

Title (en)
AUSTENITE STEEL MATERIAL HAVING SUPERIOR DUCTILITY

Title (de)
AUSTENITSTAHL MATERIAL MIT ERHÖHTER DEHNBARKEIT

Title (fr)
MATÉRIAU D'ACIER AUSTÉNITIQUE À DUCTILITÉ SUPÉRIEURE

Publication
EP 2520684 B1 20161026 (EN)

Application
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Abstract (en)
[origin: EP2520684A2] Provided is an austenite steel having excellent ductility including 8 wt% to 15 wt% of manganese (Mn), 3 wt% or less (excluding 0 wt%) of copper (Cu), a content of carbon (C) satisfying relationships of $33.5C + Mn \leq 25$ and $33.5C - Mn \geq 23$, and iron (Fe) as well as unavoidable impurities as a remainder. According to an aspect of the present invention, austenite is stabilized and generation of carbides in a network form at austenite grain boundaries is inhibited by adding copper (Cu) favorable to inhibition of carbide formation with respect to manganese and appropriately controlling contents of carbon and manganese, and thus, high economic efficiency may also be achieved while ductility and wear resistance are improved.

IPC 8 full level
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Cited by
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