

ABSTRACT

SURFACE-TREATED STEEL SHEET AND METHOD FOR MANUFACTURING THE SAME

There is provided a surface-treated steel sheet having a steel sheet and a nickel-cobalt-iron diffusion layer formed as an outermost surface layer on the steel sheet, wherein when a content of Ni, a content of Co and a content of Fe of the nickel-cobalt-iron diffusion layer are determined based on a Ni intensity, a Co intensity and a Fe intensity each sequentially measured in the depth direction from the surface side of the nickel-cobalt-iron diffusion layer by a radio frequency glow discharge optical emission spectrometry, a content of Co at a specific depth position D , $In_{Co,D}$, is 5% by mass or higher and a content of Fe at the specific depth position D , $In_{Fe,D}$, is 11% by mass or higher, the specific depth position D being a position where the Ni intensity is 0.5% of the maximum value of the Ni intensity.

[Fig. 3]