

Title (en)

COILING TOOL FOR SPRING COILING MACHINE

Title (de)

WINDEWERKZEUG FÜR EINE FEDERWINDEMASCHINE

Title (fr)

OUTIL D'ENROULEMENT POUR UNE MACHINE À ENROULEMENT DE RESSORT

Publication

**EP 3698897 B1 20210310 (DE)**

Application

**EP 19158511 A 20190221**

Priority

EP 19158511 A 20190221

IPC 8 full level

**B21F 3/06** (2006.01); **B21D 7/08** (2006.01); **B21F 3/02** (2006.01); **B21F 35/00** (2006.01)

CPC (source: EP)

**B21D 7/08** (2013.01); **B21D 11/06** (2013.01); **B21F 3/02** (2013.01); **B21F 3/06** (2013.01); **B21F 35/00** (2013.01)

Citation (opposition)

Opponent : WAFIOS Aktiengesellschaft

- EP 3225325 A1 20171004 - WAFIOS AG [DE]
- DE 3915784 C1 19900705
- WO 8805352 A1 19880728 - BAISCH GERHARD [DE]
- DE 102011100434 B4 20141120 - WAFIOS AG [DE]
- DE 102016106684 A1 20171026 - KEMMER HARTMETALLWERKZEUGE GMBH [DE]
- EP 3225325 B1 20180912 - WAFIOS AG [DE]
- US 7082797 B1 20060801 - WIESE THOMAS R [US]
- DE 102007048429 A1 20090416 - WTH LAQUA GMBH [DE]
- ANONYMOUS: "WTH Laqua GmbH – WERKZEUG TECHNOLOGIE HANDEL", WTH, 1 November 2021 (2021-11-01), pages 1 - 2, XP055875414, Retrieved from the Internet <URL:https://www.wth-laqua.de/> [retrieved on 20211222]
- RCI ("ROTATABLE COILING INSERT, November 2021 (2021-11-01), XP55875415
- "Fachkunde Metall", 1 January 1999, article BRAUN H, ET AL: "Wendeschneidplatten", pages: 142 - 144, XP055875417
- NIEMANN, GUSTAV: "Formschluss-verbindingen", MASCHINENELEMENTE, XX, XX, 30 April 1981 (1981-04-30), XX, pages 371 - 376, XP002191155

Cited by

CN115788145A

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)

**EP 3698897 A1 20200826; EP 3698897 B1 20210310; EP 3698897 B2 20231227**

DOCDB simple family (application)

**EP 19158511 A 20190221**