

Title (en)

DEFORMATION ELEMENT COMPRISED OF A DUCTILE METALLIC LIGHTWEIGHT MATERIAL AND THE USE THEREOF

Title (de)

DEFORMATIONSELEMENT AUS EINEM DUKTILEN METALLISCHEN LEICHTWERKSTOFF UND DESSEN VERWENDUNG

Title (fr)

ELEMENT DE DEFORMATION REALISE DANS UN MATERIAU METALLIQUE LEGER DUCTILE ET SON UTILISATION

Publication

EP 1171331 A1 20020116 (DE)

Application

EP 00925162 A 20000403

Priority

- DE 19915237 A 19990403
- EP 0002943 W 20000403

Abstract (en)

[origin: DE19915237A1] Deformation element is made of a lithium or magnesium alloy. Independent claims are also included for: (i) a deformation element consisting of a ductile, energy absorbent metallic material of $\geq 2.5 \text{ g/cm}^3$ density, especially a lithium or magnesium alloy, the material having an absorbed impact energy of $\geq 33 \text{ J}$ as measured on a notch-free specimen at room temperature; (ii) a deformation element consisting of a ductile, energy absorbent metallic material of $\geq 2.5 \text{ g/cm}^3$ density, especially a lithium or magnesium alloy, the material exhibiting a specific absorbed deformation energy of $\geq 5000 \text{ Nm/kg}$ and/or an absorbed deformation energy of $\geq 3000 \text{ Nm}$ as measured on cylindrical tubes of 100 mm outside diameter and 2 mm wall thickness over a 200 mm deformation path at room temperature in a quasi-static deformation test and/or a dynamic crash test; and (iii) an assembly of support elements and deformation elements as described above.

IPC 1-7

B60R 25/10; B60R 25/04; G08B 25/10; B60R 19/34; B62D 21/15; C22C 23/00; C22F 1/06

IPC 8 full level

F16F 7/12 (2006.01)

CPC (source: EP)

F16F 7/12 (2013.01)

Citation (search report)

See references of WO 0059760A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

DE 19915237 A1 20001005; EP 1171331 A1 20020116; WO 0059760 A1 20001012

DOCDB simple family (application)

DE 19915237 A 19990403; EP 0002943 W 20000403; EP 00925162 A 20000403