

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023493**Date Inspected:** 10-May-2011**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:** An Qing Xiang**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 (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the Self-Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This Quality Assurance (QA) Inspector observed the following work in progress:

TA YARD

OBG Seg 14W:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AY-002 [Side Panel (SP) 3136A to Edge Panel (EP) 3029A, Complete Joint Penetration (CJP) weld at panel point (PP) 128.3 to PP 128.7]. The welder is identified as 037749 and was observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The SMAW process on weld joint no: SEG3020R-171 [WT stiffener X 5014B on Top anchorage plate (AP) 3023A to Floor Beam (FB) 3321A, CJP weld at PP126]. The welder is identified as 066261 and was observed welding in 4G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

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The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020AE-085, 088, 092 and 095 [I-rib stiffener on Top AP 3023A to EP 3030B, CJP weld at PP125.5 to PP 126]. The welder is identified as 066751 and was observed welding in 3G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The FCAW process on weld joint no: SEG3020AE-003, 006, 026 and 025 [I-rib stiffener on Top AP 3023A to EP 3030B, CJP weld at PP125 to PP 125.5]. The welder is identified as 066421 and was observed welding in 3G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The SMAW process on weld joint no: FB3319-001-024 [I-rib stiffener to FB 3319A, Fillet weld at PP125.5]. The welder is identified as 045213 and was observed welding in 4F position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2114-FCM-1.

The SMAW process on weld joint no: SEG3020S-052 and 053 [FB 3318C to Longitudinal Diaphragm (LD) 3049A, Fillet weld at PP125.5]. The welder is identified as 066825 and was observed welding in 3F position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2113-FCM-1.

The SMAW process on weld joint no: FB3320-001-099 and 111 [I-rib stiffener to FB 3320A, Fillet weld at PP126]. The welder is identified as 066479 and was observed welding in 2F position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2112-FCM-1.

The SMAW process on weld joint no: SEG3020W-009 [I-rib stiffener on Vertical Plate (VP) 3018A to FB diaphragm X4999A, CJP weld at PP125]. The welder is identified as 037932 and was observed welding in 4G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

Repair welding of weld joint no: SEG3020P-208 [EB 3054A to FB 3319A, CJP weld at PP 126.5]. The welder is identified as 067572 and was observed welding in the 4G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair-1. Repair welding was done as per Welding Repair Report (WRR): B-WR 20970 Rev-0.

Repair welding of weld joint no: SEG3020R-173 [EB 3054A to FB 3321A, CJP weld at PP 126]. The welder is identified as 067572 and was observed welding in the 4G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair-1. Repair welding was done as per Welding Repair Report (WRR): B-WR 20970 Rev-0.

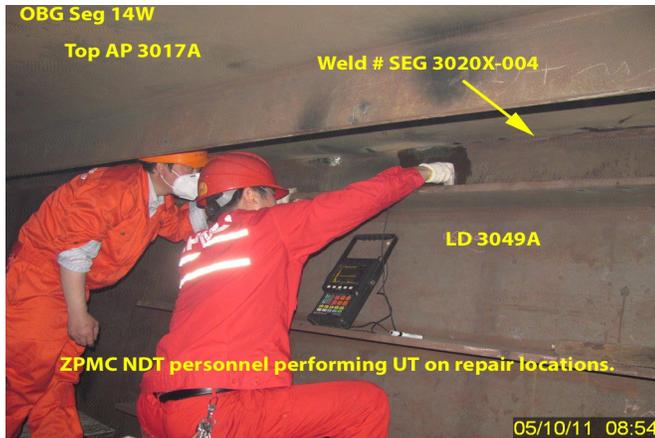
During random in process inspection this QA Inspector observed that AB/F NDT personnel were performing Ultrasonic Testing (UT) on weld joints SEG3020AW-089 and 092. During inspection several non-conforming indications were observed by ZPMC NDT personnel. These indications were clearly marked on the weld joints. See attached photograph for further details.

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During random in process inspection this QA Inspector observed that ZPMC NDT personnel were performing Ultrasonic Testing (UT) on weld joints SEG3020X-004, 005, 006 and 007 at repair locations. See attached photograph for further details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

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.

Inspected By: Gaikwad,Umesh

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer