

Title (en)  
DEVICE FOR SUPPORTING THE MOVEMENT OF A HUMAN SHOULDER JOINT

Title (de)  
VORRICHTUNG ZUR BEWEGUNGSUNTERSTÜTZUNG EINES MENSCHLICHEN SCHULTERGELENKES

Title (fr)  
DISPOSITIF POUR SOUTENIR LE MOUVEMENT D'UNE ARTICULATION D'ÉPAULE D'UN ÊTRE HUMAIN

Publication  
**EP 3383339 A1 20181010 (DE)**

Application  
**EP 16805077 A 20161130**

Priority  
• DE 102015224156 A 20151203  
• EP 2016079249 W 20161130

Abstract (en)  
[origin: WO2017093298A1] A device for supporting the movement of a human shoulder joint is described, with a first rotary bearing (L1) for applying a rotation of a first bearing part (1) about a first rotation axis (D1), a second rotary bearing (L2) for applying a rotation of a second bearing part (2) about a second rotation axis (D2), wherein the second rotation axis (D2) is connected indirectly or directly to the first bearing part (1), a third rotary bearing (L3) for applying a rotation of a third bearing part (3) about a third rotation axis (D3), wherein the third rotation axis (D3) is connected indirectly or directly to the second bearing part (2), a fourth rotary bearing (L4) for applying a rotation of a fourth bearing part (4) about a fourth rotation axis (D4), wherein the fourth rotation axis (D4) is connected indirectly or directly to the third bearing part (3), and a fifth rotary bearing (L5) for applying a rotation of the fourth bearing part (4) about a fifth rotation axis (D5), wherein a) the first rotation axis (D1) is connected in a spatially fixed manner to a first fastening means (5) which is suitable for the detachable mounting and orientation of the first rotary bearing (D1) on the shoulder area of a person, b) the fifth rotation axis (D5) is connected in a spatially fixed manner to a second fastening means (6) which is suitable for detachable mounting and orientation of the fifth rotary bearing (D5) on the upper arm area of the shoulder blade of a person, such that the rotation axis (D5) traverses the head of the humerus of the person, c) the second and third rotation axes (D2, D3) are oriented parallel to each other and span a plane (E) with respect to which the fourth rotation axis (D4) is oriented in parallel, and d) at least the first and/or fifth rotary bearings have/has an actuator that supports the rotation.

IPC 8 full level  
**A61H 1/02** (2006.01)

CPC (source: EP)  
**A61H 1/0281** (2013.01); **A61H 2201/1215** (2013.01); **A61H 2201/1246** (2013.01); **A61H 2201/1616** (2013.01); **A61H 2201/1626** (2013.01); **A61H 2201/1638** (2013.01); **A61H 2201/165** (2013.01)

Citation (search report)  
See references of WO 2017093298A1

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)  
**WO 2017093298 A1 20170608**; CN 108601697 A 20180928; CN 108601697 B 20200925; DE 102015224156 A1 20170608; EP 3383339 A1 20181010; EP 3383339 B1 20200624

DOCDB simple family (application)  
**EP 2016079249 W 20161130**; CN 201680070695 A 20161130; DE 102015224156 A 20151203; EP 16805077 A 20161130