

Title (en)

H-SHAPED STEEL MANUFACTURING METHOD

Title (de)

VERFAHREN ZUR HERSTELLUNG VON H-FÖRMIGEM STAHL

Title (fr)

PROCÉDÉ DE FABRICATION D'UN PRODUIT EN ACIER EN FORME DE H

Publication

EP 3412370 A4 20191023 (EN)

Application

EP 17789461 A 20170424

Priority

- JP 2016090165 A 20160428
- JP 2017016180 W 20170424

Abstract (en)

[origin: EP3412370A1] To efficiently and stably produce an H-shaped steel product with a flange width larger than a conventional flange width by creating deep splits on end surfaces of a material such as a slab using projections in acute-angle tip shapes and sequentially bending flange portions formed by the splits to thereby suppress occurrence of shape defects in a material to be rolled and reduce growth of a crop portion. A first caliber and a second caliber of a plurality of calibers are formed with projections configured to create splits vertically with respect to a width direction of the material to be rolled to form divided parts at end portions of the material to be rolled; a third caliber and subsequent calibers excluding a final caliber of the plurality of calibers are formed with projections configured to come into contact with the splits to sequentially bend the divided parts formed; and in at least one pass or more of rolling and shaping in the plurality of calibers, the rolling and shaping is performed with a rolling roll gap for a predetermined section at a rear end portion in a rolling longitudinal direction of the material to be rolled expanded as compared with a rolling roll gap for other than the predetermined section.

IPC 8 full level

B21B 1/088 (2006.01)

CPC (source: EP US)

B21B 1/088 (2013.01 - EP US); **B21B 1/12** (2013.01 - US)

Citation (search report)

- [X] JP S6182903 A 19860426 - SUMITOMO METAL IND
- [Y] JP H11347601 A 19991221 - NIPPON KOKAN KK
- [Y] JP S6192701 A 19860510 - NIPPON KOKAN KK
- [X] JP 2002045902 A 20020212 - SUMITOMO METAL IND
- See references of WO 2017188179A1

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)

EP 3412370 A1 20181212; EP 3412370 A4 20191023; CN 109070157 A 20181221; JP 6614339 B2 20191204; JP WO2017188179 A1 20181129; US 2019022719 A1 20190124; WO 2017188179 A1 20171102

DOCDB simple family (application)

EP 17789461 A 20170424; CN 201780024850 A 20170424; JP 2017016180 W 20170424; JP 2018514581 A 20170424; US 201716082334 A 20170424