

Title (en)  
COMPONENT OF B-ZR-ALLOY STEEL

Title (de)  
BAUTEIL AUS B-ZR-LEGIERTEM STAHL

Title (fr)  
COMPOSANT EN ACIER ALLIÉ B-ZR

Publication  
**EP 4190934 A1 20230607 (DE)**

Application  
**EP 21211997 A 20211202**

Priority  
EP 21211997 A 20211202

Abstract (en)  
[origin: WO2023099654A1] The invention relates to a component comprising a part made of steel, the steel comprising, inter alia, 0.30 – 0.50 wt.% C, 0.05 – 1.3 wt.% Mn, 0.001 – 0.015 wt.% P, 0.001 – 0.015 wt.% S, 0.01 – 0.8 wt.% Si, 0.3 – 1.5 wt.% Cr, 0.005 – 0.40 wt.% V, 0.0008 – 0.0050 wt.% B, 0.02 – 0.35 wt.% Al, 0.0001 – 0.0200 wt.% N, 0.01 – 0.08 wt.% Ti, and 0.0030 – 0.0800 wt.% Zr, the remainder being iron and unavoidable impurities, wherein the B content in the steel at a depth of 5 - 60 µm is ≥ 80% of the B content in the steel at a depth of 500 µm.

Abstract (de)  
Bauteil mit einem Bestandteil aus Stahl, wobei der Stahl 0,30 - 0,50 Gew.-% C, 0,05 - 1,3 Gew.-% Mn, 0,001 - 0,015 Gew.-% P, 0,001 - 0,015 Gew.-% S, 0,01 - 0,8 Gew.-% Si, 0,3 - 1,5 Gew.-% Cr, 0,005 - 0,40 Gew.-% V, 0,0008 - 0,0050 Gew.-% B, 0,02 - 0,35 Gew.-% Al, 0,0001 - 0,0200 Gew.-% N, 0,01 - 0,08 Gew.-% Ti, 0,0030 - 0,0800 Gew.-% Zr, optional 0 - 0,20 Gew.-% Mo, 0 - 0,50 Gew.-% Ni, 0 - 0,50 Gew.-% Cu, 0,0010 - 0,0100 Gew.-% Ca, den Rest Eisen und unvermeidbare Verunreinigungen umfasst.

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**C21D 9/0093** (2013.01); **C22C 38/001** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/06** (2013.01); **C22C 38/24** (2013.01); **C22C 38/28** (2013.01); **C22C 38/32** (2013.01); **C21D 2211/002** (2013.01); **C21D 2211/005** (2013.01); **C21D 2211/008** (2013.01); **C21D 2211/009** (2013.01)

Citation (applicant)  
• WO 2021009705 A1 20210121 - ARCELORMITTAL [LU]  
• WO 2008142275 A2 20081127 - ARCELORMITTAL GANDRANGE [FR], et al

Citation (search report)  
• [I] EP 3078758 A1 20161012 - KOBE STEEL LTD [JP]  
• [A] EP 2546380 A1 20130116 - NIPPON STEEL CORP [JP]  
• [A] EP 2484789 A1 20120808 - KOBE STEEL LTD [JP]

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**EP 21211997 A 20211202**; CA 3238223 A 20221201; CN 202280079461 A 20221201; EP 2022084020 W 20221201; EP 22826100 A 20221201; KR 20247015995 A 20221201