

Title (en)

IMPROVED METHOD FOR MANUFACTURING A STRUCTURE COMPONENT FOR A MOTOR VEHICLE BODY

Title (de)

VERBESSERTES VERFAHREN ZUR HERSTELLUNG EINES STRUKTURTEILS FÜR EINE KRAFTFAHRZEUGKAROSSERIE

Title (fr)

PROCÉDÉ AMÉLIORÉ DE FABRICATION D'UN COMPOSANT DE STRUCTURE D'UNE CARROSSERIE DE VÉHICULE AUTOMOBILE

Publication

EP 3839085 A1 20210623 (EN)

Application

EP 19306659 A 20191217

Priority

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Abstract (en)

A method for manufacturing a rolled product for automobile bodywork or body structure with an alloy containing Si: 0.75 -1.10, Fe: max 0.4, Cu: 0.5 - 0.8, Mn: 0.1 - 0.4, Mg: 0.75 - 1, Ti: max 0.15, Cr: max 0.1 and V: max 0.1 is disclosed with several process steps from casting the ingot to forming and painting a car body part. The various possibilities of pre ageing of the sheet as well as of the heat treatment of the part offer advantageous material properties in forming, material strength and low sensitivity to the bake hardening process which can vary depending in the part location in the car body.

IPC 8 full level

C22C 21/02 (2006.01); **C22C 21/08** (2006.01); **C22F 1/043** (2006.01); **C22F 1/05** (2006.01)

CPC (source: EP KR US)

C21D 8/0226 (2013.01 - KR US); **C21D 8/0236** (2013.01 - KR US); **C21D 8/0247** (2013.01 - KR); **C21D 8/0263** (2013.01 - US); **C22C 21/02** (2013.01 - EP KR US); **C22C 21/08** (2013.01 - EP KR US); **C22F 1/043** (2013.01 - EP KR); **C22F 1/05** (2013.01 - EP KR US)

Citation (applicant)

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- US 2002039664 A1 20020404 - MAGNUSEN PAUL E [US], et al
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Citation (search report)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3839085 A1 20210623; **EP 3839085 B1 20230426**; CA 3162027 A1 20210624; CN 114829644 A 20220729; EP 4077753 A1 20221026; JP 2023506278 A 20230215; KR 20220113793 A 20220816; US 2023008838 A1 20230112; WO 2021122621 A1 20210624

DOCDB simple family (application)

EP 19306659 A 20191217; CA 3162027 A 20201215; CN 202080087196 A 20201215; EP 2020086256 W 20201215; EP 20842558 A 20201215; JP 2022536960 A 20201215; KR 20227024163 A 20201215; US 202017781682 A 20201215