

Title (en)

ELECTRICAL CONNECTION BETWEEN AN ELECTRIC CONDUCTOR AND A CONTACT ELEMENT

Title (de)

ELEKTRISCHE VERBINDUNG ZWISCHEN EINEM ELEKTRISCHEN LEITER UND EINEM KONTAKTELEMENT

Title (fr)

RACCORDEMENT ÉLECTRIQUE ENTRE UN CONDUCTEUR ÉLECTRIQUE ET UN ÉLÉMENT DE CONTACT

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Application

EP 19184264 A 20190703

Priority

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Abstract (en)

[origin: WO2021001434A1] The invention relates to a method for producing an electrical connection between an electrical conductor (5), which comprises a plurality of individual wires (9), and a contact element (2), wherein: the electrical conductor (5) is arranged in a contact portion (4) of the contact element (2), and the contact portion (4) and the electrical conductor (5) are subsequently pressed together such that the contact portion (4) surrounds the electrical conductor (5); a plurality of mutually spaced elongate welded connections (14) between the contact portion (4) and the electrical conductor (5) are produced by means of laser irradiation of the contact portion (4), or by means of laser irradiation of the electrical conductor (5) through an opening (17) in the contact portion (4); the elongate welded connections (14) extend in an irradiation direction from an irradiated region (13) of the contact portion (4), or from an irradiated region (13) of the electrical conductor (5), through the entire cross section of the pressed electrical conductor (5) to a region of the contact portion (4) opposite the irradiated region (13), such that the electrical conductor (5) is connected to said region of the contact portion (4); and the irradiated regions (13) are arranged in the form of a grid.

Abstract (de)

Verfahren zur Herstellung einer elektrischen Verbindung zwischen einem mehrere Einzeldrähte (9) umfassenden elektrischen Leiter (5) und einem Kontaktelement (2), wobei der elektrische Leiter (5) in einem Kontaktabschnitt (4) des Kontaktelements (2) angeordnet wird und nachfolgend der Kontaktabschnitt (4) und der elektrische Leiter (5) miteinander verpresst werden, sodass der Kontaktabschnitt (4) den elektrischen Leiter (5) umgreift, und wobei mittels einer Laserbestrahlung des Kontaktabschnitts (4) zumindest zwei voneinander beabstandete längliche Schweißverbindungen (14) zwischen dem Kontaktabschnitt (4) und dem elektrischen Leiter (5) hergestellt werden, wobei sich die länglichen Schweißverbindungen (14) in einer Bestrahlungsrichtung jeweils von einem bestrahlten Bereich (13) des Kontaktabschnitts (4) zumindest abschnittsweise in den elektrischen Leiter (5) erstrecken.

IPC 8 full level

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Citation (applicant)

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Citation (search report)

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