

Title (en)

Hydraulically operated setting device with a hydraulic aggregate and a joining method for connecting at least two components

Title (de)

Hydraulisch betriebenes Setzgerät mit einem Hydraulikaggregat und ein Fügeverfahren zum Verbinden von mindestens zwei Bauteilen

Title (fr)

Appareil de pose d'éléments de fixation doté d'un agrégat hydraulique et procédé d'assemblage d'au moins deux composants

Publication

EP 2511023 B1 20180725 (DE)

Application

EP 12162094 A 20120329

Priority

DE 102011002058 A 20110414

Abstract (en)

[origin: EP2511023A2] The hydraulically operated setting device (S) comprises a hydraulic unit (10), which has a tank (14) for hydraulic fluid and a pump (12) for pumping the hydraulic fluid to the setting device. A dual-operating cylinder (30) is provided with a forward stroke chamber (34) and a return stroke chamber (36), in which a piston (32) is movably arranged with the piston rod that moves a plunger (38) of the setting device. A valve block (20) is provided, which comprises multiple valves, through which the return stroke chamber is connected to the pump and a blank holder chamber (44). An independent claim is included for a joining method, particularly setting method for connecting two components by a hydraulically operated setting device.

IPC 8 full level

B21J 15/02 (2006.01); **B21J 15/20** (2006.01)

CPC (source: EP US)

B21J 15/025 (2013.01 - EP US); **B21J 15/20** (2013.01 - EP US)

Citation (examination)

DE 3043149 A1 19820603 - DAIMLER BENZ AG [DE]

Cited by

WO2019086181A1

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EP 2511023 A2 20121017; **EP 2511023 A3 20160113**; **EP 2511023 B1 20180725**; CN 102734267 A 20121017; CN 102734267 B 20161214; DE 102011002058 A1 20121018; US 2012260647 A1 20121018; US 9149862 B2 20151006

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