

Title (en)

METHOD FOR PRE-STRESSING A STEEL STRUCTURE, AND STEEL STRUCTURE PRE-STRESSED USING SAID METHOD

Title (de)

VERFAHREN ZUM VORSPANNEN EINES STAHL-BAUWERKES, SOWIE DAMIT VORGESPANNTES STAHL-BAUWERK

Title (fr)

PROCÉDÉ POUR PRÉCONTRAINdre UN OUVRAGE EN ACIER AINSI QU'OUVRAGE EN ACIER AINSI PRÉCONTRAINdre

Publication

**EP 2997197 B1 20200422 (DE)**

Application

**EP 14722518 A 20140416**

Priority

- CH 9502013 A 20130514
- CH 2014000049 W 20140416

Abstract (en)

[origin: CH706630B1] The method involves connecting carbon fiber-reinforced polymer tapes (4) with steel girders (3) of a steel structure i.e. iron bridge (1), at end regions in a traction-force fit manner. A lifting element (7) is arranged between the polymer tapes and the steel girders. The lifting element is vertically driven to the polymer tapes in a region between end anchorages (5) for causing traction force tensioning between the end regions of the polymer tapes. The polymer tapes are installed at the steel girders over a length of the steel girders. The lifting element is a hydraulic, pneumatic, electrical or mechanical actuatable lifting element. An independent claim is also included for a steel structure.

IPC 8 full level

**E01D 22/00** (2006.01)

CPC (source: EP US)

**E01D 6/00** (2013.01 - US); **E01D 22/00** (2013.01 - EP US); **E04B 1/24** (2013.01 - US); **E04C 3/10** (2013.01 - EP US); **E04C 5/085** (2013.01 - EP US); **E04G 23/0218** (2013.01 - US); **E01D 2101/32** (2013.01 - EP US)

Citation (examination)

- US 2011072745 A1 20110331 - PANTELIDES CHRIS P [US], et al
- SCHLAICH MIKE, ZWINGMANN BERND, LIU YUE, GOLLER RALF: "Zugelemente aus CFK und ihre Verankerungen", BAUTECHNIK, vol. 89, 31 December 2012 (2012-12-31), pages 841 - 850, ISSN: 0932-8351, DOI: 10.1002/bate.201200057

Cited by

US11326313B2

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

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**CH 706630 B1 20131231**; AU 2014268098 A1 20151126; AU 2014268098 B2 20180426; BR 112015028588 A2 20180724; BR 112015028588 B1 20211123; CA 2918395 A1 20141120; CA 2918395 C 20211026; CN 105518218 A 20160420; EA 031304 B1 20181228; EA 201501078 A1 20160630; EP 2997197 A1 20160323; EP 2997197 B1 20200422; ES 2802887 T3 20210121; KR 102267298 B1 20210621; KR 20160015255 A 20160212; NZ 713701 A 20190125; PT 2997197 T 20200703; US 11326313 B2 20220510; US 2016145815 A1 20160526; US 2020299911 A1 20200924; WO 2014183224 A1 20141120; ZA 201509090 B 20170125

DOCDB simple family (application)

**CH 9502013 A 20130514**; AU 2014268098 A 20140416; BR 112015028588 A 20140416; CA 2918395 A 20140416; CH 2014000049 W 20140416; CN 201480026747 A 20140416; EA 201501078 A 20140416; EP 14722518 A 20140416; ES 14722518 T 20140416; KR 20157035406 A 20140416; NZ 71370114 A 20140416; PT 14722518 T 20140416; US 201414898452 A 20140416; US 202016874643 A 20200514; ZA 201509090 A 20151214