

Title (en)  
DISPLACEMENT OF FREE FLUID ACCUMULATIONS IN PIPELINES

Publication  
**EP 0250162 A3 19910220 (EN)**

Application  
**EP 87305168 A 19870611**

Priority  
• GB 8615077 A 19860620  
• GB 8622364 A 19860917

Abstract (en)  
[origin: EP0250162A2] a method of removing at least a substantial proportion of fluid left in a generally horizontal section of a pipeline, by injecting into the pipeline a pressurized, high expansion foam and advancing the foam through the pipeline section in contact with a layer of the fluid left therein to displace the layer towards a remote end of the pipeline by frictional pick-up of the layer by the foam and to effect mass transfer of a foaming agent from the foam to the fluid, followed by passing into the pipeline a pressurized gas to create turbulence in fluid left in the pipeline causing foaming of the fluid and to displace a substantial proportion of the foam left within the pipeline. At least some of the bulk of the fluid in the pipeline may be displaced by injecting the foam so as to establish a transverse foam/fluid interface which is advanced through the pipeline at or above a minimum velocity required to maintain said interface leaving a residual amount of fluid which is treated as aforesaid. The method may include the further subsequent step of injecting into the pipeline a pressurized foam containing a treatment agent to displace residual foam left in the pipeline, and then allowing the foam to decompose in the pipeline to deposit the treatment agent within the pipeline either on the pipewall or in solution with any liquids remaining therein.

IPC 1-7  
**F17D 3/14**; **E21B 21/14**

IPC 8 full level  
**E21B 21/14** (2006.01); **F17D 3/14** (2006.01)

CPC (source: EP)  
**E21B 21/14** (2013.01); **F17D 3/14** (2013.01)

Citation (search report)  
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• [A] US 3819519 A 19740625 - SHARMAN S, et al  
• [A] GB 2023270 A 19791228 - VICKERS LTD

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Designated contracting state (EPC)  
DE ES FR GB IT NL

DOCDB simple family (publication)  
**EP 0250162 A2 19871223**; **EP 0250162 A3 19910220**; AU 585453 B2 19890615; AU 7429887 A 19871224; BR 8703089 A 19880308; CN 87104321 A 19880323; DK 315687 A 19871221; DK 315687 D0 19870619; NO 872553 D0 19870618; NO 872553 L 19871221

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**EP 87305168 A 19870611**; AU 7429887 A 19870616; BR 8703089 A 19870619; CN 87104321 A 19870620; DK 315687 A 19870619; NO 872553 A 19870618