

Title (en)

METHOD AND MANUFACTURING SYSTEM FOR JOINING A NUMBER OF PIECE PARTS TO FORM A COMPLEX ASSEMBLED PART

Title (de)

VERFAHREN UND FERTIGUNGSANLAGE ZUM FÜGEN MEHRERER BAUTEIL-EINZELTEILE ZU EINEM KOMPLEXEN ZUSAMMENGESETZTEN BAUTEIL

Title (fr)

PROCEDE ET SYST ME DE FABRICATION PERMETTANT D'ASSEMBLER PLUSIEURS PIECES INDIVIDUELLES DE COMPOSANT AFIN DE FORMER UN COMPOSANT ASSEMBLE COMPLEXE

Publication

EP 1307381 A1 20030507 (DE)

Application

EP 01974164 A 20010810

Priority

- DE 10039593 A 20000812
- EP 0109268 W 20010810

Abstract (en)

[origin: WO0214141A1] The invention relates to a method for carrying out the step-by-step joining of a number of piece parts to form a complex assembled part. In order to achieve a highest possible precision of the finished part, the piece parts, during the step-by-step joining process, are positioned and fixed with regard to one another in a manner that renders the reclamping of the intermediate part between the individual joining steps unnecessary. To this end, a clamping frame is used that is firstly fitted with several clamping elements, into which a first set of piece parts is placed that are joined to one another to form an intermediate part. In the second step, the clamping frame is fitted with additional clamping elements, into which the piece parts corresponding thereto are placed. In another joining step, these additional piece parts are joined to the intermediate part to form the finished part. In order to accommodate and fix the additional clamping elements on the clamping frame, docking stations are provided that ensure a reproducible positioning and alignment of the clamping elements on the clamping frame.

IPC 1-7

B62D 65/00; **B23K 37/047**

IPC 8 full level

B23P 19/00 (2006.01); **B23K 37/00** (2006.01); **B23K 37/04** (2006.01); **B23P 19/04** (2006.01); **B23P 21/00** (2006.01); **B62D 65/02** (2006.01); **B62D 65/12** (2006.01)

CPC (source: EP US)

B23K 37/0435 (2013.01 - EP US); **B62D 65/02** (2013.01 - EP US); **B62D 65/12** (2013.01 - EP US)

Citation (search report)

See references of WO 0214141A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 0214141 A1 20020221; **WO 0214141 B1 20020606**; DE 10039593 A1 20020221; EP 1307381 A1 20030507; JP 2004505794 A 20040226; JP 3746039 B2 20060215; US 2004020974 A1 20040205; US 6863210 B2 20050308

DOCDB simple family (application)

EP 0109268 W 20010810; DE 10039593 A 20000812; EP 01974164 A 20010810; JP 2002519253 A 20010810; US 34435403 A 20030807