

## Title (en)

Machine assembly for sheet metal forming with a sheet metal forming unit and with a transport device

## Title (de)

Maschinelle Anordnung für die Blechbearbeitung mit einer Blechbearbeitungseinrichtung sowie mit einer Transportvorrichtung

## Title (fr)

Agencement mécanique pour le traitement de tôle à l'aide d'un dispositif de traitement de tôle ainsi que dispositif de transport

## Publication

**EP 2050523 A1 20090422 (DE)**

## Application

**EP 07020571 A 20071020**

## Priority

EP 07020571 A 20071020

## Abstract (en)

The transport unit (2) includes workpiece carriers (8) on which the sheet metal workpieces (7) is laid. The workpiece is moved along a transport path running along first and second transport lines (X, Y). A transport track (3) is provided for each workpiece carrier, with guides parallel to each of the X and Y lines. Using a transfer device, the carrier is associated with either guide. The transport unit has a transporter for the carrier. During movement of the carrier along its path, it is loaded. After loading, the workpiece moves along the path with the carrier. Additionally or alternatively the carrier, by its movement along the path, is unloaded from the transporter. The track for the carrier is provided over the extent of at least one guide section on the transporter. A guide section of the transport track, which is provided on the transporter, is of identical construction with a part of the remaining track. The transport track for the workpiece carrier is formed in part by a guide for the transporter. The guide section on the transporter and the guide for the transporter are mutually offset in the vertical direction. The workpiece carrier is optionally assigned to the X or Y guide of the transport track during loading or unloading. The carrier and transporter have bearings, by means of which either or both is moved on the X or Y guides of the transport track. The workpiece carrier and/or the transporter have the X bearing associated with the X guidance and the Y bearing allocated with Y guidance. Further details of the arrangement are elaborated, in accordance with the foregoing principles. Salient feature include devices in the transfer unit, which are used to swing and lift between guidance of differing heights and orientations. Motorized- and chain drive systems are included. Pneumatic or hydraulic drives may be used.

## Abstract (de)

Die Erfindung betrifft eine maschinelle Anordnung für die Blechbearbeitung mit einer Blechbearbeitungseinrichtung (1) sowie mit einer Transportvorrichtung (2) zur Positionierung von Blechwerkstücken (7', 7'') gegenüber der Blechbearbeitungseinrichtung (1), wobei die Blechwerkstücke (7', 7'') entlang einer ersten Transportlinie (X) und einer winkelig zur ersten Transportlinie angeordneten, zweiten Transportlinie (Y) horizontal bewegbar sind und wobei die Transportvorrichtung (2) wenigstens einen Werkstückträger (8', 8'') zur Auflage eines Blechwerkstückes (7', 7'') aufweist, welcher längs eines Transportweges bewegbar ist, der sowohl entlang der ersten Transportlinie (X) als auch entlang der zweiten Transportlinie (Y) verläuft.

## IPC 8 full level

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**B21D 43/13** (2013.01 - EP US); **B21D 43/287** (2013.01 - EP US)

## Citation (search report)

- [XA] US 2003179430 A1 20030925 - KUROSAWA MIKI [JP]
- [XA] JP H04289038 A 19921014 - FANUC LTD
- [AD] US 6140606 A 20001031 - HEIKILLA ILKKA [BE], et al

## Cited by

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## Designated contracting state (EPC)

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## Designated extension state (EPC)

AL BA HR MK RS

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**EP 2050523 A1 20090422**; **EP 2050523 B1 20091104**; AT E447449 T1 20091115; CN 101480804 A 20090715; CN 101480804 B 20110622; DE 502007001929 D1 20091217; JP 2009101416 A 20090514; JP 5345362 B2 20131120; US 2009107206 A1 20090430; US 8245554 B2 20120821

## DOCDB simple family (application)

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