Title (en)

SUBSURFACE BUOY AND METHODS OF INSTALLING, TYING AND DYNAMICALLY STABILIZING THE SAME

Title (de)

UNTERWASSERBOJE UND VERFAHREN ZU DEREN INSTALLATION, BEFESTIGUNG UND DYNAMISCHER STABILISIERUNG

Title (fr)

BOUEE IMMERGEE ET PROCEDES D'INSTALLATION, D'AMARRAGE ET DE STABILISATION DYNAMIQUE DE CETTE BOUEE

Publication

EP 1603796 A1 20051214 (EN)

Application

EP 03816127 A 20030306

Priority

BR 0300023 W 20030306

Abstract (en)

[origin: WO2004078578A1] The present invention relates to equipment installed in an intermediary region between a floating production unit at the ocean surface and a wellhead of an oil reservoir on the ocean floor. The equipment, known as a subsurface buoy, is designed to support rigid and flexible production tubes used for the transport of reservoir fluids from the oil well and/or fluids used in support systems for the oil reservoir. Four cylindrical bodies (1), (2), (3) and (4), connected at their extremities, form the body of the subsurface buoy. In each of the vertices of the subsurface buoy, components of a tying and dynamically stabilizing system (13) are rigidly connected. This tying and dynamically stabilizing system (13) is configured to control the positioning of the subsurface buoy, the tension of installation chains (15) and anchoring tendons (21) thereby promoting a stabilization of the entire assembly against large-amplitude rotations or angular changes even after rigid tubes (10) and flexible tubes (11) are coupled to the body of the subsurface buoy. In addition a method to install the subsurface buoy is also presented.

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