

Development of the Hanger-ear against Heavily Corrosive Environment

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Metal fittings such as hanger-ear used in overhead contact line are damaged occasionally due to corrosion. Among these metal fittings, in order to study hanger-ear against heavily corrosive environment, aluminum bronze test pieces amounts of nickel and aluminum of which were changed, were prepared. The atmospheric exposure test of the test pieces was carried out in Gatsugi anti-salt testing station and their corrosion resistance of the test pieces was evaluated after the test. Actual hanger-ears with the same chemical components as those of the test pieces were manufactured and put to the field test in a railroad section under the influence of salt damage and in another railroad section under the influence of hot spring and salt damage. As the result, it has been found that the aluminum bronze hanger-ear which has lower aluminum content and higher nickel content among the hanger-ears manufactured has a better corrosion resistance.