

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-014039**Date Inspected:** 15-May-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:	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:	Bay 9		

Summary of Items Observed:

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza 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 observed and/or found the following:

Outside Yard

ABF Witness Request 05152010 - 1

QA Inspector received ABF Inspection witness request for verification on VT, MT and UT of repaired areas on 10CE on CA078 – 004 DP to EP weld on BK side. These areas were visually rejected due to unacceptable weld profile.

This Inspection was performed in conjunction with ABF.

Bay 9

Welding of Continuity plates on DP3076 – 001

This QA Inspector observed the following ZPMC welding personnel's performing Flux cored arc welding (FCAW) on Diaphragms to U-Rib weld

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Welder Weld ID

Han Guodon (062259) DP3076-001- 078,079
Jiang Tingguang (062265) DP3076-001- 342, 343
Xuan Zhenglin (040875) DP3076-001- 292, 293
Xu Guoyin (059443) DP3076-001- 234, 235
Zhang Liping (201840) DP3076-001- 164, 165

ZPMC QC is identified as Zhang Qiao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133 and WPS – B – T – 2233 – Tc – U4b – F (CJP)

QA inspector performed conventional Ultrasonic (UT) Inspection on deck panel tack weld areas. The inspection is preliminary prior to using the phased array (PAUT) testing system to verify indications found with conventional Ultrasonic testing. QA inspector performed UT on deck panel DP3120-001, 4 ribs, 8 welds, 224 total tack welds inspected.

Weld 1 scanned 28 locations with 2 indications.

Weld 2 scanned 28 locations with 1 indication.

Weld 3 scanned 28 locations with 0 indications.

Weld 4 scanned 28 locations with 0 indications.

QA Inspector performed initial Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled “Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld” after conventional UT was performed on tack welded areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

DP3120-001: 2 tack weld location found compliant and 5 tack weld locations found non-compliant.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC’s reference for repair. See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets dated 15th May, 2010 for further information on PAUT inspections.

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

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Inspected By:	Dsouza, Christopher	Quality Assurance Inspector
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Reviewed By:	Carreon, Albert	QA Reviewer
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