Title (en)

Arrangement and method for attaching a support element to a wall at the sea bottom

Title (de)

Vorrichtung und Verfahren zum Befestigen einer Basiskonstruktion auf einer Wandfläche am Meeresgrund

Title (fr)

Dispositif et procédé d'ancrage d'une embase sur une paroi au fond de la mer

Publication

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Application

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Abstract (en)

The top end of a cable (or chain) (12) is wound using a winch (12 1) on a floating support or boat (20a, 20b). The other end is connected to a suspension attachment (10, 36) on the structure (1, 32) or a flotation device (19) connected to the structure. The e.g. cable (12) is sufficiently long to allow winding up or down, such that the lower section (13) hangs below the attachment point (10, 36). The two or more cables are preferably arranged symmetrically about the structure periphery. Weighting blocks strung low down along the cable, are preferably metal and swaged onto it. When the cable is curved, the blocks come into contact, limiting its curvature. The minimum radius of curvature (Ro) at the low end (13), maintains a minimum distance, preventing contact between cable and structure during descent or ascent. The weights are cylindrical, with conical ends. A comparable variant of this design relies on a chain capable of adopting only limited curvature. Flotation devices (19) are located above the structure. Further floats (4, 33) are integrated high in the structure, above the attachments, keeping the center of gravity below the center of pressure exerted upon it and the first floats. An independent claim is included for the corresponding method.

Abstract (fr)

La présente invention concerne un dispositif d'installation et d'ancrage (1a) d'une embase (2) destinée à être ancrée sur une paroi (1b) au fond de la mer, caractérisé en ce qu'il comprend une structure support supérieure (4) dessous laquelle ladite embase (2) est solidarisée, ladite embase comprenant des premiers orifices cylindriques (11), ladite supérieure structure (4) supportant des boulons d'ancrage (5) aptes à être entraînés en coulissement et en rotation à travers lesdits premiers orifices (11), lesdits boulons comprenant des premiers moyens de coupe (9) aptes à percer des seconds orifices circulaires dans ladite paroi (1b), et des premiers moyens de blocage automatique (7, 10b) comprenant des écrous (7) et des premiers moyens de retenue automatique (10b), chaque dit boulon comprenant une zone filetée apte à coopérer avec chaque dit écrou (7), de sorte que le vissage dudit boulon provoque alors l'ancrage de ladite embase sur la paroi par serrage de celle-ci entre ledit écrou fixe (7) et lesdits premiers moyens de retenue automatique (10b). <IMAGE>

IPC 1-7

B63C 7/00; B63C 11/52

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

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