

Title (en)  
Mooring apparatus

Title (de)  
Vertäuungsverfahren

Title (fr)  
Dispositif de mouillage

Publication  
**EP 1400442 A1 20040324 (EN)**

Application  
**EP 03255544 A 20030905**

Priority  
GB 0221698 A 20020918

Abstract (en)

The present invention relates to apparatus for mooring a floating vessel in open sea, using a semi submersible floating dock. The apparatus is particularly suitable for tankers carrying liquid natural gas in cryogenic form which can be a dangerous substance to handle and hence offshore terminals are preferred. The apparatus comprises a semi-submersible floating dock (1) for receiving a vessel (10) and a single point mooring system (5), with a rigid arm (3) between the two. The dock (1) is pivotally connected to the arm (3). The single point mooring system (5) comprises a mooring buoy (17) secured to the seabed by a compliant anchoring system such as a number of catenary anchor legs (15). This allows vertical movement of the mooring buoy (17) but constrains the movement to a relatively small column of water. <IMAGE>

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CPC (source: EP)  
**B63B 22/026** (2013.01); **B63C 1/02** (2013.01)

Citation (applicant)

- GB 2056391 A 19810318 - TECNOMARE SPA
- US 3841501 A 19741015 - VAN HEIJST W
- FR 1421700 A 19651217 - FMC CORP

Citation (search report)

- [Y] WO 8201859 A1 19820610 - BROWN & CO GEORGE [GB], et al
- [DY] US 3841501 A 19741015 - VAN HEIJST W
- [DA] FR 1421700 A 19651217 - FMC CORP
- [DA] GB 2056391 A 19810318 - TECNOMARE SPA
- [A] US 3668875 A 19720613 - SANDER OTTO, et al
- [A] FR 1465759 A 19670113 - SHELL INT RESEARCH

Cited by  
CN104619583A; FR2874589A1; US7287484B2; EP1462358A1; US7886679B2; US9278741B2; US7610869B2; WO2007071647A3; WO2006027455A1; WO2014031075A1; US6915753B1; US9463848B2; JP2009520630A

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