

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-009713**Date Inspected:** 08-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**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:** Deck Panels**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:

North Lay down

No Relevant work observed

Bay 9

QA Inspector observed ABF and ZPMC NDT technician perform MT (Magnetic Particle Testing) on U-Rib to deck plate tack welds of DP 3051-001 (12BW) and DP 3065-001 (12CW), cracked tacks were marked for repair by ZPMC. This inspection and repair is being performed prior to gantry welding of these panels

This QA Inspector observed ZPMC welding personnel performing Gas Metal Arc Welding (GMAW) tack welds on closed rib Partial Joint Penetration (PJP) welds to deck plate designated as DP 3063-001. Welder is identified as 062305. ZPMC QC is identified as Chen Shi gang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2342 – U5

This QA Inspector observed ZPMC welding personnel's performing Flux cored arc welding (FCAW) on

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Diaphragms to U-Rib designated as DP 3069-001 261~264. Welder is identified as 059443 and 059378. ZPMC QC is identified as Chen Shi gang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133

The 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. The QA inspector performed UT on Deck Panel DP 3058-001, 4 ribs, 8 welds, 152 total tack welds inspected.

Weld 1 scanned 19 locations with 1 indication.
Weld 2 scanned 19 locations with 0 indications.
Weld 3 scanned 19 locations with 1 indication.
Weld 4 scanned 19 locations with 0 indications.
Weld 5 scanned 19 locations with 0 indications.
Weld 6 scanned 19 locations with 3 indications.
Weld 7 scanned 19 locations with 0 indications.
Weld 8 scanned 19 locations with 2 indications.

The 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. The QA inspector performed UT on Deck Panel DP 3014-001, 4 ribs, 8 welds, 152 total tack welds inspected.

Weld 1 scanned 19 locations with 0 indications.
Weld 2 scanned 19 locations with 0 indications.
Weld 3 scanned 19 locations with 0 indications.
Weld 4 scanned 19 locations with 0 indications.
Weld 5 scanned 19 locations with 0 indications.
Weld 6 scanned 19 locations with 0 indications.
Weld 7 scanned 19 locations with 0 indications.
Weld 8 scanned 19 locations with 1 indication.

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 8th October, 2009 for further information on PAUT inspections.

Unless otherwise noted, all work observed on this date 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 15000422372, who represents the Office of Structural Materials for

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

your project.

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