

Title (en)

Apparatus and method for making particle-containing foams.

Title (de)

Apparat und Verfahren zum Herstellen von Teilchen enthaltendem Schaum.

Title (fr)

Appareil et procédé pour la fabrication d'écume comprenant des particules.

Publication

EP 0247754 A1 19871202 (EN)

Application

EP 87304214 A 19870512

Priority

- US 86462186 A 19860516
- US 86469686 A 19860519

Abstract (en)

A particle-containing foam, suitable for use as a proppant-loaded fracturing fluid, is made by (a) introducing a first stream of gas and particulate material into a vessel; (b) introducing a second stream of liquid into the vessel; and then (c) mixing the second stream with said first stream and thereby forming a foam containing the particulate material. Thus, the particulate material, eg. sand, is introduced into the vessel in the dry state. An apparatus (12) suitable for carrying out this method comprises a body (14); a main flow passage (16) disposed through said body and having an inlet (18) and an outlet (20); an annular plenum (44) disposed in said body and surrounding said main flow passage; a second flow passage (46) disposed in said body and having a first inlet end (48) and a second end (50) communicated with said annular plenum; and adjustable annular nozzle means (22), disposed in said body between said annular plenum and said main flow passage, for providing an annular flow path (34) of adjustable width communicating said annular plenum with said main flow passage.

IPC 1-7

B01F 3/04

IPC 8 full level

B01F 3/04 (2006.01); **B01F 5/04** (2006.01); **E21B 43/26** (2006.01)

CPC (source: EP US)

B01F 23/235 (2022.01 - EP); **B01F 25/311** (2022.01 - EP); **E21B 21/062** (2013.01 - EP US); **E21B 43/2607** (2020.05 - EP US)

Citation (search report)

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Designated contracting state (EPC)

DE ES FR GB IT NL

DOCDB simple family (publication)

EP 0247754 A1 19871202; EP 0247754 B1 19901024; DE 3765698 D1 19901129; EP 0246800 A1 19871125; ES 2018546 B3 19910416;
SG 5791 G 19910405

DOCDB simple family (application)

EP 87304214 A 19870512; DE 3765698 T 19870512; EP 87304213 A 19870512; ES 87304214 T 19870512; SG 5791 A 19910207