

Title (en)  
Docking apparatus for a floating structure

Title (de)  
Dockvorrichtung für eine schwimmende Struktur

Title (fr)  
Dispositif d'amarrage pour une structure flottante

Publication  
**EP 0921061 A1 19990609 (FR)**

Application  
**EP 98402861 A 19981118**

Priority  
FR 9715241 A 19971203

Abstract (en)  
The lower part of the mooring device extends to the sea bed (5) and the upper part is connected to a linkage (17,18) which can move radially relative to the well and turret. Each linkage has a key (17) fitting into a radial notch (16) in the edge of a horizontal table (14) forming the bottom of the turret, so the key can move radially relative to the turret and the shaft. The lower part of the vessel shaft has a stage fixed coaxially against its internal surface, with upper surface covered with an anti-friction coating. Each key is mounted without play between two lateral radial surfaces of the notch and with a certain radial play relative to a rear surface, so the key can move in the radial direction between the rear surface and the internal wall of the shaft. The lateral radial surfaces are covered with an anti-friction coating. The key is pivoted about the turret by a strap with horizontally articulated links to the turret and the key. Each strap connected to a key is made of a number of rigid connecting rods parallel to each other and articulated at the ends about a horizontal axis. Each connecting rod has two parallel arms. A guiding tube for a mooring chain is connected to the key and to the lower end of each connecting rod. Each guiding tube has an end support with an opening through it for the chain and means of holding the chain which moves between allowing free movement through the support and holding it. The device has three mooring lines and three keys each fitted into a notch in the table, arranged at 120 degree intervals around the axis of the turret. Each mooring line has four parallel chains connected to one key.

Abstract (fr)  
La coque (2) de la structure flottante (1) est traversée par un puits d'axe vertical (3) dans lequel une tourelle (7) est montée rotative autour de l'axe vertical (10) du puits (3). Des lignes d'amarrage (8) sont reliées chacune par leur partie supérieure à un organe de liaison (17, 18). Chacun des organes de liaison (17, 18) comporte une clavette (17) logée dans une encoche (16) de direction radiale dans une partie périphérique d'une table horizontale (14) constituant la partie inférieure de la tourelle (7). La clavette (17) est suspendue à la tourelle (7) par l'intermédiaire d'un tirant (18). La clavette (17) à laquelle est reliée une ligne d'amarrage (8) est mobile dans une direction radiale par rapport à la table (14) de la tourelle (7) et par rapport à la paroi interne d'un palier (15) disposé de manière coaxiale dans la partie inférieure du puits (3). <IMAGE>

IPC 1-7  
**B63B 21/50**

IPC 8 full level  
**B63B 21/50** (2006.01)

CPC (source: EP)  
**B63B 21/507** (2013.01)

Citation (search report)  
• [X] EP 0656293 A1 19950607 - IMODCO [US]  
• [A] PATENT ABSTRACTS OF JAPAN vol. 010, no. 353 (M - 539) 28 November 1986 (1986-11-28) & JP S61150891 A 19860709 - NIPPON KOKAN KK

Cited by  
FR2797843A1; WO0115969A1

Designated contracting state (EPC)  
BE CH FR GB LI NL

DOCDB simple family (publication)  
**EP 0921061 A1 19990609**; FR 2771703 A1 19990604; FR 2771703 B1 20000225; NO 985615 D0 19981201; NO 985615 L 19990604

DOCDB simple family (application)  
**EP 98402861 A 19981118**; FR 9715241 A 19971203; NO 985615 A 19981201