

Title (en)

Device and process for fastening a building element and a cable structure and suspension bridge having such devices

Title (de)

Anordnung und Verfahren zum Verbinden eines Bauelements und einer Kabelstruktur und Hängebrücke mit solchen Anordnungen

Title (fr)

Dispositif et procédé de fixation entre un élément de construction et un câble de structure, et pont suspendu comportant de tels dispositifs

Publication

EP 1013830 A1 20000628 (FR)

Application

EP 99401563 A 19990623

Priority

FR 9816448 A 19981224

Abstract (en)

Mounting and anchor for a cable, at a structure, has a rigid housing (2) at the structure which shrouds the cable strands (6) at least partially. A wedge clamp system (3) is between the cable strands and the housing. A clamping assembly (4,13,14) applies a longitudinal compression on the wedge structure (3) to build up a resistance to a movement by the housing and the wedge parallel to the cable. Preferred Features: A clamping assembly (4,13,14) applies a longitudinal compression on the wedge structure (3), to press it against the cable strands and the housing to build up a resistance to a movement by the housing and the wedge parallel to the cable. The clamping force is applied by at least one unit (13), parallel to the cable, locked (14) under tension at the ends of the wedge (3). The longitudinal tensioner passes through or around the wedge structure (3), to the outer sides of the housing (2). The tensioner can be a screw bolt, through a threading in the housing, bearing against an end of the wedge. The housing (2) is a monobloc structure, wholly shrouding a cable section. The wedge (3) can be distorted, using an elastic, granular and/or fiber material. A setting unit passes through the housing interior, at right angles to the cable, to contain the wedge (3) vol. The wedge has a truncated cone shape jaw of a plastics material, fitting into a matching opening within the housing. The clamping forces are applied to the wedge at its max. dimensions, to give a movement action towards the smaller section. At least one wedge is against the small section of the truncated cone jaw. A glass fiber fabric is inserted between the cable and the wedge structure and/or between the cable strands. The cable is protected by at least one sheath of a plastics material, with a rigid intermediate layer between the wedge and the cable sheath. The intermediate layer spreads the forces of the distorting wedge at right angles to the cable. The housing has a continuous joint system of an outer sheath round the cable. An Independent claim is included for mounting a suspension bridge support cable, where a rigid housing (2) is fitted round the cable, with an inner wedge structure which is forced against the cable with distortion to give a locked fit. Preferred Features: The cable is strung between two support pylons with the anchor mountings for the bridge support cables.

Abstract (fr)

Le dispositif comprend un boîtier rigide (2) relié à l'élément de construction et entourant au moins partiellement le câble (6), une structure de coincement (3) disposée entre le câble et le boîtier, et des moyens (4,13,14) de transmission d'effort agencés pour exercer un effort de compression longitudinale, parallèlement au câble, sur la structure de coincement. La structure de coincement est pressée contre le câble et le boîtier sous l'action de l'effort de compression longitudinale, de façon à offrir une résistance au mouvement du boîtier et de l'élément de construction parallèlement au câble. <IMAGE>

IPC 1-7

E01D 19/16; D07B 1/16

IPC 8 full level

E01D 11/00 (2006.01); **D07B 1/16** (2006.01); **E01D 11/02** (2006.01); **E01D 11/04** (2006.01); **E01D 19/16** (2006.01); **F16B 7/04** (2006.01)

CPC (source: EP KR US)

E01D 19/16 (2013.01 - EP KR US)

Citation (search report)

- [XAY] DE 869977 C 19530309 - GUTEHOFFNUNGSHUETTE OBERHAUSEN
- [DYA] EP 0789110 A1 19970813 - FREYSSINET INT STUP [FR]
- [DA] EP 0855471 A1 19980729 - FREYSSINET INT STUP [FR]

Cited by

US6560807B1; US7631384B2; CN103078207A

Designated contracting state (EPC)

DE

DOCDB simple family (publication)

EP 1013830 A1 20000628; AT E234968 T1 20030415; AT E426064 T1 20090415; AU 1783500 A 20000731; BR 9916832 A 20010925; CA 2356819 A1 20000706; CA 2356819 C 20061219; DE 69906145 D1 20030424; DE 69906145 T2 20040205; DE 69940615 D1 20090430; DK 1144760 T3 20030721; DK 1284324 T3 20090720; EP 1144760 A1 20011017; EP 1144760 B1 20030319; EP 1284324 A2 20030219; EP 1284324 A3 20030226; EP 1284324 B1 20090318; ES 2194539 T3 20031116; ES 2324397 T3 20090806; JP 2002533595 A 20021008; JP 3730513 B2 20060105; KR 100519495 B1 20051007; KR 20010086155 A 20010908; PT 1144760 E 20030829; PT 1284324 E 20090714; US 2003086755 A1 20030508; US 6523207 B1 20030225; US 6715176 B2 20040406; WO 0039401 A1 20000706

DOCDB simple family (application)

EP 99401563 A 19990623; AT 02026161 T 19991220; AT 99961108 T 19991220; AU 1783500 A 19991220; BR 9916832 A 19991220; CA 2356819 A 19991220; DE 69906145 T 19991220; DE 69940615 T 19991220; DK 02026161 T 19991220; DK 99961108 T 19991220; EP 02026161 A 19991220; EP 99961108 A 19991220; ES 02026161 T 19991220; ES 99961108 T 19991220; FR 9903200 W 19991220; JP 2000591281 A 19991220; KR 20017008151 A 20010625; PT 02026161 T 19991220; PT 99961108 T 19991220; US 31729402 A 20021212; US 86922501 A 20010625