

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 B1 20191009 (EN)

Application
EP 16817632 A 20160602

Priority
• JP 2015132552 A 20150701
• JP 2016066458 W 20160602

Abstract (en)
[origin: EP3318650A1] 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 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/52** (2006.01); **C22C 38/54** (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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