

Title (en)

ULTRASONIC WELDING SYSTEM WITH FORMFITTING CONNECTION

Title (de)

ULTRASCHALLSCHWEISSANLAGE MIT FORMSCHLÜSSIGER VERBINDUNG

Title (fr)

INSTALLATION DE SOUDAGE PAR ULTRASONS À ASSEMBLAGE PAR COMPLÉMENTARITÉ DE FORME

Publication

**EP 3898011 A2 20211027 (DE)**

Application

**EP 19831612 A 20191212**

Priority

- DE 102018132840 A 20181219
- EP 2019084929 W 20191212

Abstract (en)

[origin: WO2020126836A2] The invention relates to an ultrasonic welding system with an ultrasonic vibrating unit which has a sonotrode and a converter. The sonotrode and the converter are arranged next to each other along a longitudinal axis, and the ultrasonic vibrating unit can be brought to a state of resonance with an ultrasonic vibration with a wavelength  $\lambda$  in the direction of the longitudinal axis, wherein an amplitude transformer arranged between the sonotrode and the converter can be provided. The aim of the invention is to provide an ultrasonic welding system which allows a simple exchange of the sonotrode and can be adjusted quickly and simply in a highly precise manner. According to the invention, this is achieved in that the sonotrode is connected to the converter and/or the amplitude transformer is connected to the converter and/or the amplitude transformer is connected to the sonotrode via a formfitting connection which provides a form-fitting lock in all directions of the plane perpendicular to the longitudinal axis.

IPC 8 full level

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CPC (source: EP KR US)

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**B06B 2201/72** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2020126836A2

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2020126836 A2 20200625**; **WO 2020126836 A3 20200813**; CN 113226575 A 20210806; CN 113226575 B 20230811;  
DE 102018132840 A1 20200625; EP 3898011 A2 20211027; JP 2022515118 A 20220217; JP 7337932 B2 20230904;  
KR 20210097199 A 20210806; US 2022072651 A1 20220310

DOCDB simple family (application)

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JP 2021535188 A 20191212; KR 20217022625 A 20191212; US 201917414457 A 20191212