

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012206**Date Inspected:** 22-Feb-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:** 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) Shrikant Utekar 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:

## TRIAL ASSEMBLY YARD

## ULTRASONIC INSPECTION

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. Rejectable indications were found.

Weld identification numbers were.

CA032-004 (OBG 7AW, D.P to E.P-W5)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication. Before ultrasonic inspection this Quality Assurance (QA) Inspector performed random visual inspection during the visual inspection this Quality Assurance (QA) observed at PP4030 and PP5060 have concavity more than 2mm. See attached photo.

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For more information refer the ABF/CT report dated on 02/22/2010 and 02/21/2010.

This QA Inspector randomly observed the following work in progress.

### OBG SEGMENT 7AE-7BE

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067183 performing Shielded Metal Arc Welding process for weld OBE7B-002 located on PCMK side panel splice weld between OBG segment 7AE and 7BE (cross beam side). ZPMC QC Mr. Wang Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U2.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066038 performing Shielded Metal Arc Welding process for weld OBE7B-003 located on PCMK bottom panel splice weld between OBG segment 7AE and 7BE. ZPMC QC Mr. Shen Jian Bo monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U2.

### OBG SEGMENT 6BW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070101 performing Shielded Metal Arc Welding process for weld OBW6F-005 located on PCMK counter weight connection plate. ZPMC QC Mr. Zhong Yong Gang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U4-FCM-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066261 performing Shielded Metal Arc Welding process for weld OBW6F-007 located on PCMK counter weight connection plate. ZPMC QC Mr. Zhong Yong Gang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U4-FCM-1.

### OBG SEGMENT 7AW-7BW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068917 performing Shielded Metal Arc Welding process for weld OBW7B-002 located on PCMK side panel splice weld between OBG segment 7AW and 7BW (counter weight side). ZPMC QC Mr. Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U2.

### OBG SEGMENT 7AE-7BE

This Quality Assurance (QA) Inspector observed ABF QA Inspector performing ultrasonic inspection on the bottom panel "T" stiffener splice weld at bottom panel splice weld between OBG segment 7AE and 7BE.

### OBG SEGMENT 6AW

This Quality Assurance (QA) Inspector observed ABF QA Inspector performing ultrasonic inspection on the weld between bottom panel and side panel near the PP37 counter weight side. See attached photo.

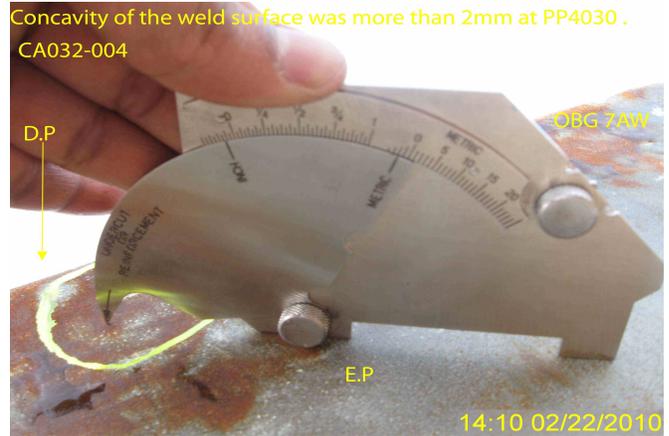
Unless otherwise noted, all work observed on this dated appeared to generally comply with applicable contract documents.

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## Summary of Conversations:

No relevant conversations.

## 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, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Utekar,Shrikant

Quality Assurance Inspector

**Reviewed By:** Dawson,Paul

QA Reviewer

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