

Title (en)

Method and apparatus for toughening metal strap buckles

Title (de)

Verfahren und Vorrichtung zur Erhöhung der Zähigkeit von metallischen Gurtbandschnallen

Title (fr)

Méthode et dispositif pour augmenter la ténacité de boucles métalliques de sangles

Publication

EP 1134165 A3 20030528 (EN)

Application

EP 01106286 A 20010315

Priority

US 52552500 A 20000315

Abstract (en)

[origin: EP1134165A2] The invention relates to a metal tie buckle made from a single piece of rounded wire that has been bent into a predetermined configuration, wherein two pairs of strap engaging arms that are essentially parallel to one another are provided for securing the buckle to the strap. The buckle has been treated with a hardening process, such as carburizing, carbonitriding, nitriding and induction hardening, that strengthens and toughens the buckle. This helps to keep the arms parallel and prevents the propensity of the buckle to achieve plastic deformation, which in turn helps to prevent the strap from being pinched, or otherwise causing uneven stress on the strap, which could result in premature failure of the strap.
<IMAGE>

IPC 1-7

B65D 63/16; **A44B 11/02**

IPC 8 full level

B65D 63/16 (2006.01)

CPC (source: EP)

B65D 63/16 (2013.01)

Citation (search report)

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