

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018018**Date Inspected:** 18-Oct-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:** Mr. Li zhi jiang**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:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

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

BAY- 3

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07008.

Ultrasonic Testing (UT)

This QA performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated UT report for this date. The members are identified as OBG Floor beam weld Components. Total number of welds UT Tested: 16 No's. The weld designations are review as follows:

1. SA3325-001-005,015,008,063,009,059,016,052,017,053,054,46,042,027,018,001.

This QA Inspector Randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) Repair welding of weld joint FB3272-001-025. Welder is identified as

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201087. ZPMC Quality Control (QC) is identified as Mr. Zhang hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-345-SMAW-2G (2F) –FCM-Repair. The repair welding was being performed as per the Welding Repair Report (WRR) No: B-WR15734. This weld was rejected by ZPMC UT Technicians and recorded on UT report No: B787-UT- UT-15599.

Flux Cored Arc Welding (FCAW) of weld joint FB3286-001-024. Welder is identified as 050242. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2233-TC-U5-F.

FCAW of weld joint FB3286-001-263. Welder is identified as 055564. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2233-TC-U5-F.

FCAW of weld joint LD3042-001-016. Welder is identified as 217805. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint LD3041-001-113. Welder is identified as 208035. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2232-TC-U4b-F.

SMAW Tack welding of weld joint LD3041-001-312,313. Welder is identified as 208035. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B- P-2112-FCM.

ZPMC personnel heat straightening OBG Floor beam member is identified as FB3270A. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Zhang yaxu was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1(B) 9578.

ZPMC MT Technician performing Magnetic Particle Testing for the welds located on Floor beam FB3263A. Refer the attached picture#1 for reference.

ZPMC UT Technician performing UT for the welds located on Floor beam FB3273A. Refer the attached picture#2 for reference.

During random in process inspection of OBG member identified as Longitudinal diaphragm LD3042A, this QA observed a cracked tack weld on weld joint identified as LD3042-001-017. The “Y” location is 0 from the splice weld identified as LD3042-001-002. This QA marked the cracked tack and informed ZPMC Quality Control (QC) identified as Mr. Zhan Hai Feng of this issue. Mr. Zhan Hai Feng informed this QA that the cracked tack would be corrected in a manner compliant with the contract documents. Refer the attached picture # 3 and 4 for reference.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and Quality Control (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: Prabhu,Surendra

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer
