

Title (en)

CLEANING DEVICE, VEHICLE AND METHOD FOR OPERATING A CLEANING DEVICE

Title (de)

REINIGUNGSVORRICHTUNG, FAHRZEUG, METHODE ZUM BETREIBEN EINER REINIGUNGSVORRICHTUNG

Title (fr)

DISPOSITIF DE NETTOYAGE, VÉHICULE ET PROCÉDÉ DE FONCTIONNEMENT D'UN DISPOSITIF DE NETTOYAGE

Publication

EP 4232326 A1 20230830 (DE)

Application

EP 21785800 A 20210927

Priority

- DE 102020128100 A 20201026
- EP 2021076442 W 20210927

Abstract (en)

[origin: WO2022089855A1] The invention relates to a cleaning device (100) for a vehicle (1000) for providing a liquid cleaning pulse (FRI) and/or a compressed-air cleaning pulse (DRI) for at least one cleaning nozzle (320), having a pressure cylinder (220) with a cylinder volume (VZ), having a movable separating means (226) which divides, in a fluid-tight manner, the cylinder volume (VZ) into a first air chamber (222) that accommodates a quantity of air (ML), and a second liquid chamber (224) that accommodates a quantity of liquid (MF), wherein the separating means (226) can be moved axially along a cylinder axis (AZ) and bears in sealing fashion on a cylinder internal wall (221) of the pressure cylinder (220). It is provided, according to the invention, that the air chamber (222) has at least one air chamber port (223) for receiving compressed air (DL) at a charge pressure (PL) for filling the air chamber (222) with the quantity of air (ML), wherein the charge pressure (PL) acts on an air action face (ASL), facing towards the air chamber (222), of the separating means (226) in order to generate a displacement force (FV) on a liquid action face (ASF), facing towards the liquid chamber (224), of the separating means (226) in order to generate a liquid pressure (PF) in the cleaning liquid (F) accommodated in the liquid chamber (224), and the pressure cylinder (220) is designed as a pressure booster, the liquid action face (ASF) being smaller than the facing air action face (ASL).

IPC 8 full level

B60S 1/48 (2006.01); **B08B 3/02** (2006.01); **B08B 5/02** (2006.01); **B60S 1/56** (2006.01); **F15B 3/00** (2006.01)

CPC (source: EP US)

B08B 3/02 (2013.01 - EP); **B08B 5/02** (2013.01 - EP); **B60S 1/481** (2013.01 - EP); **B60S 1/52** (2013.01 - US); **B60S 1/54** (2013.01 - US); **B60S 1/56** (2013.01 - US); **B60S 1/54** (2013.01 - EP); **B60S 1/56** (2013.01 - EP); **F15B 3/00** (2013.01 - EP)

Citation (search report)

See references of WO 2022089855A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2022089855 A1 20220505; CN 116249595 A 20230609; DE 102020128100 A1 20220428; EP 4232326 A1 20230830; US 2023278529 A1 20230907

DOCDB simple family (application)

EP 2021076442 W 20210927; CN 202180067091 A 20210927; DE 102020128100 A 20201026; EP 21785800 A 20210927; US 202318305104 A 20230421