

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019943**Date Inspected:** 12-Sep-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. An Qing Xing.**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:**

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

This QA Inspector observed the following work in progress:

**SEGMENT # 10W:**

Shielded Metal Arc Welding (SMAW) welding of welds joint OBW10L-005,008(10BW+10CW,CW Side), and Welder is identified as 044551,053486. ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables appeared to comply with the Applicable WPS-B-T-2231-TC-U4b-FCM-1.

SMAW welding of welds joint OBW10L-009 (10BW+10CW,CW Side), and Welder is identified as 040609. ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables appeared to comply with the Applicable WPS-B-T-2232T-1.

**SEGMENT 9W :**

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 00488.

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## WELDING INSPECTION REPORT

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This Quality Assurance (QA) Inspector witnessed final tension verification for LD SPLICE 9AW+9BW, 9BW+9CW,9CW+9DW,9DW+9EW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00488 Dated 12SEP 2010.

Bolt sizes used were M24 x 70 DHGM240010 and final torque required was 560 N-m and

Bolt sizes used were M24 x 95 DHGM240021 and final torque required was 540 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-666.

Please reference the pictures attached for more comprehensive details.

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06649

### Magnetic Particle Testing (MT)

This QA Inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a MT report for this date. The member is identified as X37 shim plate weld. The weld designations reviewed are as follows.

- 1.CA066-200
- 2.CA070-200,201
- 3.CA069-200
- 4.SEG052D-200

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06651.

### Ultrasonic Testing (UT)

This QA Inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a UT report for this date. The member is identified as 10AW & 10AE LD ,I/T Rib Splice,weld. The weld designations reviewed are as follows.

- 1.SEG059B-006,024,036(10AW)
- 2.SEG059C-006,024,036(10AW)
- 3.SEG060B-006,024,036(10AE)
- 4.SEG060C-006,024,036(10AE)

### I/T Ribs FOR 10AW+10BW

1. DP675-001-036

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# WELDING INSPECTION REPORT

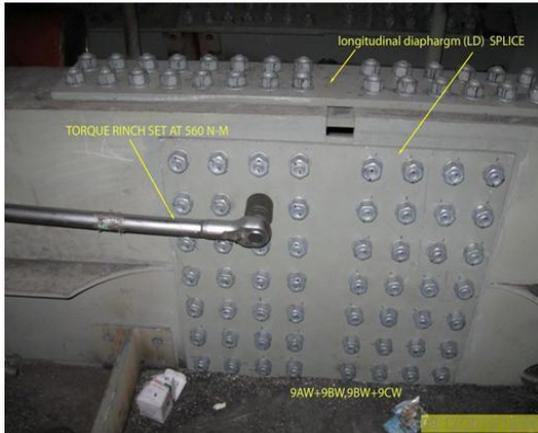
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- 2. EP116-001-013
- 3. SP660-001-034
- 4. SP137-001-046
- 5. SP164-001-048,050
- 6. BP102-001-026,028
- 7. BP048-001-026
- 8. SP736-002-043,044
- 9. SP498-002-037
- 10. SP676-002-047
- 11. EP132-002-027
- 12. DP688-001-036

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



### Summary of Conversations:

Only general conversation was held between QA and 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 Michael Ng (15921845703), who represents the Office of Structural Materials for your project.

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**Inspected By:** Tharikoppada,Reddy

Quality Assurance Inspector

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**Reviewed By:** Miller,Mark

QA Reviewer