

Title (en)

DEVICE FOR CLEANING THE VENT OF A FORGING DIE AND METHOD FOR USING SAID DEVICE

Title (de)

VORRICHTUNG ZUM REINIGEN DER ENTLÜFTUNG EINES SCHMIEDEGESENKS UND VERFAHREN ZUR VERWENDUNG DIESER VORRICHTUNG

Title (fr)

DISPOSITIF DE NETTOYAGE DE L'EVENT D'UNE MATRICE DE FORGEAGE ET PROCEDE DE MISE EN OEUVRE DE CE DISPOSITIF

Publication

**EP 4093559 A1 20221130 (FR)**

Application

**EP 21705248 A 20210118**

Priority

- FR 2000590 A 20200122
- FR 2021050087 W 20210118

Abstract (en)

[origin: WO2021148748A1] An aspect of the invention relates to a device (100) for cleaning a vent (20) of a first forging die (11), suitable for receiving, between the first die and a second die, a metal blank to be shaped in order to produce a metal part, the cleaning device comprising: - a pump (110) for injecting an aqueous solution, suitable for injecting the aqueous solution into the vent (20), - an ultrasound generator (150), suitable for generating ultrasound waves within the vent (20), - an air intake (140) suitable for ensuring a venting of the vent (20), and - a valve system (130) for alternately controlling at least the injection of aqueous solution and ultrasound and the venting of the vent (20). Another aspect of the invention relates to a method for using the device.

IPC 8 full level

**B21C 1/00** (2006.01); **B08B 3/02** (2006.01); **B21C 35/06** (2006.01); **B21J 1/00** (2006.01)

CPC (source: EP US)

**B08B 3/12** (2013.01 - EP US); **B21C 1/00** (2013.01 - EP); **B21C 35/06** (2013.01 - EP US); **B21J 1/00** (2013.01 - EP); **B30B 15/0082** (2013.01 - US)

Citation (search report)

See references of WO 2021148748A1

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)

**FR 3106288 A1 20210723**; **FR 3106288 B1 20211217**; CN 115023302 A 20220906; EP 4093559 A1 20221130; US 2023083765 A1 20230316; WO 2021148748 A1 20210729

DOCDB simple family (application)

**FR 2000590 A 20200122**; CN 202180010519 A 20210118; EP 21705248 A 20210118; FR 2021050087 W 20210118; US 202117794495 A 20210118