

Title (en)
HOLLOW-BODIED COMPONENT AND METHOD FOR PRODUCING A COMPONENT OF THIS TYPE

Title (de)
HOHLKÖRPERBAUTEIL UND VERFAHREN ZUR HERSTELLUNG EINES DERARTIGEN BAUTEILES

Title (fr)
ELEMENT A CORPS CREUX ET PROCEDE DE FABRICATION ASSOCIE

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Application
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Abstract (en)
[origin: WO2006026963A1] The invention relates to a hollow-bodied component consisting of at least two die-cast shell elements (1, 2), which is suitable in particular for use as a steering component in motor vehicle running-gear assemblies. Said hollow-bodied component is characterised in that at least one respective connection zone (5, 6, 18, 19) is configured on the shell elements (1, 2) to be interconnected, one connection zone (5) consisting of at least one first contact area (7) with an essentially U-shaped cross-section that is located on the respective shell element (1) and the second connection zone consisting of at least one strut-type second contact area (8) that engages in the space in the U-shaped first contact area (7) and that is located on the respective other shell element (2). The connection zones (5, 6, 18, 19) are joined in a force fit in a cold welding process that uses a contact pressure ($F_{SUB>1</SUB>}$, $F_{SUB>2</SUB>}$), whose value is a multiple of the separating force components ($F_{SUB>r</SUB>}$) that act on the connection zones (5, 6, 18, 19) during operation. The invention also relates to a method for producing a hollow-bodied component. The special configuration of the connection zones (5, 6) in conjunction with the cold welding in said zones permits the production of a cost-effective component, which, in contrast to prior art, has a reduced weight by a special adaptation of the wall thicknesses achieved in the aluminium die-casting process.

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