

Title (en)  
REINFORCING ELEMENT FOR INSTALLATIONS IN CONCRETE STRUCTURES

Title (de)  
BEWEHRUNGSELEMENT FÜR EINBAUTEN IN BETONKONSTRUKTIONEN

Title (fr)  
ÉLÉMENT D'ARMURE À INTRODUIRE DANS DES CONSTRUCTIONS EN BÉTON

Publication  
**EP 3181772 A1 20170621 (DE)**

Application  
**EP 16205449 A 20100903**

Priority  
• IB 2009053923 W 20090908  
• EP 10766337 A 20100903  
• IB 2010053985 W 20100903

Abstract (en)  
[origin: WO2011030178A1] Construction elements are disclosed which allow potential weaknesses in the statics caused by recessed media lines to be nearly or fully eliminated. The disclosed construction elements make it possible to integrate the construction units in the planning phase and/or shortly before casting the concrete. Said construction elements provide added security to structural engineers and allow for greater economy since the structure does not need to be reinforced in any other way. The construction elements consist of at least one tensioning element (2), a mounting device (4), and an anchoring device (3).

Abstract (de)  
Es werden Bauelement (1, 21) vorgestellt, mit welchen eine allfällige Schwächung einer Betonkonstruktion (10) durch Einbauten (20), z.B. Medienleitungen, annähernd oder ganz eliminiert werden kann. Die Einbauten (20) werden von mindestens einem Bauelement (1, 21) umgeben, welches die Kräfte überträgt und wodurch ein Kräftefeld entsteht, das für die Einbauten kraftneutrale Zonen (31) bildet. Das Bauelement (1, 21) besteht hierzu aus einem Zugelement (2) und mindestens an einem Ende einer Verankerung (3).

IPC 8 full level  
**E04B 5/43** (2006.01); **E04B 5/48** (2006.01); **E04C 5/06** (2006.01); **E04C 5/18** (2006.01)

CPC (source: EP US)  
**E04B 5/43** (2013.01 - EP US); **E04B 5/48** (2013.01 - EP US); **E04C 5/0645** (2013.01 - EP US); **E04C 5/18** (2013.01 - EP US)

Citation (applicant)  
• EP 1207354 A2 20020522 - STEINER JOSEF [AT]  
• DE 19937414 A1 20010315 - PAPE HEINZ [DE]

Citation (search report)  
• [XD] DE 20022421 U1 20011004 - CO BAUSTAHL GMBH & CO KG [DE]  
• [XD] DE 19937414 A1 20010315 - PAPE HEINZ [DE]  
• [XD] EP 1207354 A2 20020522 - STEINER JOSEF [AT]  
• [A] DE 29903737 U1 19990812 - SCHOECK BAUTEILE GMBH [DE]  
• [A] DE 10001595 A1 20010719 - DEHA ANKERSYSTEME [DE]  
• [A] DE 29919879 U1 20000203 - KAHNEISEN GES MBH DEUTSCHE [DE]  
• [A] DE 102004005916 A1 20050901 - TUE NGUYEN VIET [DE]  
• [A] EP 0385148 A1 19900905 - LIEDELT D F VELTA PROD [DE]

Citation (third parties)  
Third party : Dr. Alfred Köpf, Dr. Christian Ebner  
• JP H06322890 A 19941122 - TOOATSU KK  
• JP H05321404 A 19931207 - KAWATETSU TECHNO WIRE KK  
• JP 2004124623 A 20040422 - HIGH FREQUENCY HEATTREAT  
• M. A. MANSUR; K.-H. TAN: "Concrete Beams with Openings analysis and Design", 9 January 1999, CRC PRESS  
Third party : Jordahl H-Bau AG  
• JP H06322890 A 19941122 - TOOATSU KK  
• JP H05321404 A 19931207 - KAWATETSU TECHNO WIRE KK  
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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 SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2011030178 A1 20110317**; CA 2773779 A1 20110317; EP 2475827 A1 20120718; EP 2475827 B1 20171129; EP 3181772 A1 20170621; EP 3181772 B1 20231018; US 2012240496 A1 20120927; WO 2011030270 A1 20110317

DOCDB simple family (application)  
**IB 2009053923 W 20090908**; CA 2773779 A 20100903; EP 10766337 A 20100903; EP 16205449 A 20100903; IB 2010053985 W 20100903; US 201013394556 A 20100903