

Title (en)

METHOD FOR THE HEAT TREATMENT OF A WORKPIECE CONSISTING OF A HIGH-ALLOY STEEL

Title (de)

VERFAHREN ZUR WÄRMEBEHANDLUNG EINES AUS EINEM HOCHLEGIIERTEN STAHL BESTEHENDEN WERKSTÜCKS

Title (fr)

PROCÉDÉ DE TRAITEMENT THERMIQUE D'UNE PIÈCE À USINER CONSTITUÉE D'UN ACIER FORTEMENT ALLIÉ

Publication

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Application

EP 17800725 A 20171030

Priority

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Abstract (en)

[origin: WO2018086930A1] Method for the treatment of a workpiece (S) consisting of a high-alloy steel, wherein the workpiece (S) is heated in a vacuum environment to a first temperature (T1), wherein the first temperature (T1) is kept constant during a first holding phase (H1), wherein the workpiece (S) is subsequently heated to a second temperature (T2), which is higher than the first temperature (T1), wherein the second temperature (T2) is kept constant during a second holding phase (H2), and wherein, after the second holding phase (H2), the workpiece (S) is quenched, wherein, in a first treatment step (B1) during the first holding phase (H1), a surface (1) of the high-alloy steel (S) is flowed around by a hydrogen-emitting process gas and/or process gas mixture (P1) for cleaning and activating the surface (1), wherein, in a second treatment step (B2) during the first holding phase (H1), the surface (1) is flowed around by a nitrogen-emitting process gas and/or process gas mixture (P2) for forming a nitride-containing layer (2), and wherein the nitride-containing layer (2) is intended for optimizing a downstream gas-nitriding process.

IPC 8 full level

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