

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-012144**Date Inspected:** 19-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

American Bridge Fluor (ABF) request number: 02182010-3.

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

SEG0283-021, SEG030A-007 (OBG 6AE/6BE, B.P to S.P-E4)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

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For more information refer the ABF/CT report dated on 02/19/2010

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

SEG034A-007 (OBG7AE, B.P to SP-E3

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

For more information refer the ABF report dated on 02/18/2010

MAGNETIC PARTICLE INSPECTION

OBG SEGMENT 6AE- 6BE

This QA Inspector Witnessed ABF personal performing Magnetic particle Testing (MT) on weld between side panel and bottom panel (cross beam side) weld are identified as SEG0283-021, SEG030A-007. American Bridge Fluor (ABF) request number was 02182010-3.

No relevant Indications were observed during MT

This QA Inspector randomly observed the following work in progress.

OBG SEGMENT 6BW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070101 performing Flux Cored Arc Welding process for weld OBW6F-005 located on PCMK weld between counter weight connection plate to edge panel. ZPMC QC Mr. Yang Giong monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2231T-1.

This Quality Assurance (QA) Inspector observed ZPMC personnel performing carbon air arc gouging for the weld between longitudinal diaphragm to floor beam at PP43 counter weight side .

OBG SEGMENT 7AW

This Quality Assurance (QA) Inspector observed ZPMC personnel performing match drilling on the bottom panel "T" stiffener near the bottom panel splice weld between OBG segment 6CW and 7AW.

CROSS BEAM # 5

This QA Inspector observed ABF QA Inspector performing Magnetic Particle Testing (MT) on temporary attachment removed area at cross beam # 5 deck plate.

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OBG SEGMENT 7BW-7AW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 069683 performing Shielded Metal Arc Welding process for weld SP478-001-49 located on PCMK weld between side panel (cross beam side) “T” stiffener at splice weld between OBG segment 7AW and 7BW. ZPMC QC Mr. Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2213-B-U2.

This Quality Assurance (QA) Inspector observed ZPMC personnel performing carbon air arc gouging for the edge panel splice weld between OBG segment 7AW and 7BW (cross beam side).

OBG SEGMENT 7BW-7AW

This Quality Assurance (QA) Inspector observed mounting of counter weight CW-46 is in progress. See attached photo.

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.

Inspected By: Utekar, Shrikant

Quality Assurance Inspector

Reviewed By: Dawson, Paul

QA Reviewer