

Title (en)
PIPE FOR PETROLEUM AND GAS PRODUCT PIPELINES AND METHOD FOR THE PRODUCTION THEREOF

Title (de)
ROHR FÜR ERDÖL- UND GASPRODUKTPIPELINES UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
CANALISATION POUR OLEODUCS ET GAZODUCS, ET PROCEDE DE FABRICATION ASSOCIE

Publication
EP 1811054 A4 20080806 (EN)

Application
EP 05759319 A 20050607

Priority
• RU 2005000314 W 20050607
• RU 2004117180 A 20040607

Abstract (en)
[origin: EP1811054A1] The invention relates to metallurgy, in particular to producing welded pipes for petrol and gas product pipelines and for other similar constructions (tanks and pressure vessels) used in difficult geological and climatic conditions in the presence of aggressive corrosion media. The inventive pipe for petrol and gas product pipelines is made of a steel hot-rolled sheet, wherein said steel is produced on the base of original or pure charging materials and comprises carbon, manganese, silicon, chromium, nickel, vanadium, niobium, titanium, aluminium, calcium, sulphur, phosphorus, nitrogen, copper, antimony, tin, arsenic, iron and molybdenum with the following component ratio: 0.02-0.11 mass % carbon, 0.10-1.80 mass % manganese, 0.06-0.60 mass % silicon, 0.005-0.30 mass % chromium, 0.005-1.0 mass % nickel, 0.01-0.12 mass % vanadium, 0.02-0.10 mass % niobium, 0.01-0.04 mass % titanium, 0.01-0.05 mass % aluminium, 0.0005-0.008 mass % calcium, 0.0005-0.008 mass % sulphur, 0.001-0.012 mass % phosphorus, 0.001-0.012 mass % nitrogen, 0.005-0.25 mass % copper, 0.0001-0.005 mass % antimony, 0.0001-0.007 mass % tin, 0.0001-0.008 mass % arsenic, equal or less than 0.5 mass % molybdenum, the rest being iron. The total nickel and manganese content depends on a molybdenum and phosphorus concentration expressed in mass % by the equation (I). The method for producing the inventive pipe consists in producing a steel having above mentioned composition, in treating in a ladle, casting, hot rolling, shaping and welding, wherein hot rolling is carried out on reversing and continuous mills and associated with a subsequent controllable accelerated cooling.

IPC 8 full level
C21D 9/08 (2006.01); **C22C 38/60** (2006.01); **C21D 8/10** (2006.01); **F16L 9/02** (2006.01)

CPC (source: EP)
C21D 1/60 (2013.01); **C21D 8/0226** (2013.01); **C21D 9/08** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/42** (2013.01); **C22C 38/44** (2013.01)

Citation (search report)
• [E] EP 1705260 A1 20060927 - ZAKRYTOE AKTSIONERND E OBSCHEST [RU]
• [A] JP 2001152248 A 20010605 - NIPPON STEEL CORP
• [A] US 5876521 A 19990302 - KOO JAYOUNG [US], et al
• [A] WO 9905328 A1 19990204 - EXXON PRODUCTION RESEARCH CO [US], et al
• See references of WO 2005121385A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1811054 A1 20070725; EP 1811054 A4 20080806; EP 1811054 B1 20100818; AT E478166 T1 20100915; CN 100485078 C 20090506; CN 101001971 A 20070718; DE 602005023043 D1 20100930; RU 2252972 C1 20050527; UA 83944 C2 20080826; WO 2005121385 A1 20051222

DOCDB simple family (application)
EP 05759319 A 20050607; AT 05759319 T 20050607; CN 200580026685 A 20050607; DE 602005023043 T 20050607; RU 2004117180 A 20040607; RU 2005000314 W 20050607; UA A200701183 A 20050607