

**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-009753**Date Inspected:** 02-Oct-2009**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:** Xu Yumin and Li Jia**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

2AE &amp; 2BE

This QA Inspector performed Magnetic Particle (MT) inspection of weld joint OBE2A-004 transverse indication excavations performed by ZPMC. MT inspection was performed at each layer removed by air arc and hand held excavation method. Y locations, depth and number of transverse indication are as followed:

1. Y location 5370 to 5500mm, depth is approximately 8.9mm, 4 transverse indications present.
2. Y location 6250 to 6520mm, first depth was approximately 8.62mm, 18 transverse indications were present, second depth was approximately 8.62mm, 18 transverse indications were present, third (last) depth was approximately 11.4mm, 10 transverse indications were present. ZPMC worker stopped at last recorded depth.

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3. Y location 7070 to 7190mm, first depth was approximately 8.61mm, 1 transverse indication was present, second depth was approximately 9.29mm, 2 transverse indications were present, third depth was approximately 9.89mm, 6 transverse indications were present, fourth depth was approximately 12.7mm, 7 transverse indications were present, fifth depth was approximately 13.03mm, 9 transverse indications were present and sixth (last) depth was approximately 13.34mm, 6 transverse indications were present. ZPMC worker stopped at last recorded depth.

4. Y location 7650 to 7740mm, depth is approximately 8.24mm, 3 transverse indications were present.

1AE + 1AAE

SMAW welding of weld joint 003 located on OBE1A.

Welder is identified as Mr. Yang Changming (058242). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-Repair-1 and repair procedure CWR815. Y locations of the 2 repair areas are approximately 3520 and 3620mm from bike path edge of segment.

SMAW repair welding of weld joints 035, 036, 041 and 042 located on OBE1.

Welder is identified as Mr. Liu Houkuan (045133). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-B-P-2113-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:

1. Grit blasting of various internal areas in segment 2E.
2. Zinc coating was in progress at panel point 13 on the deck plate u ribs located on crossbeam side of segment 2W.
3. Segment 3BW and 4BW were moved onto ship for storage.

Note:

Due to China National Holiday, work was limited in the OBG Trail Assembly Yard on today's work shift.

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 (134-8257-0045), who represents the Office of Structural Materials for your project.

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