

**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-013184**Date Inspected:** 26-Mar-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) 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

7BE

Shield Metal Arc Welding (SMAW) welding was performed on X37 deck plate member located between panel point 51 and 50 cross beam side of segment. Welder is identified as Mr. Guo Taotao (050969). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-4113-1.

Shield Metal Arc Welding (SMAW) welding was performed on X37 deck plate member located between panel point 51 and 50 bike path side of segment. Welder is identified as Sun Lingling (048047). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-4113-1.

7AE+7BE

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Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 005 located at CA033 cross beam side of segment. Welder is identified as Mr. Jiang Jinyong (066361). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and WR11353 repair procedure.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at OBE7 cross beam side of segment. Welder is identified as Mr. Li Zaijun (037996). 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 WR1345 repair procedure.

Y Location of repairs areas by above noted welder (037996) is located at 1650mm.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 003 located at OBE7 deck plate of segment. Welder is identified as Mr. Li Zaijun (037996). 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 WR1345 repair procedure.

Y Location of repairs areas by above noted welder (037996) is located at 12070, 11905~11850, 11680, 11435 and 11360mm.

7BE+7CE

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 028 located at EP079-001 cross beam side of segment. Welder is identified as Mr. Feng Huajun (066258). 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 WR11357 repair procedure.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 028 located at EP079-001 bike path side of segment. Welder is identified as Mr. Dai Lu (048659). 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 WR11355 repair procedure.

Y Location of repairs areas by above noted welder (048659) is located at 400mm.

Trail Assembly Yard

This QA Inspector witness ZPMC welding personnel (066401) perform a T joint fillet weld test in the 4F position per AWS D1.5/2002 section 5.23.1.4, given by ZPMC QC (CWI) Inspector Mr. Wu Zhi Cheng. QA Inspector noted WPS-B-P-2114 was used during the course of the fillet test and the final visual inspection was accepted by the above noted ZPMC QC Inspector. Test plate was marked and sent to ZPMC Laboratory for the required mechanical testing.

Miscellaneous Work In Progress

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ZPMC Ship

QA Inspector observed ZPMC's personnel performing various job functions on ZPMC Ship. Locations and description of work are as followed:

6 West, 6 East, 5 West, 5 East, CB 4~6

1. Various activity such as; bolt installation, scaffolding removal, suspender bracket and coating touch up, being performed throughout segments and cb members.

NDT Observation

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

7BE+7CE

1. Performed on the side plate weld splice OBE7B-010 repair areas at bike path side of segment.

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:

7CE+7BE

1. Excavations performed at Y locations 370 and 200mm on bottom plate weld splice OBE7C-008 cross beam side of segment.

NOTE:

Due to ZPMC work personnel being utilized on the ZPMC ship for the shipment of OBG 5 and 6 (east/west) segments and CB 4, 5, 6 members, work was limited in the 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.

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## 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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