

Title (en)
METHOD FOR FILLING A PRESSURISED RESERVOIR PROVIDED FOR A CRYOGENIC STORED MEDIUM IN PARTICULAR HYDROGEN

Title (de)
VERFAHREN ZUM BEFÜLLEN EINES FÜR EIN KRYOGENES SPEICHERMEDIUM, INSBESONDERE WASSERSTOFF, VORGESEHENEN DRUCKSPEICHERS

Title (fr)
PROCÉDÉ DE REMPLISSAGE D'UN RÉSERVOIR SOUS PRESSION PRÉVU POUR UN FLUIDE À STOCKER CRYOGÉNIQUE, NOTAMMENT DE L'HYDROGÈNE

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Abstract (en)
[origin: WO2008110453A2] The invention relates to a method for filling a cryogenic pressurised tank on a motor vehicle provided for cryogenic hydrogen, in which cryogenic hydrogen taken from a large reservoir in liquid form, essentially at atmospheric pressure with a corresponding saturation temperature, can be stored with absolute pressure values in the range of 150 bar or more. The hydrogen is adiabatically compressed with a cryopump after withdrawal from the large reservoir and delivered to the cryotank at a supercritical pressure (13bar or more). A recooling to ca 20k preferably occurs previously by running the compressed hydrogen through a heat exchanger arranged in the hydrogen stored in the large reservoir. The residual cryo medium in the cryo pressure tank can be removed from the cryo pressure tank and introduced into the larger reservoir before the filling with new stored medium.

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