

Title (en)  
VIBROFLOATATION DEVICE

Title (de)  
RÜTLERANORDNUNG

Title (fr)  
VIBROFONCEUR

Publication  
**EP 3485097 B1 20201125 (DE)**

Application  
**EP 17745674 A 20170717**

Priority  
• DE 102016113140 A 20160715  
• EP 2017068033 W 20170717

Abstract (en)  
[origin: WO2018011435A2] A vibrator assembly is described. Said vibrator assembly comprises a feed pipe that has a longitudinal axis as well as a first end and a second end. The vibrator assembly can further comprise a vibrator unit that is mechanically coupled to the feed pipe, and a filling assembly which extends into the feed pipe at the first end and is designed to pick up material and direct same into the feed pipe, the feed pipe having at least two separate channels from the first end to the second end and parallel to the longitudinal axis.

IPC 8 full level  
**E02D 5/66** (2006.01); **E02D 7/18** (2006.01)

CPC (source: EP US)  
**E02D 3/054** (2013.01 - EP US); **E02D 3/08** (2013.01 - EP US); **E02D 5/66** (2013.01 - EP US); **E02D 7/18** (2013.01 - EP US);  
**E02D 11/00** (2013.01 - EP US); **E02D 27/12** (2013.01 - EP US)

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

DOCDB simple family (publication)  
**DE 102016113140 A1 20180118**; CA 3030067 A1 20180118; CA 3030067 C 20211116; CN 110036156 A 20190719; EP 3485097 A2 20190522; EP 3485097 B1 20201125; EP 3926099 A1 20211222; EP 3926099 B1 20230913; EP 3926099 C0 20230913; ES 2966101 T3 20240418; JP 2019525044 A 20190905; PH 12019500300 A1 20190520; PL 3926099 T3 20240304; US 10961678 B2 20210330; US 11970832 B2 20240430; US 2019169813 A1 20190606; US 2021388569 A1 20211216; US 2023121538 A1 20230420; WO 2018011435 A2 20180118; WO 2018011435 A3 20190418

DOCDB simple family (application)  
**DE 102016113140 A 20160715**; CA 3030067 A 20170717; CN 201780055897 A 20170717; EP 17745674 A 20170717; EP 2017068033 W 20170717; EP 20209372 A 20170717; ES 20209372 T 20170717; JP 2019523183 A 20170717; PH 12019500300 A 20190213; PL 20209372 T 20170717; US 201716317604 A 20170717; US 202117215054 A 20210329; US 202217979927 A 20221103