

Title (en)

Spar buoy construction having production and oil storage facilities and method of operation.

Title (de)

Spierentonnen-Konstruktion mit Ölproduktions- und Ölspeichereinrichtungen und deren Betriebsweise.

Title (fr)

Construction d'espar comportant des moyens pour la production et le stockage de produits pétroliers et méthode d'opération.

Publication

**EP 0256177 A1 19880224 (EN)**

Application

**EP 86306110 A 19860807**

Priority

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Abstract (en)

A stabilized spar buoy construction (20) for deep sea operations including an elongated submerged hull (32) having a selected volume and a selected water plane area, mooring lines connecting the bottom portions of the hull with the sea bottom, said hull having oil storage chambers (41) and variable ballast chambers (43) to establish and maintain a constant center of gravity 'G' of the spar buoy at a selected distance below the center of buoyancy of the spar buoy (20), a riser system (24) extending through a through passage-way in the hull, a riser float chamber (42) having pitch oscillations of the same amplitude as the hull and maintaining tension on the riser system and minimizing pitch motions therein, the bending stresses in the riser system between the sea floor and the riser float chamber being minimized by maintaining a selected constant distance between the center of gravity and the center of buoyancy 'B' under different load conditions of the spar buoy (20), said variable ballast chambers in the hull extending above the oil storage chambers. A method of maintaining constant draft and constant selected distance between the center of gravity and center of buoyancy of a spar buoy is also described.

IPC 1-7

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IPC 8 full level

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CPC (source: EP US)

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