

**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-010833**Date Inspected:** 24-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Guo Peng**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/ TOWER**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

OBG SEGMENT 5WEST

This Quality Assurance (QA) Inspector performed conventional UT (Ultrasonic Testing) Conjunction ABF Ultrasonic Testing (UT) department for detection of planar transverse indication.

Ultrasonic Testing (UT) performed on repair area of side panel splice weld (counter weight side) between OBG segment 5BW and 5AW (OBW5A-001, 002) utilizing scanning pattern A, B, C and D (Fig 6.7). American Bridge Fluor (ABF) request number was 12242009-1.

No relevant indication observed.

OBG SEGMENT 5WEST

This Quality Assurance (QA) Inspector performed conventional UT (Ultrasonic Testing) Conjunction ABF

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Ultrasonic Testing (UT) department for detection of planar transverse indication.

Ultrasonic Testing (UT) performed on repair area of bottom panel splice weld between OBG segment 5BW and 5AW (OBW5A-003) utilizing scanning pattern A, B, C and D (Fig 6.7). During the ultrasonic inspection this Quality Assurance (QA) Inspector found 1 transverse linear indication that had not identified by ABF. American Bridge Fluor (ABF) request number was 12242009-1

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated 12/24/2009 for further information on inspections.

## HEAVY DOCK

This QA Inspector randomly observed the following work in progress.

### SOUTH TOWER LIFT # 1

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 057244 performing Flux Cored Arc Welding process for weld SSD1-SA16F/G-14 located on PCMK the weld between P190 and P1144 on skin E of South tower lift 1. ZPMC QC Mr. Guo Peng monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 050041 performing Flux Cored Arc Welding process for weld SSD1-SA16F/G-17 located on PCMK the weld between P190 and P1144 on skin E of South tower lift 1. ZPMC QC Mr. Guo Peng monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

### EAST TOWER LIFT # 1

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 040704 performing Flux Cored Arc Welding process for weld ESD1-SA233-4 located on PCMK the weld between P169 and P378 on skin B of East tower lift 1. ZPMC QC Mr. Guo Peng monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 040736 performing Flux Cored Arc Welding process for weld ESD1-SA294F/G-20 located on PCMK the weld between P389 and P1144 on skin C of East tower lift 1. ZPMC QC Mr. Guo Peng monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 062126 performing Flux Cored Arc Welding process for weld ESD1-SA294F/G-24 located on PCMK the weld between P588 and P1144 on skin C of East tower lift 1. ZPMC QC Mr. Guo Peng monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 049541 performing Flux Cored Arc Welding process for weld ESD1-SA296B/E-5 located on PCMK the weld between P112 and P176 on skin D of East tower lift 1. ZPMC QC Mr. Guo Peng monitoring this welding. The welding variables recorded by QC

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appeared to comply with the WPS-B-T-2333-TC-P4-F.

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

**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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<b>Inspected By:</b>	Utekar,Shrikant	Quality Assurance Inspector
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<b>Reviewed By:</b>	Dawson,Paul	QA Reviewer
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