

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 #: xx.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023530**Date Inspected:** 09-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China**CWI Name:** Mr. Liu Huajie**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 Trial Assembly**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Raghavendra Reddy was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector observed the following work in progress:

Trial Assembly:-

Flux Cored Arc (FCAW) welding of Weld Joint SP3062-001-001~014(13BE I Rib Holdback weld, CB Side), and Welder is identified as 067079; ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang, The welding variables appeared to comply with the Applicable WPS-B-T-2132-Esab.

Shielded Metal Arc (SMAW) welding of Weld Joint SEG3009J-227(13BE Vertical plate to floor beam weld), and Welding Repair Report(WR) B-WR20880, Welder is identified as 051359; ZPMC Quality Control (QC) is identified as Mr. Lvli Qing, The welding variables appeared to comply with the Applicable WPS-345-SMAW-3G(3F)-FCM-Repair-1

Shielded Metal Arc (SMAW) welding of Weld Joint OBE13-002(13AE+13BE deck panel to deck panel weld), and Welder is identified as 044772,068764; ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang, The welding variables appeared to comply with the Applicable WPS-B-P-2214-B-U2-FCM-1.

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Shielded Metal Arc (SMAW) welding of Weld Joint SEG3007J-013(13AE Deck panel to Deck panel diaphragm weld, BK Side), and Welding Repair Report(WR) B-WR20872, Welder is identified as 200113; ZPMC Quality Control (QC) is identified as Mr. Liu Huajie, The welding variables appeared to comply with the Applicable WPS-345-SMAW-4G(4F)-FCM-Repair-1.

Shielded Metal Arc (SMAW) welding of Weld Joint SEG3009E-306~308(13BE Floor beam to Stiffener weld, BK Side,PP121.5), and Welder is identified as 068924; ZPMC Quality Control (QC) is identified as Mr. Lvli Qing, The welding variables appeared to comply with the Applicable WPS-B-P-2211-TC-U4b-FCM-1/WPS-B-P-2211-B-U2-FCM-1.

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 09073.

Magnetic Partical Testing (MT)

This QA Inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a MT report for this date. The member is identified as OBG 13AW welds, the weld designations reviewed are as follows.

1. SEG3013AD-037~044,069~074,061,063,065,067
2. SEG3013AD-075,076 - weld joint was Visual not accepted as per contract documents and Incident Report generated for this weld joint.

During the Quality Assurance Magnetic Partical Testing (MT) review of welds located on OBG Seg 13AW, this Quality Assurance Inspector (QA) discovered the following issues:

- ZPMC /ABF Magnetic Partical Testing (MT) technician have tested and accepted a weld joint that did not meet the Visual Testing (VT) requirements of the Contract documents.

- The weld no is identified as SEG3013AD-076.

- The weld is a T-joint with 10mm fillet, joining the Side Panel (SP3092E) to the X4394B Stiffener, at Panel Point (PP) 119+1500.

- During inspection, it was observed that instead of required 10mm fillet weld, 5mm under-fill was observed at the entire length of this weld (See attached photo for details).

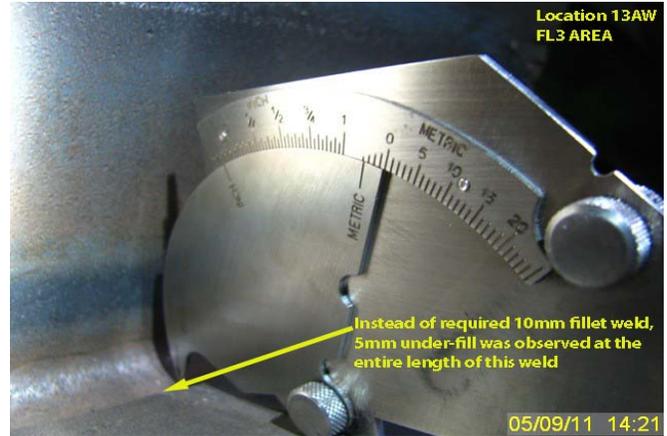
- Material thickness is 22mm (for SP3092E) and 35mm (for X4394B).

- The Notice of Witness Inspection Number (NWIT) is 09073. As per the contract documents, ZPMC's Quality Control (QC) personnel are required to perform 100% VT / MT inspection Fillet welds.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

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 Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

Inspected By: Tharikoppada,Reddy

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer