

Title (en)

BOTTOM-SURFACE CONNECTING INSTALLATION OF THE MULTI-RISER HYBRID TOWER TYPE, COMPRISING SLIDING BUOYANCY MODULES

Title (de)

MEERESGRUND-OBERFLÄCHEN-VERBINDUNGSINSTALLATION DER MEHRFACHSTEIGROHRHYBRIDTURMART MIT GLEITENDEN AUFTRIEBSMODULEN

Title (fr)

INSTALLATION DE LIAISON FOND-SURFACE DE TYPE TOUR HYBRIDE MULTI-RISER COMPRENANT DES MODULES DE FLOTTABILITE COULISSANTS

Publication

**EP 2401468 B1 20150304 (FR)**

Application

**EP 10706303 A 20100114**

Priority

- FR 2010050057 W 20100114
- FR 0951218 A 20090226

Abstract (en)

[origin: WO2010097528A1] The present invention relates to a bottom-surface connecting installation (1) for connecting a plurality of sub-sea pipes (2- 1,2-2) resting on the sea bottom (12) to a floating support (10) on the surface (13), of the multi-riser hybrid tower type, comprising: 1) a tower (3) comprising : a) a vertical tendon (4), and b) a plurality of vertical rigid pipes (3- 1,3-2), c) a plurality of guide means (22) for guiding said risers, and d) buoyancy elements (21) collaborating with said tendon and 2) a plurality of flexible connecting pipes (6- 1,6-2) characterized in that the said tower (3) comprises a plurality of buoyancy and guide modules (20,20- 1,20-n) constituting a plurality of independent structures able to slide along the said tendon and along the said risers, the said structure (20) supporting the said buoyancy elements (21) and guiding the said risers into a position preferably uniformly and symmetrically distributed about the said tendon.

IPC 8 full level

**E21B 17/01** (2006.01)

CPC (source: EP)

**E21B 17/012** (2013.01)

Designated contracting state (EPC)

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)

**FR 2942497 A1 20100827; FR 2942497 B1 20130426**; EP 2401468 A1 20120104; EP 2401468 B1 20150304; ES 2637445 T3 20171013; WO 2010097528 A1 20100902

DOCDB simple family (application)

**FR 0951218 A 20090226**; EP 10706303 A 20100114; ES 10776767 T 20100929; FR 2010050057 W 20100114