

Title (en)

Method and apparatus for down-hole oil/water separation during oilwell pumping operations

Title (de)

Verfahren und Vorrichtung zur Trennung von Öl und Wasser im Bohrloch während des Pumpens von Erdöl

Title (fr)

Procédé et dispositif de separation huile-eau au fond de puits durant le pompage dans un puits de pétrole

Publication

EP 0984134 A3 20010131 (EN)

Application

EP 99306497 A 19990817

Priority

- US 9692398 P 19980818
- US 10322698 P 19981005

Abstract (en)

[origin: EP0984134A2] A method and apparatus for down-hole oil/water separation during oil well pumping operations includes a conventional sucker rod pump disposed within a tubing string (42) which may be disposed within the casing (34) of a wellbore (32). The sucker rod pump (52) may be releasably attached to a sucker rod (98) at one end. A side intake valve (54) may be disposed within the tubing string (42) at a position down-hole from the sucker rod pump (52). A check valve may be located at an elevation above the injection perforations. The sucker rod (52) may also be attached to a pumping jack at the surface of the wellbore (32). Production piping (106) with an automatic control valve (112) and a back pressure regulator (114) may extend from the tubing string (42) at the surface of the wellbore (32). A piping loop (108) with a check valve (110) disposed therein may also extend from the production piping (106) terminating on opposite sides of the automatic control valve (112). An accumulator (116) may be coupled to the production piping (106) between the back pressure regulator (114) and the piping loop (108). <IMAGE>

IPC 1-7

E21B 43/38; **E21B 43/12**

IPC 8 full level

E21B 43/12 (2006.01); **E21B 43/38** (2006.01)

CPC (source: EP US)

E21B 43/127 (2013.01 - EP US); **E21B 43/38** (2013.01 - EP US)

Citation (search report)

- [A] EP 0783075 A2 19970709 - TEXACO DEVELOPMENT CORP [US]
- [A] US 5697448 A 19971216 - JOHNSON GORDON [US]
- [A] US 5497832 A 19960312 - STUEBINGER LON A [US], et al
- [A] US 4267888 A 19810519 - SINGER MORTIMER

Cited by

RU2752407C1; CN101846060A; US11098570B2; GB2459377A; GB2459377B; CN113338871A

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0984134 A2 20000308; **EP 0984134 A3 20010131**; CA 2281083 A1 20000218; CA 2281083 C 20061205

DOCDB simple family (application)

EP 99306497 A 19990817; CA 2281083 A 19990817