

Title (en)

COORDINATED END EFFECTOR ATTACHMENT OF FASTENERS TO AIRCRAFT STRUCTURE

Title (de)

KOORDINIERTES SETZEN VON BEFESTIGUNGSELEMENTEN AN EINER FLUGZEUGSTRUKTUR MITTELS EINES ENDEFFEKTORS

Title (fr)

POSE COORDONNÉE D'ÉLÉMENTS DE FIXATION SUR LA STRUCTURE D'UN AÉRONEF À L'AIDE D'UN D'EFFECTEUR TERMINAL

Publication

**EP 4000759 A1 20220525 (EN)**

Application

**EP 21207360 A 20211110**

Priority

- US 202063115030 P 20201118
- NL 2027391 A 20210126

Abstract (en)

Systems and methods are provided for applying fasteners to a structure. One embodiment is a method that includes disposing a first set of end effectors along a fixed inner track that follows an Inner Mold Line (IML) of a structure, disposing a second set of end effectors along a fixed outer track that follows an Outer Mold Line (OML) of the structure, aligning a first end effector at the fixed inner track with a second end effector at the fixed outer track, clamping the structure between the first end effector and the second end effector, by pressing the first end effector and the second end effector into the structure, and applying a fastener to the structure.

IPC 8 full level

**B21J 15/14** (2006.01)

CPC (source: EP)

**B21J 15/142** (2013.01)

Citation (applicant)

- EP 0956915 A2 19991117 - TORRES MARTINEZ M [ES]
- US 4967947 A 19901106 - SARH BRANKO [US]

Citation (search report)

- [A] EP 0956915 A2 19991117 - TORRES MARTINEZ M [ES]
- [A] EP 3378789 A1 20180926 - MITSUBISHI HEAVY IND LTD [JP]
- [A] US 4967947 A 19901106 - SARH BRANKO [US]
- [A] JP 2001079637 A 20010327 - MITSUBISHI HEAVY IND LTD

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)

**EP 4000759 A1 20220525**

DOCDB simple family (application)

**EP 21207360 A 20211110**