

Title (en)  
FLOW LINE FOR USE IN THE TRANSFER OF FLUID TO OR FROM UNDER WATER SITES

Publication  
**EP 0063911 A3 19830921 (EN)**

Application  
**EP 82302009 A 19820420**

Priority  
GB 8113224 A 19810429

Abstract (en)  
[origin: EP0063911A2] A flow line system for use in the transfer of fluid to or from an under water site comprises a first flow line arrangement (7) installed so as to extend from the water bed to near, but below, the surface, this arrangement (7) being carried by a buoyant support column that is connected to the water bed at an articulated connection (5) and that consists of rigid sections (6) that are connected in series at articulated connections (5A) so that the first flow line arrangement (7) is rigidly supported by each section (6) but can articulate at the base of the column and at the connections (5A) between the rigid sections (6); and a second, flexible, flow line arrangement (10) releasably connected to the first arrangement (7), where the first arrangement terminates near the surface, so as to extend the first arrangement. As the first flow line arrangement and the column can articulate they have good ability to absorb lateral loads and impacts, and to cope with extensive movement at the surface end of the second flow line arrangement. The system is therefore well-suited for use in considerable water depths, and as it can articulate the column can be made slim which facilitates its handling during installation and removal.

IPC 1-7  
**B63B 35/44**; **E21B 43/01**

IPC 8 full level  
**B67D 9/00** (2010.01); **B63B 22/02** (2006.01); **E21B 17/01** (2006.01); **F16L 1/12** (2006.01)

CPC (source: EP)  
**B63B 22/021** (2013.01); **E21B 17/015** (2013.01)

Citation (search report)  
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• [Y] FR 2386758 A1 19781103 - PETROLES CIE FRANCAISE [FR]  
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**EP 82302009 A 19820420**; GB 8211376 A 19820420; JP 7444382 A 19820430