

Title (en)

MOBILE ROBOTIC DEVICE WITH IMPROVED ARCHIMEDEAN SCREW PROPULSION MECHANISM

Title (de)

MOBILE ROBOTERVORRICHTUNG MIT ANTRIEBSMECHANISMUS MIT VERBESSERTER ARCHIMEDISCHER SCHRAUBE

Title (fr)

DISPOSITIF ROBOTIQUE MOBILE AVEC MÉCANISME DE PROPULSION À VIS D'ARCHIMÈDE AMÉLIORÉ

Publication

**EP 3523566 A1 20190814 (FR)**

Application

**EP 17792111 A 20171002**

Priority

- FR 1659576 A 20161004
- FR 2017052693 W 20171002

Abstract (en)

[origin: WO2018065710A1] The invention falls within the field of mobile robots. It relates to a mobile robotic device comprising a propulsion mechanism equipped with an Archimedean screw, so as to allow it to move over various types of ground. According to the invention, the mobile robotic device comprises a body and a propulsion mechanism (40), the propulsion mechanism comprising: a drum (42) capable of rotating with respect to the body, and archimedean screw thread (43) projecting from an exterior surface of the drum, and rolling members (44) each one comprising a support structure (441) and a wheel (442), each support structure forming a portion of the screw thread and each wheel being mounted as a pivot connection on the support structure, each rolling member comprising at least one cavity (4417, 4418) designed to minimize the adjacent surface areas between the support structure and the wheel.

IPC 8 full level

**F16L 55/30** (2006.01); **F16L 55/32** (2006.01); **G21C 17/017** (2006.01); **F16L 101/30** (2006.01)

CPC (source: EP US)

**F16L 55/30** (2013.01 - EP US); **F16L 55/32** (2013.01 - EP US); **F16L 2101/30** (2013.01 - EP US)

Citation (search report)

See references of WO 2018065710A1

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

DOCDB simple family (publication)

**FR 3057052 A1 20180406**; **FR 3057052 B1 20181207**; AU 2017339140 A1 20190418; EP 3523566 A1 20190814; JP 2019536692 A 20191219; US 2019219215 A1 20190718; WO 2018065710 A1 20180412

DOCDB simple family (application)

**FR 1659576 A 20161004**; AU 2017339140 A 20171002; EP 17792111 A 20171002; FR 2017052693 W 20171002; JP 2019538734 A 20171002; US 201716337107 A 20171002