

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-018539**Date Inspected:** 08-Dec-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. Wang li yang**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- 2

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07684.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Side plate weld Components. Total number of welds MT Tested: 17 No's. The weld designations are review as follows:

1. SP3131B-001-002~004,007
2. SP3145C-001-003,004
3. SA3416-001-002,003,012,013,024,025,034~037,039.

During QA Visual Testing and MT review of welds located on Orthotropic Box Girder (OBG) 14 West

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Subassembly plate (SA) SA3416A, this QA observed ZPMC did not wrap the fillet welds as per the approved shop drawing. The approved shop drawing specify that fillet welds joining to stiffener (X4996D) to base plate (X4804A) to be wrapped. The effected welds are identified as SA3416-001-026,027. The base plate material thickness is 25 mm and stiffener plate is 22 mm. This QA marked the affected area and informed ZPMC Quality Control (QC) identified as Mr. Zhulin and American Bridge/Fluor QA identified as Mr. Wang wen bin of this issue. Mr. Zhulin and Mr. Wang wen bin informed this QA that the effective fillet welds would be corrected in a manner compliant with the contract documents. Refer the attached photos for reference.

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) Buttering welding on stiffener plate identified as SA3449A-X5078B. Welder is identified as 045209. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-345-FCAW-3G (3F)-ESAB-Repair-FCM. The buttering welding was being performed as per the Caltrans Engineer approved Critical Welding Repair Report No.B-CWR-2371.

FCAW welding of weld joint FB3343-001-347. Welder is identified as 067876. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2232-ESAB.

Shielded Metal Arc welding (SMAW) Tack welding of weld joint SA3445-001-010. Welder is identified as 207464. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2112-FCM.

BAY- 3

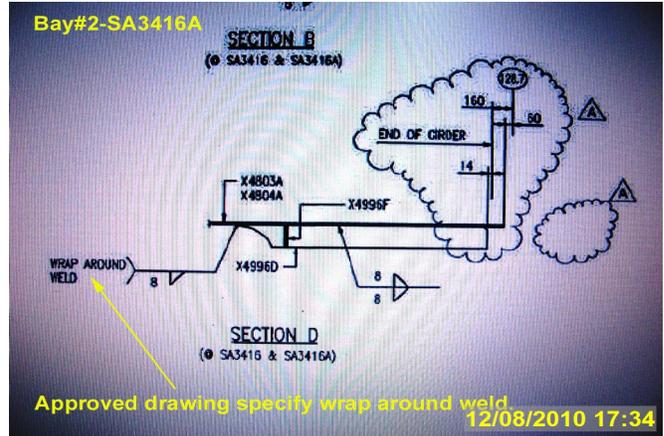
FCAW welding of weld joint LD3041-001-413. Welder is identified as 044790. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2231-ESAB.

This QA Inspector performed photo documentation on Lift 14 Hinge plates are identified as FB3343A, located in sub assembly bay 2. These photos has been sent to QA lead Inspector and Structural Material Representative (SMR) by mail.

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

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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