

**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-014056**Date Inspected:** 12-May-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. Tian Lei /Mr. Chen Xi**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-1**

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) welding of weld joint 20TR1-043-003. Welder is identified as 219188. ZPMC Quality Control (QC) is identified as Mr. Ai wei. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2232-TC-U5-F.

**BAY-2**

FCAW welding of weld joint FB3212-001-036. Welder is identified as 045240. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2232-3.

FCAW welding of Repair weld joint FB3209-001-048. Welder is identified as 045209. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables recorded by QC appeared to comply with the Applicable

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WPS: WPS-345-FCAW-1G (1F)-Repair. The repair welding was been performed as per the Welding Repair Report (WRR) No: B-WR12806.This weld was rejected by ZPMC UT Technicians and recorded on UT Report No: B787-UT-12678.

BAY-3

Submerged Arc Welding (SAW) welding of weld joint FB3122-001-010. Welder is identified as 050502. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2221-B-U3c-S-2.

FCAW welding of weld joint FB3119-001-015. Welder is identified as 208035. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

During random in process Visual Inspection this QA Inspector observed 1 (one) Crack tack on Floor beam weld No: FB3119-001-015. This QA informed to ZPMC Quality Control (QC) identified as Mr. Zhu Jun and American Bridge/Fluor (AB/F) QA Inspector identified as Mr. Wang wen bin of the above issue, As per ZPMC QC and AB/F QA the Tack weld shall be removed by grinding and perform Magnetic Particle Testing(MT) for verifying no more defects.

Refer attached photos for additional details.

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 005718.

Magnetic Particle Testing (MT)

This QA Inspector 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 Traveler Rail weld Components. Total number of welds MT Tested: 50 No's. The weld designations are review as follows:

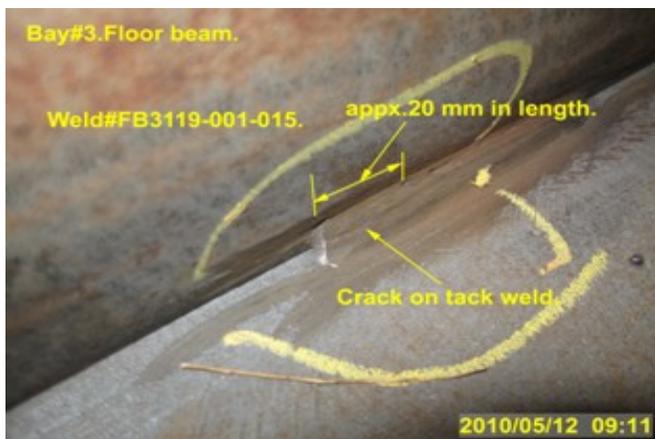
1. 10TR3-009-005~014.
2. 10TR3-021-005~014.
3. 11TR2-015-005~014.
4. 11TR2-014-005~014.
5. 11TR1-014-005~014.

During MT this QA Inspector observed 1 (one) Longitudinal surface linear indication(Appx.08 mm in length) on weld No:11TR2-014-014.This QA informed to ZPMC QC identified as Zhu Jun and AB/F QA Inspector identified as Mr.Wang wen bin of this issue.The indication has been ground out and MT re tested found to be acceptable. Refer attached photos 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