

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

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Application
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Abstract (en)
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.

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