

Title (en)

Process for manufacturing of a part from a hot-rolled sheet

Title (de)

Herstellungsverfahren für Formteile aus warmgewalztem Stahlblech

Title (fr)

Procédé de réalisation d'une pièce à partir d'une bande de tôle d'acier laminée à chaud

Publication

EP 1013785 B1 20061025 (FR)

Application

EP 99403227 A 19991221

Priority

FR 9816477 A 19981224

Abstract (en)

[origin: EP1013785A1] A component is produced from a strip of rolled (especially hot-rolled) sheet steel, by coating with aluminum or its alloy and pressing operations. The process involves: (a) coating the rolled sheet with a metal or an alloy assuring protection of the surface and the steel; (b) raising the temperature of the coated sheet for forming; (c) producing, at the surface, an intermetallic alloy composite assuring protection against corrosion and decarburization of the steel, with the intermetallic composite able to assure a lubrication function; (d) forming the coated sheet, notably by pressing; (e) cooling the formed component in order to confer increased hardness of the steel and increased surface hardness in the coating. The metal used for coating the steel sheet is aluminum or an aluminum alloy, so that the intermetallic alloy composite is made up of aluminum, iron and silicon.

IPC 8 full level

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CPC (source: EP US)

C21D 1/673 (2013.01 - EP); **C21D 9/48** (2013.01 - EP); **C23C 2/12** (2013.01 - EP); **C23C 2/26** (2013.01 - EP US); **C23C 2/28** (2013.01 - EP US); **C23C 2/29** (2022.08 - EP US)

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