APPLICATION OF THE THERMAL SPRAYING AND SURFACE TREATMENT TECHNOLOGY IN POT HARDWARE OF CGLs

Wednesday, 24 June 2020 11:20 (0:20)

Content

With the continuous improvement demand for galvanized automotive sheet quality, and the zinc pot equipment corrosion resistance and dross adhesion resistance requirements are also increasing, thermal spraying has played an important role. The failure forms of zinc pot hardware in continuous hot—dip galvanizing lines (CGLs) are Zn corrosion, abrasion and dross build—up. Enhancing the life of the pot hardware will not only upgrade the quality of sheet plate product but also increase the efficiency of CGLs with cost decreasing and energy saving. The paper introduces the current research and development of thermal spray coating in pot rolls [U+FF0C] sleeves & bushings [U+FF0C] pointed out sealing treatment after thermal spraying can greatly improve the ability of coating layer anti-corrosion and anti-zinc dross adhesion. The article also introduces a newer surface treatment technology, a special surface treatment called CDC-ZAC. This treatment liquid is a chromium (Cr2O3) as the main component, the ceramic composite coating film forming by chemical reaction have excellent characteristics of high-density, high hardness coatings, high adhesion and low friction coefficient especially suitable for non-contact with the strip zinc pot hardware. It gives the prospect of application and developing trend of thermal spray coating and surface treatment technology in pot hardware.

PhD work

no it isn’t

Speaker Country

CHINA

Keywords

thermal spray, pot roll, surface seal treatment

Primary author(s) :  WANG, Lu (BAOSTEEL-NSC AUTOMOTIVE STEEL SHEETS CO.LTD)
Presenter(s) :  WANG, Lu (BAOSTEEL-NSC AUTOMOTIVE STEEL SHEETS CO.LTD)
Session Classification :  Modeling Bearings Wear Rate and Enhanced Pot Roll Coatings & HDG Coating Weight Control by Numerical Simulation and Modeling
Track Classification :  New Technological Concepts