

Title (en)

METHOD AND PRESS FOR MANUFACTURING CURED SHEET METAL COMPONENTS, IN SECTIONS AT LEAST

Title (de)

VERFAHREN UND PRESSE ZUR HERSTELLUNG WENIGSTENS ABSCHNITTSGEWEISE GEHÄRTETER BLECHBAUTEILE

Title (fr)

PROCEDE ET PRESSE POUR FABRIQUER AU MOINS EN PARTIE DES COMPOSANTS DE TOLE DURCIS

Publication

EP 2993241 B1 20201007 (DE)

Application

EP 15181420 A 20150818

Priority

DE 102014112244 A 20140826

Abstract (en)

[origin: US2016059295A1] A method for producing a sheet metal part with a press includes the steps of heating a sheet metal blank at least in regions to a above the austenitizing temperature Ac3, inserting the heated sheet metal blank into a forming tool station of the press, hot forming the sheet metal blank to the sheet metal part in the forming tool station, during which the press performs a closing movement, holding the forming tool station closed for a first holding time and cooling the formed sheet metal part during the first holding time, transferring the formed sheet metal part into a second tool station, hardening at least regions of the sheet metal part by cooling in the second tool station within the at least one second holding time, wherein the forming tool station during the closing movement of the press from an upper reversal point to a lower reversal point is moved relative to the press by at least one elastic actuating element so that the hot forming is terminated and the step of holding the forming tool station closed starts before the press reaches the lower reversal point.

IPC 8 full level

B21D 22/02 (2006.01); **B21D 22/20** (2006.01); **C21D 1/673** (2006.01)

CPC (source: CN EP US)

B21D 22/02 (2013.01 - EP US); **B21D 22/022** (2013.01 - EP US); **B21D 22/10** (2013.01 - CN); **B21D 22/208** (2013.01 - EP US); **B21D 24/005** (2013.01 - EP US); **B21D 35/003** (2013.01 - EP US); **B21D 37/10** (2013.01 - CN); **B21D 37/12** (2013.01 - CN); **B21D 37/16** (2013.01 - CN EP US); **B21D 53/88** (2013.01 - EP US); **C21D 1/673** (2013.01 - EP US)

Citation (opposition)

Opponent : Oxon IP B.V.

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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

DOCDB simple family (publication)

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DOCDB simple family (application)

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