

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-002426**Date Inspected:** 17-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**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:	Zhao Chen Sun, and See Below			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 and OBG Components**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, M. Paul Stovall, was present at Zhenhua Port Machinery Company (ZPMC) on Changxing Island, Shanghai, China for the purpose of monitoring Quality Control (QC) functions during the fabrication of the Self Anchored Suspension (SAS) section of the San Francisco/Oakland Bay Bridge.

Bay 3

This QA Inspector observed ZPMC personnel fit and tack weld plates P607 to 807B, P609B to P1012B, P1064 to P1004A, and P611B to P611C, these plates, once spliced are End Plates and Side Plates. After tack, welding this joint, it welded using the Submerged Arc Weld (SAW) process. The Welding Procedure Specification (WPS) that used for tack welding on this piece is WPS-B-T-2231-B-U2-F.

The QA Inspector observed ZPMC personnel fit and tack weld WT stiffeners on SP516-001, SP754-001, SP529-001, SP608-001, and SP517-001. The welders performing this work are Li Shuliang, ID #048801, Gu Caihong, ID #053748, Lv Ping, ID #048617, Zhang Feng, ID #049769, and Wang Zhanghou, ID #053753. The ZPMC Certified Welding Inspector (CWI) is Wu Ming Kai.

The QA Inspector observed ZPMC personnel were grinding fillet welds produced at the gantry welder and ZPMC welder Dai Lu, ID #048659, made minor weld repairs to these welds.

Bay 4

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This QA Inspector observed ZPMC welding personnel using the SAW process on Complete Joint Penetration CJP Tower Internal Diaphragm Plate splice SSD1-SA322-A/B-1A-(2A). Welding progressed throughout the day on this weld joint. This QA Inspector did not observe welding on the "B" side during this shift. Other ZPMC personnel began to fit and tack weld Diaphragm plates P284 to SA276. The work observed appeared to comply with Welding Procedure Specification (WPS) WPS-T-3221-B-U3c-5-1 and the contract requirements. ZPMC personnel began to fit and tack weld Diaphragm plates P284 to SA276. Other ZPMC personnel using a go / no-go gage were observed checking the interior corners after the Diaphragm plate after it had been welded and then cut to receive stiffeners. The ZPMC CWI is Zhu Zhong Hai.

The ZPMC welders who performed the above mentioned work are Jiang Jingteng, ID #046830, and Han Xiaofeng, ID 054487.

Bay 7

This QA Inspector observed ZPMC personnel using a hydraulic jack in combination with an oxy-acetylene torch to heat straighten a stiffener plate on Floor Beam (FB) FB026-01. ZPMC personnel used the SAW weld process to weld the plate for FB018-01.

This QA Inspector observed ZPMC personnel drilling bolt holes into Floor Beams FB005-04 and FB003-05. This QA Inspector observed ZPMC welder Xu Pei Pei, ID #060323 welding a stiffener plate onto FB005-04.

This QA Inspector observed four (4) Ultrasonic Test (UT) inspectors performing UT on various Floor Beams. The list is as follows, FB004-007-002 (reject), -020 (accept), FB013-009-020 and 002 (accept), FB013-008-002 (reject), -020 (accept), FB013-006-002 and 020 (accept), FB005-006-002 (accept), FB004-006-002 (accept), FB004-005-002 and 020 (accept), FB013-005-002 and 020 (reject), FB013-007-002 (accept), -020 (reject), FB024-008-020 (reject), -002 (accept), FB013-013-002 (reject), FB013-012-020 (accept), and FB013-011-020 (reject).

This QA Inspector observed ZPMC personnel fit, tack weld and weld Floor Beam sub-assembly plates using the SAW process FB015-010-023. This Floor Beam was welded using WPS-B-T-2221-B-L2c-S-1; the welder is Qin Guoyon, ID #088081.

Bay 8

This QA Inspector observed ZPMC personnel weld Diaphragm plate weld number WSD1-SA372-2A, using the SAW weld process. The work appeared to comply with WPS-B-T-3221-B-U3c-S-1. This Diaphragm plate is located at the 38-meter elevation. ZPMC personnel tack welded and began using the SAW weld process on Diaphragm plate weld number WD1-A2-1A. Work is in progress.

Summary of Conversations:

The QA Inspector had no significant conversations.

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

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

Inspected By:	Stovall,Paul	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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