

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-003064**Date Inspected:** 03-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China

CWI Name:	Wu Ming Kai / Zhao Chen Sun	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 / OBG	

Summary of Items Observed:**Bay 3**

This Quality Assurance (QA) inspector arrived at ZPMC in Shanghai China for observation of Orthotropic Bridge Girders (OBG) and Self Anchored Suspension (SAS) Bridge. During this QA inspector's observation in bay 3 it was noted that ZPMC was in process for fit-up at multiple stages on side and bottom plates. ZPMC Certified Welding Inspector Wu Ming Kai was present at the time of observation and this QA inspector spoke with Mr. Kai on the work in process for bay 3. It was stated that tack welds for WT and straight stiffener plates were in process for component numbers SP197-001 and SP194-001 under WPS-B-P-2112-FCM using Shielded Metal Arc Welding (SMAW) welders observed for these location were Yang Gen Cheng and Wang Zhong Feng. The ZPMC CWI watching this operation was Wu Zhi Feng. ZPMC personnel were also placing lay out marks for side and bottom plates at multiple locations for the fit up process. At gantry 1 it was observed that ZPMC was preheating component SP081-001 to continue with fillet welding on the side plate using 90° conformed thermal heaters prior to the welding process.

Bay 4

During the continued observation by this QA inspector it was noted in bay 4 that ZPMC was performing Ultrasonic Testing on diaphragm plate splice component number ESD1-SA318- 3/4 A, it was relayed to this QA inspector that side A that was tested was acceptable by ZPMC. Also noted in this bay was the 77m partial mock-up component number PMU77-03 that was being fit up by ZPMC. It was relayed to this QA inspector that ZPMC would start the welding process for this partial mock-up tomorrow during day shift. CWI Zhao Chen Sun was present within this bay monitoring welding progression and parameters for the Submerged Arc Welding (SAW) process for diaphragm plate splices. Also being monitored by the CWI was heat straightening performed on component BP086-001 under procedure HSR 1 (B) -1064. Maximum heat input was monitored and documented

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by ZPMC personnel present working under CWI Zhao Chen Sun.

Bay 7

This QA inspector observed ZPMC in bay 7 performing in process weld repairs on floor beams FB009-002 and FB011-007. At these locations it was noted that porosity was present for the flange to qweb plate connections at multiple locations for both floor beams. ZPMC had back gouged the areas using Air carbon arc gouging and ground to a bright finish prior to re-welding. These areas were in process. It was noted that ZPMC's CWI Hu Wei Qing was present during the welding operations in this bay and monitoring welding parameters and in progress progression. Component FB039-001 and FB028-001 was in process of being welded for joints 101 and 079 using SAW process. ZPMC welder Sun Guzuo and Huang Xinlan was performing this function under WPS-B-T-2221-B-L2c-S-1.

Bay 8

This Quality Assurance (QA) inspector arrived at ZPMC in Shanghai China for observation of Orthotropic Bridge Girders (OBG) and Self Anchored Suspension (SAS) Bridge. During this QA inspector's observation in bay 8 it was noted that ZPMC was in process of welding diaphragm plate splice for component number SSD1-SA270-1/2 A under WPS-B-T-3221-B-U3c-S-1. Welding operator for the SAW process was Xu PeiPei. Also noted was ZPMC performing the back gouge process on NSD1-SA196-1B using air carbon arc process. All items noted above was being monitored by ZPMC CWI Sha Zhi for preheat, welding parameters and progression for these locations.



Summary of Conversations:

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As noted above.

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:	Riley, Ken	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer
