

Title (en)
GROUP OF HAND PLIERS

Title (de)
GRUPPE VON HANDZANGEN

Title (fr)
GROUPE DE PINCES MANUELLES

Publication
EP 3159107 B1 20200506 (DE)

Application
EP 15191261 A 20151023

Priority
EP 15191261 A 20151023

Abstract (en)
[origin: US2017113358A1] By the inventive modular design it is possible to reduce the manufacturing costs and to use a large number of same parts for manufacturing manual pliers of different types.

IPC 8 full level
B25B 7/04 (2006.01); **B25B 7/12** (2006.01)

CPC (source: CN EP US)
B25B 7/04 (2013.01 - EP); **B25B 7/12** (2013.01 - EP); **B25B 7/22** (2013.01 - CN); **B26B 13/26** (2013.01 - EP US); **B26D 3/169** (2013.01 - EP US)

Citation (examination)

- DE 1060808 B 19590702 - WALDEMAR REINIGER
- US 6282995 B1 20010904 - LIN SHU SEN [TW]

Cited by
US10958030B2; EP3412412A1; EP3834989A1; US12015233B2; EP3231563A1; EP3396796A1

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 3159107 A1 20170426; EP 3159107 B1 20200506; CN 106808383 A 20170609; CN 106808383 B 20210309; JP 2017080874 A 20170518; JP 6884951 B2 20210609; JP 6884951 B6 20210825; TW 201718185 A 20170601; TW I694901 B 20200601; US 11794361 B2 20231024; US 2017113358 A1 20170427; US 2020376693 A1 20201203

DOCDB simple family (application)
EP 15191261 A 20151023; CN 201610920862 A 20161021; JP 2016206314 A 20161020; TW 105130812 A 20160923; US 201615299697 A 20161021; US 202016884656 A 20200527