

Title (en)
INTEGRATED PLATE WELDED-JOINT-FREE VEHICLE WHEEL AND FORMING METHOD THEREOF

Title (de)
SCHWEISSVERBINDUNGSFREIES FAHRZEUGRAD MIT INTEGRIERTER PLATTE UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
ROUE DE VÉHICULE SANS ASSEMBLAGE SOUDÉ À PLAQUE INTÉGRÉE ET SON PROCÉDÉ DE FORMAGE

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EP 3184185 A4 20180418 (EN)

Application
EP 15834272 A 20150106

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Abstract (en)
[origin: EP3184185A1] The present invention provides forming methods of one-piece weldless wheels made of metal sheets including the steps of rolling, forming a primary wheel rim and a primary wheel disc, roll forming, compressing and shaping, in order to obtain one-piece weldless wheels made of metal sheets. The forming methods of one-piece weldless wheels made of metal sheets of the present invention can form weldless wheels made of metal sheets by rolling, cold roll forming and cold extruding, which can reduce energy consumption by 45-55% and cut down material cost by 5-15% while improve strength of the wheel by 20-30%. A wheel with different thicknesses (The thicknesses of various sections of the wheel are different.) can be formed by the methods of the present invention and such wheel can meet the requirements on mechanical strength. Besides, the methods also can significantly improve the precision of the wheel and reduce the swing value and jerk value to the minimum. Additionally, the wheel produced by the methods of the present invention is safer, and the regular air tight test on the wheel is not necessary. Moreover, the present invention also provides one-piece weldless wheels made of metal sheets which are manufactured by the methods of one-piece weldless wheels made of metal sheets.

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Citation (search report)
• [X] US 3270402 A 19660906 - EDWARD ADAMS GEORGE, et al
• See references of WO 2016026261A1

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