Title (en)

METHOD FOR PRODUCING HARDENED PARTS FROM SHEET STEEL

Title (de)

VERFAHREN ZUM HERSTELLEN VON GEHARTETEN BAUTEILEN AUS STAHLBLECH

Title (fr)

PROCEDE DE PRODUCTION D'ELEMENTS CONSTITUTIFS EN TOLE D'ACIER TREMPE

Publication

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Application

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Abstract (en)

[origin: WO2005021820A1] The invention relates to a method for producing a hardened profile part from a hardenable steel alloy having cathodic corrosion protection, whereby: a) a coating is applied to a sheet made of a hardenable steel alloy; b) the coating is essentially comprised of zinc; c) the coating additionally contains one or more oxygen-affine elements in a total amount of 0.1 % by weight to 15 % by weight with regard to the entire coating; d) the coated steel sheet is subsequently roll-profiled in a profiling machine whereby shaping the sheet strip into a roll-shaped profile strand, and; e) the coated steel sheet is then, at least in partial areas and with the admission of atmospheric oxygen, brought to a temperature necessary for hardening and is heated until it undergoes a microstructural change necessary for hardening, whereby f) a superficial skin is formed on the coating from an oxide of the oxygen-affine element(s), and; g) the sheet is cooled after sufficient heating, whereby the cooling rate is calculated in order to achieve a hardening of the sheet alloy. The invention also relates to a corrosion protection layer for the method and a profile part resulting therefrom.

IPC 8 full level

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CPC (source: EP KR US)

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