

Title (en)

A method of bending a pipe having an oblong cross-section and a heat exchanger with pipes having an oblong section and bent in a U-shape.

Title (de)

Verfahren zum Biegen eines Rohrs mit länglichem Querschnitt und Wärmetauscher mit Rohren mit länglichem Querschnitt und Gebogen in U-Form.

Title (fr)

Procédé de pliage d'un tube de section oblonguée et échangeur de chaleur à tubes de section oblonguée et plié en forme de U.

Publication

EP 0659500 A1 19950628 (EN)

Application

EP 94117924 A 19941114

Priority

IT TO930968 A 19931220

Abstract (en)

A method of bending a pipe having an oblong cross-section for heat exchangers comprises the stages of causing a relative rotation which is substantially equal to 180 DEG between two limbs (2a, 2b) of the pipe (2) about an axis (8) parallel to the longer axis (4) of the cross-section of the pipe so as to obtain two straight limbs (2a, 2b) connected to one another by a curved connecting portion (2c) and to cause a relative rotation which is substantially equal to 90 DEG between each of the straight limbs (2a, 2b) and the connecting portion (2c). <IMAGE>

IPC 1-7

B21D 53/08; F28F 9/26; F28D 1/047; B21D 9/01; B21D 11/14

IPC 8 full level

B21D 9/01 (2006.01); **B21D 11/14** (2006.01); **B21D 53/08** (2006.01); **F28D 1/047** (2006.01); **F28F 1/02** (2006.01); **F28F 9/26** (2006.01)

CPC (source: EP)

B21D 9/01 (2013.01); **B21D 11/14** (2013.01); **B21D 53/085** (2013.01); **F28D 1/0478** (2013.01); **F28F 1/025** (2013.01); **F28F 9/26** (2013.01)

Citation (search report)

- [A] FR 1108189 A 19560110 - WESTERN ELECTRIC CO
- [A] FR 2321345 A1 19770318 - SERINOX [FR]
- [A] FR 2547751 A1 19841228 - SNECMA [FR]
- [A] US 4625378 A 19861202 - TANNO SATOSHI [JP], et al
- [A] FR 2222623 A1 19741018 - CHAUSSON USINES SA [FR]

Cited by

WO0003190A1; CN109990627A; DE10306848A1; DE19649129A1; CN113454409A; DE19830863A1; EP1189038A1; CN113732198A; DE10326381B4; EP4317899A1; US6591656B1; EP1413844A2; EP0845647A1; WO2004074756A2; US6546999B1; EP1486749A2; WO2024028070A1

Designated contracting state (EPC)

DE ES FR GB SE

DOCDB simple family (publication)

EP 0659500 A1 19950628; EP 0659500 B1 19980114; DE 69407940 D1 19980219; DE 69407940 T2 19980423; ES 2113038 T3 19980416; IT 1272091 B 19970611; IT TO930968 A0 19931220; IT TO930968 A1 19950620

DOCDB simple family (application)

EP 94117924 A 19941114; DE 69407940 T 19941114; ES 94117924 T 19941114; IT TO930968 A 19931220