

Title (en)
CRANE COMPRISING A LIFTING FRAME FOR LIFTING AND MOUNTING WIND TURBINE BLADES

Title (de)
KRAN MIT EINEM HEBERAHMEN ZUM HEBEN UND MONTIEREN VON WINDTURBINENSCHAUFELN

Title (fr)
BÂTI DE LEVAGE POUR LEVER ET MONTER LES PALES DE TURBINES ÉOLIENNES

Publication
EP 2925659 A4 20160817 (EN)

Application
EP 13859127 A 20131011

Priority
• DK PA201200751 A 20121127
• DK 2013050322 W 20131011

Abstract (en)
[origin: WO2014082641A1] There is disclosed a lifting frame (11) for use lifting and installing blades on wind turbines of the kind comprising a frame (11) with a first end (22) and a second end (24) designed to be connected with a wind turbine blade, and a winch on a crane (2) with a crane jib (4) for carrying the weight of the blade and the lifting frame, where the frame (11) is adapted to lift and retain a therein arranged wind turbine blade in a substantially horizontal plane, alternatively that the lifting frame (11) is adapted to lift and retain a therein arranged wind turbine blade in an approximately any conceivable orientation different from a substantially horizontal plane and position hanging in the main lifting wire (6), and where the crane (2) comprises at least two secondary winch systems with secondary wires (12, 14), and where the crane jib comprises a number of therewith cooperating secondary wire wheels (16, 18), located on the against the main wire adjacent side (18) of the crane jib (4) alternatively on the sides of the crane jib, characterized in, that the lifting frame (11), on the against the crane jib adjacent side (20) and near respectively the first end (22) and the second end (24) of the frame (11), comprises at least a first wire wheel (26) and a second wire wheel (28) for connection with the wires (12, 14) of the secondary winch systems, where the wires of the secondary winch systems runs in a triangle (A) between the secondary wire wheels (16, 18) of the crane, via the first and second wire wheel (26, 28) on the lifting frame (11) and further to independent anchoring points (30, 34) at the foot (32) of the crane jib (4). Herewith is achieved a horizontal oriented force application on the lifting frame (11) exerting a pull in the secondary wires (12, 14), resulting in a substantial increase of the stability of the lifting frame.

IPC 8 full level
B66C 13/06 (2006.01); **B66C 1/10** (2006.01); **B66C 13/08** (2006.01); **B66C 17/06** (2006.01); **B66C 23/18** (2006.01)

CPC (source: EP)
B66C 1/108 (2013.01); **B66C 13/08** (2013.01); **B66C 23/185** (2013.01); **Y02E 10/72** (2013.01)

Citation (search report)
• [A] DE 202010003269 U1 20110823 - LIEBHERR WERK EHINGEN [DE]
• [A] GB 2013612 A 19790815 - FIVES CAIL BABCOCK
• [A] JP H02243497 A 19900927 - YOKOKAWA KOJI KK
• See references of WO 2014082641A1

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)
WO 2014082641 A1 20140605; DK 177672 B1 20140217; EP 2925659 A1 20151007; EP 2925659 A4 20160817

DOCDB simple family (application)
DK 2013050322 W 20131011; DK PA201200751 A 20121127; EP 13859127 A 20131011