

Title (en)  
SUPER HIGH STRENGTH UOE STEEL PIPE AND METHOD FOR PRODUCTION THEREOF

Title (de)  
SUPERHOCHFESTES UOE-STAHLROHR UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
TUBE D'ACIER UOE D'ULTRAHAUTE RÉSISTANCE ET PROCÉDÉ DE FABRICATION DE CELUI-CI

Publication  
**EP 1746175 A4 20070704 (EN)**

Application  
**EP 05739174 A 20050510**

Priority  
• JP 2005008503 W 20050510  
• JP 2004141223 A 20040511

Abstract (en)  
[origin: EP1746175A1] A UOE steel pipe for use in linepipe having an ultrahigh strength in the circumferential direction of the pipe of at least 750 MPa and at most 900 MPa and having improved toughness in the base metal and weld heat affected zone along with improved joint fracture properties and good circumferential weldability is manufactured from a hot-rolled steel plate having a composition comprising, in mass percent, C: 0.03 - 0.08%, Mn: 1.70 - 2.2%, S: at most 0.0020%, Ti: 0.005 - 0.025%, N: at most 0.0050% and having a carbon equivalent (Ceq) as defined below of at least 0.50% and a weld cracking parameter (Pcm) as defined below of at most 0.24% wherein the temperature at the completion of water cooling after hot rolling is 350° C or higher:  $Ceq = C + Mn / 6 + Cr + Mo + V / 5 + Cu + Ni / 15$ ,  $Pcm = C + Si / 30 + Mn / 20 + Cu / 20 + Ni / 60 + Cr / 20 + Mo / 15 + V / 10 + B$ .

IPC 8 full level  
**C22C 38/00** (2006.01); **B21C 37/08** (2006.01); **C21D 8/02** (2006.01); **C21D 8/10** (2006.01); **C22C 38/14** (2006.01); **C22C 38/58** (2006.01)

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Citation (search report)  
• [X] JP 2004099930 A 20040402 - NIPPON STEEL CORP  
• [X] WO 9905336 A1 19990204 - EXXON PRODUCTION RESEARCH CO [US], et al  
• [A] EP 0861915 A1 19980902 - SUMITOMO METAL IND [JP]  
• [A] EP 1375681 A2 20040102 - NIPPON STEEL CORP [JP]  
• [A] JP H02250941 A 19901008 - SUMITOMO METAL IND  
• [A] JP 2003306749 A 20031031 - NIPPON STEEL CORP  
• See references of WO 2005108636A1

Cited by  
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**EP 05739174 A 20050510**; CA 2566425 A 20050510; CN 200580021313 A 20050510; JP 2005008503 W 20050510; JP 2006513023 A 20050510; US 59802206 A 20061113