

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-011203**Date Inspected:** 04-Jun-2009**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:** Sun Bo**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 Deck Panels**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.

QA Inspector performed Final Visual Inspection (VT) following the guide lines of AWS-D1.5 on Deck Panel assemblies including Partial Penetration (PJP) welds joining U-ribs to deck plate. The deck panels examined are as follows:

DP261-001: Final VT appears to comply with code and contract requirements.

DP095-001: Final VT appears to comply with code and contract requirements.

QA Inspector performed QA Verification Magnetic Particle Testing (MT) on U-rib deck panel assemblies following the guidelines of Caltrop MT Procedure CTMT-08-00 Rev. 2.1. Deck Panels Inspected and results are as follows:

DP261-001: 15% MT-Tested.

DP095-001: 15% MT-Tested.

QA Inspector performed Green Tagging activities following the green tagging procedure. The deck panels green tagged are as follows:

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DP261-001: Green Tag Number 7661.

DP095-001: Green Tag Number 7662.

QA Inspector monitored the removal of rib 5 (welds 9 and 10), of DP420-001. ZPMC chose to remove and replace rib 5 due to 50% Phased Array Ultrasonic Testing (PAUT) rejection of weld 9. Conventional Ultrasonic Testing (UT) found approximately 43% of the 14 meter weld length to contain linear indications, and subsequently PAUT confirmed the conventional UT findings and rejected an additional 7% of the weld length, bringing the total rejected area of the weld to 50%. Based on the requirement that ZPMC excavate 50mm on either side of a PAUT reject area, the total length of weld requiring excavation on weld 9, came to approximately 60% of the entire length.

ZPMC production personnel began removing the rib by means of grinding. 7mm plate was used to protect the deck panel from damage from grinding. Rib removal grinding is leaving a 5mm “stub” of the original weld which ZPMC says it will also remove by grinding once the rib is removed. See pictures below.

QA Inspector worked on Document Control for U-rib deck panels. Deck panel PAUT reports input and updated for lift 9 deck panels. Deck panel PAUT reports organized and copied for transmittal and summary update. Completed deck panel log for deck panel assemblies partially updated.

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

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

Inspected By:	Holmes,Stefan	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer
