

Title (en)  
METHOD AND APPARATUS FOR TAKING LIQUIDS FROM DEEP VOLUMINOUS VESSELS

Publication  
**EP 0345527 A3 19901128 (DE)**

Application  
**EP 89109287 A 19890523**

Priority  
DE 3818238 A 19880528

Abstract (en)  
[origin: EP0345527A2] For taking liquids from deep voluminous vessels by aspiration containers with short suction pieces, a metered intermediate volume of liquid, accessible from above, is aspirated from a liquid volume of changing depth in the vessel. Simultaneously with this aspiration, a defined sample of liquid is sucked off. This suction aid possesses a tube which can be introduced into the vessel and a non-return valve closing towards the lower tube end. This tube (5) is arranged on a dish (2) which can be placed upon the mouth (6) of the vessel. Preferably, the dish (2) is part of a housing (1) in which the upper opening (16) of the tube (5) is arranged close to the cover wall (12) and, in the upper part of the dish (2), above the intermediate volume of the liquid held at least in the dish (2), there is an inlet opening (13) for the tip (14) of a working vessel (15) provided with a piston. With each sampling, an intermediate volume of defined depth is always produced in the housing. <IMAGE>

IPC 1-7  
**B01L 3/02**

IPC 8 full level  
**G01F 11/34** (2006.01); **B01L 3/02** (2006.01); **B01L 99/00** (2010.01); **G01F 11/28** (2006.01)

CPC (source: EP US)  
**B01L 3/021** (2013.01 - EP US); **B01L 3/0293** (2013.01 - EP US)

Citation (search report)

- [A] DE 1275726 B 19680822 - HUBERT DONHAUSER
- [A] US 4690005 A 19870901 - TERVAMAEKI JUKKA [FI], et al
- [A] US 3811484 A 19740521 - ENGELBRECHT E

Designated contracting state (EPC)  
AT BE CH ES FR GB IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0345527 A2 19891213; EP 0345527 A3 19901128; EP 0345527 B1 19930303**; AT E86143 T1 19930315; DE 3818238 A1 19891130; DE 3818238 C2 19920326; JP H0225713 A 19900129; JP H0672791 B2 19940914; US 4982614 A 19910108

DOCDB simple family (application)  
**EP 89109287 A 19890523**; AT 89109287 T 19890523; DE 3818238 A 19880528; JP 13443389 A 19890526; US 35844489 A 19890526