

Title (en)

METAL TUBE FOR USE IN CARBURIZING GAS ATMOSPHERE

Title (de)

METALLROHR ZUR VERWENDUNG IN AUFKOHLUNGSGASATMOSPHERE

Title (fr)

TUBE EN METAL DESTINE A ETRE UTILISE DANS UNE ATMOSPHERE DE GAZ DE CEMENTATION

Publication

EP 1717330 A4 20120321 (EN)

Application

EP 05709298 A 20050125

Priority

- JP 2005000892 W 20050125
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Abstract (en)

[origin: EP1717330A1] A metal tube having the ability to protect against carburizing gas and having improved resistance to metal dusting, to carburization, and to coking has a Cu-enriched layer with a Cu concentration of at least 0.1 atomic percent and a thickness of at least 0.3 nm in a surface region of the metal tube. The alloy composition of the base metal of the metal tube contains, in mass percent, Cr: 15 - 35%, Ni: 30 - 75%, Al: 0.001 - 10%, and Cu: 0.01 - 10%. An oxide scale comprising predominantly Cr with a Cr content of at least 50% or an oxide scale comprising predominantly Cr and Al with a total content of Cr + Al of at least 50% may further be provided on the outer side of the Cu-enriched layer, and between this oxide scale and the Cu-enriched layer, a second oxide scale comprising predominantly Si with an Si content of at least 50% may be provided.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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- [A] EP 0727503 A1 19960821 - SUMITOMO METAL IND [JP]
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