

Title (en)

LASER WELDING OF ZINC-COATED PARTS

Title (de)

LASERSCHWEISSUNG ZINKBESCHICHTETER TEILE

Title (fr)

SOUDAGE LASER DE PIÈCES REVÊTUES DE ZINC

Publication

**EP 2219817 A2 20100825 (FR)**

Application

**EP 08854149 A 20081106**

Priority

- FR 2008052002 W 20081106
- FR 0759032 A 20071114

Abstract (en)

[origin: WO2009068789A2] The invention relates to a method that uses a laser beam for welding a zinc-coated metal part with at least a second metal part, in which: the parts are positioned so as to be in contact or near-contact relative to each other so that there is no or practically no gap between said parts; the weld bead is formed by melting the metal with the formation of a capillary or keyhole filled with metal vapours immediately downstream from the impact point of the beam on the part(s); and a first gas flow is directed solely towards the opening of the metal vapour capillary in order to apply a dynamic gaseous pressure thereon sufficient for maintaining the capillary sufficiently open for ensuring the discharge of at least a portion of the zinc vapours from the surface coating during the entire relative movement of the laser beam relative to the parts. The method is particularly adapted for welding parts in the automotive industry.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 2009068789A2

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