

Title (en)  
METHOD FOR PRODUCING A STEEL PART AND STEEL PART

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINES STAHLTEILS UND STAHLTEIL

Title (fr)  
PROCÉDÉ DE PRODUCTION D'UNE PIÈCE EN ACIER, ET PIÈCE EN ACIER

Publication  
**EP 4355920 A1 20240424 (EN)**

Application  
**EP 21734517 A 20210616**

Priority  
IB 2021055331 W 20210616

Abstract (en)  
[origin: WO2022263887A1] Method for producing a steel part comprising by weight:  $0.05\% \leq C \leq 0.15\%$ ,  $0.01\% \leq Si \leq 1\%$ ,  $1.2\% \leq Mn \leq 2\%$ ,  $0.1\% \leq Cr \leq 2\%$ ,  $0.001 \leq Al \leq 0.1\%$ ,  $0.003\% \leq N \leq 0.01\%$ ,  $0 \leq S \leq 0.015\%$ ,  $0 \leq P \leq 0.015\%$ ,  $0\% \leq Ni \leq 1\%$ ,  $0\% \leq B \leq 0.01\%$ ,  $0\% \leq Mo \leq 1\%$ ,  $0\% \leq Ti \leq 0.04\%$ ,  $0\% \leq Nb \leq 0.1\%$ ,  $0 \leq V \leq 0.5\%$  the remainder consisting of iron and unavoidable impurities, annealing this semi-finished product at an annealing temperature strictly lower than the Ac1 temperature of the steel; cooling it down to room temperature; cold forming the semi-finished product into a cold formed product; subjecting the cold formed product to a heat treatment comprising heating the cold formed product to a heat treatment temperature greater than or equal to the full austenitisation temperature Ac3 of the steel; and quenching to room temperature; optionally reheating the product at a holding temperature from 180 °C to 400 °C for a time from 15 minutes to 2 hours.

IPC 8 full level  
**C21D 8/02** (2006.01); **C21D 1/18** (2006.01); **C21D 8/06** (2006.01); **C21D 9/52** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/18** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/32** (2006.01); **C22C 38/40** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/54** (2006.01)

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