

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-004277**Date Inspected:** 20-Oct-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:** Tower**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.

East Shaft Lift 1

The Quality Assurance Inspector observed ZPMC continuing to work in the confined spaces. ZPMC relayed that the fit up and tack welding operations were taking place between the diaphragms and Skin E utilizing the shielded metal arc welding process. Approximately 20 ZPMC employees were observed in the shaft.

ZPMC was observed in the process of building up Skins A and E by welding (buttering) utilizing the flux cored arc welding process and the shielded metal arc welding process. ZPMC was utilizing the weave bead technique on the vertical buttering of skin A. When ZPMC was questioned about the travel speed ZPMC relayed they would remove the weld metal deposited and re-weld utilizing the stringer technique. At this time a minimal amount of weld metal has been deposited measuring approximately 5 millimeters in thickness. Below is a digital photograph illustrating the build utilizing the weave bead technique.

ZPMC was observed beginning to fit-up skin D to skin C. ZPMC is installing 10 ton jacks and temporary attachments to aid in the fit-up.

South Shaft Lift 1

The Quality Assurance Inspector observed ZPMC in the process of erecting skin B to the South shaft. Below is a digital photograph of the installation in progress.

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South Shaft, Skin D, Lift 1

Four ZPMC welders were in the process of welding the connection plate to longitudinal stiffener PJP welds in the horizontal position utilizing the flux cored arc welding process.

South Shaft, Skin C, Lift 1

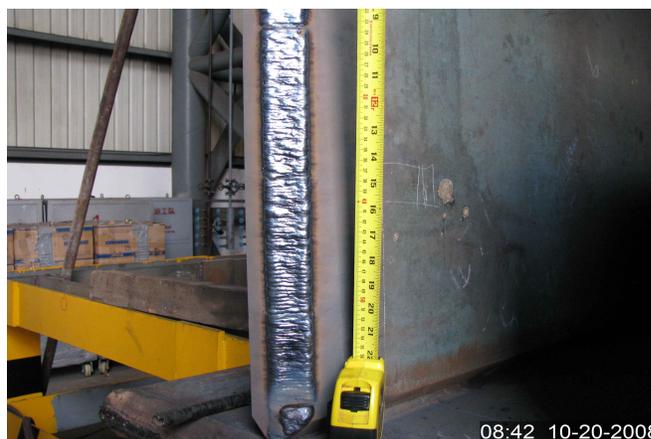
No ZPMC activity was observed.

South Shaft, Skin A, Lift 2

ZPMC was in the process of assembling numerous 10 ton jacks in preparation for pre-camber and grinding tack welds.

East Shaft, Skins E and D, Internal Splice Plate Connections

ZPMC was observed The Quality Assurance Inspector observed performing in process welding the above mentioned splice plate connections. Quality Control Inspector Xu Le Fang was monitoring the welds. The welder was using the flux cored arc welding process to produce the complete joint penetration weld in the flat position. The Quality Assurance Inspector witnessed Quality Control measure the welding parameters at the welders station and found the parameters to meet the minimum requirements of welding procedure specification WPS-B-T-2232-Tc-U5-F.



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 Joshua Ishibashi 137.6471.0411 , who represents the Office of Structural Materials for your project.

Inspected By: Bertlesman,Greg

Quality Assurance Inspector

Reviewed By: Wright,Mark

QA Reviewer