

Title (en)

HIGH-SPEED INTELLIGENT CUTTING MACHINING CENTER AND METHOD FOR REPLACING KNIFE DIE PLATES

Title (de)

INTELLIGENTES HOCHGESCHWINDIGKEITS-SCHNEIDBEARBEITUNGSZENTRUM UND VERFAHREN ZUM AUSWECHSELN VON MESSERPLATTEN

Title (fr)

CENTRE D'USINAGE PAR COUPE INTELLIGENT À GRANDE VITESSE ET PROCÉDÉ DE REMPLACEMENT DE PLATEAUX MATRICES À LAME

Publication

EP 4201614 A4 20240228 (EN)

Application

EP 21942800 A 20211214

Priority

- CN 2021138071 W 20211214
- CN 202110566589 A 20210524

Abstract (en)

[origin: EP4201614A1] The present invention relates to a high-speed smart cutting and processing center. The high-speed smart cutting and processing center includes a cutting machine, a die cutter magazine and a die cutter circulation table. The cutting machine includes a machine base, a working table and a cross beam, where the working table and the cross beam are disposed on the machine base. A rotary cutting head is disposed on the cross beam, and a die cutter for cutting and a die cutter clamping and limiting device are disposed at the bottom of the rotary cutting head. The die cutter circulation table is located at the left side of the working table. One end of the die cutter circulation table is connected with the die cutter magazine and the other end is connected with the working table. The die cutter magazine includes a frame, a die cutter storage rack and a lifting device, where the die cutter storage rack and the lifting device are disposed within the frame. A plurality of die cutters are stacked up and down in different layers in the die cutter storage rack. Guide columns are disposed at four corners of the frame, and guide sleeves slidably cooperating with the guide columns are disposed on the die cutter storage rack. The lifting device drives the die cutter storage rack to move up and down along the guide columns. The present invention further provides a method of changing a die cutter on the processing center. The present invention has the advantages of quick change of a die cutter, good position repeatability and high positioning accuracy.

IPC 8 full level

B26D 5/00 (2006.01); **B26D 7/08** (2006.01); **B26D 7/26** (2006.01); **B26F 1/38** (2006.01); **B26F 1/40** (2006.01)

CPC (source: CN EP)

B25H 3/00 (2013.01 - CN); **B26D 5/00** (2013.01 - EP); **B26D 7/08** (2013.01 - CN); **B26D 7/26** (2013.01 - EP); **B26D 7/2614** (2013.01 - CN); **B26F 1/38** (2013.01 - CN); **B26F 1/40** (2013.01 - EP); **B26F 1/405** (2013.01 - EP); **B26D 2007/2607** (2013.01 - EP)

Citation (search report)

- [IA] CN 107097294 A 20170829 - YANCHENG HUASEN MACHINERY CO LTD
- [A] CN 106734503 A 20170531 - YANCHENG HUASEN MACHINERY CO LTD
- [A] CN 212525693 U 20210212 - YANCHENGSHI YUZHENG PREC MACHINE CO LTD
- See also references of WO 2022247237A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4201614 A1 20230628; EP 4201614 A4 20240228; CN 113134863 A 20210720; CN 113134863 B 20240227; WO 2022247237 A1 20221201

DOCDB simple family (application)

EP 21942800 A 20211214; CN 202110566589 A 20210524; CN 2021138071 W 20211214