

Title (en)  
LIFTING APPARATUS

Title (de)  
HEBEVORRICHTUNG

Title (fr)  
DISPOSITIF DE LEVAGE

Publication  
**EP 3941873 A1 20220126 (DE)**

Application  
**EP 20721399 A 20200317**

Priority  
• DE 102019002039 A 20190322  
• DE 2020100207 W 20200317

Abstract (en)  
[origin: WO2020192838A1] A lifting apparatus (1, 14, 18, 28, 31, 36, 46, 50) has three booms (2, 19) of variable length, which each have a first end portion (4, 20) and a second end portion (5, 21) at the opposite end from the first end portion (4, 20). While the first end portions (4, 20) of all the booms (2, 19) are connected together in an articulated manner, the second end portions (5, 21) are mounted in respective bearings (7, 24, 29) in an articulated and rotatable manner. In this case, the bearings (7, 24, 29) are arranged in fixed positions relative to one another. Furthermore, in each boom (2, 19), at least the first end portion (4, 20) is rotatable about the longitudinal axis of the boom (2, 19) with respect to the second end portion (5, 21). In particular, the booms (2, 19) always form a tripod, which is distinguished by a high level of stability. The lifting apparatus (1, 14, 18, 28, 31, 36, 46, 50) is therefore suitable for lifting very heavy loads, wherein greater ranges are achievable compared with known lifting apparatuses. In addition, the lifting apparatus (1, 14, 18, 28, 31, 36, 46, 50) is pivotable further than known lifting apparatuses.

IPC 8 full level  
**B66C 5/02** (2006.01); **B66C 23/18** (2006.01); **B66C 23/70** (2006.01)

CPC (source: EP US)  
**B66C 5/025** (2013.01 - EP US); **B66C 23/18** (2013.01 - US); **B66C 23/185** (2013.01 - EP); **B66C 23/42** (2013.01 - US);  
**B66C 23/701** (2013.01 - EP US); **B66C 23/74** (2013.01 - US); **B66C 23/78** (2013.01 - US); **B66C 23/185** (2013.01 - US)

Citation (search report)  
See references of WO 2020192838A1

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)  
**DE 102019002039 A1 20200924**; EP 3941873 A1 20220126; EP 3941873 B1 20230510; JP 2022526814 A 20220526;  
US 2022017337 A1 20220120; WO 2020192838 A1 20201001

DOCDB simple family (application)  
**DE 102019002039 A 20190322**; DE 2020100207 W 20200317; EP 20721399 A 20200317; JP 2021559450 A 20200317;  
US 202017593636 A 20200317