Title (en)

STEEL SHEET FOR CROWN CAPS, PRODUCTION METHOD THEREFOR, AND CROWN CAP

Title (de)

STAHLBLECH FÜR KRONKORKEN, HERSTELLUNGSVERFAHREN DAFÜR UND KRONKORKEN

Title (fr)

TÔLE D'ACIER POUR CAPSULE-COURONNE, PROCÉDÉ DE FABRICATION CORRESPONDANT, ET CAPSULE-COURONNE

Publication

EP 3476964 B1 20210127 (EN)

Application

EP 17855743 A 20170914

Priority

- JP 2016192247 A 20160929
- JP 2017033179 W 20170914

Abstract (en)

[origin: EP3476964A1] To provide a steel sheet for crown caps, having sufficient pressure resistance and formability regardless of gauge reduction; a method for manufacturing the same; and a crown cap. A steel sheet for crown caps has a predetermined composition, wherein N total-(N as AlN) is 0.0090% to 0.0170%, the maximum grain size of a carbide is 2.0 μm or less in a cross section in a rolling direction, and the yield strength is 420 MPa to 600 MPa in the rolling direction. A method for manufacturing a steel sheet for crown caps includes a hot rolling step of coiling a steel material having a predetermined composition at a predetermined temperature after finish rolling; a primary cold rolling step; a continuous annealing step of performing heating at an average heating rate of 10 °C/s to 30 °C/s in a temperature range A from 500 °C to 600 °C in a heating course, annealing at a annealing temperature B in a temperature range from 620 °C to 740 °C, cooling from the annealing temperature B to a cooling stop temperature C in a temperature range from 400 °C to 580 °C at an average cooling rate of 20 °C/s or more, and retaining in the temperature range from 400 °C to 580 °C for a retention time of 30 seconds to 90 seconds after cooling at the above average cooling rate is stopped; and a secondary cold rolling step of performing cold rolling at a rolling reduction ratio of 1.0% to 12%.

IPC 8 full level

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CPC (source: EP)

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Cited by

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