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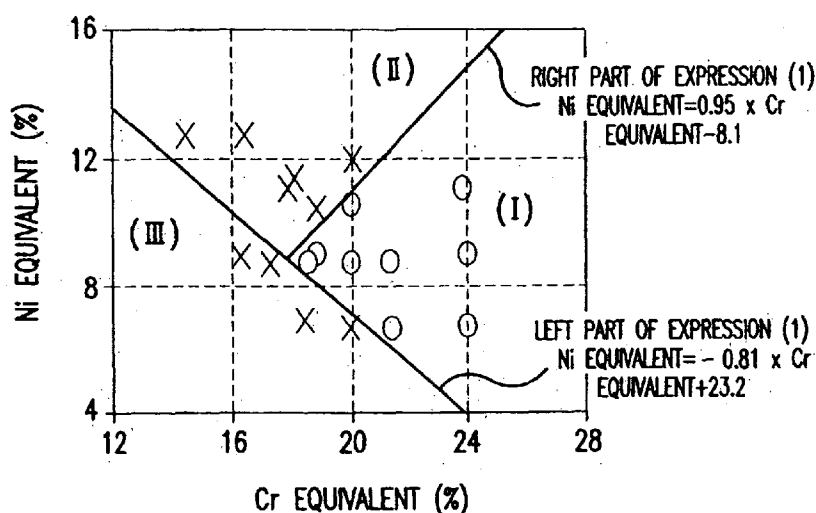
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(54) Title: WELD JOINT FORMED WITH STAINLESS STEEL-BASED WELD METAL FOR WELDING A ZINC-BASED ALLOY COATED STEEL SHEET



(57) Abstract: Disclosed are a weld joint and a stainless steel-based weld metal composition for the weld joint. The composition and weld joint made therefrom are suitable for welding a zinc-based alloy coated steel sheet. The weld is excellent in corrosion resistance and liquid-metal embrittlement crack resistance. This is accomplished by inhibiting liquid-metal embrittlement cracks of the stainless-steel-based weld metal when the zinc-based alloy coating steel sheet is welded using the stainless-steel-based weld metal. The weld joint comprises a welded portion of weld metal made of stainless-steel-based components, the weld metal containing in mass percent (%): C: 0.01-0.1; Si: 0.1-1; Mn: 0.5-2.5; Ni: 5-11; and Cr: 17-25, and the balance being iron and residual impurities, wherein the following expression are met: $-0.81 \times \text{Cr equivalent} + 23.2 \leq \text{Ni equivalent} \leq 0.95 \times \text{Cr equivalent} - 8.1$... (1); $\text{Ni equivalent} = \text{Ni} + 30 \times \text{C} + 0.5 \times \text{Mn} + 30 \times \text{N}$... (2); $\text{Cr equivalent} = \text{Cr} + \text{Mo} + 1.5 \times \text{Si}$... (3).

WO 2007/037447 A1



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