

Rail Gas Pressure Welding of Low Upset Length Using Variable Pressure Method

Hajime ITOH Yuki KONAYA

In order to reduce the bulge of gas pressure weld and finish by grinding only, the authors carried out rail gas pressure welding tests and numerical analysis for reduction of the upset length. In the tests, a new rail gas pressure welding method using the variable pressure method was achieved with a compression of the upset length of about 6 mm, which is 1/4 of the conventional method, with sufficient strength for practical use. As the trimming process is not necessary, the trimming device is not required. This also reduces the weight of the gas pressure rail welding machine.