

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-014218**Date Inspected:** 22-Apr-2010**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:** Xu Xian Ping**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 Sub-Assembly**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Stefan Holmes was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China.

Non-Destructive Testing pursuant to Non-Destructive Testing Inspection Notification Sheet (Document No. 005574):

Magnetic Particle Testing:

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

MT of CWR 1100 buttering for additional length on Traveller Rails mentioned below:

10TR4-004, 11TR5-005, 10TR3-018, 10TR4-001, 11TR1-023, 11TR5-002, 11TR5-006, 11TR5-001, 11TR5-007, 11TR1-028, 11TR9-002

This Quality Assurance Inspector performed document control for Phased Array Ultrasonic Testing Training, including copying training documents and development of trainee binders with literature for training class and preparation of material prior to class being given at the above-mentioned location.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This Quality Assurance Inspector performed monitoring of welder training 13W mock-up Deck Panel identified as MU1-001 with ZPMC and ABF Certified Welding Inspectors (CWI). Upon arrival, this QA Inspector observed that all u-ribs had been fit and tack welded to the deck plate. Tack welders are identified as 059373 and 059401. Tack welding had been signed off "MT ACC" by Magnetic Particle Testing Technician Jin Jian Ting.

This QA Inspector performed fit-up visual inspection of the u-rib to deck plate weld joints to be welded, and all appeared to meet code and contract requirements.

Gas Metal Arc Welding (GMAW) was performed as a root pass over the prepared tack welds by the welders identified as: 062265, 059416, 059371, 059460, 059378, 059443, 059355, 059418, 059421m and 201840. Weld procedure utilized is identified as WPS-B-T-2342-U1(URIB)-4. Welding appears to conform to the requirements of the WPS used.

All root pass welds were ground to assure a consistent weld profile at the locations of each tack weld.

Submerged Arc Welding (SAW) was performed for the fill / cover pass over the prepared root pass by welders identified as: 062265, 059416, 059371, 059460, 059378, 059443, 059355, 059418, 059421m and 201840. Weld procedure utilized is identified as WPS-B-T-2342-U1(URIB)-4. Welding appears to conform to the requirements of the WPS used.

This QA Inspector was present for an impromptu coordination meeting between ZPMC Deck Panel Engineer identified as Mr. Xiong, ABF Welding Engineer identified as Peter Ferguson, ZPMC CWI Sun Bo and ABF Wang Wen Guang regarding the welding requirements for u-rib to deck plate welds, as well as tentative schedule for additional training mock-up panels. At this time, it is undetermined as to whether ZPMC will perform any additional welder training mock-up deck panels, but the personnel as listed above are reported to comprise 2 deck panel welding crews.

This QA Inspector gave training to certified level 2 and level 3 UT technicians in the performance of Phased Array Ultrasonic Testing, including Theory, Practical application and Specific requirements.

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

Summary of Conversations:

No relevant 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 remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Holmes,Stefan

Quality Assurance Inspector

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Reviewed By: Hall, Steven

QA Reviewer