

Title (en)

WELDING DEVICE AND WELDING METHOD

Title (de)

SCHWEISSVORRICHTUNG UND -VERFAHREN

Title (fr)

DISPOSITIF ET PROCÉDÉ DE SOUDAGE

Publication

**EP 3691820 A1 20200812 (DE)**

Application

**EP 18779380 A 20181001**

Priority

- EP 17195137 A 20171006
- EP 2018076602 W 20181001

Abstract (en)

[origin: WO2019068620A1] Disclosed are a device (10) and a method for welding a weld stud (20) to a substrate (30). A welding current (61, 62) is applied to a weld stud (20) between the weld stud (20) and the substrate (30) such that a material of the weld stud (20) and of the substrate (30) partially liquefies. The weld stud (20) is then immersed into the solidifying material of the weld stud (20) and/or of the substrate (30) so as to establish an integral bond between the weld stud (20) and the substrate (30).

IPC 8 full level

**B23K 9/095** (2006.01); **B23K 9/10** (2006.01); **B23K 9/20** (2006.01)

CPC (source: EP KR US)

**B23K 9/0953** (2013.01 - EP KR US); **B23K 9/1087** (2013.01 - EP KR); **B23K 9/202** (2013.01 - EP KR US); **B23K 37/00** (2013.01 - US)

Citation (search report)

See references of WO 2019068620A1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3466582 A1 20190410**; CN 111163892 A 20200515; CN 111163892 B 20221021; EP 3691820 A1 20200812; JP 2020535973 A 20201210; KR 102595016 B1 20231026; KR 20200063206 A 20200604; US 11623293 B2 20230411; US 2020261998 A1 20200820; WO 2019068620 A1 20190411

DOCDB simple family (application)

**EP 17195137 A 20171006**; CN 201880064181 A 20181001; EP 18779380 A 20181001; EP 2018076602 W 20181001; JP 2020519684 A 20181001; KR 20207012661 A 20181001; US 201816649310 A 20181001