

عنوان مقاله:

Investigation of the cause of failure of γ -Cr γ ball steel during the process of firing and quenching in water

محل انتشار:

مجله ی بین المللی انجمن آهن و فولاد ایران, دوره 18, شماره 2 (سال: 1401)

تعداد صفحات اصل مقاله: 7

نویسنده:

Arash Bagheriyeh - senior technology engineer

خلاصه مقاله:

Mill pellets are most used in cement, steel and copper industries and its role in crushing and production of materials and products with optimal grain size and as a mineral production agent in metal and non-metallic mineral processing industries including cement factories, stone mines Iron and copper mines are required. On the other hand, it is used to a limited extent in some defense industries and heavy metal mines. In this study, the factors affecting the failure of steel balls produced from continuous casting ingots with γ -Cr γ material during the quenching process in water have been investigated. The samples are 2 destroyed balls and a healthy ball that the destroyed balls, during the production process and before being put into operation (some balls immediately after the quenching process and some others have failed after the tempering process. In order to investigate the causes of destruction, visual inspection, emission spectroscopy, metallography, hardness and scanning electron microscopy studies were performed along with EDS analysis. The high hardness of the sample is due to improper heat treatment and cracking during cooling and when hitting the bullets from the place of forging defects and below the surface in the place of grains, defects and impurities

کلمات کلیدی:

γ -Cr γ Balls, Heat treatment, Fracture, EDS, SEM, Hardness

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1662402>

