Study on the Factors Influencing Generation of Scorings of Wheelseats of the Railway Axles and the Effectiveness of Surface Treatment Methods

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The scorings of wheelseats of the axles sometimes occur during the press-fit operation. The number of the axles for the meter-gauged line vehicles scrapped by scoring is larger than that of the axles scrapped by the other reasons. Therefore, to decrease the generation of scorings of wheelseats results in the decrease of the number of the scrapped axles. However, there have been few studies on the generation of scorings on wheelseats; accordingly not only the mechanism but also the factors influencing generation of scorings of wheelseats have not yet been cleared. In this paper, the influence of the surface roughness and the surface hardness on the generation of scorings of wheelseats and the effective surface treatment methods of wheelseats have been discussed.