

Title (en)  
METHOD FOR PRODUCING STEEL PIPE

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINES STAHLROHRS

Title (fr)  
PROCÉDÉ DE FABRICATION D'UN TUBE D'ACIER

Publication  
**EP 3006133 A1 20160413 (EN)**

Application  
**EP 13885377 A 20130524**

Priority  
JP 2013064525 W 20130524

Abstract (en)  
A method for manufacturing a steel pipe includes forming a steel plate into a cylindrical shape by a bending press method that presses down the steel plate with a punch having, at a leading edge thereof, an outer circumferential surface with a circular arcuate section so that edges in a width direction of the steel plate face each other; butting and welding together the edges in the width direction of the steel plate; and expanding the steel pipe from the inside using a pipe expanding machine in which a plurality of pipe expanding dies having an outer circumferential surface with a circular arcuate section are circumferentially arranged, wherein a pipe expanding R ratio that is a ratio of a curvature radius of the outer circumferential surface of each of the pipe expanding dies to a target radius of an inner surface of the steel pipe and a punch R ratio that is a ratio of a curvature radius of an outer circumferential surface of a leading end of the punch to the target radius of the inner surface of the steel pipe are both less than 1, and the pipe expanding R ratio and the punch R ratio satisfy a predetermined conditional expression. As a result, a steel pipe with high roundness can be manufactured without cracking a pipe expanding die.

IPC 8 full level  
**B21D 39/20** (2006.01); **B21C 37/08** (2006.01); **B21D 3/14** (2006.01); **B21D 5/01** (2006.01)

CPC (source: EP RU)  
**B21C 37/0815** (2013.01 - EP); **B21D 3/14** (2013.01 - EP); **B21D 5/015** (2013.01 - EP); **B21D 5/01** (2013.01 - RU); **B21D 39/20** (2013.01 - EP RU)

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

DOCDB simple family (publication)  
**EP 3006133 A1 20160413**; **EP 3006133 A4 20160629**; **EP 3006133 B1 20170816**; CN 105246613 A 20160113; CN 105246613 B 20170308; JP 5541432 B1 20140709; JP WO2014188599 A1 20170223; RU 2617465 C1 20170425; WO 2014188599 A1 20141127

DOCDB simple family (application)  
**EP 13885377 A 20130524**; CN 201380076836 A 20130524; JP 2013064525 W 20130524; JP 2014504870 A 20130524; RU 2015155583 A 20130524