

Title (en)  
PROCESS FOR MAKING A STEEL PART, AND STEEL PART SO OBTAINED

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINES STAHLTEILS UND IN DIESEM VERFAHREN HERGESTELLTES TEIL

Title (fr)  
PROCÉDÉ DE FABRICATION D'UNE PIÈCE D'ACIER ET PIÈCE D'ACIER AINSI OBTENUE

Publication  
**EP 2812455 A1 20141217 (EN)**

Application  
**EP 12719049 A 20120210**

Priority  
IB 2012000618 W 20120210

Abstract (en)  
[origin: WO2013117953A1] Process for making a steel part, characterized in that: - a half-product is prepared, having the following composition: \* 0.30% < C <= 0.46%; \* 1 % <= Mn <= 2%; \* 1 % <= Cr <= 1.5%; \* 2.3% <= Mn + Cr <= 3% \* traces <= Si <= 1.5%; \* traces <= Ni <= 2%, preferably traces < Ni <= 0.5%; \* 0.04% <= Mo <= 0.50%, preferably 0.04% <= Mo <= 0.25%; \* traces <= Cu <= 0.5%; \* 0.005 <= Ti + Nb <= 0.06%; \* traces <= V <= 0.3%; \* 0.001 % <= Al <= 0.1 %; \* traces <= B <= 0.01 %, preferably 0.0005% <= B <= 0.01 %; \* traces <= S <= 0.1 %, preferably 0.002% <= S <= 0.1 %; \* traces <= N <= 200 ppm; \* traces <= P <= 0.020%; \* traces <= O <= 35 ppm; the remaining elements being Fe and impurities resulting from the steelmaking process; \* with Ms = 561 - (474 x C%) - (33 x Mn%) - (17 x Cr%) - (21 x Mo%) - (17 x Ni%) °C <= 330 °C; - this half product is hot-formed at 1100-1300 °C by rolling or forging; - it undergoes an isothermal bainitic quench at a temperature Tb in the bainitic range, with a duration sufficient so as to give it a bainitic structure with less than 20% of martensite and/or pearlite and/or ferrite; Steel part made according to this process.

IPC 8 full level  
**C21D 1/18** (2006.01); **C21D 1/19** (2006.01); **C21D 6/00** (2006.01); **C21D 8/00** (2006.01); **C21D 9/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/18** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP)  
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Citation (search report)  
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