

**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-004940**Date Inspected:** 20-Nov-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, Skin E, Lift 2**

The Quality Assurance Inspector observed ZPMC performing in process welding of the complete joint penetration weld joining the longitudinal stiffeners to skin plate. The skin plate is on a jig to allow the four ZPMC welders to weld in the flat position. The welders were utilizing the flux cored arc welding process.

**East Shaft, Skin A, Lift 2**

The Quality Assurance Inspector observed ZPMC performing in process welding of the complete joint penetration weld joining the longitudinal stiffeners to skin plate. The skin plate is on a jig to allow the four ZPMC welders to weld in the flat position. The welders were utilizing the flux cored arc welding process.

**East Shaft, Skin D, Lift 2**

The Quality Assurance Inspector observed ZPMC performing in process welding of the partial joint penetration weld joining the longitudinal stiffeners to skin plate. The welders were utilizing the flux cored arc welding process and welding in the horizontal position.

**East Shaft, Skin C, Lift 2**

The Quality Assurance Inspector observed ZPMC grinding the tack welds of the complete and partial joint

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penetration welds joining the longitudinal stiffeners to skin plate in preparation for the semi automated flux cored arc welding gantry.

## East Shaft Lift 1

The Quality Assurance Inspector observed ZPMC installing lifting aids under the east shaft. The approximate locations of lifting aids is at the 9M and 43M.

## South Shaft Lift 1

The Quality Assurance Inspector observed ZPMC grinding the longitudinal stiffeners and skin plates at the lower end of the shaft where ZPMC had built the members up by welding.

## South Shaft, Skin C, Lift 2

The Quality Assurance Inspector observed ZPMC performing in process welding of the partial joint penetration weld joining the longitudinal stiffeners to skin plate on the semi automated flux cored arc welding gantry system. The skin plate has numerous jacks on the part in an effort to minimize distortion from the welding. ZPMC Quality Control was present monitoring the welding in accordance with WPS-B-T-2332-Tc-P5-F.

## South Shaft, Skin E, Lift 2

The Quality Assurance Inspector observed ZPMC performing in process welding of the partial joint penetration weld joining the longitudinal stiffeners to skin plate on the semi automated flux cored arc welding gantry system. The skin plate has numerous jacks on the part in an effort to minimize distortion from the welding. ZPMC Quality Control was present monitoring the welding in accordance with WPS-B-T-2332-Tc-P5-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 Josh Ishibashi 1.376.647.10411, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Bertlesman,Greg	Quality Assurance Inspector
<b>Reviewed By:</b>	Wright,Mark	QA Reviewer

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