

Title (en)

VIBRATORY CONVEYOR AND ARRANGEMENT FOR CONVEYING A PLANAR WORKPIECE, IN PARTICULAR A METAL SHEET, AND ALSO POSITIONING APPARATUS HAVING A VIBRATORY CONVEYOR AND INTENDED FOR POSITIONING A PLANAR WORKPIECE

Title (de)

VIBRATIONSFÖRDERER UND ANORDNUNG ZUM FÖRDERN EINES FLÄCHIGEN WERKSTÜCKS, INSBESONDERE EINES BLECHS SOWIE POSITIONIERVORRICHTUNG MIT EINEM VIBRATIONSFÖRDERER ZUR POSITIONIERUNG EINES FLÄCHIGEN WERKSTÜCKS

Title (fr)

CONVOYEUR VIBRANT ET AGENCEMENT PERMETTANT LE TRANSPORT D'UNE PIÈCE PLANE, EN PARTICULIER D'UNE TÔLE, ET APPAREIL DE POSITIONNEMENT COMPORTANT UN CONVOYEUR VIBRANT ET DESTINÉ AU POSITIONNEMENT D'UNE PIÈCE PLANE

Publication

**EP 4298040 A1 20240103 (DE)**

Application

**EP 21732235 A 20210609**

Priority

- DE 102021104648 A 20210226
- EP 2021065384 W 20210609

Abstract (en)

[origin: CN114955404A] The invention relates to a vibrating conveyor (1) for conveying flat workpieces in a conveying direction (10), comprising a plate-type workpiece carrier (2), on the upper side of which a workpiece receiving part (6) is arranged. A bearing element (9) of the workpiece bearing part protrudes on the upper side relative to the workpiece frame and is designed at the free end of the bearing element for bearing the workpiece. Under the action of the workpiece, the free end of the bearing element (9) can be deflected relative to the workpiece holder in the conveying direction (10) against the action of a return force. The workpiece frame is supported on the workpiece frame base (11) in the gravity direction (5) through a spring assembly (12). By means of an oscillation generator (21), the workpiece holder can be deflected in a periodic movement along a line of action of gravity (4) away from a rest position by generating a return force exerted on the workpiece holder by the spring arrangement. In the rest position of the workpiece holder, the spring assembly is pre-tensioned in the direction of gravity by a pre-tensioning force which is at least as large as the gravity of the workpiece.

IPC 8 full level

**B65G 27/04** (2006.01); **B65G 27/16** (2006.01); **B65H 9/00** (2006.01)

CPC (source: CN EP)

**B65G 27/04** (2013.01 - EP); **B65G 27/16** (2013.01 - EP); **B65G 27/18** (2013.01 - CN); **B65G 47/24** (2013.01 - CN); **B65H 5/008** (2013.01 - EP);  
**B65H 9/04** (2013.01 - EP); **B65H 2701/173** (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)

**DE 102021104648 B3 20220217**; CN 114955404 A 20220830; CN 117836225 A 20240405; EP 4049947 A1 20220831;  
EP 4298040 A1 20240103; WO 2022179715 A1 20220901

DOCDB simple family (application)

**DE 102021104648 A 20210226**; CN 202180094557 A 20210609; CN 202210030625 A 20220112; EP 2021065384 W 20210609;  
EP 21732235 A 20210609; EP 22156934 A 20220216