Title (en)

AUSTENITIC HEAT-RESISTANT ALLOY AND WELDED STRUCTURE

Title (de)

AUSTENITISCHE HITZEBESTÄNDIGE LEGIERUNG UND GESCHWEISSTE STRUKTUR

Title (fr)

ALLIAGE AUSTÉNITIQUE THERMORÉSISTANT ET STRUCTURE SOUDÉE

Publication

EP 3318650 A1 20180509 (EN)

Application

EP 16817632 A 20160602

Priority

- JP 2015132552 A 20150701
- JP 2016066458 W 20160602

Abstract (en)

An austenitic heat-resistant alloy is provided that provides good crack resistance and high-temperature strength in a stable manner. The austenitic heat-resistant alloy has a chemical composition of, in mass %: 0.04 to 0.14 % C; 0.05 to 1 % Si; 0.5 to 2.5 % Mn; up to 0.03 % P; less than 0.001 % S; 23 to 32 % Ni; 20 to 25 % Cr; 1 to 5 % W; 0.1 to 0.6 % Nb; 0.1 to 0.6 % V; 0.1 to 0.3 % N; 0.0005 to 0.01 % B; 0.001 to 0.02 % Sn; up to 0.03 % Al; up to 0.02 % O; 0 to 0.5 % Ti; 0 to 2 % Co; 0 to 4 % Cu; 0 to 4 % Mo; 0 to 0.02 % Ca; 0 to 0.02 % Mg; 0 to 0.2 % REM; and the balance being Fe and impurities, the alloy having a microstructure with a grain size represented by a grain size number in accordance with ASTM E112 of 2.0 or more and less than 7.0.

IPC 8 full level

C22C 38/00 (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR US)

C22C 38/00 (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP KR US); **C22C 38/005** (2013.01 - EP KR US); **C22C 38/008** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - EP KR US); **C22C 38/48** (2013.01 - EP KR US); **C22C 38/50** (2013.01 - EP KR US); **C22C 38/52** (2013.01 - EP KR US); **C22C 38/54** (2013.01 - EP KR US); **C22C 38/58** (2013.01 - EP KR US); **C22C 38/60** (2013.01 - KR); C21D 2211/001 (2013.01 - EP KR US)

Cited by

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

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