Abstract

AN ATMOSPHERIC CORROSION RESISTANT STEEL PLATE AND THE PRODUCTION METHOD THEREOF

The present invention discloses an atmospheric corrosion resistant steel plate and the production method Therefor. The atmospheric corrosion resistant steel plate comprises the components in percentage by mass: C: 0.04-0.10%, Si: 0.18-0.35%, Mn: 1.00-1.60%, P: 0.008-0.015%, Cu: 0.25-0.45%, Cr: 0.40-0.60%, Ni: 0.30-0.50%, Al: 0.02-0.05% and Nb: 0.01-0.05%, with the balance being Fe and unavoidable impurities. The steel plate can obtain excellent welding performance and simultaneously have ultra-high strength, high toughness and high atmospheric corrosion resistance under the condition of a low P content through a reasonable composition proportion, which well satisfies the application in monorail turnouts. According to its production method, the austenite grain structure is repeatedly refined by adopting a two-stage rolling process, to improve the strength of the steel plate. No quenching or tempering is needed during the production, which reduces the production cost and shortens the production period.

(Fig. 1)