

Title (en)  
OPERATION MONITORING FOR A THICK MATTER CONVEYING SYSTEM

Title (de)  
BETRIEBSÜBERWACHUNG FÜR EIN DICKSTOFFFÖRDERSYSTEM

Title (fr)  
SURVEILLANCE DU FONCTIONNEMENT D'UN SYSTÈME DE TRANSPORT DE LIQUIDES ÉPAIS

Publication  
**EP 4314444 A2 20240207 (DE)**

Application  
**EP 22715096 A 20220321**

Priority  
• DE 102021107139 A 20210323  
• EP 2022057353 W 20220321

Abstract (en)  
[origin: WO2022200275A2] The invention relates inter alia to a thick matter distributing boom (18) for distributing a thick matter to be conveyed by means of a thick matter pump (16), comprising: a slewing gear (19) which is rotatable about a vertical axis with a maximum rotational speed; a boom assembly (40) comprising at least one first boom arm (41) and a second boom arm (42), the first boom arm (41) being connected to the slewing gear (19) at a proximal end of the boom assembly (40), and the boom arms (41, 42) each having a maximum working range; a conveying conduit (17) which extends over the boom assembly (40) and comprises a proximal end, which can be connected to an outlet (28) of a thick matter pump, and a distal end, the distal end of the conveying conduit (17) transitioning into an end hose (45) at a distal end of the boom assembly (40); a receiving unit (11) for receiving at least one item of operating information; a processing unit (12) for determining a currently permissible working range for each of the first boom arm (41) and the second boom arm (42) and/or for determining a currently permissible slewing speed, in each case depending on the at least one received item of information; and a control unit (13) for delimiting the working range of the corresponding boom arm (41, 42) to the particular currently permissible working range, if one of the specific currently permissible working ranges of the first boom arm (41) and the second boom arm (42) is smaller than or equal to the relevant maximum working range, and/or for delimiting the rotational speed of the slewing gear (19), if the specific currently permissible rotational speed is less than or equal to the maximum rotational speed.

IPC 8 full level  
**E04G 21/04** (2006.01); **F04B 1/02** (2006.01); **F04B 15/02** (2006.01)

CPC (source: EP KR US)  
**E04G 21/0436** (2013.01 - EP KR US); **E04G 21/0445** (2013.01 - EP KR); **E04G 21/0463** (2013.01 - EP KR US); **F04B 7/0026** (2013.01 - EP KR); **F04B 7/0049** (2013.01 - EP KR); **F04B 15/023** (2013.01 - EP KR); **F04B 49/065** (2013.01 - EP KR); **F04B 2201/0204** (2013.01 - EP KR); **F04B 2201/0802** (2013.01 - EP KR); **F04B 2201/1203** (2013.01 - EP KR); **F04B 2205/03** (2013.01 - EP KR); **F04B 2205/14** (2013.01 - EP KR)

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)  
**DE 102021107139 A1 20220929**; CN 117321276 A 20231229; EP 4314444 A2 20240207; JP 2024511946 A 20240318; KR 20230159433 A 20231121; US 2024295132 A1 20240905; WO 2022200275 A2 20220929; WO 2022200275 A3 20221201

DOCDB simple family (application)  
**DE 102021107139 A 20210323**; CN 202280034640 A 20220321; EP 2022057353 W 20220321; EP 22715096 A 20220321; JP 2023555592 A 20220321; KR 20237032095 A 20220321; US 202218551768 A 20220321