

Title (en)

DEVICE AND METHOD FOR ELLIPTICALLY PROCESSING METAL TUBE AND METAL TUBE PRODUCT

Title (de)

VORRICHTUNG UND VERFAHREN ZUR ELLIPTISCHEN VERARBEITUNG VON METALLRÖHREN UND METALLRÖHRENPRODUKT

Title (fr)

DISPOSITIF ET PROCÉDÉ DE TRAITEMENT ELLIPTIQUE DE TUBE MÉTALLIQUE ET PRODUIT DE TUBE MÉTALLIQUE

Publication

EP 1864725 A1 20071212 (EN)

Application

EP 06730084 A 20060327

Priority

- JP 2006306136 W 20060327
- JP 2005097755 A 20050330

Abstract (en)

A device and a method for elliptically processing a metal tube capable of flattening the metal tube without producing a recessed part by only two press molds such as a cope and a drag or by using these two press molds as major technical elements. Two press molds for flattening by pressurizing a metal tube (1) having a circular vertical section to the tube center axis are a cope and a drag (10, 13) having pressuring molds (12, 15). The surfaces (12A, 15A) of the pressuring molds (12, 15) facing the metal tube (1) are formed from curved recessed surfaces or a combination of a plurality of flat surfaces, and a first pressuring part for pressurizing first parts (1A, 1B) which are portions on the metal tube (1) surface, and a second pressuring part for pressurizing second parts (1C, 1D) on the metal tube (1) surface on both sides of the metal tube 1 in the circumferential direction with respect to the first parts (1A, 1B) exist on the surfaces (12A, 15A). The first pressuring part pressuring part pressurizes the first parts (1A, 1B) with pressuring force (F 1) toward the center of the metal tube (1), and the second pressuring part pressurizes the second parts (1C, 1D) with pressuring force (F 2) having a pressuring component (F 2H) toward the first parts (1A, 1B).

IPC 8 full level

B21D 51/16 (2006.01); **B21D 53/88** (2006.01)

CPC (source: EP)

B21D 22/025 (2013.01)

Citation (search report)

See references of WO 2006106622A1

Cited by

US8695393B2; US8833129B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1864725 A1 20071212; CN 101146632 A 20080319; JP 2009169980 A 20090730; JP 4418838 B2 20100224;
JP WO2006106622 A1 20080911; WO 2006106622 A1 20061012

DOCDB simple family (application)

EP 06730084 A 20060327; CN 200680008931 A 20060327; JP 2006306136 W 20060327; JP 2007512512 A 20060327;
JP 2009109225 A 20090428