

Title (en)
DEVICE FOR MEASURING PARTICLES

Title (de)
VORRICHTUNG ZUR PARTIKELMESSUNG

Title (fr)
DISPOSITIF DE MESURE DE PARTICULE

Publication
EP 1664738 A1 20060607 (DE)

Application
EP 04764723 A 20040902

Priority
• EP 2004009764 W 20040902
• DE 10343457 A 20030919

Abstract (en)
[origin: DE10343457B3] The particle counter (22) may sense the presence of air bubbles (14) or solid particles in a viscous hydraulic fluid (12). A pump (16) draws fluid with particles or air bubbles from a tank (10) and passes it through a fluid line (18) to the input (20) of the particle counter. The particle counter may produce a signal every time an air bubble passes through. There is a spring-loaded non-return valve or control valve (28,30) downstream of the sensor, followed by a line (26) leading back to the tank. Flow and input pressure may be adjusted according to the temperature and viscosity of the fluid.

IPC 1-7
G01N 15/14; **G01N 15/12**

IPC 8 full level
G01N 15/12 (2006.01); **G01N 15/14** (2006.01); **G01N 15/10** (2006.01)

CPC (source: EP)
G01N 3/567 (2013.01); **G01N 15/06** (2013.01); **G01N 15/10** (2013.01); **G01N 15/12** (2013.01); **G01N 15/1404** (2013.01); **G01N 33/2888** (2013.01); **G01N 35/1095** (2013.01); **G01N 15/1409** (2024.01); **G01N 2015/1024** (2024.01)

Citation (search report)
See references of WO 2005038434A1

Citation (examination)
• EP 0602416 A1 19940622 - BECTON DICKINSON CO [US]
• DE 4110231 A1 19921001 - KNECHT FILTERWERKE GMBH [DE]
• US 6299723 B1 20011009 - SETO HIDEAKI [JP], et al

Citation (third parties)
Third party :
• US 4181009 A 19800101 - WILLIAMSON WILLIAM A [US]
• US 4164137 A 19790814 - WILLIAMSON WILLIAM A [US]
• US 3952580 A 19760427 - BENNETT MILTON C
• JP S63144235 A 19880616 - HORIBA LTD, et al

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
DE 10343457 B3 20050421; **DE 10343457 C5 20120112**; EP 1664738 A1 20060607; EP 2479553 A2 20120725; EP 2479553 A3 20140625; WO 2005038434 A1 20050428

DOCDB simple family (application)
DE 10343457 A 20030919; EP 04764723 A 20040902; EP 12001991 A 20040902; EP 2004009764 W 20040902