

Title (en)  
Subsea electrical connector and method.

Title (de)  
Unterseeischer, elektrischer Verbinder und Methode.

Title (fr)  
Connecteur électrique sous-marin et méthode.

Publication  
**EP 0235365 A2 19870909 (EN)**

Application  
**EP 86116062 A 19861120**

Priority  
US 80501785 A 19851204

Abstract (en)  
A remotely operable electrical connector (10) comprising a movable extension arm (72) with an electrical plug (12) thereon in a housing (60) located on one member, such as a control module (14) and which is hydraulically axially movable toward an electrical receptacle (20) located on a second member, such as the production tree (22). The connection of the plug and receptacle is a two step operation. The first step is initial engagement of the plug (12) in the receptacle (22) at which time the end of the plug (12) and the base (204) of the receptacle (22) are purged to clean all the electrical contact surfaces. Thereafter, the extension arm (72) is moved to position the plug (12) in its final connected position within the receptacle (20). A spring (122) biases the plug (12) toward the final face-to-face position in the receptacle wall at all times to ensure good electrical contact and sealing against seawater intrusion. The plug (12) may also be hydraulically urged toward the final face-to-face contact. The extension arm (72) has a gimbal (132) allowing relative universal movement between the extension arm (72) and the housing (60) and second alignment means (92, 94 and 100) between the extension arm (72) and the plug (12), both of which operate to compensate for any misalignment as the plug (12) engages a receptacle (22).

IPC 1-7  
**E21B 33/038; H01R 13/523**

IPC 8 full level  
**E21B 33/038** (2006.01); **H01R 13/523** (2006.01)

CPC (source: EP US)  
**E21B 33/0385** (2013.01 - EP US); **H01R 13/523** (2013.01 - EP)

Cited by  
EP4092839A1; EP2853679A1; GB2227776A; EP2853680A1; GB2206146A; US4943187A; GB2206146B; CN112397945A; AU659820B2; US5443328A; US10340627B2; US11876319B2; US9843129B2; US9753230B2; WO2015168266A1; WO2015044208A3; WO9212554A1

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