

Title (en)

COMBINED MACHINE FOR FOLDING AND DIE BENDING OF A WORKPIECE

Title (de)

KOMBIMASCHINE ZUM SCHWENK- UND GESENKBIEGEN EINES WERKSTÜCKS

Title (fr)

ENGIN COMBINÉ POUR LE CINTRAGE PAR MANDRIN ET LE CINTRAGE SUR PRESSE D'UNE PIÈCE

Publication

EP 3927482 A1 20211229 (DE)

Application

EP 20707038 A 20200220

Priority

- DE 102019104502 A 20190221
- EP 2020054445 W 20200220

Abstract (en)

[origin: WO2020169716A1] The invention relates to a combined machine (10) for folding and die bending of a workpiece. The combined machine (10) comprises a lower tool holder (34), which is designed to detachably receive at least one lower bending tool (40); an upper tool holder (36), which is designed to detachably receive at least one upper bending tool (42) and which can be fed rectilinearly in a feed direction (92) towards the lower tool holder (34); a pivotable tool holder (38) which is designed to detachably receive at least one bending tool (44) to be pivoted and which is pivotable relative to the lower tool holder (34) about a pivot axis (46) extending perpendicularly to the feed direction (92) of the upper tool holder (36); and a machine frame (48) on which the upper tool holder (36) is arranged, the machine frame (48) being designed to absorb the bending forces occurring in the feed direction (92) of the upper tool holder (36) and the bending forces occurring during a pivoting operation of the pivotable tool holder (38) according to the progression of the bending operation.

IPC 8 full level

B21D 5/02 (2006.01); **B21D 5/04** (2006.01); **B21D 21/00** (2006.01)

CPC (source: EP KR US)

B21D 5/04 (2013.01 - KR US); **B21D 5/02** (2013.01 - EP); **B21D 5/0236** (2013.01 - EP KR US); **B21D 5/04** (2013.01 - EP);
B21D 5/042 (2013.01 - EP KR US); **B21D 21/00** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2020169716A1

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

DOCDB simple family (publication)

WO 2020169716 A1 20200827; CN 113646104 A 20211112; DE 102019104502 A1 20200827; DE 102019104502 B4 20210114;
EP 3927482 A1 20211229; JP 2022521343 A 20220406; KR 20210129062 A 20211027; US 2022314293 A1 20221006

DOCDB simple family (application)

EP 2020054445 W 20200220; CN 202080014822 A 20200220; DE 102019104502 A 20190221; EP 20707038 A 20200220;
JP 2021549448 A 20200220; KR 20217026512 A 20200220; US 202017430519 A 20200220