

## Title (en)

STEEL SHEET FOR HOT PRESS FORMING, HOT PRESS FORMING MEMBER, AND MANUFACTURING METHOD THEREOF

## Title (de)

STAHLBLECH FÜR HEISSPRESSFORMEN, HEISSPRESSFORMELEMENT UND HERSTELLUNGSVERFAHREN DAFÜR

## Title (fr)

TÔLE D'ACIER POUR UN FORMAGE PAR PRESSAGE À CHAUD, ÉLÉMENT DE FORMAGE PAR PRESSAGE À CHAUD ET PROCÉDÉ DE FABRICATION ASSOCIÉ

## Publication

**EP 2778247 A4 20150812 (EN)**

## Application

**EP 12847953 A 20121105**

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## Abstract (en)

[origin: EP2778247A1] Provided are a steel sheet for warm press forming that can have high strength, good elongation, and thus improved crashworthiness after being warm pressed, and a warm-pressed member formed of the steel sheet, and manufacturing methods thereof. The steel sheet for warm press forming includes, by weight%, C: 0.01% to 0.5%, Si: 3.0% or less (excluding 0%), Mn: 3% to 15%, P: 0.0001% to 0.1%, S: 0.0001% to 0.03%, Al: 3.0% or less (excluding 0%), N: 0.03% or less (excluding 0%), and the balance of Fe and inevitable impurities.

## IPC 8 full level

**C22C 38/04** (2006.01); **B21B 1/04** (2006.01); **B21B 15/00** (2006.01); **C21D 6/00** (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (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 38/38** (2006.01); **C22C 38/58** (2006.01); **C22C 38/60** (2006.01); **C23C 2/02** (2006.01); **C23C 2/06** (2006.01); **C23C 2/12** (2006.01)

## CPC (source: EP KR US)

**B21B 1/04** (2013.01 - US); **B21B 15/00** (2013.01 - US); **C21D 6/005** (2013.01 - EP US); **C21D 8/02** (2013.01 - KR US); **C21D 8/0226** (2013.01 - US); **C21D 8/0463** (2013.01 - EP US); **C21D 8/0473** (2013.01 - EP US); **C21D 9/46** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/008** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP 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); **C22C 38/38** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP KR US); **C22C 38/60** (2013.01 - EP US); **C23C 2/02** (2013.01 - EP KR US); **C23C 2/0224** (2022.08 - EP KR US); **C23C 2/024** (2022.08 - EP KR US); **C23C 2/06** (2013.01 - EP US); **C23C 2/12** (2013.01 - EP US); **B21B 2015/0057** (2013.01 - US); **C21D 7/13** (2013.01 - EP US); **C21D 8/0478** (2013.01 - EP US); **C21D 2211/001** (2013.01 - EP US); **C21D 2211/002** (2013.01 - EP US); **C21D 2211/005** (2013.01 - EP US); **C21D 2211/008** (2013.01 - EP US)

## Citation (search report)

- [XA] WO 2007067014 A1 20070614 - POSCO [KR], et al
- [X] WO 2009142361 A1 20091126 - POSCO [KR], et al
- [X] EP 1731627 A1 20061213 - JFE STEEL CORP [JP]
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