

Title (en)  
PLIERS

Title (de)  
ZANGE

Title (fr)  
PINCE

Publication  
**EP 2773490 A1 20140910 (DE)**

Application  
**EP 12779037 A 20121024**

Priority  
• DE 102011054986 A 20111102  
• EP 2012071038 W 20121024

Abstract (en)  
[origin: WO2013064402A1] The invention relates to pliers (1), comprising two plier legs (2, 3) and a jaw opening (M) formed by jaws (7, 8), wherein retaining elements (9) that can be rotated relative to a jaw (7, 8) are arranged in the jaw opening (M) in order to grasp ends of a spring clamp (11) and the plier legs (2, 3) are connected to each other in an intersection region (4). According to the invention, in order to provide pliers for installing or removing spring clamps that are ergonomically designed as favorably as possible with regard to hand forces to be applied, the plier legs (2, 3) can be adjusted relative to each other in steps in the intersection region (4) in order to change the size of the jaw opening (M).

IPC 8 full level  
**B25B 7/04** (2006.01); **B25B 7/10** (2006.01); **B25B 7/14** (2006.01); **B25B 25/00** (2006.01)

CPC (source: CN EP US)  
**B25B 7/02** (2013.01 - US); **B25B 7/04** (2013.01 - CN EP US); **B25B 7/10** (2013.01 - CN EP US); **B25B 7/14** (2013.01 - CN EP US);  
**B25B 25/005** (2013.01 - CN EP US)

Citation (search report)  
See references of WO 2013064402A1

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)  
**DE 102011054986 A1 20130502**; CN 104023917 A 20140903; CN 104023917 B 20160727; EP 2773490 A1 20140910;  
EP 2773490 B1 20200701; US 2014290447 A1 20141002; WO 2013064402 A1 20130510

DOCDB simple family (application)  
**DE 102011054986 A 20111102**; CN 201280053501 A 20121024; EP 12779037 A 20121024; EP 2012071038 W 20121024;  
US 201214355670 A 20121024