

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004170**Date Inspected:** 13-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

ZPMC started repairing the cracked tack welds on deck panels DP-051-001 and DP-050-001 today. The procedure is as follows.

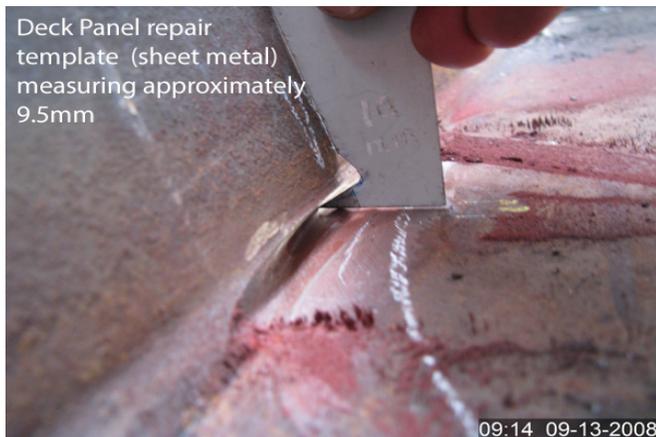
1. Excavate the crack using 100 and or 75 millimeter grinders.
2. Assure 80 percent depth of excavation was achieved by measuring with a sheet metal template. Below is a digital photograph illustrating the template.
3. Perform magnetic particle testing to the excavation. Numerous indications were present at this point.
4. Preheat to a minimum of 110 degrees Celsius.
5. Weld the root pass utilizing the flux cored arc welding process.
6. Grind the root pass and blend with adjacent welds.
7. Perform magnetic particle testing again.
8. Weld the rest of the excavation utilizing the flux cored arc welding process. It was observed this typically takes three to four weld passes.

After the first repair flux cored arc welding pass, no crack like indications were observed by ZPMC or the Quality Assurance Inspector. Numerous indications were located by ZPMC and the Quality Assurance Inspector after the initial excavation as illustrated in the digital photograph below. The "Y" axis locations were recorded in an onsite

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

log for future review.



Summary of Conversations:

As stated in the contents of the above report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco(707) 552 7715, who represents the Office of Structural Materials for your project.

Inspected By: Bertlesman,Greg

Quality Assurance Inspector

Reviewed By: Wright,Mark

QA Reviewer