

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014524**Date Inspected:** 31-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. Huang Min**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-5.

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 005864.

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 Bracket weld Components. Total number of welds MT Tested: 10 No's. The weld designations are review as follows:

1. TR6C-PP082-005.
2. TR6B-PP090-003.
3. TR6B-PP084-003.
4. TR5D-PP081-007.

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5. TR5C-PP073-005.
6. TR5C-PP091-005.
7. TR1E-PP074-009.
8. TR1C-PP084-005.
9. TR1C-PP090-005.
10. TR1C-PP036-005.

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 Traveler Rail bracket weld Component. Total number of welds UT Tested: 06 No. The weld designations are review as follows:

1. TR6A-PP092-002.
2. TR2A-PP086-001.
3. TR5B-PP089-004.
4. TR5B-PP083-004.
5. TR5B-PP087-004.
6. TR5B-PP075-004.

This QA Inspector Randomly observed the following work in progress:

ZPMC Personnel performing Heat Straightening for the Traveler Rail (TR) 20TR2-004. Heat straightening was being performed appeared to comply with the Applicable HSR Repot# HSR1 (B)-8350. ZPMC Quality Control (QC) is identified as Mr. Zheng zhi wei.

BAY-6

Submerged Arc Welding (SAW) of weld joint WJF-0-193. Welder is identified as 053748. ZPMC Quality Control (QC) is identified as Mr. Huang Min. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-3221-TC-U4a-S-1.

BAY-7

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 005866.

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 Traveler Rail weld Component. Total number of welds UT Tested: 60 No's. The weld designations are review as follows:

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1. 10TR3-003-005~007,010,013,014.
2. 10TR2-006-005~007,010,013,014.
3. 10TR2-007-005~007,010,013,014.
4. 10TR3-026-005~007,010,013,014.
5. 10TR1-009-005~007,010,013,014.
6. 10TR2-008-005~007,010,013,014.
7. 10TR2-003-005~007,010,013,014.
8. 10TR1-014-005~007,010,013,014.
9. 10TR1-007-005~007,010,013,014.
10. 10TR2-021-005~007,010,013,014.

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of weld located on Traveler Rail (TR)-10TR2-021, this QA Inspector observed One (1) Class “A” indication measuring approximately 10 mm in length. The Indication rating is +10dB. The depth of the indication is 14mm. The weld joint is identified as 10TR2-021-010.

The weld is a Complete Joint Penetration (CJP) with reinforcement fillet weld joining TR web to flange. The thickness of the web is 16 mm.

This QA Inspector generated an incident report on this date, for further information see the incident report.

Shielded Metal Arc Welding (SMAW) Tack welding on Side panel weld joint SP3090-001-008/009. Welder is identified as 203204. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2112.

Refer attached photos for reference.

SMAW Tack welding on Deck panel weld joint DP3126-001-007/008. Welder is identified as 250833. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-4112-4.

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
