

Title (en)

ULTRASONIC BOOSTER AND DEVICE FOR PROCESSING WORKPIECES

Title (de)

ULTRASCHALLBOOSTER UND VORRICHTUNG ZUM BEARBEITEN VON WERKSTÜCKEN

Title (fr)

SURAMPLIFICATEUR À ULTRASONS ET DISPOSITIF DE TRAITEMENT DE PIÈCES À USINER

Publication

EP 4308311 A1 20240124 (DE)

Application

EP 21713934 A 20210319

Priority

EP 2021057042 W 20210319

Abstract (en)

[origin: WO2022194383A1] The invention relates to an ultrasonic booster (1) for a sonotrode (30) for processing workpieces (W) with ultrasonic vibrations, having a booster body (10). Longitudinal vibrations (SL) are introduced into the booster body (10) on a sound introduction side (11) having a first end side (12). A conversion structure (15), by means of which transverse vibrations (ST) having a vibration component in a plane (E) perpendicular to the longitudinal axis (L) are generated from the longitudinal vibrations (SL), is located between the sound introduction side (11) and a coupling side (13) opposite the sound introduction side.

IPC 8 full level

B06B 3/00 (2006.01); **B23K 20/10** (2006.01); **B29C 65/08** (2006.01)

CPC (source: EP US)

B06B 3/00 (2013.01 - EP); **B23K 20/106** (2013.01 - EP US); **B29C 65/082** (2013.01 - EP); **B29C 66/24221** (2013.01 - EP);
B29C 66/814 (2013.01 - EP); **B29C 66/81431** (2013.01 - EP); **B29C 66/81433** (2013.01 - EP); **B29C 66/8167** (2013.01 - EP);
B29C 66/8322 (2013.01 - EP); **B29C 66/847** (2013.01 - EP); **B29C 66/1122** (2013.01 - EP); **B29C 66/131** (2013.01 - EP);
B29C 66/532 (2013.01 - EP); **B29C 66/61** (2013.01 - EP); **B29L 2031/3044** (2013.01 - EP); **B29L 2031/3481** (2013.01 - EP)

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2022194383 A1 20220922; CN 116981520 A 20231031; EP 4308311 A1 20240124; US 2024165735 A1 20240523

DOCDB simple family (application)

EP 2021057042 W 20210319; CN 202180095548 A 20210319; EP 21713934 A 20210319; US 202118551013 A 20210319