

**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-011759**Date Inspected:** 24-Jan-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:** Xu Xian Ping**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 Sub-Assembly**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Stefan Holmes was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China.

**Non-Destructive Testing:**

Ultrasonic Testing (UT) pursuant to NDT Inspection Notification Sheet(s) (Document No. 005125):

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. 10TR1-020-002, 013, 014

Magnetic Particle Testing (MT) pursuant to NDT Inspection Notification Sheet(s) (Document No. 005124 and 005125):

This QA inspector performed Magnetic Particle Testing (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 members are identified as OBG Components. The weld designations reviewed are as follows:

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1. 10TR1-020-001, 005, 014
2. LD3019-001-001~003, 005~009, 013~016, 020, 021
3. LD3020-001-001~003, 005~009, 013~016, 020, 021
4. LD3023-001-004, 005, 007, 008, 011, 012, 014, 015, 021, 022, 024, 025
5. LD3024-001-004, 005, 007, 008, 011, 012, 018, 019, 021, 022, 024, 025
6. LD3022-001-006, 007, 010, 011, 013, 014, 019, 020, 023, 024, 026, 027
7. DP3063-001-001~008
8. DP3016-001-001~008

This QA Inspector observed during the performance of the requested NDT (MT for NWIT #005124) a transverse linear indication inside the area previously tested and accepted by ZPMC MT Technician. This transverse linear indication does not meet code and contract requirements. Item is identified as LD3022-001 weld 014. This QA Inspector generated an Incident Report for this date.

This QA Inspector performed Green Tagging activities in conformance with the approved green tag procedure pursuant to NDT Inspection Notification Sheet (Document #005124) as follows:

1. DP3063-001 Green Tag #011852
2. DP3016-001 Green Tag #011853
3. LD3008-001 Green Tag #011886

This QA Inspector observed the following work in progress:

Flux Cored Arc Welding (FCAW) pursuant to Weld Repair Report #B-WR10067 (for ZPMC UT Reject) of 11TR3-017; Weld 006. Welder is identified as 066695. ZPMC Quality Control (QC) is identified as Cui Jun Jie. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and WRR used.

Flux Cored Arc Welding (FCAW) pursuant to Weld Repair Report #B-WR10068 (for ZPMC UT Reject) of 11TR3-017; Weld 014. Welder is identified as 066695. ZPMC Quality Control (QC) is identified as Cui Jun Jie. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and WRR used.

Flux Cored Arc Welding (FCAW) pursuant to Weld Repair Report #B-WR10062 (for ZPMC UT Reject) of 11TR3-006; Weld 006. Welder is identified as 070008. ZPMC Quality Control (QC) is identified as Cui Jun Jie. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and WRR used.

Flux Cored Arc Welding (FCAW) pursuant to Weld Repair Report #B-WR10061 (for ZPMC UT Reject) of 11TR3-006; Weld 014. Welder is identified as 070008. ZPMC Quality Control (QC) is identified as Cui Jun Jie. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and WRR used.

Flux Cored Arc Welding (FCAW) pursuant to Weld Repair Report #B-WR10148 (for ZPMC UT Reject) of 11TR1-004; Weld 014. Welder is identified as 204342 and 215250. ZPMC Quality Control (QC) is identified as

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Zhong Chong Biao. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and WRR used.

Flux Cored Arc Welding (FCAW) pursuant to Weld Repair Report #B-WR10054 (for ZPMC UT Reject) of 11TR2-012; Weld 014. Welder is identified as 215185. ZPMC Quality Control (QC) is identified as Zhong Chong Biao. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and WRR used.

Flux Cored Arc Welding (FCAW) pursuant to Weld Repair Report #B-WR10131 (for ZPMC UT Reject) of 10TR4-003; Weld 014. Welder is identified as 217185. ZPMC Quality Control (QC) is identified as Zhong Chong Biao. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and WRR used.

Flux Cored Arc Welding (FCAW) pursuant to Weld Repair Report #B-WR10146 (for ZPMC UT Reject) of 11TR2-002; Weld 014. Welder is identified as 204342. ZPMC Quality Control (QC) is identified as Zhong Chong Biao. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and WRR used.

Flux Cored Arc Welding (FCAW) of 20TR2-010; Weld 011. Welder is identified as 206623. ZPMC Quality Control (QC) is identified as Guo Yuan Ting. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U5-F. Welding appears to conform to the requirements of the WPS.

Flux Cored Arc Welding (FCAW) of 20TR2-011; Weld 009, 015. Welder is identified as 044824. ZPMC Quality Control (QC) is identified as Guo Yuan Ting. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U5-F. Welding appears to conform to the requirements of the WPS.

Flux Cored Arc Welding (FCAW) of 20TR2-015; Weld 011, 015. Welder is identified as 204338. ZPMC Quality Control (QC) is identified as Guo Yuan Ting. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U5-F. Welding appears to conform to the requirements of the WPS.

Flux Cored Arc Welding (FCAW) of 20TR2-014; Weld 015. Welder is identified as 044830. ZPMC Quality Control (QC) is identified as Guo Yuan Ting. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U5-F. Welding appears to conform to the requirements of the WPS.

Flux Cored Arc Welding (FCAW) of 20TR2-002; Weld 011. Welder is identified as 051356. ZPMC Quality Control (QC) is identified as Guo Yuan Ting. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U5-F. Welding appears to conform to the requirements of the WPS.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

### **Summary of Conversations:**

No relevant conversations.

### **Comments**

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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 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Holmes,Stefan	Quality Assurance Inspector
<b>Reviewed By:</b>	Hall,Steven	QA Reviewer

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