Title (en)

THIN STEEL SHEET FOR AUTOMOBILE EXCELLENT IN NOTCH FATIGUE STRENGTH AND METHOD FOR PRODUCTION THEREOF

Title (de)

DÜNNES STAHLBLECH FÜR AUTOS MIT HERVORRAGENDER KERBDAUERFESTIGKEIT UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

FEUILLE MINCE D'ACIER A RESISTANCE DE FATIGUE D'ENTAILLE EXCELLENTE, DESTINEE A UNE AUTOMOBILE, ET PROCEDE DE PRODUCTION

Publication

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Application

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Abstract (en)

[origin: EP1362930A1] The present invention provides a thin steel sheet, for automobile use, excellent in notch-fatigue strength, and a method for producing said steel sheet. Specifically, the present invention is a thin steel sheet for automobile use excellent in notch-fatigue strength, said steel sheet containing, in mass, 0.01 to 0.3% C, 0.01 to 2% Si, 0.05 to 3% Mn, 0.1% or less P, 0.01% or less S and 0.005 to 1% Al, with the balance consisting of Fe and unavoidable impurities, characterized in that, on a plane at an arbitrary depth within 0.5 mm from the surface of said steel sheet in the thickness direction thereof, the average of the ratios of the X-ray diffraction strength in the orientation component group of ä100ü<011> to ä223ü<110> to random X-ray diffraction strength is 2 or more and the average of the ratios of the X-ray diffraction strength in the three orientation components of ä554ü<225>, ä111ü<112> and ä111ü<110> to random X-ray diffraction strength is 4 or less and that the thickness of said steel sheet is in the range from 0.5 to 12 mm, and a method for producing said steel sheet by subjecting a steel slab containing aforementioned chemical components to rolling at a total reduction ratio of 25% or more in a temperature range of the Ar3 transformation temperature + 100 DEG C or lower. <IMAGE>

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Citation (search report)

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