

**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-012224**Date Inspected:** 23-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** 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:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz 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:

OBG Assembly Yard

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member(s) is/are identified as OBW5 Tag #7. The weld designations reviewed are as follows:

5 West

1. SSD10A-PP32-167, 168, 173
2. SSD11A-PP33-168, 170
3. SSD12A-PP34-171, 176
4. SEG023D-022, 025, 026, 043, 044, 040
5. SEG023E-114, 110, 140, 137, 158, 159, 155
6. SEG023E-095, 096, 092, 077, 078, 074, 113
7. SSD11A-PP33-168
8. SSD11A-PP34-169

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### 6BW+6CW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 003 located at OBW6C on the bottom plate of segment. Welder is identified as Mr. Dai Lu (048559). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and CWR1209 R1 repair procedure.

### 6CW

Shield Metal Arc Welding (SMAW) welding was performed on weld joints 090, 088 and 086 located at SP516-001 on the cross beam side of segment. Welder is identified as Mr. Dong Youcan (067588). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2112-FCM-1 and ABF-RFI-002004R00.

Shield Metal Arc Welding (SMAW) welding was performed on weld joints 090, 088 and 086 located at SP516-001 on the cross beam side of segment. Welder is identified as Mr. Du Henghua (037779). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2112-FCM-1 and ABF-RFI-002004R00.

### 6AW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 021 located at SEG027B-021 on the cross beam side of segment. Welder is identified as Mr. Dai Lu (048559). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and CWR1144 R1 repair procedure.

### 6BW+6CW

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 004 located at OBW6C on cross beam side of segment. Welder is identified as Mr. Han Xiaofeng (054467). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-3G (3F)-FCM-Repair-1 and CWR 1209 R1 repair procedure.

### 7AW+7BW

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 002 located at OBW7B on cross beam side of segment. Welder is identified as Mr. Jiang Zhen (068917). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-B-U2-FCM-1.

### Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions in the trial assembly yard. Locations and description of work are as followed:

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6BW

1. Heat straightening was being performed on counter weight connection plates weld joints OBW6F-005 and 006 per HSR1 (B)-8149.

NDT Observation

This QA Inspector observed ZPMC Magnetic Particle Testing (MT) Technician performed MT on various locations in the trial assembly yard. Locations are as followed:

6BE+6CE

1. MT being performed on side plate T stiffeners hold back welds located at the bike path side of segment.

This QA Inspector observed ZPMC Ultra Sonic Testing (UT) Technician performed UT on various locations in the trial assembly yard. Locations are as followed:

5AW

1. UT was performed and accepted by ZPMC UT Technician on weld joint SEG021A-031 located at cross beam side of segment.

Unless otherwise noted, all work observed on this date appeared to generally comply with 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 Eric Tsang (150-0042-2372), who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Alaniz,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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