Title (en)

METHOD FOR PRODUCING A HOT PRESS MEMBER

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES HEISSPRESSELEMENT

Title (fr)

PROCÉDÉ DE PRODUCTION D'UN ÉLÉMENT DE PRESSE À CHAUD

Publication

EP 3366797 A1 20180829 (EN)

Application

EP 16857079 A 20161003

Priority

- JP 2015205751 A 20151019
- JP 2016004458 W 20161003

Abstract (en)

A hot pressed member having all of: high strength of 1500 MPa or more in tensile strength TS; high ductility of 6.0 % or more in uniform elongation uEl; and excellent heat treatment hardenability of increasing in yield stress YS by 150 MPa or more when subjected to heat treatment (baking finish) is provided. A hot pressed member comprises: a predetermined chemical composition (in particular, low C of 0.090 % or more and less than 0.30 % and high Mn of 3.5 % or more and less than 11.0 %); a microstructure including a martensite phase of 70.0 % or more in volume fraction and a retained austenite phase of 3.0 % or more and 30.0 % or less in volume fraction; and a dislocation density of 1.0 × 10 16 /m 2 or more.

IPC 8 full level

C22C 38/00 (2006.01); **B21D 22/20** (2006.01); **C21D 1/18** (2006.01); **C21D 6/00** (2006.01); **C21D 8/02** (2006.01); **C21D 9/00** (2006.01); **C21D 9/46** (2006.01); **C22C 18/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/08** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01); **C22C 38/16** (2006.01); **C22C 38/18** (2006.01); **C22C 38/60** (2006.01); **C23C 2/02** (2006.01); **C23C 2/28** (2006.01); **C23C 2/40** (2006.01); C23C 2/06 (2006.01); C23C 2/12 (2006.01)

CPC (source: EP KR US)

B21D 22/20 (2013.01 - KR); **C21D 1/18** (2013.01 - EP US); **C21D 6/005** (2013.01 - EP US); **C21D 8/0205** (2013.01 - KR); **C21D 8/0226** (2013.01 - KR); **C21D 8/0236** (2013.01 - KR); **C21D 8/0263** (2013.01 - EP KR US); **C21D 8/0268** (2013.01 - EP US); **C21D 9/46** (2013.01 - EP US); **C22C 18/00** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP KR US); **C22C 38/08** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/14** (2013.01 - EP US); **C22C 38/16** (2013.01 - EP US); **C22C 38/18** (2013.01 - EP US); **C23C 2/0224** (2022.08 - EP KR US); **C23C 2/024** (2022.08 - EP KR US); **C23C 2/06** (2013.01 - EP KR US); **C23C 2/12** (2013.01 - EP US); **C23C 2/28** (2013.01 - EP KR US); **C23C 2/40** (2013.01 - EP US); **C23C 30/005** (2013.01 - KR); B21D 22/208 (2013.01 - EP US); C21D 2211/001 (2013.01 - EP US); C21D 2211/008 (2013.01 - EP KR US)

Cited by

EP3492618A4; EP3438316A4; US11293075B2; US10858718B2

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Designated extension state (EPC)

BA ME

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