 A1 20170712; EP 3189937 B1 20180912; EP 3189938 A1 20170712; EP 3189938 B1 20200311; EP 3189939 A1 20170712; EP 3189939 B1 20200311; NZ 734353 A 20190125; NZ 744536 A 20200626; NZ 744542 A 20200626; NZ 744543 A 20200626; US 11065750 B2 20210720; US 2018036871 A1 20180208; WO 2016144580 A1 20160915

DOCDB simple family (application)
EP 15200997 A 20151218; AU 2016229422 A 20160229; AU 2018207324 A 20180723; AU 2018207327 A 20180723; AU 2018207329 A 20180723; CA 2976366 A 20160229; CA 3031269 A 20160229; CA 3031271 A 20160229; CA 3031272 A 20160229; EP 17157754 A 20151218; EP 17157755 A 20151218; EP 17157756 A 20151218; NZ 73435316 A 20160229; NZ 74453616 A 20160229; NZ 74454216 A 20160229; NZ 74454316 A 20160229; US 2016020000 W 20160229; US 201615553112 A 20160229