

Title (en)

METHOD AND DEVICE FOR PRODUCING AN INTEGRAL HOUSING FOR A HYDRAULIC STEERING GEAR

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG EINES INTEGRALGEHÄUSES FÜR HYDROLENKUNG

Title (fr)

PROCEDE ET DISPOSITIF POUR PRODUIRE UN BOITIER D'UNE SEULE PIÈCE DESTINÉ À UNE DIRECTION HYDRAULIQUE

Publication

EP 1030752 A1 20000830 (DE)

Application

EP 98965585 A 19981112

Priority

- DE 9803421 W 19981112
- DE 19751408 A 19971114

Abstract (en)

[origin: DE19751408A1] The invention relates to a method for producing an integral housing for a hydraulic steering gear. Said housing comprises a housing section for housing a steering gear having a pinion and a rack, and an adjacent section for housing the hydraulic steering support system. The invention is characterised in that a cold-formed hollow profile (17) used as starting material is sealed on one or both sides, in the vicinity of the area to be formed by applying an internal high pressure, and then, following the application of said pressure, at least one area is submitted to a combined reverse drawing-internal high pressure application process. Simultaneously, the material is advanced in the axial direction in a controlled way, and an internal high pressure calibration is carried out. The areas which are not submitted to the internal high pressure are calibrated, deformed and/or drawn out. The main forming process can be optionally followed by other local forming processes, and the inventive method ends with a final mechanical machining. The invention also relates to a device for implementing said method. This device comprises a die (1, 2), a clamping and advance unit (9) as well as sealing members (5, 21) closing the hollow profile.

IPC 1-7

B21D 26/02; B62D 5/22

IPC 8 full level

B21C 37/29 (2006.01); **B21D 26/02** (2006.01); **B21D 26/047** (2011.01); **B23P 15/00** (2006.01); **B62D 5/22** (2006.01)

CPC (source: EP)

B21C 37/294 (2013.01); **B21D 22/025** (2013.01); **B21D 26/047** (2013.01); **B21D 35/006** (2013.01); **B21D 39/20** (2013.01); **B23P 15/00** (2013.01)

Citation (search report)

See references of WO 9925506A1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

DE 19751408 A1 19990602; DE 19751408 C2 19991021; AU 2148699 A 19990607; EP 1030752 A1 20000830; JP 2001523576 A 20011127;
WO 9925506 A1 19990527

DOCDB simple family (application)

DE 19751408 A 19971114; AU 2148699 A 19981112; DE 9803421 W 19981112; EP 98965585 A 19981112; JP 2000520929 A 19981112