

Title (en)

Method and installation of subsea effluent pollution recovery from a sunken tanker by using multiple shuttle tanks

Title (de)

Verfahren und Installation zur Ausflussrückgewinnung am Meer durch Benutzung eines Pendelreservoirs

Title (fr)

Procédé et installation de récupération d'effluents en mer à l'aide d'un réservoir navette

Publication

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Application

EP 03358019 A 20031118

Priority

- EP 03358019 A 20031118
- EP 03358003 A 20030221

Abstract (en)

The shuttle reservoir has a collecting (2A) and a deploying (2B) form. It is repeatedly lowered to the seabed (7) in its collecting form, where it connects to an evacuation device (6) in the hull (6) of the damaged vessel and is filled and sealed shut. Integral floatation devices lift it to a surface vessel in its deployed form, where it is emptied or stored for transportation to shore : The evacuation device (6) contains a pipe and a first valve acting with an opening in the hull and/or the vessel to recover the effluents by lifting them into the evacuation device. The shuttle reservoir has at least one main internal orifice (5) which works with the evacuation device. These steps are repeated with the same shuttle reservoir until the required amount of effluent has been recovered. The shuttle reservoir has a rigid dome with an open circular base, preferably with a shell shape in vertical section, a rigid circular base and a flexible side wall which can be folded up into the filling position and unfolding as it fills to the deployed shape. The floatation elements are integral inside the dome and are preferably a syntactic mousse. The centre of buoyancy is above the apparent centre of gravity in the water. The reservoir can be moved by floating it into a submersible bridge vessel without having to lift it. The shuttle reservoir is held near the sunken vessel by an anchor cable to the seabed and a second anchor cable to the vessel. The reservoir is automatically decoupled from the sunken vessel before it rises to the surface when traction is applied matching the Archimedes force of the reservoir and its load, transmitted by the anchor cable to detach it from the vessel or break the cable at a threshold value. The speed with which the reservoir rises is controlled by a weighted cable or chain from the surface to the base of the reservoir.

Abstract (fr)

La présente invention concerne un procédé de récupération d'effluents polluants (1) plus légers que l'eau, contenus dans une cuve (6) d'un navire coulé et/ou endommagé reposant au fond de la mer (7) dans lequel : 1- on descend ledit réservoir navette (2), depuis la surface (11) jusqu'au fond de la mer (7), dans sa dite position ramassée (2A) et on fait coopérer ledit orifice inférieur (51) du réservoir navette (2) avec ledit dispositif d'évacuation (61-63), et 2- on remplit ledit réservoir navette (2) d'effluents (1), et 3- on laisse ledit réservoir navette (2) remonter naturellement à la surface, une fois rempli, en configuration déployée (2B). <IMAGE>

IPC 1-7

B63C 7/16

IPC 8 full level

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Citation (applicant)

FR 2804935 A1 20010817 - BOUYGUES OFFSHORE [FR]

Citation (search report)

- [DA] FR 2804935 A1 20010817 - BOUYGUES OFFSHORE [FR]
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- [A] US 3561220 A 19710209 - RIESTER CHESTER GEORGE
- [A] GB 2071020 A 19810916 - CHICAGO BRIDGE & IRON CO
- [A] WO 0058564 A1 20001005 - GRINDE BJOERN [NO], et al

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