

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-001957**Date Inspected:** 28-Mar-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:** Xu Le Feng, Ye Yong Jun**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.

Deck Panel Visual Inspection

The Quality Assurance Inspector performed visual inspection to Deck Panels DP-218-001. Typical discontinuities marked include but are not limited to, were overlap, undercut, under fill, and incomplete fusion. The Quality Assurance Inspector recorded all the indications lengths and y axis locations in an on site log and forwarded to Assistant Structures Material Representative Ady Valasco for review.

The Quality Assurance Inspector performed magnetic particle verification to 10 percent of the 89M Mock-up shear connection assembly and the cross beam assembly. See Caltrans TL-6028 for further information. During the inspection it was discovered that American Bridge/Flour allowed ZPMC to visually accept and perform magnetic particle inspection to partial joint penetration weld #4 with insufficient reinforcement fillet weld size. The Quality Assurance Inspector measured the reinforcing fillet weld to be approximately 5 millimeters. Per AWS D1.5 2002 the minimum fillet weld required is 8.5 millimeters for the 35 millimeter thickness plate. Per AWS D1.5 2002 Figure 2.5 note 6. "Groove welds in corner and T-joints shall be reinforced with fillet welds with a leg size equal to or greater than T/4, but need not exceed 10 mm [3/8 in.]" An Incident report was generated pertaining to the discrepancy. Below is a digital photograph illustrating the groove weld being measured utilizing a bridge camber gauge.

WELDING INSPECTION REPORT

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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 Patrick Lowry, 916 227-5719, who represents the Office of Structural Materials for your project.

Inspected By:	Bertlesman,Greg	Quality Assurance Inspector
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Reviewed By:	Cuellar,Robert	QA Reviewer
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