

Title (en)

OIL WELL PIPE FOR EXPANDABLE-TUBE USE EXCELLENT IN TOUGHNESS AFTER PIPE EXPANSION AND PROCESS FOR PRODUCING THE SAME

Title (de)

ÖLBOHRUNGSROHR ZUR VERWENDUNG IN EXPANDIERBAREN ROHREN MIT HERVORRAGENDER ZÄHIGKEIT NACH ROHREXPANSION UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TUYAU DE Puits DE PÉTROLE POUR UTILISATION EN TUBE EXTENSIBLE D UNE EXCELLENTE ROBUSTESSE APRÈS EXPANSION DU TUBE ET PROCÉDÉ DE FABRICATION IDOINE

Publication

EP 1892309 A1 20080227 (EN)

Application

EP 06747307 A 20060609

Priority

- JP 2006312080 W 20060609
- JP 2005170540 A 20050610
- JP 2006147073 A 20060526

Abstract (en)

The invention provides an oil well pipe for expandable tubular applications excellent in post-expansion toughness and a method of manufacturing the oil well pipe. The oil well pipe for expandable tubular applications comprises, in mass%, C: 0.03 to 0.14%, Si: 0.8% or less, Mn: 0.3 to 2.5%, P: 0.03% or less, S: 0.01% or less, Ti: 0.005 to 0.03%, Al: 0.1% or less, N: 0.001 to 0.01%, B: 0.0005 to 0.003%, optionally comprises one or more of Nb, Ni, Mo, Cr, Cu and V, and further optionally comprises one or both of Ca and REM, satisfies the relationship $A = 2.7 C + 0.4 Si + Mn + 0.45 Ni + 0.45 Cu + 0.8 Cr + 2 Mo \neq 1.8$, has a balance of iron and unavoidable impurities, and is formed of tempered martensite structure. The manufacturing method according to the invention is characterized in subjecting a steel stock pipe of the foregoing composition to hardening from a temperature range of $A_c 3 \text{ point} + 30 \text{ }^{\circ}\text{C}$ or greater and to tempering at a temperature of 350 to 720 $^{\circ}\text{C}$.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 1/22** (2006.01); **C21D 1/25** (2006.01); **C21D 8/10** (2006.01); **C21D 9/14** (2006.01); **C21D 9/50** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/14** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP US)

C21D 1/22 (2013.01 - EP US); **C21D 1/25** (2013.01 - EP US); **C21D 9/14** (2013.01 - EP US); **C21D 9/50** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/14** (2013.01 - EP US); **C21D 2211/008** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

EP 1892309 A1 20080227; **EP 1892309 A4 20100505**; **EP 1892309 B1 20130807**; CN 102206789 A 20111005; CN 102206789 B 20150325; JP 4943325 B2 20120530; JP WO2006132441 A1 20090108; US 2009044882 A1 20090219; WO 2006132441 A1 20061214

DOCDB simple family (application)

EP 06747307 A 20060609; CN 201110110567 A 20060609; JP 2006312080 W 20060609; JP 2007520213 A 20060609; US 92134906 A 20060609