

Title (en)
PROCESS FOR MANUFACTURING HIGH-CARBON ELECTRIC RESISTANCE WELDED STEEL PIPE, AND AUTOMOBILE PART

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES KOHLENSTOFFFREICHEN WIDERSTANDSGESCHWEISSTES STAHLROHRS UND AUTOMOBILTEIL

Title (fr)
PROCÉDÉ DE FABRICATION DE TUYAU EN ACIER À FORTE TENEUR EN CARBONE, SOUDÉ PAR RÉSISTANCE ÉLECTRIQUE, ET PIÈCE AUTOMOBILE

Publication
EP 3018220 A1 20160511 (EN)

Application
EP 14846979 A 20140924

Priority
• JP 2013197819 A 20130925
• JP 2014004882 W 20140924

Abstract (en)
A high carbon electric resistance welded steel pipe or tube that includes an electric resistance welded part excellent in reliability is provided. A high carbon steel sheet is used as a raw material steel sheet. The high carbon steel sheet has a composition containing, by mass%, C: 0.30 to 0.60%, Si: 0.05 to 0.50%, Mn: 0.30 to 2.0%, Al: 0.50% or less, and N: 0.0100% or less. The balance is Fe and incidental impurities. The raw material steel sheet is formed into an approximately cylindrical shape by a cold working. A butt electric resistance welding is performed on the raw material steel sheet to form an electric resistance welded steel pipe or tube. After the butt electric resistance welding, cold-reducing is performed at a reducing rate: 0.8% or less. Immediately after the cold-reducing, reheating is performed or cooling and reheating are performed, and a hot-reducing rolling is performed in a temperature range of 850 °C or more at a reducing rate of diameter: 10% or more. These steps as the above form an electric resistance welded part where defects at the electric resistance welded part are restrained and which has excellent reliability. Thus, it is possible to obtain a high carbon electric resistance welded steel pipe or tube whose reliability is remarkably improved. The use of these high carbon electric resistance welded steel pipes or tubes as a raw material also improves reliability in automotive parts.

IPC 8 full level
C21D 8/10 (2006.01); **B21C 37/08** (2006.01); **B21C 37/30** (2006.01); **C21D 9/08** (2006.01); **C21D 9/50** (2006.01); **C22C 38/00** (2006.01); **C22C 38/06** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP)
B21C 37/0807 (2013.01); **B21C 37/30** (2013.01); **C21D 8/10** (2013.01); **C21D 9/08** (2013.01); **C22C 38/00** (2013.01); **C22C 38/06** (2013.01); **C22C 38/58** (2013.01); **C21D 9/50** (2013.01)

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 3018220 A1 20160511; **EP 3018220 A4 20160914**; **EP 3018220 B1 20180829**; CN 105555976 A 20160504; CN 105555976 B 20171010; JP 2015062920 A 20150409; JP 5867474 B2 20160224; KR 101766293 B1 20170808; KR 20160055193 A 20160517; WO 2015045373 A1 20150402

DOCDB simple family (application)
EP 14846979 A 20140924; CN 201480051527 A 20140924; JP 2013197819 A 20130925; JP 2014004882 W 20140924; KR 20167009089 A 20140924