

Title (en)

A METHOD AND APPARATUS FOR MONITORING AND RECONDITIONING THE FLOW OF LIQUID IN HEATING AND COOLING SYSTEMS.

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ÜBERWACHUNG UND ERNEUERUNG DES FLÜSSIGKEITSFLUSSES IN WÄRME- UND KÜHLSYSTEMEN.

Title (fr)

PROCEDE ET APPAREIL DESTINES A SURVEILLER ET A RECONDITIONNER L'ECOULEMENT D'UN LIQUIDE DANS DES SYSTEMES DE CHAUFFAGE ET DE CLIMATISATION.

Publication

EP 0541659 B1 19940601

Application

EP 91914174 A 19910624

Priority

- SE 9002519 A 19900727
- SE 9100452 W 19910624

Abstract (en)

[origin: WO9202766A1] A method for continuously monitoring and reconditioning the liquid flow in heating and cooling systems, wherein the system liquid, for instance water which may possibly contain standard additives, such as alcohol or glycol, is monitored and reconditioned in several mutually sequential steps within an apparatus unit integrated with the system, by taking from the total or main liquid flow a part flow which is returned to the main flow subsequent to reconditioning. The reconditioning process includes the following steps - subsequent to viewing the liquid by means of a viewing glass: magnetic filtration for removing magnetite particles; filtering-off solid particles (fine particles); removing corrosive gases; deaerating the system; measuring pH, oxygen content and conductivity, wherein an optical and/or electrical alarm signal is given in the event of deviations from mutually related liquid control-values inserted in the apparatus, or in the event of disturbances in operation. Apparatus for carrying out the method consists of a system-integrated unit which includes auxiliary devices for carrying out said part-operations successively.

IPC 1-7

F24D 19/00; F24D 19/08

IPC 8 full level

F24D 19/00 (2006.01)

CPC (source: EP)

F24D 19/0092 (2013.01)

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL

DOCDB simple family (publication)

WO 9202766 A1 19920220; AT E106528 T1 19940615; CA 2088151 A1 19920127; DE 69102282 D1 19940707; DE 69102282 T2 19941013; DK 0541659 T3 19940926; EP 0541659 A1 19930519; EP 0541659 B1 19940601; FI 930309 A0 19930126; FI 930309 A 19930126; FI 96988 B 19960614; FI 96988 C 19960925; NO 179188 B 19960513; NO 179188 C 19960821; NO 930259 D0 19930126; NO 930259 L 19930223; SE 467121 B 19920525; SE 9002519 D0 19900727; SE 9002519 L 19920128

DOCDB simple family (application)

SE 9100452 W 19910624; AT 91914174 T 19910624; CA 2088151 A 19910624; DE 69102282 T 19910624; DK 91914174 T 19910624; EP 91914174 A 19910624; FI 930309 A 19930126; NO 930259 A 19930126; SE 9002519 A 19900727