

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-001206**Date Inspected:** 13-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 530**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Xu Le Feng, Ye Yong Jun, Sha Zi Cui, Wu Presiding			CWI Presenting	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 Mock-ups and 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.

89M Mock-up Connection Beam

The Quality Assurance Inspector observed ZPMC welding operator, Dai Lu, welder identification number, 048659 performing in process welding of the 89M connection beam weld number MUB-Ma26-31A and 31B. Quality Control Inspector Xu Le Feng was monitoring the welder. The welder was using the shielded metal arc welding process to produce the fillet weld in the horizontal position. The Quality Assurance Inspector measured the welding parameters at Mr. Dai's station and found the parameters to meet the minimum requirements of the welding procedure specification WPS-B-T-3212-TC-U5b. The Quality Assurance Inspector measured the amperage at approximately 195. The preheat and interpass temperature met the minimum requirement of 65 degrees Celsius and was measured with a 66 degree temperature-indicating crayon.

114M Mock-up Upper Shaft Assembly

The Quality Assurance Inspector observed ZPMC welding operator Chen Chuanzong, welder identification number, 053870, performing in process welding of a corner stiffener joining stiffener MA105 to Skin Plate D. Quality Control Inspector Ye Yong Jun was monitoring the welder. The welder was using the flux cored arc welding process with C02 shielding to produce the partial joint penetration weld in the horizontal position. The Quality Assurance Inspector measured the welding parameters at Mr. Chen's station and found the parameters to meet the minimum requirements of the welding procedure specification WPS-13-T-2332-Tc-P4-F. The Quality

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Assurance Inspector measured the amperage at approximately 305, the voltage at 31, and the travel speed at approximately 300 millimeters per minute. The preheat and interpass temperature met the minimum requirement of 65 degrees Celsius and was measured with a 66 degree temperature-indicating crayon.

Tower Fabrication Facility

The Quality Assurance Inspector was informed by ZPMC Quality Control Inspector Sha Zin, that the 89M Mock-up was moved to the New Tower Fabrication Facility. Mr. Zin relayed that the magnetic particle technician observed two linear indications while performing magnetic particle testing on the root pass of a longitudinal stiffener to diaphragm plate partial joint penetration weld identified as MUB-MA21 GJ-15. The Quality Assurance Inspector measured the linear indications to be approximately 75 and 12 millimeters in length. Below is a digital photograph illustrating one of the linear indications.



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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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