

Title (en)
CHAIN WINDING DEVICE

Title (de)
KETTENAUFWICKELVORRICHTUNG

Title (fr)
DISPOSITIF D'ENROULEMENT DE CHÂÎNE

Publication
EP 3712101 A4 20210818 (EN)

Application
EP 18877740 A 20180731

Priority
• JP 2017220530 A 20171116
• JP 2018028628 W 20180731

Abstract (en)
[origin: EP3712101A1] In a normal operation of moving a position of a lower suspension tool in an upward and downward direction, first drive means and second drive means are rotated in different directions, and in a chain replacement operation of replacing a chain, the first drive means and the second drive means are rotated in the same direction.

IPC 8 full level
B66D 3/20 (2006.01); **B66D 1/46** (2006.01); **B66D 1/48** (2006.01); **B66D 3/16** (2006.01)

CPC (source: EP)
B66D 1/46 (2013.01); **B66D 1/485** (2013.01); **B66D 3/16** (2013.01); **B66D 3/20** (2013.01)

Citation (search report)
• [X] JP S58172195 A 19831008 - HITACHI LTD
• [X] JP S56122795 A 19810926 - KITO KK
• [X] JP H05238672 A 19930917 - SHIKOKU TEKKO KK
• [X] JP S56148084 U 19811107
• [X] KR 20150032406 A 20150326 - DAEWOO SHIPBUILDING & MARINE [KR]
• [X] JP H02221099 A 19900904 - ELEPHANT CHAIN BLOCK CO
• See references of WO 2019097770A1

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)
EP 3712101 A1 20200923; EP 3712101 A4 20210818; CN 111278762 A 20200612; CN 111278762 B 20210727; JP 2019089641 A 20190613; JP 6845120 B2 20210317; WO 2019097770 A1 20190523

DOCDB simple family (application)
EP 18877740 A 20180731; CN 201880066628 A 20180731; JP 2017220530 A 20171116; JP 2018028628 W 20180731